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Thomas L. Lusignan
The Integration of Exercise
as an Adjunct Treatment for
Depression by Clinical Social
Workers in Massachusetts; a
Study Designed to Expand
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ABSTRACT

The purpose of this study is to explore the practice of clinical social workers utilizing exercise as an adjunct treatment to psychotherapy for major depression. A significant motivation in undertaking this study for the researcher was the limited attention to the effectiveness of exercise as an intervention in the treatment of depression by clinical social workers. While there is significant literature on the value of exercise in maintaining and improving physical and mental health of exercisers, there is a scarcity of material relating to the perspectives, experiences and practices of clinical social workers who are integrating exercise into treatment of depression. The primary goal of this descriptive study is to provide clinical social workers interested in exercise as an intervention with knowledge regarding experiences members of their profession have had using exercise doing so.

Twelve participants, all Massachusetts clinical social workers of varied experience levels who introduce exercise into their work with depressed clients in a variety of treatment settings were interviewed for this study. This study explores the participants' observations about the psychological, physical and psychosocial benefits of exercise in the treatment of depression.

Findings show participants' thoughts on the efficacy of exercise, the role of the therapeutic relationship and treatment planning in overcoming barriers and client resistance to exercise adherence as well as offering participants advice for social workers interested in harnessing the power of exercise as an intervention in promoting healing and life long mental and physical health for their depressed clients.

THE INTEGRATION OF EXERCISE AS AN ADJUNCT TREATMENT FOR
DEPRESSION BY CLINICAL SOCIAL WORKERS IN MASSACHUSETTS; A
STUDY DESIGNED TO EXPAND THE PRACTICE OF AREA SOCIAL WORKERS

A project based upon an independent investigation,
submitted in partial fulfillment of the requirements
for the degree of Master of Social Work.

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2007

ACKNOWLEDGMENTS

This thesis could not have been accomplished without the assistance of many people whose contributions are gratefully acknowledged.

I wish to thank Rebecca for her unwavering support and interest in my work; my research advisor, Dr. Marsha Kline Pruett, for her guidance and expert thesis advising; and the study participants who shared with me their time, experience and interest in this project.

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CHAPTER I

INTRODUCTION

Depression is a common diagnosis in our society today when compared to other mental health diagnoses. Women suffer from it twice as often as men and although it can begin at any age, the typical onset occurs in the middle twenties. Fifteen to seventeen percent of the population will experience major depression in their lifetime and six to seven percent of the population is diagnosed with depression in any twelve month period (Ebmeier, Donaghey & Steele, 2006). Given the prevalence of depression in our society, we must have diverse treatment methods to accommodate the varying needs of clients. Over the last few decades, research has been conducted in the area of exercise and the positive effect it can have in improving individual mental health. Current literature and research such as the meta-analysis of treatment outcome studies examining the use of exercise as an adjunct treatment for depression has established there is solid evidence touting the benefits of physical exercise for maintaining and improving an individual's physical and mental health (Stathopoulou, et al. 2006). While an exercise prescription is accepted intervention among physicians and in hospitals and mental health clinics for group work with patients (Bilowz, 2006) there is little literature available regarding the use of this intervention by clinical social workers. In there study on exercise and psychotherapy, Halgin & McEntee (1996) found that out of 196 psychotherapist participants, seventy percent believed in the efficacy of exercise but that fewer than 50

percent recommended exercise to patients and less than ten percent did so with any consistency. Psychotherapists and other mental health practitioners tend to rely primarily on psychotherapeutic and pharmacological measures in treating clients with major depressive disorder (Halgin & McEntee, 1996; Bilowz, 2004) While both methods have been shown to be effective, limiting factors exist as engaging in both methods can be financially costly and time consuming. The use of antidepressants has the added complication of physiological side effects such as weight gain and possibly jeopardizing the physical health of the client. As such, a greater focus by mental health practitioners on the use of exercise therapy may offer a valuable treatment option for improving the physical and mental health of clients.

Given the above, research is needed to determine if the experiences of clinical social workers use of exercise as an adjunct treatment for depression is consistent with those of other mental health practitioners documented in the literature. Thus, the purpose of this study is to explore the practice of clinical social workers utilizing exercise as an adjunct treatment to psychotherapy in treating major depression. The primary goal of this descriptive study is to provide clinical social workers interested in exercise as an intervention with knowledge regarding experiences members of their profession have had integrating exercise into their practice and their views on how exercise improves treatment outcomes for their depressed clients. Specifically, it will afford clinical social workers an opportunity to learn from those practitioners utilizing exercise as an adjunct intervention in the treatment of depression to achieve desired clinical outcomes.

Exploring the experiences of practitioners who introduce, prescribe and monitor

exercise as an integral component of treatment will be a valuable step in educating other clinical social workers interested in the use of exercise as an intervention option. As clinical social workers learn from these individuals who are successfully integrating exercise into their practice, they can evaluate the data for its usefulness and applicability to clinical social work practice, thereby generating a body of knowledge for review by peers who have lacked the know-how but not necessarily the interest --to offer exercise therapy as an option for use in their work.

CHAPTER II

REVIEW OF THE LITERATURE

The focus of this literature review will be to examine depression and its relationship to exercise in previous studies and scholarly reports. It will examine the prevalence of depression in our society as well as the individual and societal costs of depression that result. Depression and the use of exercise for the treatment of depression will be defined. The role exercise intervention may play in treating depression, including the theories behind the benefits of exercise and the manners in which exercise has been shown to improve and help maintain mental health of patients diagnosed with depression will then be explored. Finally, the important facets of the exercise prescription as identified in the literature by professionals in the medical and mental health fields will be examined.

Definition of Exercise

The definition of exercise utilized for this study is that recommended by the American Sports College of Medicine (1991). Exercise is characterized by continuous aerobic or anaerobic physical activity mobilizing the large muscle groups at an elevated heart rate of between 55% and 90% of the individuals maximum heart rate for a period of 15 to 60 minutes a minimum of once per week but ideally between three to five days per week for a minimum of an eight to twelve week program.

Definition of Depression

For study purposes, only clients diagnosed with Major Depressive Disorder will be included in an examination of the effectiveness of exercise as an intervention. Clients diagnosed with depression must meet the criteria set forth for Major Depressive Disorder in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, as noted below. (American Psychiatric Association, 2002).

Major Depressive Disorder diagnosis is present when an individual has five or more of the following characteristics: (a.) depressed mood for most of the day, on a daily basis, (b.) substantially diminished interest or pleasure in most or all activities for most of the day, on a daily basis, (c.) significant loss or gain of weight when not dieting or increased or reduced appetite on a daily basis, (d) experiencing insomnia or hypersomnia almost daily (e.) sensation of restlessness or diminished or absent motivation to move about, (f.) feeling lethargic or fatigue on a daily basis, (g.) diminished self worth or inappropriate guilt, (h.) inability to concentrate or focus on a daily basis, and (I) inappropriate thoughts of death, suicidal ideation with or without a plan or suicide attempts. In addition to the above criteria, the depression must not meet the requirements for a mixed episode, results in significant reduced capacity to maintain social, occupational or other areas of functioning, be caused by the use of substances of general medical condition and is not better accounted for by bereavement (American Psychiatric Association, 2002).

Prevalence and Cost of Depression in America

In 2001, the world Health Organization ranked depression as the foremost cause of disability in the United States (Boothroyd, et al., 2006). Over 18 million Americans suffer from depression each year. This is significant because the burden of depression has substantial individual, economic and societal costs for all Americans. The individual burdens associated with depression are largely due to its debilitating nature. Individuals suffering from depression experience different levels of impairment based upon the severity of their depression but even mild depression has been shown to cause significant personal impairment or disability (Greenberg, et al., 2003). The symptoms of depression are manifested in both physical and cognitive impairments which can significantly limit a sufferer's ability to perform daily living tasks both inside and outside of the home. The adverse results of these interpersonal and social impairments often cause relationship, educational and employment difficulties leading to instability in all relationships. (Greenberg, et al., 2003). This instability contributes to the economic burden of depression which is closely linked to its debilitating effect on sufferers as depression sufferers are more likely to take more time off from work and under perform while working often resulting in a decrease in productivity and increase in employer related expenses. In 2001, the economic cost was estimated to be 83.1 billion dollars. This staggering amount constitutes 26.1 billion dollars in direct treatment costs, 5.4 billion dollars in suicide related costs and 51.5 billion dollars in economic and workplace related losses (Greenberg, et al., 2003). Given the dramatic impact on individual quality of living and

the staggering economic costs, there is great societal and financial incentive to better attend to and treat depression in our country.

Current Treatment of Depression

It is estimated that nearly half of the individuals suffering from depression do not receive any medical or mental health treatment (Greenberg, et al., 2003). Of the depression sufferers who do receive treatment, it is usually through interaction with a primary care physician or other medical care provider when in their depressive state (Boothroyd, et al, 2006). It is during this period, when in the care of a primary care physician and depression is correctly diagnosed, that treatment is likely to begin. Depression sufferers who are economically disadvantaged, lack medical insurance or do not have access to mental health care providers often suffer in silence as their depression goes undiagnosed and untreated (Boothroyd, et al., 2006). Even those disadvantaged depression sufferers who have access to a primary care provider often still lack appropriate mental health care (Boothroyd, et al., 2006). This is problematic because research has shown that mild to moderate states of depression often go undiagnosed and untreated by primary care physicians, and treatment of more severe states that could be diagnosed reliably using devices such as the BAI or PRIME-MD is limited because availability of these tools is limited. (Callahan, et al., 2002).

Access to treatment varies considerably depending upon a person's employment status and access to health insurance or economic resources. In any case, the treatment rates for depression are low. In 2000, only 32.9 % of depression sufferers who were

unemployed received treatment. Of those employed who were depressed, 54.1 % received treatment (Greenberg, et al., 2003). There are many reasons for this low rate of care among depression sufferers: they may not realize they require professional care; they may have concern over the stigmatization of having a mental illness prohibits their seeking help; they may believe particular interventions would be ineffective for them; or they may desire not to use pharmacotherapy due to side effects or personal ideology (Greenberg, et al., 2003). In addition, they may receive poor quality of care through an improper dose of medication by their physician or they may have limited access to care or financial resources (Greenberg et al., 2003).

While still relatively low, treatment rates have been increasing slowly since 1990. Within the managed care environment, medical outreach has been the model of care for use in treating depression rather than inpatient hospitalization and other more costly forms of treatment (Greenberg et al., 2003). This has resulted in an increasing number of patients being diagnosed with depression but within this same environment there has been a reduction in the level of care available to patients with depression (Greenberg et al., 2003). Given the current depression treatment environment, there are opportunities for improvements in providing access to treatment, proper assessment and increased quality of care. As such, there is a great need for improved communication and coordination between medical and mental health care providers as called for by the Presidents New Freedom on Mental Health Commission report in 2003 (Boothroyd et al., 2006) to provide improved access to care, assessment and treatment of depression.

Use of Exercise in Treating Depression

The role of exercise in treating depression is a widely explored area. Among physicians, exercise is both an accepted preventive measure for physical and mental health distresses as well as an accepted intervention for ameliorating physical or mental health problems (Seime & Vickers, 2006). The actual mechanisms through which exercise or physical activity are employed to improve physical and mental health are not widely known (Stathopoulou, et al., 2006). Experimental studies have demonstrated the extensive preventative health benefits of exercise in reducing risk factors that can cause cardiovascular disease, obesity, osteoporosis, hypertension, non-insulin dependent diabetes mellitus, stroke, stress management, depression and anxiety and some cancers (Clearing-Sky, 1998; Dunn & Blair, 1997). Exercise therapy such as dance and recreational therapy have been used for years in inpatient psychiatric clinics, hospitals and nursing homes for some time (Brown, 1997). However, exercise therapy appears to be more an area of specialization among physicians and psychiatrists and is often an underutilized intervention by other mental health providers despite the relationship between physical and psychological health (Halgin & McEntee, 1996). There is little research available supporting the use of exercise as an adjunct treatment of depression by clinical social workers. The absence of literature suggests that clinical social workers may tend to rely on psychotherapy, cognitive, behavioral, or pharmacotherapy when treating clients diagnosed with depression much like the majority of other mental health professionals. As noted earlier in the introduction, when exercise is incorporated into the

work with patients by mental health professionals, it often as a recommendation and not an integral part of the treatment (Halgin & McEntee, 1996).

Benefits of Exercise in Treating Depression

Buffone (1997), author of *Running and Depression*, has done extensive work examining running as an alternative to cognitive or behavioral psychotherapy intervention models in treating mental illness such as depression. He contends physical interventions such as exercise have received only limited attention and research. Buffone indicates numerous studies that have shown that aerobic exercise is an effective and economical tool for maintaining physical health. With the advances in knowledge of the physical benefits to exercise, researchers have turned their attention to the psychobiological impact of physical activity. Psychosomatic and behavioral medicine research has shown conclusively that the mind and the body are inextricably linked and interdependent. While still being explored, there are several physiological or psychological connections between mind and body believed to contribute to the mental health of exercise participants. These mechanisms may help explain the benefits of exercise in abating depression symptoms and maintaining or improving mental health (Daley, 2002; Stathopoulou et al., 2006).

Physiological Mechanisms of Exercise Implicated in the Treatment of Depression

The most widely researched benefits of exercise are the physiological benefits of exercise in reducing general health risks such as those associated with cardiovascular and

other diseases (Clearing-Sky, 1998). One such physiological theory is known as the hyperthermic or pyrogen model (Daley, 2002). It suggests that the warming of the body created through exercising may positively increase mood. Primarily, the elevation in body temperature may create a corresponding elevation in affect due to a number of physiological changes that occur in the hypothalamus. While the therapeutic gains are still being studied, it is believed that elevating body temperature, such as in the use of saunas, steam rooms, warm showers, and heating elements, serves to stimulate muscle relaxation. While exercise may be another avenue to relaxation and affect improvement, the evidence for this assumption is not conclusive at this time (Martinsen, 1987; Daley, 2002).

In addition to the hyperthermic model, there are other physiologic explanations receiving attention as to why exercise and physical activity may act as a mechanism for altering and improving mental health, mood and anxiety levels. The first is known as the endorphin hypothesis, which posits biological or biochemical changes in the body as a result of exercise can create a positive improvement in an individual's affective mood state. This is due to the increase in endorphin blood levels associated with exercise. As an increase in endorphin levels may act as an anti-depressant, the endorphin hypothesis enjoys popular support as a likely explanation to the psychological benefits of exercise. However, there is still a need for further research into the links between increases in endorphin levels in the blood and exercise to prove a causal link (Daley, 2002; Goldberg & Elliot, 1994; Martinsen, 1987). Closely related to the endorphin hypothesis and an area still being researched is the impact exercise and physical activity can have in raising

levels of neurotransmitters such as dopamine and serotonin. It is believed that exercise or physical activity acts similarly to antidepressants, but more research is needed before the mechanism can be determined regarding the biological effect of exercise (Daley, 2002; Goldberg & Elliot, 1994; Martinsen, 1987).

The antidepressant effects and fatigue associated with exercise are also associated with improvements in the sleep cycle, an area often disturbed in depressed patients. The introduction of exercise and the antidepressant effect may act positively to normalize the sleep cycle of exercise participants (Stathopoulou et al., 2006). This physiological theory is aligned with the Zeitgeber theory. The Zeitgeber hypothesis suggests that introduction of an exercise regime in conjunction within a daily routine contributes to improved mood and well being as sleep patterns are normalized (Stathopoulou et al., 2006).

Psychological Mechanisms of Exercise Implicated in the Treatment of Depression

There are three primary psychological explanations posited for why exercise and physical activity may act as a mechanism for improving mental health. The first is the self-esteem model. Many researchers and exercisers alike believe there may be a direct relationship between self-esteem and exercise. Sonstroem's psychological model for physical activity posits the improved fitness levels and physical abilities gained as one masters exercise (Daley, 2002). There may be positive improvements to one's confidence, shape, appearance, mood state and overall well being, which leads to gains in self-esteem and an improved sense of self as well (Daley, 2002; Goldberg & Elliot, 1994). These results are similar to and consistent with the depression reducing positive reinforcements

experienced during the course of cognitive behavioral treatment (Bilowz, 2006). The perceived mastery gained during exercise program is believed to contribute as a mechanism for reduction of depression as exercise adherence has real value in increasing a patient's coping ability and self-efficacy (Davey, 2002; Stathopoulou et al., 2006). Furthermore, the process is a cyclical one. As the individual gains appreciation for and pride in his or her physical fitness and body from exercise, he or she is moved to continue to exercise to maintain and improve fitness. This model has been supported by a correlation of evidence illustrating the connection between physical activity and mental health and overall sense of well-being (Davey, 2002, Goldberg & Elliot, 1994).

Exercise and physical activity provide opportunities for proprioceptive feedback and general improvements in body functions and abilities that can lead to improved body perception and acceptance. The actual physiological gains, such as weight loss and improved muscle tone attributed to exercise can act as positive cues for a sense of accomplishment and agency with ones body. Often, this is a meaningful step with patients who harbor negative feelings towards themselves (Davey, 2002). In addition to improved body awareness and acceptance gained under the mastery theory, there is the development of action tendencies that directly confront the passivity and lack of motivation associated with depression. Exercise emphasizes active participation in one's own treatment course and is a useful behavioral intervention (Stathopoulou et al., 2006).

Another popular psychological model is the distraction hypothesis, first presented by Bahrke & Morgan in 1978. The distraction hypothesis examines the relationship between exercise and physical activity and stress or anxiety reduction (Davey, 2002).

Exercise and physical activity can provide a distraction from stress and other negative stimuli affording the exerciser an opportunity to focus on other important matters in his life leading to improved psychological health (Davey, 2002).

Contributing to the self-esteem and mastery effects associated with exercise is the psychosocial function of exercise, which has been shown to improve exercisers' self-image and reduce negative mood states through the forging of personal connections with other exercisers, by participating in a social activity that is viewed positively by the population at large (Bilowz, 2006) These factors may ameliorate the isolation and low self-esteem associated with depression, as well as motivate patients to participate in and maintain their exercise program.

Overall, the physiological and psychological mechanisms leading to positive mental health benefits of exercise are many. Exercisers generally develop improved cardiovascular health, improved self-concept and sense of well-being, increased ability to manage and recover from psychosocial stressors, increased ability to perform at tasks, and improved ability to relax; at the same time exercise has also been shown to reduce anxiety, tension, stress, fatigue and depressive symptoms (Clearing-Sky, 1988). While no theory has gained supremacy and much research remains to be done, the known physiological and psychological benefits of exercise, as well as the acceptance of a psychological link between mind and body indicate exercise can, in some cases, be a valuable adjunct to psychotherapy or pharmacotherapy in the treatment of depression. In their study examining the use of aerobic exercise as a prescription for treatment of psychiatric conditions, particularly major depressive disorder (MDD), Babyak and

colleagues (2000) acknowledge that epidemiological studies have shown an inverse reaction between a person's level of physical activity and individual mental health. Namely, interventions using aerobic exercise have been shown to effectively reduce depressive symptoms. The authors cite a prior study that they conducted which demonstrated the efficacy of a 16 week aerobic exercise training as comparable to a standard pharmacotherapy regimen. In this follow up to that initial study, the authors investigated the mental health status of participants six months after completion of the initial study, the recommended time for therapy to reduce recurrence or relapse. The authors were able to demonstrate that a moderate exercise program is an effective alternative treatment for major depression for clients who participated, and that the reduction of depressive symptoms were most enduring among participants who exercised regularly and adopted exercise as a life activity. These research findings are supported by large scale population studies and meta-analyses that demonstrate the positive link between exercise and mental health among the general population (Richardson et al., 2005; Stathopoulou et al., 2006).

Therapist Attitudes

Significant factors in the utilization of exercise as an adjunct treatment to psychotherapy or pharmacotherapy in work with depressed clients, like any intervention, are the therapist beliefs and attitudes (Halgin & McEntee, 1996). Richard Halgin and Derrick McEntee (1996) found that most therapists are aware of and accept the symptomatic benefits of exercise. Additionally, the majority of therapists in their study

acknowledge exercise can be a viable intervention for cases involving anxiety, mild depression, and diminished self esteem. Further, therapists indicated that exercise can be used as a method of promoting self-esteem, strengthening the therapeutic alliance, fostering social relationships, and paving the way to overall physical health. Therapists who shared these beliefs about using exercise as a viable treatment for psychological troubles often have personal experience with exercise and its benefits, and they want to share that experience with their clients (Halgin & McEntee, 1996).

Consistent with the literature, Halgin and McEntee (1996) found that therapists introduce exercise into their treatment with patients when seeking treatment results concurrent with the identified physiological and psychological benefits associated with exercise. Therapists use exercise when seeking reductions in depression or anxiety symptoms as well as increases in stress management or relaxation capacities. Including exercise is viewed as a way in which therapists can enhance the therapeutic relationship as well. Therapists also report integrating exercise into treatment to help foster a sense of mastery or self-esteem in their patients, as well as for its contribution as a behavioral intervention for self defeating behaviors or negative thinking. Therapists name the social benefits of exercise as a tool to address a patient's isolation or to teach social skills. Exercise is utilized by therapists to bring about body awareness and improve patient fitness levels. Lastly, exercise is often a part of the context of therapy such as in a rehabilitation or extended care facility (Halgin & McEntee 1996).

Although therapists accept the efficacy of exercise as improving mental and physical health, they may not share the same attitudes or beliefs about introducing it into

the treatment relationship with clients. The reasons therapist forgo suggesting the use of exercise may be due to their lack of education or training, the perceived inappropriateness of exercise based upon the therapist's theoretical orientation, or the belief that physical health and mental health are separate treatment issues. Additionally, the therapist may feel sensitivity surrounding body issues or believe that the topic of exercise is inappropriate, or too directive an intervention for therapy (Halgin & McEntee 1996).

Therapists must assess their own attitudes and beliefs surrounding the use of exercise as a treatment method before they can consider it as an intervention with their clients. While some misconceptions or deficiencies surrounding the role of exercise in treating depression can be overcome with education, if a therapist does not believe it can be an effective or valid intervention, exercise should not be introduced into the treatment plan (Bilowz, 2004).

Writing the Exercise Prescription

While exercise is an effective intervention, the literature review has revealed several critical areas that should be examined before prescribing the use of exercise as an intervention in the treatment of depression (Clearing-Sky, 1988; Gillette & Blumenthal, 1996; Sachs et al., 1997; Seime & Vickers, 2006). In assessing a patient's suitability for an exercise prescription, the therapist should determine if the patient is resistant or has had negative past experiences with exercise in an effort to ascertain where to begin. Lack of experience or knowledge around exercise may compound the risk associated with exercise and it is important to engage in the psycho-educational process around the

benefits of exercise for improving and maintaining physical and mental health as well as the importance of sound exercise practice to overcome patient resistance (Clearing-Sky, 1988).

As indicated by Sachs et al. (1997), it is important for clinicians to be mindful that exercise therapy is not for every client. A decision that exercise is an appropriate intervention for a client should be followed by an exploration of the possible health risks involved in an exercise intervention. A comprehensive medical assessment must be completed prior to beginning any exercise prescription and once begun, routine physical evaluations by a physician should be maintained for best results (Sachs & Buffone, 1997). This is especially true when prescribing exercise to a client who is or will also be on drug therapy while exercising. It is important to be aware of the potential interactions between the client's prescribed medications and exercise. As there may be varying interactions that can occur when taking neuroleptics, antidepressants, lithium, minor tranquilizers or B-adrenergi blocking agents when exercising, the mental health provider should be prepared to provide an explanation of the possible effects of combining these drugs and exercise. Due to the complexity of this issue, it is always appropriate for the therapist to refer the patients to a physician for examination and education around possible interactions between medications and exercise. Additionally, it is important for the social worker to consult with the patient's physician prior to prescribing exercise as an adjunctive therapy (Martinsen & Kvalvik-Stanghelle, 1997).

Once a patient is medically cleared, and psycho-education about the role exercise can play in his or her recovery is completed, the therapist and patient should begin

preparing the exercise program. It is important to explore and choose an appropriate mode and intensity level of exercise for the patient to engage in, determine the frequency of the activity, discuss where the patient will exercise, exercise safety, how the patient will integrate the exercise program into his or her life style, and how the patient will be supported in the exercise program by the therapist, exercise professionals or family members (Clearing-Sky, 1988).

Once the exercise regimen is determined, the importance of exercise adherence should be discussed. This component of the exercise prescription is often the most important. Research has shown that patients often focus on the barriers to exercise (Seime & Vickers, 2006), and given the difficulty depressed patients will have in adhering to the exercise program, it is important to give consideration to these barriers if effective long term adoption of an exercise program is to be achieved (Clearing-Sky, 1988). As depressed patients possess lower motivation and energy than healthy populations (Martinsen, 1990), the therapist should evaluate probable avenues to program non-compliance and treatment failure in order to devise a treatment scheme to address them. Exploring with patients that lapse in exercise adherence is part of the growth and healing process and being prepared for self criticism, doubt and frustration in advance will facilitate resuming the exercise program using predetermined strategies when derailment occurs (Seime & Vickers, 2006). Areas to consider that may lead to early attrition and should be explored before starting an exercise prescription are the patient's suitability to use exercise as an intervention, individual character traits such as self-motivation, self-concept and self-efficacy which may play a role in patient adherence to the exercise

program (Clearing-Sky, 1988; Seime & Vickers, 2006). With proper anticipation of and preparation for barriers that will be erected by the patient, the therapist and patient can develop effective motivations, encouragements, reinforcement techniques and behavioral strategies tailored to the specific needs of the patient aimed at ameliorating or overcoming many of the barriers to exercise adherence (Clearing-Sky, 1988).

Prescription of the exercise intervention with active strategies to overcome the barriers to exercise that accompany depression are consistent with overall treatment goals of both psychotherapy and pharmacotherapy and offer improved chances of long term compliance and treatment outcomes (Seime & Vickers, 2006).

Successful implementation of the above aspects will help determine if an exercise prescription is appropriate, create the best opportunity for success and is required to competently prescribe an exercise therapy intervention (Gillette & Blumenthal, 1996).

CHAPTER III

METHODOLOGY

Problem Formulation

Much of what is written about the integration of exercise as an adjunct intervention to psychotherapy and pharmacotherapy for the treatment of depression is oriented within the medical model for use by physicians, psychiatrists, psychologists or sports medicine practitioners. There is limited literature available about the role exercise may play in the treatment of depression by clinical social workers. Using a biopsychosocial model of assessment, planning and treatment, social workers are uniquely positioned to implement interventions such as exercise that can address the mind, body and environmental aspects of depression. Additionally, promoting exercise among clients is consistent with social work activist ideals in combating our nation obesity problem and growing sedentary culture. While the near absence of clinical social workers from the literature does not preclude the use of this valuable intervention being utilized by clinical social workers, questions exist around how to achieve best results as a clinical social worker integrating exercise into treatment for depression. Given the growing evidence of the value of exercise as an adjunct to psychotherapy or pharmacological treatment of depression, it is important to learn how it can be effectively utilized by clinical social workers.

The primary focus of this thesis is to (1) identify how a small sample of clinical social workers introduce and integrate exercise into their individual treatment with depressed clients; (2) identify specific content areas they cite as integral to integrating exercise into their therapy with depressed clients; and (3) identify referral sources, resources and networks available for facilitating the use of exercise as intervention in the treatment of depression. The information provided will serve as a resource for use by clinical social workers or mental health practitioners who wish to explore the integration of exercise as an adjunct therapy to psychotherapy or pharmacotherapy in their treatment depressed of patients.

This thesis will serve as a beginning step in connecting clinical social workers to the research and use of exercise as an intervention in the treatment of depression. Identifying how area social workers are integrating exercise into their treatment of depression as well as available resources available for doing so will be useful for other area social workers interested in the use of this underutilized intervention. This chapter presents the proposed methods of research to be used in this exploratory research study, including sample selection, data collection, and data analysis procedures.

Design

The design for this qualitative study utilized an exploratory design to obtain material that would contribute to the limited literature available examining the use of exercise as an intervention in the treatment of depression by clinical social workers. The choice of the qualitative study design was made to accommodate the depth of information

that could be obtained through open ended questions, leading to a meaningful appraisal of the participant experiences and providing an opportunity for clarification and explanation that illustrates the value in clinical social workers' use of exercise as an intervention in the treatment of depression.

Since there is little literature documenting the experiences of clinical social workers utilizing exercise as an adjunct intervention in the treatment of depression, this researcher designed a questionnaire (see Appendix A) for use in guiding the interview process. This questionnaire was designed to target practicing clinical social workers currently treating depressed clients who are incorporating exercise into that treatment as an adjunct to psychotherapy. Qualified participants were confirmed through completion of the demographic questionnaire (see Appendix B) that identified age, gender, race, educational level, practice setting, experience, exercise knowledge, and experience treating depression with exercise. The interview questionnaire consisted of twelve open ended questions designed to illicit responses from allowed for adequate expression of their experiences incorporating exercise into their treatment of depressed clients. Expansion upon answers to guided questions was encouraged through the use of follow up questions. The instrument lacks reliability because it is an original measure. Despite this lack of reliability, it does have validity as participant responses are in narrative form. Prior to conducting interviews or utilizing the instrument, informed consent was obtained from participants (see Appendix C).

Both the informed consent form and the questionnaire were submitted to a thesis advisor for review. After evaluating the thesis advisor recommendations and making

necessary revisions, the informed consent form, the instrument and Human Subjects Review application (see Appendix D) were submitted to the Smith College School for Social Work Human Subjects Review Board (HSRB) in January of 2007. After materials were evaluated by the HSRB and recommended revisions were made, the materials were resubmitted. Final approval (see Appendix E) by the Smith College HSRB indicated that the procedures designed to protect participant rights and privacy are acceptable and concordance with the National Association of Social Workers code of ethics. Interviews were then begun.

Sample

Recruitment efforts were directed at obtaining a Massachusetts sample of clinical social workers that have recommended or utilized exercise in their treatment of depression, were master's degree level licensed clinical social workers, who had more than three years clinical experience treating depression and had not more than a two-year break since they last worked with a depressed patient. Participants were selected using a purposive method. Screening of potential participants was conducted over the phone. Candidates who met the selection criteria and agreed to participate were scheduled for an interview. Once initial participants were identified, a snowball method was used to identify further potential study participants. This sample set of criteria represented an appropriate and expedient way to gain expert opinion in the utilization of exercise to treat depression by clinical social workers in Massachusetts. Participants were identified through their practice modalities and/or agency setting. Specifically, clinical social

workers or social service agencies utilizing exercise as a component of treatment for depression were targeted. This sample was targeted through internet research.

Additionally, I identified several social service agencies which utilized various forms of exercise as components of their treatment program(s), employed clinical social workers in treatment planning and delivery and which serve clients suffering from depression.

Clinicians and agencies were contacted via the telephone to screen for qualified candidates willing to participate, as well as to seek additional recruits via referrals.

Through the above mentioned purposive method efforts, twelve participants were selected for this research study. At the time of each interview took place, each participant was a Massachusetts licensed clinical social worker; engaged in ongoing treatment of clients-- a portion of which were diagnosed with mild, moderate or major depression; and who were incorporating exercise of some form into their work with clients as an adjunct intervention. Participants consenting to interviews were all female. They varied with respect to degrees of clinical social work experience, age, race, knowledge of and experience in the use of exercise as an adjunct treatment for depressed clients.

Participants were incorporating exercise into their work with depressed clients in diverse settings such as a child advocacy centers, a domestic violence agency, a women's health center, a medical practice, mental health institution and in private practice. While gender is limited in this sample, the levels of experience and diversity in practice settings represented a great opportunity for this researcher to draw upon participants broad experiences in the utilization of exercise as an adjunct treatment for depression as well as individual professional identities.

Given the specific focus of the questions that were asked, there was little potential risk to participants who choose to participate in this research study. There was no personal disclosure in participating in this study. Questions were designed to uncover professional education, resources, experience, and practice methods. No identifiable participant, agency or client information was sought after in conducting this research. All demographic information, researcher notes, and transcripts will be stored separately from informed consent forms to assure confidentiality. Data collection documents are identified by number codes rather than participant names. Any identifiable information contained within interviews data was removed or disguised during transcription for use in the final thesis report.

Data Collection

Data collection was conducted via semi-structured interviews with participants during the period between February and March of 2007. While a few personal interviews were conducted, the majority of participant interviews were conducted via telephone. Personal interviews were conducted in locations convenient to both the recorder and study participant. All participants were advised of their rights under informed consent, and positive consent was obtained before conducting all interviews. In instances where phone interviews were conducted, informed consent was exchanged via postal mail prior to the scheduled interview. Each participant was asked to fill out a demographic questionnaire prior to the interview process for the purpose of identifying the participant's educational background, clinical experience and experience treating depression. Each

interview lasted approximately one hour. The interview process began with this researcher reviewing the thesis under study, potential risks and benefits of participation and answering any questions participants had. Each interview session started with subjects completing the demographic questionnaire. The interview consisted of the researcher asking questions in order from the semi structured interview guide. Participant responses were recorded with pen and paper and transcribed by the researcher to computer, printed and saved on hard copy and stored with individuals consent forms and any other hand recorded data. All data collected, including hand written data, hard copies of the transcribed interviews and participant consent forms will be kept in a locked cabinet for three years following the completion of the thesis. After this time has passed, the materials will continue to be locked in storage or destroyed.

Data Analysis

During data collection, this researcher utilized open coding to note themes found to be common or unusual in each participant responses. Selective coding was utilized to illustrate what participants were representing as a group. Upon completion of the data collection and transcription process, this researcher began the data analysis process. Here, coding was accomplished by compartmentalizing transcripts by question, specific categories based upon the usage of specific words, phrases, procedures and themes to relay the collective message of the study participants. The goal of the data analysis was to develop a thematic basis upon which a theoretical explanation could be drawn to explain the use of exercise as an intervention for the treatment of depression by these

Massachusetts clinical social workers. Using the constant comparative method, the material collected was analyzed for emerging themes, similarities and differences. The data were analyzed manually, using no statistics. During analysis, data were systematically placed into categories based on careful consideration of lowest common denominators. Data with a thematic basis not easily recognizable was placed into subcategories.

The categorized results yielded the specific findings of the research study for which descriptive analysis is used to report in detail in the next chapter. Given that the experiences of clinical social workers utilizing exercise as an intervention in the treatment of depression are relatively undocumented, collected data are examined against existing literature and research which stem predominantly from the fields of medicine or sports psychology. Particular attention was placed on the main themes presented by participants. The significant thematic elements reported centered around participants experience using exercise as an adjunct intervention for the treatment of depression, the clinical physiological and psychological benefits of using exercise in treating depression, important factors for successful integration of exercise into therapy with depressed clients, the role of and importance of clinical social workers attitudes and own use of exercise and advice participants offered for clinical social workers seeking to utilize exercise in their practice with depressed clients.

CHAPTER IV

FINDINGS

Introduction

The focus of this qualitative research study is to explore the experiences of individual clinical social workers who are using exercise as an adjunct treatment in their work with clients diagnosed with depression. While there is significant literature on the value of exercise in maintaining and improving mental health, there is a scarcity of material relating to the perspectives, experiences and practices of clinical social workers who are integrating exercise into treatment of depression. This chapter will present findings of this exploratory study in order to inform other clinical social workers who desire to integrate exercise into their own practice with depressed clients. It begins by examining the common demographic characteristics as well as individual practice and exercise experience of participants. After a sense of who the participants are and how they integrate exercise into their work with depressed clients is gained, the prevalent themes that emerged in the course of interviewing participants will be explored through a detailed presentation of the material through the use of illustrative quotes. The findings are presented according to the themes emerging from the data analysis and are organized as follows: participant beliefs in the effectiveness of exercise as an intervention in the treatment of depression, considerations in integrating exercise as an adjunct treatment for

depression, barriers and client resistance to exercise as an adjunct treatment, strategies used to overcome barriers and client resistance to exercise, the contribution of exercise toward treatment goals, recommendations for clinical social workers and finally, a summary of the chapter.

Participant Demographics

Twelve clinical social workers participated in this study. All participants were female. Ages varied, with three participants between the ages of 31-40, four between the ages of 41-50, three between the ages of 51-60 and two who were age 61 or older. All participants are licensed social workers, having obtained a masters degree in social work from an accredited school of social work. All participants are Caucasian. While an effort to obtain a diverse sample of participants was made through an extensive candidate search throughout Massachusetts, the actual participant census was limited to practitioners integrating exercise into the treatment of depressed clients, thus reducing sample size. The participant's range of experience practicing clinical social work ranged between 3.5 to 31 years. All twelve participants currently work with depressed clients or have in the last year. All of the participants utilize exercise as an adjunct to psychotherapy in their work with depressed clients.

Participant 1 maintains a private psychotherapy practice and works primarily with individual clients. In addition to her M.S.W., she has a masters degree in creative arts therapy, is a registered yoga teacher, a licensed alcohol and drug counselor, a registered dance and movement therapist, and certified in both eye movement desensitization and

hypnotherapy. She has extensive knowledge of yoga and dance. She has integrated movement and exercise into her practice for more than 20 years in such settings as a child and adolescent inpatient unit, an adult inpatient psychiatric unit, an adult substance abuse unit and in behavioral therapy practice.

Participant 2 practices at a non profit organization and provides clinical services for families falling within lower socioeconomic status. She has been practicing clinical social work for 3.5 years. She works primarily with women and children victims of trauma. She has some exercise education and training. She employs traditional aerobic exercise in her work with depressed clients.

Participant 3 maintains a private psychotherapy practice and works primarily with elderly clients individually and in groups. In addition to her M.S.W. she is a registered yoga teacher. She has extensive knowledge of exercise, movement and yoga. She has been integrating these elements into her practice treating clients with depression for 31 years.

Participant 4 maintains a private psychotherapy practice and works primarily with women in medical office setting. In addition to her M.S.W., she has a masters degree in education and a bachelors degree in Counseling Psychology. She has extensive personal experience with exercise and integrates it very frequently into her practice with depressed clients. She primarily utilizes aerobic exercise such as dance, walking or running in her work but sometimes introduces yoga or swimming as well. She has integrated movement and exercise into her practice for 27 years.

Participant 5 practices at a non-profit violence prevention organization, working with individuals, groups and families. She has been practicing clinical social work for four years. In addition to integrating exercise into her work with depressed clients, she is also certified as an eye movement desensitization practitioner. She works primarily with victims of domestic violence. She has little personal experience exercising but does actively prescribe exercise in the form of traditional aerobic exercise in her work with depressed clients.

Participant 6 maintains a private psychotherapy and behavioral therapy practice and works primarily with women and couples. She also works per diem as a behavioral therapist for a health agency. She has extensive knowledge of yoga and is a registered yoga teacher. She frequently integrates exercise into her treatment of depressed clients in both individual and group work and has done so for seventeen years.

Participant 7 practices in a child advocacy center and domestic violence prevention agency. She has been practicing clinical social work for 16 years. She works primarily with child victims of sexual abuse or domestic violence and non offending family members. She has extensive personal experience, education and training around the use of exercise as an adjunct treatment that comes from both professional training and personal research. She has received training in adventure based counseling. She typically integrates adventure based counseling elements into her work with depressed clients.

Participant 8 maintains a private psychotherapy practice. She has received training in mind body medicine, has extensive knowledge of yoga and is a registered

yoga teacher. She frequently integrates exercise into her treatment of depressed clients in both individual and group work and has done so for seventeen years.

Participant 9 maintains a private psychotherapy and behavioral therapy practice working with individuals, families and groups. She is a clinical social work educator and has taught on the wellness, the mind body connection and the use of exercise in maintaining physical and mental health. She has significant personal knowledge of exercise and has frequently integrated yoga, dance, tai chi and other aerobic exercise into her treatment of depressed clients for over 33 years.

Participant 10 practices in a holistic counseling center. She utilizes expressive movement and art modalities in her work. She has significant personal knowledge of exercise and has frequently integrated dance into her treatment of depressed clients for over 10 years.

Participant 11 currently maintains a private psychotherapy practice. She is a registered art therapist, a certified trainer and educator. She specializes in expressive arts therapy. She has extensive personal knowledge of exercise, dance and expressive movement practices. She has been practicing for over 25 years.

Participant 12 maintains a private practice and also works as an educator and consultant. She specializes in mindfulness and self care techniques which include the use of exercise. She has significant personal knowledge of exercise, meditation and specializes in the treatment of depression. She has been practicing for over 25 years.

Other demographic data collected included the frequency exercise is used as an adjunct treatment for depression, level of participant knowledge in use of exercise as an

adjunct to psychotherapy, source of exercise knowledge and the types of exercise used. The frequency at which participants introduce exercise as an adjunct treatment for depression was evenly distributed at 33% in each of the three reported rates of very frequently, frequently and sometimes. The level of exercise knowledge held by participants was similarly reported. The majority of participants (58%) reported having extensive exercise knowledge. Of this group, all but one held certification in an exercise mode such as yoga, dance therapy, or adventure based counseling. The remaining level of exercise knowledge among participants was split between extensive (16%) and some (25%). The source of exercise knowledge most often reported was training (50%), followed by research (25%) and professional (25%) certification. The forms of exercise introduced by participants were varied. In order of the most reported exercise used to least reported exercise used, they were walking, yoga, dance, aerobic, running, cycling, adventure based elements, swimming, and weight training. Participants reported introducing exercise as an adjunct to individual psychotherapy for the treatment of depression in a variety of milieus such as private psychotherapy practices, a nonprofit violence prevention agency, a child advocacy center, a woman's health center, a behavioral health organization, a holistic health center and a senior center.

Efficacy of exercise as an adjunct intervention in the treatment of depression

All of the participants believed that the integration of exercise as an adjunct treatment to psychotherapy contributed positively to treatment outcomes and symptom reduction when introduced in working with depressed clients. Nearly all participants (n=

10) stated that exercise can be a safe and effective adjunct intervention to psychotherapy for improving and maintaining mental and physical health of depressed clients.

Participants echoed many similar thoughts regarding the specific contributions of exercise as an adjunct treatment for depression. The beliefs participants held around the effectiveness of exercise as an intervention in the treatment of depression fell into three main areas psychological, physiological and psychosocial.

Among participants, the most prevalent reason offered around their use of exercise as an adjunct intervention to psychotherapy in the treatment of depression was the role exercise played in enhancing body awareness through the mind-body connection. Many of the participants indicated that improved body awareness contributed to depressive symptom reduction and improved treatment outcomes. Participant 6 indicated the integration of exercise into therapy often provided a language with which to talk about depression and its symptoms, improving clients body awareness. She stated:

Exercise can serve as a metaphor for healing. Utilizing the mind body connection when appropriate can enliven the therapy. In talking about exercise, we can create an opportunity within the therapy to gain insight into depression and how it impacts our bodies. It provides us with a language to talk about the body and its depression. Within this language we can practice listening to both physical and mental sensations from our bodies and as we can learn to listen to our bodies our awareness grows and we begin to learn more about ourselves.

Participants indicated that increased bodily awareness can benefit clients in varied ways.

Participants (n=9) indicated their belief in the natural anti-depressant effects of exercise.

Several participants reported that clients felt better after exercising and were more inclined to think positively. Participants 1, 4 and 6 suggested that through exercise, depressed clients experienced improved relaxation ability, fitness, strength, flexibility,

and an increase in endorphin levels, which they believe contribute to a reduction in the symptoms associated with depression. Four participants spoke of the benefits of exercise in alleviating stress and providing clients a distraction from depression and other psychosocial stressors, thus reducing anxiety, allowing clients to feel less stress or worry. Participants 7 and 10 reported that through repetitive exercise movements the relaxation response is activated and clients can experience a positive increase in mood and increased ability to focus in the moment. In this way, exercise is an effective method of self soothing and stress management for clients. These participants noted that as their clients exercised more often, their ability to relax and focus occurred more frequently, and they felt better and were more inclined to continue exercising. This positive experience leads to an overall improvement in attitude, mood state and ability to focus.

Participant 2, 5 and 7 reported that exercise was effective in working with body memory of trauma, increasing a sense of mastery, improving self esteem, self-efficacy and confidence of depressed clients who had been victims of trauma and abuse. In turn, these benefits enhance the work being done in individual psychotherapy with clients suffering trauma-related depression. Additionally, participant 7 stated that exercise was an effective measure for opening up the therapy in her work with child victims of trauma. She observed:

I believe that exercise is another avenue to treat depression through the body and mind connection. It can serve as an effective alternative means for expression and communication when children are unable to tolerate traditional talk therapy and the therapy has stalled or met an impasse. Integrating exercise and adventure based counseling elements into therapy can effectively open up communication while deepening the therapeutic relationship as it provides another forum for therapy to take place.

In addition to the reported psychological benefits of adding exercise, participants also spoke of observable physiological benefits when integrating exercise into their treatment with depressed clients. Participant 1, who began her career as a movement therapist working with children and adolescents in an inpatient hospital, had very positive early experiences utilizing exercise to improve and maintain mental health in patients.

She observed:

I try to use various forms of exercise or movement in working with all of my clients, but most often with my clients suffering from depression. I have found it is very useful in addressing the physical symptoms of depression and promoting change from within. It is a positive action a client can take to move towards health. Exercise combats the physiological effects of depression and many of the side effects of depression medications such as fitness loss, low energy, early onset of fatigue, loss of appetite, insomnia and weight gain. This is especially true for women.

Participants also listed several other physiological benefits of adding exercise to their work that positively impacted therapy and clients sense of self. Participants note improvements in physical fitness, strength and endurance, weight management, sleep patterns, eating patterns and increased appetite as contributing positively to clients overall sense of themselves as healthy leading to improved treatment outcomes. In addition, many of the participants spoke of the protective factor of exercise and the positive impact it can have in fostering healthy lifestyle change and relapse prevention. Participant 1 said:

In using a holistic approach and treating depression through the mind body connection with exercise, I've seen positive change in the expression of the body through movement, shape and breadth. Bringing awareness of and strengthening the body enough to bring peace to people who are at war with their bodies is important. Clients become empowered to address their depression, chronic helplessness and the negative body images or feelings through exercise. This is a very positive experience for them and contributes to a sustainable lifestyle change which has positive long term effects as they gain body awareness they learn to

know when something might be going on and with exercise, they can effectively engage their bodies in self managing their mood, chronic pain or in dealing with life stressors.

Similarly, three participants (3, 8, 11) noted the protective factors associated with regular exercise for improving physical health and reducing client risk of cardiovascular disease, obesity, osteoporosis, diabetes and hyper tension. Five participants also noted some clients who exercise in groups, yoga classes, gyms or other facilities benefit from relationships and support system that develop among fellow exercisers. New networks of friends or exercise partners provide motivation, support, kinship and a sense of community which leads to positive change in the client as they become more engaged and interactive with their environment resulting in an improved in mood state.

Integrating exercise as an adjunct treatment for depression

All of the participants indicated their belief that exercise should be explored as an adjunct intervention to individual psychotherapy and pharmacotherapy when working with depressed clients. Nearly all of the participants (n= 10) reported that they devote a portion of each biopsychosocial assessment to evaluation of the client physical condition and exercise or physical activity levels. Most of those participants (n=8) noted that the symptoms of depression, such as low levels of physical activity, lethargy, loss of fitness and poor body image can be positively addressed through exercise and exercise should thus be explored when beginning treatment planning. Participant 6 said:

Assessing activity level, exercise habits or physical health is a part of my intake process. I always try to learn how a client maintains and feeds their physical self. Often, clients who come seeking talk therapy do so only because that is what they

think therapy has to be, by talking about exercise and physical health during assessment, I open it up for later discussion and inclusion, making it not only safe but an important area of interest when the client is ready.

Participant 6 echoed a similar practice of introducing exercise early during assessment and treatment planning. She stated:

Well, we talk about physical health, exercise, diet, sleep, from the beginning. Once we are moving into treatment planning, I include some sort of provision for fostering exercise. My efforts are aimed at making it resonate with the client so that they will be willing to try it if not embrace physical fitness while being mindful of their health and fitness capacities and interests. Often, we can devise a plan that will incorporate exercise that appeals to the clients interests. This allows us to take advantage of the mental and physical health benefits of exercise has through the mind body connection.

Participant 3, 6, and 7 indicated that they will almost always introduce exercise during treatment planning. They noted that their clients often expect to find themselves exercising or using adventure based elements. They frequently ask about exercise or the adventure based elements, creating an opportunity for psychoeducation around the value of exercise as an adjunct treatment for depression. . Participant 7 said:

Usually the client sees the facilities and asks about them... otherwise I I introduce the concept as another way to tackle some of the issues we will be facing in therapy. We I then have a discussion on how the adventure based exercises can meet, advance or challenge the particular clients needs.

All of the participants reported that integrating exercise into their work, whether they practiced privately, in institutions or at non profit agencies, was consistent with their practice ideology and mission to provide holistic services. They indicated that they and their agencies are known to integrate exercise into their treatment approach. Several participants noted that this freed them from adherence to more traditional psychodynamic

therapy models. Many of the participants indicated that within the mental health community, they have reputations for holistic interventions such as exercise for which they are sought out by clients. For these participants, introducing exercise into the therapy is an accepted practice and not an alternative one. On this, participant 1 offered:

In my current practice, it is the model of the institution to approach treatment from a holistic mind body perspective. Clients come specifically for that reason. For me, it's about working with a client to ground their psyche in the body, discovering the pleasurable ways exercising or moving their body can promote positive change in their mental and physical health.

While all participants discuss the integration of exercise as an adjunct to psychotherapy during treatment planning, consideration is given to the appropriateness of exercise as an intervention in some cases. All of the participants stated that an important component of the assessment process was a current and accurate health evaluation. All participants indicated their recommendation to clients who were uninformed about their physical condition is that they undergo a thorough health screening by a primary care physician before actively beginning an exercise prescription. Several of the participants stated their belief that all depressed clients can experience the physical and psychological benefits from increased physical activity levels, and there are few instances in which some level of physical activity can not be integrated into the therapy. Participants 1 and 7 believed that while it is important to allow for health issues or restrictions, one can adapt exercise to a client particular need. Participant 1 said:

It is important to find the type of exercise, level of intensity and frequency that complements the client needs and various health issues or restrictions. Usually, we can always find a place to begin and to lay the foundation for later advances.

Participant 7 reiterated the same belief:

In overall assessment of health, fitness and motivation is important before beginning to ascertain what obstacles might be faced but generally, we can adapt the level of exercise to the participant at any level to provide a meaningful therapeutic experience.

Two thirds of the participants (n= 8) noted that although they felt they could adapt the exercise prescription to meet the clients ability to engage in exercise as an adjunct treatment to psychotherapy for depression, it was important to be informed and talk about individual client health risks, issues and restrictions as well as their comfort level or concerns around exercise before beginning. Participant 8 noted that clients who are weak or debilitated from physical or psychological illness can be difficult to engage. Many participants spoke of the importance of being mindful of the clients individual circumstances. Participant 9 said:

I have encountered some clients with depression who are disturbed or become anxious with certain types of vigorous exercise and we begin with more subdued movements and relaxation exercises that keep the heart rate lower instead. I begin by asking the client what they can do that feels safe or what can they imagine themselves doing and we build up from this initial exercise exposure.

Participant 9 echoed this same belief and indicated in certain cases such as severe depression she refrains from early introduction of exercise. She stated:

In cases of severe depression I don't bring it up very earlier. Once we become stable and have moved into moderate depression and have a solid alliance and the client can more ably use therapy, we can begin to talk about introducing exercise and movement into the work.

While all of the participants believe in the efficacy of exercise as an adjunct intervention in the treatment of depression, they universally reported that it is incumbent upon the clinician to meet the client where they are at. Participant 4 said:

I let the client determine what treatment interventions are appropriate for them. Clients with severe depression do not respond to exercise as readily, but we talk about it so that when the client improves we can take another look at what exercise the client might do and how it might benefit the client. Typically, in these cases, I talk about a number of potential interventions, exercise being one of them. I might also provide literature such as a journal article to educate the client to the mental health benefits of exercise. Often, in the course of therapy, we can find something the client enjoys that can be adapted to effectively become exercise. This is important because if it is something a client enjoys and has an interest in, motivation is increased and it is more likely to be a sustainable activity and positive experience.

In choosing an exercise to integrate, participants all noted they let the clients dictate what type of exercise they would like to pursue. Several participants noted that it takes some ingenuity, but that any form of exercise can be integrated into therapy in a meaningful way. Participants reported that the type of exercise was less important than how it made the client feel, positively influenced their thinking patterns, fostered movement and activity which shifted their perspective. In this regard, therapists work towards discovering what exercise(s) would best fit with the individual client situation. Regard is given to clients specific needs, ability, level of exercise knowledge and various constraints such as health issues, access to facilities or equipment, time, and financial resources. When recommending exercise to a client with no or limited exercise experience, nearly all of the participants (n= 10) noted the importance of choosing an exercise activity that resonated with the client. Participants most often recommended yoga, followed by walking, dance, cycling, running, aerobics, swimming, Pilates and tai

chi. Participants 1, 5, 6 and 9 noted their main focus is on integrating an exercise that incorporates stretching, a warm-up which becomes more vigorous and challenges the client, a warm-down period followed by more stretching. Participants stated the importance of teaching clients to be attuned to their bodies before, during and after exercise.

In integrating exercise into psychotherapy with depressed clients, participants emphasized listening to the client. Several participants noted that they listen for indications of a client attitude about exercise and openness to exploring something in a new way. Beyond choosing an exercise to integrate into therapy, the majority of participants (n= 9) indicated that they viewed a depressed client health issues and restrictions, individual needs, lack of exercise knowledge, depression symptoms and other factors as barriers that could be addressed and worked around in the therapy rather than as reasons for exploring exercise as an adjunct intervention to psychotherapy in the treatment of depression.

Barriers and client resistance to exercise

All of the participants noted that the symptoms of depression are themselves barriers to a client successfully adopting and maintaining an exercise prescription as an adjunct intervention to psychotherapy in the treatment of depression. In describing the barriers and resistance she has encountered, Participant 4 said:

Almost by definition, the symptoms of depression create a ready made list of obstacles to overcome. Lack of motivation, lethargy and fatigue, cognitive distortions and negative thinking, low mood states and self esteem all work to

prevent motion and movement in the body and contribute to ways of thinking that lead to both mental and physical depression.

Participant 7 spoke of the difficulty depressed clients have in motivating themselves and of experiencing fear of challenging oneself in a new realm due to their self doubt or criticism. Participant 9 indicated that some clients possessed an idea of exercise that was too rigid and formal. She felt that cultural messages about exercise, fitness and body image confound and undermine the motivation and desire of depression sufferers due to depressive symptoms such as lethargy, lack of motivation, self doubt, low mood, thinking distortions and low self esteem. Additionally, she felt that cultural trends towards wanting a quick fix combined with diminished ability to mobilize oneself and lack of discipline also contribute to client resistance. Participant 8 spoke of potential side effects of medication use that may interfere with a client mental or physical capacity to perform or adhere to an exercise regimen.

In addition to the barriers and resistance manifested in depressive symptoms, individual barriers and resistance may derail exercise adherence. In talking about barriers specific to her clients, participant 7 stated:

Certain health risks may prohibit participation, depression symptoms certainly, as well as parental approval in our case as we work primarily with children can all surface as barriers. In most cases, these issues can be overcome through treatment planning and the therapy process. In nurturing the therapeutic relationship, building trust and gaining the child trust we plan for and address each barrier as it surfaces. In regards to parental approval, sometimes we invite the parents to check out the facilities.... try it out; explain how and why it is beneficial to their child.

Participant 5 also noted barriers to a client successfully adopting an exercise intervention can be individualized which illustrates the need for clinicians to be attuned to the particular circumstances of each client and the needs of the populations with whom they work. She said:

Clients ways of being and behavioral patterns die hard. Negative thinking, distorted views of themselves, low self esteem, helplessness, help rejecting attitudes, symptoms of depression as well as collateral effects of physical and verbal abuse associated with domestic violence can rob women of their sense of agency and utility in being able to effect change or overcome their depression, especially within an abusive situation. Such efforts seem like climbing a mountain at a time when they have little energy reserves to do so.

All of the participants cited the significant challenges the symptoms of depression create for integration of the exercise intervention as an adjunct to psychotherapy, but noted that with treatment planning, time and patience, success is achievable. To this end, all of the participants spoke of the necessity of choosing the appropriate exercise intervention, setting achievable goals and working incrementally. Participants noted that integrating exercise into therapy is a process that begins with choosing an exercise type that the client is willing to try and at a pace which reflects the client motivation and engagement levels while still being challenging.

In choosing an exercise that is pleasurable to the client, Participant 1 noted her attention to the therapeutic process. She stated:

When exercise such as yoga is a part of our treatment planning, clients are entering into the treatment relationship prepared to use the connection between mind and body through exercise and therapy to generate change in their mood state or mental health as well as in how they physically feel. Knowing that there is this beginning openness and acceptance around the integration of exercise into the therapy, we can begin by examining what is pleasurable for them exercise wise and figure out how we can make a place for it in their therapy. This is happening

as we are talking about rehabilitating the body to work on the mind. For this to happen, it is important to tailor the program to the client. To find things that they can do at home that engages the mind, body and spirit. Choosing an exercise they can and want to do is a strategy that is geared toward giving hope to the client that if they do this, they will feel better.

Nearly all of the participants (n= 8) said that they, too, focus on adapting an exercise the client finds pleasurable or would like to try to the therapy in an effort to foster motivation and interest. However, they are prepared with suggestions and exercises to begin with should a client be unsure, inexperienced or simply need support and motivation. Participant 6 notes that at times like this she begins with simple breathing and stretching exercises in the session to enable the client to gain an appreciation for the value of exercise through its practice, which can lay the ground work for more vigorous exercise later in therapy. She said:

Doing a small breathing exercise with a client in a session is a good place to start. It can help them feel an immediate shift in energy without a lot of effort. Often we start working with breath before moving onto stretching and then more vigorous exercises. In the beginning, to experience the feeling of the breath moving in and out during deep breathing relaxation exercises can be calming and curative when you are mindful of the experience. In doing and talking about this in session, the client has no distractions and can truly gain a more positive perspective on this as a mechanism they can use that can lead to shifts in blocks or barriers and to healing as we progress.

Participant 9 echoed the sentiment that it is important to begin with achievable goals. She reported working actively in therapy to provide motivation and support for depressed clients. In her words:

I'm pretty active in therapy when using exercise and movement in an effort to help the client start moving and overcome barriers. I talk directly about putting movement back into their life while being sensitive to their needs and paying close attention to their story but movement is an important part of healing. We

often start in the office with breathing and stretching exercises. Sometimes we may take a session outside while walking if it seems necessary. I also I try to give a take away each session. Things like doing a stretch in bed when you wake up and doing one in the evening before you go to bed. I assign one to every client because clients need help overcoming moods and thoughts born of their depression. This introduction opens both the therapy and exercise up as a co-created effort and lets the client feel supported. Little assignments and our beginning to exercise this way can change their focus for a time and give them a glimpse of the possibility of feeling better.

In integrating exercise into therapy in incremental steps, participants said they are able to mirror the exercise after the therapy process and often talk about exercise and the body as a metaphor for the mind and the healing process. Participants noted that this enables them to confront barriers and resistance presented that manifest in the therapy and in clients difficulty adhering to an exercise prescription throughout the therapy.

Overcoming barriers and client resistance

For nearly all participants, overcoming barriers and client resistance to exercise begins in assessment and treatment planning, before psychotherapy has even begun. Many of the participants indicated that obstacles to client adherence to the exercise prescription are unforeseen, and that they expect setbacks to occur. Participants indicated that when such possibilities are discussed during treatment planning, the process is normalized. Clients are more likely then, to introduce barrier or exercise adherence problems into the therapy to be worked on resulting in improved treatment outcomes.

Beyond the symptoms of depression, the most frequently mentioned barriers to integrating exercise as an adjunct to psychotherapy was poor health, followed by client lack of access to exercise facilities and limited exercise knowledge or experience. Some

of the participants (n= 5) stressed the importance of working with the client physician to develop an effective exercise plan adapted to the level of the clients ability, taking into consideration any important health restrictions or limitations. Participants 8 and 12 also noted that some clients suffer from other mental health disorders beyond depression that may limit their ability to engage in exercise alone or in a group with others. They noted the importance of developing a treatment plan that best serves the individual needs of the client, taking into consideration mental and physical health restrictions or limitations. Many participants noted access as a barrier to exercise: many participants do not have access to exercise facilities, training or equipment. Participants said that clients often have specific notions of exercise and can be introduced to low cost but effective alternatives means of exercise such as walking or running. Additionally, Participants 5, 8 and 10 stated that social workers should be aware of area gyms or exercise facilities which can offer discounts to people in need. Another barrier mentioned by participants (n=6) was having enough time. Participant 8 spoke of a client busy as the primary care taker for an elderly parent. This client had little to no free personal time and little opportunity to do much of anything, let alone exercise. Working with this client to manage her schedule, finding assistance for caring for her aging parent, and finding time for herself and exercise was credited with helping to reduce depression symptoms and improving her mental and physical health state.

In addition to barriers created by depressive symptoms, health issues, and lack of access to exercise facilities or equipment, participants noted several forms of client resistance. Participants 2, 8, 11, and 12 noted some clients expect more traditional talk

therapy and who were unsure of the role exercise would play in the treatment. Participants 4, 6, and 9 noted the importance of the clinician being informed, knowledgeable and at ease with the language of exercise and the role it can play in furthering the therapy and reducing depression symptoms in order to educate clients. Additionally, having education materials available for clients is also beneficial in allowing them to educate themselves in order to foster a sense of agency as they can then make informed decisions about their treatment plan. Participant 3, 5, and 10 spoke of the clients need to feel supported in their efforts to engage in an exercise intervention. They mentioned the need for clinicians to provide continued moral and motivational support for clients, especially in instances in which the client does not otherwise have an adequate support system.

Other forms of client resistance participants spoke about were negative self talk, poor self image and self doubt. Participants 5 and 7 spoke of using the therapeutic relationship and the therapeutic process as they would in psychotherapy to overcome such client resistance or treatment setbacks. Participant 5 stated:

Internalized beliefs, attitudes, ways of being and behavioral patterns, die hard, but a power of the therapeutic relationship is in the creation of a space for just that. Overtime, within the therapeutic holding environment, clients discover or rediscover strengths, parts of themselves and alternative ways of being that can be nurtured and fed to overcome the barriers and resistance to exercise and change.

Participant 7 echoed her use of traditional therapeutic techniques to overcome resistance to therapy or exercise in the children she works with:

Certainly, the therapeutic relationship is key to overcoming any barriers or resistance that can arise. In co-creating a therapeutic relationship we build trust which allows them to trust me even if they don't feel confident in trying

something. We set goals and objectives incrementally so that they can experience small successes that build upon themselves but they still experience let downs. Harnessing the power of the process as it unfolds allows the children to gain confidence and perspective to work past cognitive distortions and self doubt. This is often a more meaningful experience when using exercise and the adventure based elements as many of the children we work with are very concrete in their thinking. This is an excellent method of providing concrete feedback than sometimes found in talk therapy alone.

Another topic shared by the participants was the importance of building a strong therapeutic alliance in order to confront resistance such as negative self talk, low self esteem and low motivation. Participant 1 addressed this as follows:

I find out how they talk to themselves, what are the things they say to themselves that prevent change or moving forward. Then I move in to stop it. I counter these negative statements or thoughts and teach them how to do so for themselves. Through modeling, metaphor, imagery and much practice the clients can be taught to action themselves towards health. It often begins with having them act as if they are feeling healthy and beginning very small. Walk to the mailbox at first, then to the street corner, etc. Once they begin the exercises the feelings begin to follow. Through exercise like yoga and relaxation exercises and therapy can begin to bring vitality, strength and flexibility back into their bodies and minds.

The same participant also spoke of her use of personal experience in helping clients overcome self doubt or fear of failure:

Often it is necessary to confront the idea that they would do it wrong, clients have culturally informed views of exercise and what health is. Often, I need to show them that there are different ways of being healthy and exercising and then we work on finding what resonates within them. I sometimes share my own experiences with depression and role and importance exercise yoga played in my recovery.

Other common strategies noted as useful in over coming barriers and client resistance to exercise adherence noted by participants were setting an intention or commitment to try an exercise, practicing guided imagery, de-constructing and breaking a problem down

into small steps that can be examined individually, focusing not on setbacks but on positive efforts and attempts, and modeling or practicing the strategies with clients in session. Additionally, participants noted that referring clients to their primary care physician for a physical exam and medication review can be prudent in instances in which medical questions arise.

All of the participants felt that it is a natural part of the therapy for resistance and barriers to surface and jeopardize a depressed client adherence to the treatment plan. They noted that having an established therapeutic relationship within which talk about any derailments to the therapy, including exercise adherence can take place is an important component of fostering the healing process. It enables the clinician to attend to and process each barrier or resistance when it is appropriate, creating valuable therapeutic experience for the client and furthering the therapy.

Contribution of exercise towards treatment goals

All participants indicated that the integration of exercise into psychotherapy for treatment of depression could contribute positively to treatment outcomes. Participant 6 had the following observation:

While I don't track it in practice, I feel like exercise does play a role in therapy outcomes. I see clients compartmentalizing their life and losing touch with their bodies. The value of exercise in maintaining mental health is that it renews the mind body connection in a positive way. This positive connection contributes to a change in outlook towards the body and mind, a realization that one can influence the mind by being attuned to, listening to and moving the body leads to healing and richer experiences.

Participant 9 described a similar sentiment in her statement:

Exercise as an adjunct to psychotherapy contributes to the healing of the whole person. Awakens and reconnects the network consisting of the mind body spirit connection for overall wellness, not solely psychological health or physical health.

Participant 4 offered yet another similar observation:

I think exercise can play a significant role in treatment outcomes. I e observed considerable shifts in clients mind body awareness, increases in mood, affect, self perception and ability to see things change in their lives while focusing less on symptoms or problems. When clients can see evidence of their healing it is great. This type of energy exchange is important; it provides positive self images and motivation to continue.

Participants 5 and 7 noted that one value of exercise for clients and therapist alike is the tangible and sometime very visible indications of change and healing that it creates. In her work with clients suffering from abuse, Participant 5 notes the satisfaction she and the client feel after recovery. She says:

Exercise has a role in nurturing and feeding the clients mind and body. Through exercise, clients can feel, see and sense changes within themselves. They might feel more energy, more aware of themselves and their body, stronger, more confident in themselves. This is most satisfying to see, a client who comes out of the shadow of an abusive past and begins to see herself anew.

Participant 7, who works with children who can often have difficulty articulating emotions, feelings and thoughts, sometimes looks to exercise as a measure of therapeutic progress. She observes:

Often I am surprised by the changes the children experience in the adventure based elements. Practicing what we talk about in therapy out there on the course and in the challenges can provide visible, tangible signs of improvements and gains that are sometimes difficult for children to articulate in therapy and not always visible.

Many participants (n=10) noted the value of an exercise intervention in helping to stabilize and reduce depression symptoms enhancing the psychotherapy process and as a protective measure against depression relapse after recovery. Again, Participant 9:

Exercise has served to help stabilize, manage and reduce depression symptoms over time in conjunction with traditional talk therapy or medication. When maintained, it reduces relapse occurrences and improves health and well being over life span.

Participant 8 made a similar observation:

I've seen most exercise and spiritual practice such as yoga after clients are stabilized and it usually signals that they are coming out of their depression. It can best be used then as a preventive measure.

Several other participants remarked on the value of exercise as a protective measure in reducing the rate of relapse in depressed clients. Participants observed exercise was an appropriate adjunctive intervention when treating depression given it prepares and equips clients for future crisis and tolerating intense affect by adding a valuable self-soothing mechanism for many psychosomatic illnesses.

Recommendations for clinical social workers thinking about exercise as an intervention

The majority of study participants commented on the need for more practitioners to be integrating exercise as an adjunct to psychotherapy in treating depression. In this regard, nearly all of the participants noted the value of and need for advanced education, and training about the use of exercise as an adjunct intervention. They felt that with further education and training opportunities, more practitioners would be inclined to integrate exercise into their practice, better serving the client population. In addition, they

noted the importance of professional development, research and attending continuing education courses or seminars for integrating exercise as an adjunct to psychotherapy when working with clients. Participants believed that as practitioners become knowledgeable and bring exercise integration into their practices, interest will grow and curriculum content at social work education institutions will change to follow suit.

Participant 7 had this to say:

Get educated, find out about the programs and people in your area that can help or provide services to you and your clients. Even though it often seems like a low priority, make an effort to address the physical needs of your clients not just the psychological because in doing so, you are doing good work and treating the whole person. If you believe in it, your clients will be more likely to trust you and take it seriously.

Several participants cited our country's growing problem with sedentary lifestyles and obesity and the link these factors have to depression as reasons to explore exercise as an intervention. They think a shift in cultural consciousness around exercise and movement is necessary and that, given social work activist history, social workers should have a role in the change effort. Participants felt that social workers could have a meaningful impact in two ways. First, social workers should take ownership of their client's total health. Participants noted social work growing specialization in mental health and diminished clinical attention paid to physical health, including exercise and the need for more education around physical health assessment and intervention education at social work schools. Secondly, clinical social workers should integrate exercise and movement into their own lives. The participants indicated exercise doesn't have to be a rigid or formal practice, as there are many adaptive ways to introduce

movement and exercise in order to promote positive change. Participants felt that if clinicians challenged themselves to be models for clients, it becomes much easier to inspire exercise and wellness in clients. Participant 6 said:

Begin to explore it for yourself. Anything you can do for yourself in to improve your health will be something you want to share. Despite the tremendous value of exercise in maintaining mental and physical health, it has to come from inside. It can solely be an intellectual offering.

Similarly, several of the other participants remarked that practitioners who began to live their own lives in a holistic way, attending to physical, mental and emotional needs would intuitively bring such treatment approaches to their clients. They commented on the role of self-care in the lives of social workers and commented on how it is reflected in the type and quality of services clients receive. Participant 1 indicated the importance practicing good self care has for clients. She said:

I know many social workers who have become sedentary and I wonder if it is difficult for some of their clients to feel motivated to change when their therapist might appear stuck too. I think that it is important for social workers to serve as role models to their clients. We as good people and especially as social workers should pursue vitality in their own lives. We should walk the talk so to speak. It is very comforting for clients to know that this person has walked this path before me, I know in my own depression that was true.

Many participants (n= 7) spoke of the importance of knowing the resources available to maintain and foster physical health in the area and advocate for increased access to such resources for clients. Participant 1 observed:

Clinicians should know where and what the area resources are. They should have brochures, pamphlets and phone numbers on hand for client referrals. Knowing the local practitioners, trainers and providers who can help in advance is great, introduce yourself if possible. When it comes to making referrals for clients, know who clients can call in order to put them in touch with those who can help.

Educate yourself enough for your knowledge to be authentic and reliable and of service to your client.

Participants (n= 6) declared it was not enough for practitioners to be educated and know of the resources available to clients. Advocacy to improve access was necessary.

Participant 9 believed:

Advocacy need to happen around improved access and utilization to health care and mental health provider, regular movement and exercise programs in schools, hospitals, businesses, clinics, should be implemented or increased. We e become a restrictive society and that includes exercise and movement. We need to move backwards on this, we need to reintroduce play into the lives of children and adults. We need to provide opportunities, time and facilities for employees to exercise during the work day in our businesses and institutions. There needs to be encouragement to exercise and move rather than sitting in front of computers, video games, television, desks or in our cars. Social workers and other community leadership should make this an issue that is addressed. We need to educate them around the importance of exercise and the role it can play in mental and physical health.

Increased clients attention to the mind-body connection and the role physical health maintenance can play in fostering mental health though interventions such as the use of exercise as an adjunct intervention to psychotherapy in the treatment of depression can create opportunities for further research, treatment guidelines, training and support.

Participants such as 7 believed:

Well, increased use of exercise as an intervention will result in more research and literature on how it is being used, guidelines for treatment, consistency in its application and case review to improve effectiveness. Now, it seems to be a valuable but often overlooked or underutilized intervention. If it were a larger part of social work education in terms of assessment and treatment planning, we might, depending on the practice setting, devote more time to the physical assessment of a client to determining the need for and role exercise could play in achieving treatment goals. As it is, we often focus on psychological paths to health and lose sight of the benefits of integrating an alternative, physical path to healing without wondering at what cost to the client.

Finally, many of the participants (n= 9) noted the importance of remaining flexible and attuned to the particular needs of the client. Participant 5 spoke of the necessity of being able to adapt the treatment plan which includes the exercise program to mirror the needs of the client. She noted that flexibility paired with preparation and attunement will provide the best opportunity for using the exercise to positively influence the therapy process. She cited her experience working with children and in knowing when they became frustrated by the exercise or the therapy, how to use the frustration or back off, depending on the needs of the therapy.

Summary

The data in this chapter represent the experiences of a small sample of Massachusetts clinical social workers who integrate exercise with psychotherapy in the treatment of depressed clients. It explores the participants belief in the effectiveness of exercise as an intervention in the treatment of depression and examines the psychological, physical and psychosocial benefits of an exercise intervention in the treatment of depression. The chapter offers participant considerations including early introduction of exercise during assessment and treatment planning, client health issues, client ability level and exercise knowledge. The data illuminate participants thoughts on the role of the therapeutic relationship in overcoming barriers and client resistance to exercise adherence. Barriers examined include health restrictions, access, level of exercise knowledge and lack of support, as well as client resistances such as negative self

talk, low motivation and low self-esteem and lack of energy. Participants provided their ideas about addressing barriers and client resistances as they occur through the therapeutic relationship, incremental steps, treatment planning, education, provision of support, motivation, and adoption of a flexible attitude toward the client. Additionally, participants offered advice for social workers interested in integrating exercise as an intervention in their own work with depressed clients. They advised social workers to pay attention to self-care and exercise in their own lives, pursue education opportunities to learn about the use of exercise as an adjunct intervention, advocate increasing exercise resources for clients, and adopting a holistic perspective in work with clients. The following chapter will focus on the consistency in the experiences of clinical social worker participants integrating exercise with psychotherapy for the treatment of depression with what is reported in the literature and findings not previously reported.

CHAPTER V

DISCUSSION

The purpose of this research study is to examine the experiences of clinical social workers in Massachusetts who are integrating exercise as an adjunct intervention to psychotherapy for the treatment of depression to learn if they are consistent with what is reported in the literature review. There is limited literature on the use of exercise as an adjunct intervention for the treatment of depression by clinical social workers. Much of what is written is oriented within the medical model for use by physicians, psychiatrists, psychologists or sports medicine practitioners. The findings of this research study showed that the Massachusetts clinical social workers interviewed believe in the efficacy of exercise as an adjunct intervention for the treatment of depression, and that such integration allows clinical social workers to take advantage of the physical and psychological benefits of exercise to enhance individual psychotherapy and treatment outcomes. Barriers and client resistance to introducing exercise as an adjunct treatment are an expected part of the process and can be overcome with preparation and flexibility. Further, participants feel increasing the use of exercise as an intervention by clinical social workers will promote opportunities for further professional development, education, and research. This research study brings the perspectives of clinical social workers into the literature. It was expected that clinical social workers would share the

experiences of other mental health professionals, as reported in the literature. This chapter will explore the themes that were identified in the findings, including those unreported in the literature. This chapter also will explore the limitations of this research study. Lastly, this chapter will examine the potential impact this study could have in the field of clinical social work.

Clinical social workers use of exercise as an adjunct intervention

While there is limited literature available about the role exercise plays as an adjunct to individual psychotherapy in the treatment of depression by clinical social workers, this study revealed that social workers agree with professionals from other disciplines about the efficacy of exercise as an intervention for the treatment of depression (Clearing-Sky, 1988; Richardson et al., 2005; Seime & Vickers, 2006; Stathopoulou et al., 2006). While there are efficacious alternative treatment options and modalities for the treatment of depression available to participants, the deliberate introduction of exercise into the treatment plan signals participants' emphasis on the physical aspect of depression as well as the psychological. In introducing exercise as an adjunct intervention in the treatment of depression, the study participants avail themselves of the physiological and psychological benefits associated with exercise. Participants believe incorporating exercise as a psychosomatic and behavioral intervention in conjunction with psychotherapy offers them the best opportunity for abating depression symptoms and maintaining or improving the mental health of their clients (Daley, 2002; Stathopoulou et al., 2006). It is this holistic approach and the

attention given to biopsychosocial assessment, treatment planning and choice of intervention that participants believe contribute to improvements in the mental health of exercise participants (Clearing-Sky, 1998; Daley, 2002; Davey, 2002; Dunn & Blair, 1997; Goldberg & Elliot, 1994; Stathopoulou et al., 2006).

Enhancing the therapeutic relationship

In reporting their experiences, participants used anecdotal evidence to illustrate the value of exercise as an intervention that contributed to positive symptom reduction and improved psychological, physical and psychosocial functioning for clients suffering from depression. The fundamental matrix for change referred to by participants as integral in maintaining exercise adherence and achieving positive treatment outcomes is the therapeutic relationship. Participants noted the importance of the therapeutic relationship in fostering positive attitudes about exercise and adoption of good exercise habits by clients. Nearly all of the participants (n=10) reported that the provision of critical support when setbacks occur during exercise not only fosters adherence to the exercise program, but strengthens the therapeutic alliance as well. In this way, the therapeutic relationship addresses the problem of exercise adherence common among depressed clients. In addition to creating an atmosphere conducive to exercise, the process of joining with the client in formulating a treatment plan and exercise intervention -- with active strategies to overcome the barriers to exercise program adherence that accompany depression -- prepares clients for the work they may do in therapy. In this way, the relationship between exercise and the therapeutic alliance is a

reciprocal one. Clinicians thus consider exercise as a valuable intervention to enhance the therapeutic relationship. As clients experience tangible results such as improved fitness and symptom reduction, they are more able to delve into a co-created therapy process, deepen their understanding of themselves, their bodies and their experience, thereby improving the overall therapy experience and treatment outcomes.

Benefits of exercise intervention

In reporting their experiences, participants' responses replicate what is found in prior research about the diverse benefits of an exercise intervention. Through anecdotal evidence, participants illustrated the value of exercise as a low cost and accessible intervention that contributed to positive symptom reduction and improved psychological, physical and psychosocial functioning for clients suffering from depression. The known psychological benefits of exercise participants reported included reduction of depression or anxiety symptoms, increases in confidence and coping ability, reduction of negative thinking, self defeating behaviors, reduction of isolation and increases in socialization skills, self-efficacy, mastery, and self-esteem (Daley, 2002; Davey, 2002; Goldberg & Elliot, 1994; Martinsen, 1987; Halgin & McEntee 1996).

While the above named psychological benefits of introducing exercise as an intervention can be achieved through other behavioral, psychotherapy, or pharmacotherapy interventions, it is the physiological improvements in overall health and fitness associated with exercise that participants point to when recommending exercise as an intervention. Participants witness improvements in clients' health as the exercise

intervention directly combats the low physical fitness and poor physical health common among depression sufferers. Additionally, participants note the preventative health benefits of exercise in reducing risk factors that may lead to cardiovascular disease, obesity, osteoporosis, hypertension, non-insulin dependent diabetes mellitus, stroke, stress management, depression and anxiety and some cancers (Clearing-Sky, 1998; Dunn & Blair, 1997). Participants believe the value of exercise as an intervention that addresses both the physical symptoms and cognitive impairments of depression, as well as its protective function, separates it from other behavioral interventions.

Introduction of exercise

Participants noted that an exercise intervention is not for every client and that careful consideration of client health status, barriers and resistances is vital (Clearing-Sky, 1988; Gillette & Blumenthal, 1996; Sachs et al., 1997; Seime & Vickers, 2006). Barriers and client resistance behaviors reported both by participants and in the literature include the need for medical clearance from clients physicians, assessment of health restrictions and any specific needs clients may have; low levels of exercise knowledge and experience; time or access constraints; side effects of depression medications; depression symptoms such as fatigue, lack of motivation, low self-esteem, difficulty focusing, self-defeating behaviors or negative thinking (Clearing-Sky, 1988; Gillette & Blumenthal, 1996; Sachs et al.1997; Seime & Vickers, 2006).

There is considerable overlap between the literature and the participants' experiences regarding overcoming barriers and client resistance to implementation and adherence of exercise in their treatment. Participants echoed many of the strategies noted by Clearing-Sky (1988) and Seime & Vickers (2006). Participants pay particular attention to introducing and discussing the use of exercise as an adjunct intervention early in the assessment and treatment planning stage. Participants report this normalizes and creates space for clients to learn about the role exercise can play in their recovery as an adjunct intervention to psychotherapy. Consistent with the literature, this approach allows for proper preparation of the exercise program tailored to the needs of the individual client. Both prior research and participants in this study have indicated that clients often focus on the barriers to exercise (Seime & Vickers, 2006), and it is important to plan for such barriers and client resistance if long term adoption of an exercise program is to be achieved. Participants believe effective use of the therapeutic relationship to provide motivation, encouragement, reinforcement techniques and to teach behavioral strategies allow clients to overcome resistance and symptoms that exist among depression sufferers such as low self-motivation, self-concept and self-efficacy. (Clearing-Sky, 1988, Seime & Vickers, 2006).

Once clients have successfully adopted healthy exercise habits, participants believe clients' potential for experiencing health and well-being is maximized. For participants, the use of exercise as an intervention is grounded in its protective factor for warding off depressive symptoms and providing relapse prevention. However, participants also feel fostering the client's integration of exercise into his or her life style

offers clients the potential to maintain good health beyond emerging from therapy free of depression symptoms, but also doing so with an enhanced capacity to enjoy life, weather challenges, and recognize ones resilience to self-navigate the healing process (Seime & Vickers, 2006).

Limitations of this study

There are several limitations that must be taken into consideration when evaluating the data and findings from this research study. The first limitation stems from the homogeneity of the sample from which the data was collected, allowing for limited variability in participant experiences and responses. The sample consisted of only twelve participants, all of whom worked in Massachusetts, and were a racially and gender homogenous group. A second limitation results from time constraints which limited the researcher's ability to locate and interview a larger and more diverse sample of candidates. A third limitation exists in the data analysis, while thorough, did not apply rigorous methodologies for qualitative sampling or analysis. However, this qualitative study does begin to provide examples of the experiences of clinical social workers in Massachusetts using exercise as an adjunct intervention to individual psychotherapy for the treatment of depression and the value of such an intervention for clients.

Implications for clinical social work

One objective of this research study is to inform the practice of other clinical social workers interested in utilizing exercise in the treatment of depressed clients.

Analysis of the collected data in this study illustrates that clinical social workers employing exercise as an adjunct intervention to individual psychotherapy in the treatment of depression face many of the same treatment issues and share experiences similar to those of other mental health professionals who use exercise as an intervention to improve mental health of clients. The findings have several implications for clinical social work practice. First, the data indicate exercise can be a safe, economical and effective adjunct treatment modality for use by clinical social workers in the treatment of depression. Second, the added physiological and long-term prevention benefits of exercise separate it from psychotherapy, pharmacotherapy and other behavioral interventions. Third, the findings highlight the importance for clinical social workers educating themselves about the use and effectiveness of exercise as an intervention in the treatment of depression. Fourth, clinical social workers should assess the appropriateness of introducing exercise as an adjunct intervention to individual psychotherapy for the treatment of depression on a client by client basis. Fifth, the findings indicate there are opportunities for clinical social workers to increase the level of attention paid to exercise in clinical social work curriculum and continuing education programs and engage in advocacy efforts to increase the use of exercise as an intervention. Lastly, this research study shows that introducing exercise as an adjunct intervention offers depressed clients increased treatment options that are holistic and incorporate both the mental and physical health needs of clients. This affords social workers and clients both a path to not only living as well as possible, staying vigorous and healthy, but also ameliorating risk factors for many serious diseases and depression relapse.

Conclusion

The purpose of this study is to explore the practice of clinical social workers utilizing exercise as an adjunct treatment to psychotherapy in treating major depression. The primary goal of this descriptive study is to provide clinical social workers interested in exercise as an intervention with knowledge regarding experiences members of their profession have had integrating exercise into their practice and their views on how exercise can improve treatment outcomes for depressed clients. In undertaking this research, it was expected that the experiences of clinical social workers would be consistent with those of other mental health professionals. However, given the lack of literature about the use of exercise as an intervention by clinical social workers, this was a needed study. The findings of this study affirm much of what is reported in the literature review about the use of exercise by other mental health professionals. In exploring the experiences of a small sample of Massachusetts clinical social workers utilizing exercise, this study detailed the experiences of clinical social workers who effectively introduce exercise as an adjunct intervention for the treatment of depression, harnessing the physical and psychological benefits of exercise to enhance individual psychotherapy and treatment outcomes. In doing so, this study begins to fill the void in the literature about the experiences of clinical social workers and hopes to expand the attention and knowledge of a larger proportion of practicing social workers into this promisingly efficacious area of treatment options and outcomes for depressed clients.

A significant motivation in undertaking this study for the researcher was the limited attention to the effectiveness of exercise as an intervention in the treatment of depression by clinical social workers combined with the growing problem of obesity and diminished fitness among the general population. The hope for this research study is that in learning from these practitioners who are effectively utilizing exercise as an adjunct intervention in the treatment of depression, other clinical social workers will become interested in the role exercise can play towards achieving positive treatment outcomes and be encouraged to explore it as an intervention in their own practice. As social workers pursue opportunities for further professional development, education, and research in this area, the social work profession may begin to recognize and harness the power of exercise in promoting healing and life long mental and physical health.

References

- American Psychiatric Association. (2002). *Diagnostic and statistical manual of mental disorders* (4th ed. Text revision). Washington, DC: Author.
- American College of Sports Medicine (1991). *Guidelines for exercise testing and prescription* (4th ed.). Philadelphia: Lea & Febiger.
- Babiyak, M., Blumenthal, J., Herman, S., Khatri, P., Doraiswamy, M., Moore, K., Craighead, W.E., Baldewicz, T.T., & Krishnan, K.R., (2000). Exercise Treatment for Major Depression: Maintenance of Therapeutic Benefit at 10 Months. *Psychosomatic Medicine*, 62: 633-638.
- Bilowz, S. (2004). Exercise As A Useful Treatment For Depression And Anxiety: The Way In Which Mental Health Clinics Are Incorporating Exercise Into The Treatment Of Their Clients. Masters Theses, Smith College School of Social Work, Northampton, MA
- Boothroyd, R., Best, K., Giard, J., Stiles, P., Suleski, J., Ort, R. And White, R. (2006). Poor and depressed, the tip of the iceberg: the unmet needs of enrollees in an indigent health care plan. *Administration and Policy in Mental Health and Mental Health Services Research*, 33 (2) 172 - 181.
- Callahan, E., Bertakas, K., Azari, R., Robbins, J., Helm, J. And Leigh, P. (2002). Association of higher costs with symptoms and diagnosis of depression. *The Journal of Family Practice*, 54 (6) 540 - 544.
- Clearing-Sky, M. (1988). Exercise: Issues for prescribing psychologist. *Psychology and health: An international Journal*, 2, 189 - 207.
- Brown, R.(1997). *Exercise Prescription. In Physical activity and mental health*. Morgan, W. (Ed.) Washington, D.C.: Taylor & Francis.
- Daley, A. (2002). Exercise Therapy and mental health in clinical populations: is exercise therapy a worthwhile intervention? *Advances in Psychiatric Treatment*, 8, 262 - 270
- Dunn, A. & Blair, S. (1997). *Exercise Prescription. In Physical activity and mental health*. Morgan, W. (Ed.) Washington, D.C.: Taylor & Francis
- Ebmeier, K., Donaghey, C., & Steele, D. (2006). Recent developments and current controversies in depression. *The Lancet*, 367, (9505), 153-167

- Gillette, E.C.D. & Blumenthal, J.A. (1996). Exercise therapy for prevention and treatment of depression. *Journal of practical psychiatry and behavioral health*, 5, 263 - 271
- Greenberg, P., Kessler, R., Birnbaum, H., Leong, S., Lowe, S., Berglund, P. and Corey-Lisle, P. (2003). The Economic burden of depression in the United States: How did it change between 1990 and 2000? *Journal of Clinical Psychiatry*, 64:12, 1465 - 1473.
- Goldberg, L. & Elliot, D. (1994). *Exercise for prevention and treatment of illness*. Philadelphia, PA. F.A. Davis Co.
- Halgin, R. & McEntee, D. (1996). Therapists Attitudes About Exercise. *Journal of Clinical Psychology*, 52 (1) 48 - 60
- Herman, S., Blumenthal, M., Babyak, K., Craighead, E., Krishnan, R., & Doraiswamy, P.M. (2002). Exercise Therapy for Depression in Middle-Aged and Older Adults: Predictors of Early Dropout and Treatment Failure. *Health Psychology*, 21 (6), 553-563
- Martinsen, E. (1987). The role of aerobic exercise in the treatment of depression. *Stress Medicine*, 3, (2), 93 - 100.
- Martinsen, E. (1990). Benefits of exercise for the treatment of depression. *Sports Medicine*, 9, 380 -389.
- Martinsen, E. & Kvalvik-Stanghelle, J.(1997). Drug therapy and physical activity. Morgan, W. (Eds.), *Physical Activity & Mental Health*. Washington, D.C.: Taylor & Francis
- Morgan, W. & Goldston, S. (1987). *Exercise and mental health. The Series in health psychology and behavioral medicine*. Washington, D.C. Hemisphere Publishing Co.
- Richardson, C. Faulkner, G, McDevitt, J., Skirinar, G., Hutchinson, D., & Piette, J. (2005). Integrating physical activity into mental health services for persons with serious mental illness. *Psychiatry Services*, 56, (3) 324 - 331.
- Sachs, M.. & Buffone, G. (1997). *Running as Therapy An Integrated Approach*. Northvale, NJ: Jason Aronson, Inc.
- Seime, R. & Vickers, K. (2006). The challenges of treating depression with exercise: from evidence to practice. *Clinical Psychology*, 13, (2) 194 - 197.

Smith, T. (2006). Blood, sweat, and tears: Exercise in the management of mental and physical health problems. *Clinical Psychology*, 13, (2) 198 - 202.

Stathopoulou, G., Powers, M., Berry, A., Smits, J., & Otto, M (2006). Exercise interventions for mental health: a quantitative and qualitative review. *Clinical Psychology: Science and Practice*, 13, N2 179 - 193.

Appendix A

Semi Structured Interview Guide

1. Do you feel exercise could be or is helpful in your work with depressed clients? In what way(s)?
2. In your work treating depressed patients, have you utilized exercise as an adjunct intervention? Why?
3. What do you look for before introducing exercise into the therapy as an adjunct treatment for depression?
4. Are there times when exercise is not an appropriate intervention? What are they?
5. When exercised is utilized as an adjunct intervention in treatment of depression, how is it introduced into the therapy?
6. What barriers or client resistance have you encountered when introducing exercise as an adjunct treatment for depression?
7. What strategies do you employ to overcome or address these barriers or resistance?
8. What role has exercise played in contributing to treatment outcomes in your work with depressed clients? How so?
9. As an illustration of your use of exercise as an adjunct treatment of depression, can you describe a case example where exercise was introduced and how it influenced the treatment outcome? Please be careful to omit any identifying information.
10. Would you recommend to other clinical social workers the use of exercise as an adjunct intervention in the treatment of depressed clients? Why?
11. What is needed to create improved utilization of exercise as an adjunct treatment intervention for treatment of depression in the Western Massachusetts area?
12. What advice can you offer clinical social workers seeking to incorporate exercise into their work with depressed clients?

Appendix B

Demographic Questionnaire

Please provide the following information as part of your participation in research study.

Age:	Gender:
Ethnicity:	Degree:
Position:	Years practicing:
Type(s) of practice	Years treating depressed clients:
Number of depressed clients treated:	Current number of depressed clients:

Frequency exercise is used as an adjunct intervention for depression?

Never	Rarely
Sometimes	Frequently
Very frequently	

Level of knowledge in use of exercise in psychotherapy?

Minimal	Expertise
Some	Certified
Extensive	Other (Specify)

Source of exercise knowledge: (circle all that apply)

School	Research
Training	Professional Certification (Specify)
Other (Specify)	

Type(s) of exercise:

Aerobic	Running
Walking	Strength training
Yoga	Cycling
Other (Specify)	

In order to assist me in recruiting participants for this study, do you know of other clinical social workers introducing exercise into treatment with depressed clients and would like to provide their contact information?

Appendix C

INFORMED CONSENT

January, 2007

Dear Research Participant:

My name is Thomas Lusignan. I am a graduate student at Smith College School for Social Work. I am conducting a study for my thesis on how clinical social workers introduce exercise as an adjunct treatment to psychotherapy in working with clients suffering from major depression disorder. This research study is undertaken to determine if the experiences of clinical social workers using exercise as an adjunct treatment for depression are consistent with those of other mental health practitioners. The resultant data from this study will allow clinical social workers interested in exercise as an intervention to learn how other social workers are integrating it into their work and how an exercise prescription helps clients to achieve desired clinical outcomes. Thus, the purpose of this study is to explore the factors that promote the prescription of exercise as an adjunct treatment by clinical social workers in treating major depression. The primary goal of this study is to provide clinical social workers with knowledge regarding the experiences members of their profession have had integrating exercise into their practice and their views on how exercise improves treatment outcomes for their depressed clients, thereby expanding the social work profession's knowledge base.

This research study, and any subsequent publications and presentations derived from the results, is undertaken in partial fulfillment of the Master's of Social Work degree at Smith College School for Social Work. I am requesting your participation in this study because you are a master's level social worker, have more than three years clinical experience, are or have worked with depressed clients in the last two years, and you utilize exercise as an adjunct treatment component to psychotherapy in your work with clients suffering from depression.

If you chose to participate in this thesis project, you will be asked to sign two copies of this consent form and will be given one to keep for your records. You will receive this form by mail, fax or email at or prior to beginning the interview. A telephone or face to face interview will take place once the consent form is signed and returned to me. The interview will begin with a demographic questionnaire and then a series of questions lasting approximately one hour. The questions will focus on your use of exercise as an adjunct treatment to psychotherapy in the treatment of major depression disorder. During the interview, I will take notes and should you approve in advance, make an audio recording of the interview for later transcription. Audio recordings, when obtained, will be transcribed by me and saved to hard copy and secured with your consent form and any hand recorded data. You may decline to be audio recorded or ask that the recording or hard copy be deleted at any time. Confidentiality will be maintained by leaving you or

your agency unnamed. No persons except myself shall have access to information collected, including audio recordings, transcriptions and hand written data collected until all identifying information has been removed. After which, only my thesis advisor and I shall view the research materials. The information collected is for use in my thesis and may also be used in future publications or presentation. Again, no identifying information will be used in any presentation or paper. When audio recordings are obtained, they will be deleted upon completion of this thesis or sooner if requested by the participant. All other data collected, including hard copies of the transcribed audio recordings and any hand written data as well as your consent form will be kept in a locked cabinet for three years following the completion of the thesis. After this time has passed, the materials will continue to be locked in storage or destroyed.

Your participation is voluntary. There is no financial benefit for participation in this study. Your contribution will provide important information that may be utilized by practitioners within the mental health profession.

There is a limited risk in answering these survey questions. However, if you may feel a question asked requires that you disclose information you do not wish to or If you feel any discomfort in answering any question or feel any question is too intrusive, you are free to skip that question. You may also stop the interviewing process at any time. You may withdrawal from the study at any time prior to April 1, 2007 at which time the report will have been written. Should you choose to withdraw prior to the April 1, 2007 deadline, all materials relating to your participation shall be immediately and fully destroyed.

YOUR SIGNATURE BELOW INDICATES THAT YOU HAVE READ AND UNDERSTOOD THE ABOVE INFORMATION; THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, YOUR RIGHTS, AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Signature of Participant Date

Signature of Researcher Date

Please keep a copy of this informed consent form for your records and return the original to me prior to beginning the interview via fax or mail in the self addressed stamped envelope if provided. If you have any questions or wish to withdraw from the study at any time before its completion on April 30, 2007, please contact:

Thomas Lusignan
PO Box 742
Lanesboro, MA 01237
[Email:tlusigna@email.smith.edu](mailto:tlusigna@email.smith.edu)
(413) 443 - 2046

Appendix D

Human Subjects Review Application

Investigator Name: Thomas L. Lusignan
Contact Address: PO Box 742
Lanesboro, MA 01237
Contact Phone: (413) 443 - 2046

Project title:

The integration of exercise as an adjunct treatment for depression by clinical social workers in the Massachusetts; a study designed to inform the practice of area social workers.

Project purpose and design:

Much of what is written about the integration of exercise as an adjunct intervention to psychotherapy and pharmacotherapy for the treatment of depression is oriented within the medical model for use by physicians, psychiatrists, psychologists or sports medicine practitioners. There is limited literature available about the role exercise may play in the treatment of depression by clinical social workers. I am conducting research on how clinical social workers introduce exercise as an adjunct treatment to psychotherapy in working with clients suffering from depression. This research study is being undertaken to determine if the experiences of clinical social workers using exercise as an adjunct treatment for depression are consistent with those of other mental health practitioners. The findings of this study shall be used in partial fulfillment of the requirements for a masters degree in social work at Smith College School for Social Work. After completion of the thesis, the findings may be used in publications or presentations of this research at professional conferences or settings.

While the near absence of clinical social workers from the literature does not preclude the use of this valuable intervention being utilized by clinical social workers, questions exist around how to achieve best results as a clinical social worker integrating exercise into treatment for depression. Given the growing evidence of the value of exercise as an adjunct to psychotherapy or pharmacological treatment of depression, it is important to learn how it can be more often utilized by clinical social workers.

The primary focus of this thesis is to (1) identify how clinical social workers within the western Massachusetts area introduce and integrate exercise into their individual treatment with depressed clients; (2) identify specific content areas they cite as integral to integrating exercise into their therapy with depressed clients in the western Massachusetts area; and (3) identify area referral sources, resources and networks available for facilitating the use of exercise as intervention in the treatment of depression.

The information provided will serve as a resource for use by any clinical social workers or mental health practitioner who wishes to explore the integration of exercise as an adjunct therapy to psychotherapy or pharmacotherapy in their treatment of depressed patients.

Design

The design for this qualitative study will utilize a flexible method exploratory design to achieve its goal of examining the use of exercise as an intervention in the treatment of depression by clinical social workers. The proposed study will expand upon the limited information available to area social workers interested or curious about the use of exercise as an adjunct therapy in the prevention and treatment of depression. The choice of the qualitative study design was made to accommodate the depth of information that could be obtained through open ended questions leading to a meaningful appraisal of the interviewees' experiences and providing an opportunity for clarification and explanation that best illustrates the usefulness of area clinical social workers' use of an exercise intervention.

Data will be collected through interviews conducted in neutral locations convenient to both the recorder and study participant. Face to face interviews will take place when possible and via telephone when travel is prohibited. All participants shall be advised of their rights under informed consent and asked to fill out a demographic questionnaire at the beginning of the interview process for the purpose of identifying the participant's educational background, clinical experience treating depression, and theoretical orientation. Interviews will be manually recorded as well as audio recorded when acceptable to the participant. A journal log will be maintained by the recorder to control for bias and areas of concern will be evaluated by the research advisor to ensure data collected are reliable.

Data gathered through the demographic questionnaire will be analyzed manually. Data acquired via tape recording during the interview process shall be summarily transcribed to computer and saved on disk and as hard copy. Using the constant comparative method, I will analyze gathered data for similarities and differences throughout the processes of collection and analysis. Through analysis for the lowest common denominators, common themes or practices will be determined and reported in the research.

During data collection I will take notes on relevant information and significant themes found to be common or unusual in participant responses. The data will then be summarily transcribed and reviewed once more for recurrent commonalities, themes and practices. After which, the data reduction process will begin as the interviews are coded. Coding will be accomplished by compartmentalizing transcripts by question, specific categories based upon the usage of specific words, phrases, themes or practices to relay the collective message of the study participants. The goal of the data analysis is to develop a model of practice and thematic basis upon which a theoretical explanation is

drawn to explain the use of exercise as an intervention for the treatment of depression by clinical social workers in the western Massachusetts area.

Characteristics of the participants:

Targeted participants for this research study will be master's degree level clinical social workers, who have more than three years clinical experience treating depression. In addition, participants must not have had more than a two-year break since they last worked with a depressed patient. Selecting candidates meeting these criteria will provide participants who have had the opportunity to develop a professional identity and recent experience to recall.

Recruitment process:

Recruitment efforts will be directed at obtaining a sample across this area of clinical social workers that have recommended or utilized exercise in their treatment of depression. The proposed sample will be selected using a purposive method. Screening of potential participants will be conducted over the phone. Candidates who meet the selection criteria and agree to participate will be scheduled for an interview. Once initial participants are identified, a snowball method will be used to identify further potential study participants. This sample criteria represents the best opportunity to gain expert opinion in utilizing exercise to treat depression by these clinical social workers in the western Massachusetts area. Using purposive procedures, private mental health practitioners in the Berkshire, Franklin and Hampshire County area will be contacted via the telephone. Potential recruits will be identified through their practice modalities and/or agency setting. Specifically, clinical social workers or social service agencies who utilize exercise as a component of treatment for depression will be targeted. Through internet research I have identified a beginning list of seven individual clinical social workers who work with depressed clients, offer exercise as a component of their treatment and are located in western Massachusetts. Additionally, I have a beginning list of five social service agencies within the western Massachusetts area which utilize various forms of exercise as components of their treatment program(s), employ clinical social workers in treatment planning and delivery and serve clients suffering from depression although it may not be the presenting issue. Once my research project is approved, I will begin contacting these clinicians and agencies via the telephone to screen them and obtain commitments for qualified candidates as well as to seek additional recruits via personal referrals. As the recruitment process is an ongoing one, I will continue to research potential candidates via the internet, area agencies and through word of mouth to obtain contact information.

The concentration of this research study will be on the use of exercise as an intervention for treatment of depression and diversity of participants will not be a significant component of the selection of candidates.

Nature of participation in research:

Participants will be expected to sit for an interview lasting approximately one hour. The interview process shall begin with my reviewing the thesis under study, potential risks and benefits of participation and answer any questions the participant may have. After this has taken place, this researcher shall present the informed consent form and explain the consent process. Upon receipt of written positive consent from the candidate, the interview will begin with the demographic questionnaire. The interview will consist of this researcher asking the questions in order from the semi structured interview guide and recording the participant's answers. Recording of responses shall be written and when consented to, audio recorded. Audio recordings, when obtained, will be transcribed by me and saved to hard copy and stored with individuals consent forms and any hand recorded data. When audio recordings are obtained, they will be deleted upon completion of this thesis or sooner if requested by the participant. All other data collected, including hard copies of the transcribed audio recordings and any hand written data as well as participant consent forms will be kept in a locked cabinet for three years following the completion of the thesis. After this time has passed, the materials will continue to be locked in storage or destroyed.

Risks of participation:

The specific focus of the questions to be asked creates limited potential risk to participants in this research study. There will be no personal disclosure in participating in this study and questions will seek only to uncover professional education, resources, experience, and practice methods.

Benefits of participation:

This research study will afford participating social workers the opportunity to draw upon and share their professional experiences to the benefit of colleagues. This may prove a satisfying and rewarding experience for participants leading to new ideas for further education, training or research, and possible directions for future practice.

Informed consent procedures:

Subjects shall be informed their participation in this thesis project is wholly voluntary. There is no financial benefit for participation in this study. They will be asked to read and sign two copies of this consent form. They shall keep one copy for their records and I shall keep the other. This must be completed prior to beginning the interview. In the event the interview is a phone interview, this will be done via fax or mail prior to beginning. In instances where consent forms shall be sent via the mail, a self-addressed and stamped envelope shall be provided for the participant to return the letter with minimal inconvenience. A telephone or face to face interview will take place only when the consent form is signed and returned to me.

Participants will be told the information collected will be for use in my thesis but may also be used in future publications or other presentation. However, no identifying information will be used in any publication or presentation. The data collected and all

consent forms will be kept in a locked cabinet for three years following the completion of this thesis. After this time has passed, the materials will continue to be locked in storage or destroyed.

Subjects will be told that they do not need to disclose any information they do not wish to reveal or if they feel any discomfort in answering a question or feel a question is intrusive, they may skip that question. Subjects may also stop the interviewing process at any time. Additionally, they may withdrawal from the study at any time prior to April 1, 2007 at which time the report will have been written. Should a candidate choose to withdraw prior to the April 1, 2007 deadline, all materials relating to his/her responses shall be immediately and fully destroyed.

Precautions taken to safeguard confidentiality and identifiable information:

All interview subjects shall be cautioned not to identify any clients while discussing their practice. Client confidentiality will be maintained by leaving subjects unidentified. No names of persons or agencies will be used in any notes or documentation. Persons having access to information collected will be limited to my thesis advisor and me. The information collected is for use in my thesis but may be used in future publications or presentations. However, no identifying information will be used in any future paper or presentation. The data collected and your consent form will be kept in a locked cabinet for three years following the completion of the thesis. After this time has passed, the materials will continue to be locked in storage or destroyed.

Investigator's Signature: _____ Date: _____

Advisors Signature: _____ Date: _____

Appendix E

Human Subject Review Board Approval Letter

January 18, 2007
Thomas J. Lusignan
P.O. Box 742
Lanesborough, MA 01237

Dear Thomas,

Your final revisions have been reviewed and all is now in order. We are therefore able to give final approval to your project.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain signed consent documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your study.

Sincerely,

Ann Hartman, D.S.W.
Chair, Human Subjects Review Committee

CC: Marsha Pruett, Research Advisor