

THESIS

COUNSELING PRACTICES OF THERAPISTS IN THE PROMOTION OF
EXERCISE AND NUTRITION BEHAVIORS IN THERAPY:
A QUALITATIVE STUDY

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ABSTRACT

COUNSELING PRACTICES OF THERAPISTS IN THE PROMOTION OF PHYSICAL ACTIVITY AND NUTRITION BEHAVIORS IN THERAPY: A QUALITATIVE STUDY

With the growing amount of evidence supporting the benefits of exercise and nutrition for mental health and psychological well-being, it is interesting to note that mental health professionals may have a tendency not to recommend them to clients in therapy. The purpose of the present study was to examine the current practices of professional psychologists, specifically clinical and counseling psychologists, with regard to whether and how often they suggest exercise and nutrition to clients, what therapeutic methods or techniques they might use, and how much and what type of training and education they perceive may be necessary for psychologists to address these issues in therapy. Participants were 17 licensed clinical and counseling psychologists holding either a master's or doctoral degree in psychology. They took part in individual, face to face, semi-structured interviews regarding their practices in discussing nutrition and exercise in therapy. Data were analyzed using post-positivist grounded theory and constant comparative analysis. Results produced themes that fell into one of four categories: Therapist Attributes, Client Attributes, Counseling Methods, and Therapist Health. A theoretical model was developed to describe if and how the therapist attributes and the client attributes related. This relationship influenced how participants would address nutrition and exercise in therapy. Various therapeutic approaches included inquiring about the client's current practices, providing psychoeducation, making clear recommendations, collaborating with the client and other professionals, and making appropriate referrals.

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INTRODUCTION

For decades, research has demonstrated a positive relationship between physically healthy behaviors and mental health (Alexandratos, Barnett, & Thomas, 2012; McCloughen, Foster, Huws-Thomas, & Delgado, 2012; Walsh, 2011). Despite a growing interest in the impact of physically healthy behaviors on mental health, very few counseling practitioners discuss the topics of nutrition and exercise in therapy (Burton, Pakenham, & Brown, 2010; Faulkner & Biddle, 2001; Burkes & Keeley, 1989; McEntee & Halgin, 1996). This lack of discussion regarding nutrition and exercise is interesting due to accumulating evidence of the positive influence that a healthy diet and regular physical activity on psychological well-being.

The Role of Nutrition

Kemper and Shannon (2007) have defined healthy nutrition as “taking in optimal amounts of essential nutrients while avoiding or minimizing the intake of toxic substances,” (pp. 903). Studies have shown that a well-balanced, nutritious diet is beneficial for mental health and psychological well-being. Healthy nutrition influences aspects of brain health, such as cognition and brain function (Bryan & Tiggemann, 2001; Gomez-Pinilla, 2008). Emotional health, or mood, can also be affected by nutrient intake (Brown, Goldstein-Shirley, Robison & Casey, 2001; Kemper & Shannon, 2007; Robison & Casey, 2001; Schoo, 2008; Suto, et al, 2010; White, 2009).

Nutrition and mood. Research has shown that an individual’s mood can benefit from certain nutrients and a well-balanced diet (Brown, Goldstein-Shirley, Robison & Casey, 2001; Schoo, 2008; Suto, et al, 2010; White, 2009). Like pharmacological medication, food that is consumed can influence serotonin (White, 2009), and healthy foods have been found not only to reduce the severity of physical illnesses, but to enhance mood and thinking (Schoo, 2008).

Certain foods, such as omega-3 fatty acids, have also been used as a basis of treatment for mood disorders (Gomez-Pinilla, 2008). A qualitative study by Suto and colleagues (2010) found that an effective wellness strategy used by patients with bipolar disorder to manage their own symptoms included choosing healthy foods, eating regularly scheduled meals, and taking vitamin supplements. Brown and colleagues (2001) found similar results, in that women with mild to moderate depression were able to alleviate depressive symptoms compared to a control group through adhering to a specific vitamin regimen.

Kemper and Shannon (2007) have also indicated the importance of a healthy diet and its influence on mood. They state that a primary mechanism by which a healthy diet boosts mood is through maintaining stable levels of blood sugar throughout the day; examples include eating a nutritious breakfast and other healthy protein-containing foods throughout the day. Furthermore, avoiding processed foods, fast food, and “junk” food, while increasing the consumption of water, fruits, vegetables, and whole grains works to further enhance mood.

Nutrition and cognitive function. Numerous studies have reported evidence of the psychological benefits of sound nutrition on cognitive performance (Bryan & Tiggemann, 2001), brain structure (Raji et al, 2010), and brain function (Gomez-Pinilla, 2008). Studies have indicated that a balanced diet that includes ample amounts of vegetables ameliorates cognitive decline with increasing age (Kang, Ascherio & Grodstein, 2005; Morris, Evans, Tangney, Bienias & Wilson, 2006), prevents brain atrophy (Raji et al, 2009), and fights obesity, which has been found to be associated with declined brain functioning (Wolf et al, 2007; Devlin, Yanovski & Wilson, 2000).

In addition, Gómez-Pinilla (2008) has identified “brain foods” that both enhance cognitive function and harm brain health and mental functioning. For example, vitamin D is a

nutrient identified by Gómez-Pinilla (2008) as beneficial in preserving cognitive functioning, specifically in the elderly. Other nutrients shown to be beneficial for the enhancement of cognitive function and prevention of cognitive decline associated with aging (including memory loss, decline in attention, and trouble with inference and understanding) are omega-3 fatty acids, curcumin, flavanoids, B vitamins, Vitamin E, choline, calcium, copper, and iron. Gómez-Pinilla (2008) noted that a diet high in saturated fat is associated with the promotion of cognitive decline.

In a study examining the effects of vegetable intake on cognitive functioning, Kang, Ascherio, and Grodstein (2005) found that women who consumed the largest amount of leafy green vegetables experienced slower cognitive decline compared to those who consumed the smallest amounts. Indeed, high vegetable intake is associated with slower cognitive decline with age in both men and women (Morris, Evans, Tangney, Bienias & Wilson, 2006).

Diet has also been associated with risk of developing dementia (Gray, 1989), although results have been mixed, and many studies have failed to account for confounding variables such as poverty or poor health (Whalley, Starr & Deary, 2004). Adherence to a Mediterranean diet, which consists of a high intake of vegetable, legumes, and unsaturated fatty acids and a low intake of saturated fats, has been associated with lower risk of developing Alzheimer's disease (Scarmeas, Stern, Tang, Mayeux & Luchsinger, 2006). Other studies have found that while it may not be associated with risk for dementia, there is evidence that a Mediterranean diet may delay the onset of age-related cognitive decline (Féart, et al., 2009).

Ellis, Singh, and Ruane (1999) have also noted that a sound diet with proper nutrition and dietary supplements can be used as treatment for some individuals suffering from mental retardation and developmental disabilities due to nutritional deficiencies, to feeding disorders

found in infancy and childhood, or to metabolic disorders. There has been particularly strong evidence regarding the benefits and efficacy of vitamin B6, folic acid, and megavitamins for those with developmental disabilities (Ellis, Singh & Ruane, 1999).

The Role of Exercise

Exercise and its effect on mental health has been widely examined within the field of psychology. It appears to be highly effective in the promotion and enhancement of psychological well-being as measured by various constructs including self-concept, satisfaction, and self-actualization (Courneya, Freidenreich, Sela, Quinney, Rhodes & Handman, 2003; Walsh, 2011; Wilfley & Kuncie, 1986). It has also been shown to be effective in alleviating symptoms of psychopathology including anxiety, depression, bipolar disorder, schizophrenia, attention and learning disorders, and others (Blumenthal et al, 2007; Brosse, Sheets, Lett & Blumenthal, 2002; Ströhle, 2009; Dunn & Jewell, 2010; Dunn, Trivedi, Kampert, Clark & Chambliss, 2005; Simons, McGowan, Epstein & Kupfner, 1985; Skrinar, Huxley, Hutchinson, Menninger & Glew, 2005; Tkackuk & Martin, 1999).

Exercise and mood. In their book, Otto and Smits (2007) explained the benefits of exercise for enhancing mood. They reported that exercise can be effective not only for psychiatric mood disorders, but can improve levels of mood in those not meeting full criteria for psychiatric diagnoses. The authors further claimed that exercise is effective in combating overall stress. Their explanation was that exercise, in and of itself, is stressful on the body. Therefore, participation in this regular, planned stress “toughens up” the body, making it stronger and better prepared for the stress of daily life. This concept can be referred to as the exercise cross-stressor hypothesis, which has been tested Throne and colleagues (2000) with a study that examined firefighters’ stress responses to a simulated fire drill. Firefighters who completed an exercise

program prior to the experiencing the stressor exhibited less anxiety and negative mood compared to those who did not participate in the exercise program. Exercise may also create a buffering effect against negative life events (e.g., loss of a loved one, marital separation, medical illness), which can lead to situational depression in many people (Hammen, 2005).

Exercise and personal well-being. Courneya and colleagues (2003) attempted to discover ways to improve quality of life in cancer survivors. By comparing patients participating in group therapy with patients participating in group therapy plus a home-based exercise program, they found that the group of patients who exercised scored significantly higher on scales measuring physical well-being, functional well-being, and satisfaction with life.

Similar findings have been found in “normal” populations, or populations not exhibiting a physical disease or illness (Walsh, 2011). Wilfley and Kuncze (1986) conducted an eight-week study involving “normal” adults participating in an exercise program. The eight-week exercise program contained three elements: a complete laboratory assessment of physical fitness, an individualized exercise program formulated based upon the initial assessment, and professional supervision of exercise. By the end of the study, participants experienced significant improvement not only in physical fitness, but also self-concept. There was also a significant reduction in psychological tension and stress (Wilfley & Kuncze, 1986). Dunn and Jewell (2010) believe that there is sufficient evidence to support physical activity as an effective method for preventing mental disorders. Similarly, they recommended that the use of exercise and physical activity as an adjunctive treatment to psychotherapy and/or antidepressant medications in the treatment of psychological disorders.

The benefits of exercise for enhancing personal well-being were reviewed by Otto and Smits (2007), indicating that those with low levels of mood can return to normal levels and even

elevated levels of mood with exercise. Furthermore, exercise is effective in combating overall psychological and physical stress.

The effect of exercise on vitality has also been examined (Ryan et al., 2010; Thayer, 1987; Vlachopoulos and Karavani, 2009). Vitality, which is defined as having physical and mental energy, and has been found to be positively affected by physical activity, such as light walking (Ryan et al., 2010). Thayer (1987) stated that although many people reached foods rich in sugar to improve vitality, exercise is a more powerful means of doing so. Vlachopoulos and Karavani (2009) found that this effect was mediated by a sense of autonomy, competence, and social relatedness, aspects of self-determined motivation.

Exercise and treatment for psychopathology. Countless previous studies have focused on the utilization of exercise as a treatment for psychopathology, particularly depression and anxiety. In a review by Ströhle (2009), it was noted that while the effect of exercise on anxiety has been under studied, there is no doubt that regular physical activity has anxiolytic effects in reducing anxiety, and may have positive effects in patients who experience panic attacks, specifically (Broocks et al, 1998). One meta-analysis examined trait anxiety, and discovered that across eleven studies, exercise produced a moderate decline in anxiety (Petruzello et al., 1991). An additional meta-analysis demonstrated that across eleven randomized studies, both aerobic and anaerobic exercise produced a significant effect on the alleviation of symptoms of anxiety (Stich, 1988). It has also been claimed that exercise training may ameliorate depressive symptoms, especially in patients diagnosed with mild to moderate depression (Walsh, 2011).

The area of depression has been more heavily researched with regard to the effects of exercise. Simons, McGowan, Epstein and Kupfner (1985) noted that despite flaws in research designs, the effect of exercise, which has been shown to be comparable to that of

pharmacological treatments, is considerable. Across the studies reviewed by Simons and others (1985), which examined participants with clinical depression, the hypothesis that exercise may be an effective treatment was supported. A more recent review by Brosse, Sheets, Lett, and Blumenthal (2002), noted considerable evidence for exercise as a treatment for major depressive disorder, despite some studies' methodological limitations.

Brosse and colleagues (2002) concluded that exercise is beneficial in healthy populations, and that in clinical populations, exercise is more effective than no treatment, and can be just as effective as both psychotherapy and pharmacological medication. These results were similar to those of Blumenthal and colleagues (2007) who found that exercise produces outcomes comparable to antidepressant medications. Exercise also produced significantly stronger effects than a placebo. It was further determined that any exercise, whether home-based or in a supervised setting, can be beneficial in the treatment of depression and in lowering scores on depression scales.

In addition, in a study conducted by Dunn, Trivedi, Kampert, Clark and Chambliss (2005), the efficacy of exercise in the treatment of mild to moderate depression was examined, as well as the dose-response relation between the two. It was concluded that participation in exercise at a dose analogous to public health recommendations, which is 7.0-7.5 kcal/kg/week at a frequency of 3-5 days per week, is an effective treatment for mild to moderate severity levels of major depressive disorder. Results in participation of exercise at levels lower than public health recommendations were found to be similar to the placebo effect.

Other studies have examined the effects of promoting healthy behaviors in patients with mood and psychotic disorders other than depressive and anxiety disorders. Skrinar, Huxley, Hutchinson, Menninger and Glew (2005) attempted to determine the effects of a health education

and exercise program in patients diagnosed with various mood and psychotic disorders. Program participants exhibited significantly higher ratings of general health and empowerment than those in the waitlist control group (Skrinar et al., 2005). Patients diagnosed with bipolar disorder have also used exercise to manage symptoms (Suto, et al, 2010). In addition, a review by Tkachuk and Martin (1999) found that, in general, studies have provided support not only for exercise in overall psychological well-being and as a treatment depression and anxiety, but also support for exercise as an effective adjunctive treatment for schizophrenia and somatoform disorders.

Exercise and cognitive function. The effects of physical exercise on cognition have also been examined. People who exercise more and, therefore, are moderately fit, have been found to perform better on cognition tests compared to low-fitness participants (Netz, Dwolatzky, Sinkler, Argov, & Agmon, 2011). However, even those who already exercise regularly might still benefit from both acute and chronic exercise training (Griffin, Mullaly, Foley, Warmington, O'Mara, & Kelly, 2011). In a study by Colcombe and Kramer (2003) consisting of adults aged 55 and older, exercise was found to be beneficial for cognition, particularly executive functioning. These effects were moderated by the amount of time spent exercising and the type of exercise, as well as gender, with women showing greater improvement.

Exercise and learning and memory. Memory, in particular, has been found to improve with physical exercise. Klusman and colleagues (2010) found that over a 6-month period, participants who frequently exercised had improved recall and working memory. An additional study found that exercise before encoding, or studying, led to improved recall in students (Salas, Minakata, & Kelemen, 2011). Furthermore, the effect of exercise on memory appeared to be

long-lasting, enduring for at least 18-months following a treatment program (Reynolds & Nicholson, 2007).

Ratey and Hagerman (2008) explained that exercise enhances learning for three reasons. First, exercise provides an ideal mind-set, in which attention, alertness, and motivation are increased, which allows more efficient learning to take place. Second, exercise promotes and encourages nerves to bind and create connections, which is the basis for learning new information. Finally, exercise leads to the development of new nerves cells which provide more opportunity to log new information.

Exercise and attention. Attention is another form of cognitive functioning that has been examined in the context of exercise. Two types of attention (alternation speed and dual-task processing) have been found to improve after aerobic exercise in older adults (Hawkins, Kramer, & Capaldi, 1992). In addition, Ratey and Hagerman (2008) discussed exercise and its influence in patients diagnosed with ADHD. They explained that attention is regulated by the neurotransmitters norepinephrine and dopamine, which increase with exercise. There also appears to be link between attention and movement. Both depend on the cerebellum and corpus striatum, which may provide an explanation for why children with ADHD can more effectively manage symptoms when they are involved in sports and athletic activities.

Exercise, Nutrition, and Counseling

Despite the extensive amount of evidence illustrating that physical fitness and a nutritious diet promote psychological well-being and mental health, there is little research available examining how therapists may or may not adopt these topics in therapy, although Burks and Keeley (1989) found that therapists tended to discuss exercise and nutrition less often than other behaviors (i.e. smoking, drug use). (Barrow, English, & Pinkerton, 1987; McEntee & Halgin,

1996; Walsh, 2011). Additionally, few therapists utilize exercise or nutrition as an intervention in treatment (Barrow, English, & Pinkerton, 1987; Burkes & Keeley, 1989; McEntee & Halgin, 1996; Dixon, 2010; Walsh, 2011). Possible causes for this lack of utilization may include therapists' lack of knowledge or competence (Burks & Keeley, 1989), therapists' own personal exercise practices (Barrow, English & Pinkerton, 1987), therapists' own beliefs and confidence about discussing the topics (Burton, Pakenham & Brown, 2010), and concern about the therapeutic relationship and boundaries (McEntee & Halgin, 1996).

Reasons for addressing exercise and nutrition. An article by Mullen and Tabak (1989) reported counseling techniques that were commonly used by family practice physicians when talking about exercise and diet with patients. It was reported that physicians discussed exercise and weight related issues with patients 92.2% and 99.2% of the time, respectively. The most common techniques employed were suggesting specific steps for the patients to take to improve health, and following up on the subjects at later visits (Mullen & Tabak, 1989). In more recent years, research has begun to turn to the potential role of psychotherapists in making health recommendations.

In a recent study, Burton, Pakenham and Brown (2010) examined the attitudes of psychologists toward providing exercise advice. They reviewed frequency of its occurrence, psychologists' exposure to and interest in training for activity promotion, and the factors that were associated with psychologists providing activity advice and counseling. They concluded that the majority of psychologists asked about and discussed physical activity with their clients but that only half frequently recommended it.

There are many possible explanations for why therapists might or might not choose to address exercise and nutrition in therapy. McEntee and Halgin (1996) first reported reasons

given by therapists for discussing exercise in counseling. The most common reason cited was the symptomatic benefits it offers, especially for anxiety and depression (Ströhle, 2009). Another reason noted was that such discussions could enhance the therapeutic relationship. Therapists believed that exercise and nutrition could also provide the client a sense of mastery and control by encouraging responsibility for their health. Therapists also expressed that discussing physical health behaviors can also provide social benefits when conducted within group settings. Moreover, therapists believed that even after the termination of therapy, clients can continue new practices of nutrition and exercise, which could decrease the likelihood of problems recurring (Martin & Martin, 1982).

The context in which therapy takes place may also be a factor that determines whether the therapist chooses to discuss nutrition or exercise in session (McEntee & Halgin, 1996). For example, if therapists primarily worked with clients suffering from eating disorders, then nutrition was more likely to be discussed related to prevention and treatment of anorexia and bulimia (Schwitzer, Bergholz, Dore, Salimi, 1998) and binge eating disorder (Freiderich, Schild, Wild, Zwaan, Quenter, Herzog & Zipfel, 2007).

In addition, therapists that regularly participated in exercise were more likely to suggest exercise in therapy (McEntee & Halgin, 1996). Barrow, English and Pinkerton (1987) found similar results, in that psychotherapists who participated in exercise experienced its beneficial effects, including physical stamina, energy, mood, and mental stamina. There was a positive correlation between therapists' beliefs in the efficacy of exercise for psychological functioning and how likely they were to discuss exercise with their clients. Male therapists were also more likely to suggest exercise to their clients than female therapists (McEntee & Halgin, 1996).

Reasons for not addressing exercise and nutrition. There exist many reasons why counseling and clinical psychologists do not choose to discuss exercise and nutrition with clients in therapy. McEntee and Halgin (1996) found that the most prominent reason presented by therapists was that it may be perceived as inappropriate. Some therapists felt that therapy was not an appropriate context for discussing physical activity and diet, suggesting that the focus should remain on mental and emotional issues. Additional reasons for not addressing exercise in the therapy room were that it might add confusion to the therapeutic relationship, it might leave the client with a sense of failure, the therapist might be perceived as insensitive, or the client may become resistant. Some therapists felt too unfamiliar with different types of exercise to suggest it to their clients.

Nearly all of the psychologists agreed, however, that physical activity advice and counseling could be a useful factor in psychological treatment (Burton, Pakenham & Brown, 2010). One problem seems to be that while many psychologists agree that incorporating nutrition and exercise into therapy could be useful, many lack confidence and/or feel as though they lack the requisite training to be able to introduce these topics when counseling (Burks & Keeley, 1989; McEntee & Halgin, 1996; Burton, Pakenham & Brown, 2010). The biggest factor that predicted the likelihood of physical activity advice was the psychologist's confidence about providing such advice regarding physical activity (Burton, Pakenham & Brown, 2010). It has also been discovered that there is a lack of knowledge among therapists, and many that have never received any formal training indicate that a course or training would be useful in graduate school. Most therapists were willing to endorse a formal course that included nutrition/fitness as an important mental health variable (Burks & Keeley, 1989).

Proposed therapeutic models and techniques. Some researchers have formulated suggestions as to how to approach the topics of physical activity and nutrition when counseling. Nupponen (1998) provided some “basics” for the counseling of health-related physical activity with clients. Nupponen supported the idea that therapy is a cooperative, interactive, goal-oriented process between practitioner and client, and should best be characterized by client-centeredness. Furthermore, Nupponen advocated for falling back on basic counseling skills, including active listening and empathy as well as gaining knowledge about physical activity. Therefore, she suggests that collaboration with experts may prove to be useful and in the best interest of the client. Generally, while Nupponen realizes that some collaboration and extra training may be necessary, basic counseling and therapeutic skills were deemed equally important when discussing health-related behaviors with clients.

A more well-delineated therapeutic model for providing guidance in promoting health behaviors has been suggested (Laitakari & Asikainen, 1998; Nupponen, 1998). Nupponen suggested that tasks of the practitioner should include managing the individualized process, such as assisting the client with goals and devising steps to get there, planning the sessions, and proceeding by steps. These steps include assessment, defining the target, planning, implementation, and evaluation and reformulation. Thus far, this model is based largely on anecdotal evidence, but it appears that it model would be efficacious when used by a skilled counselor. The model has been shown to be effective in promoting healthy eating in pregnant women (Kinnunen et al., 2007).

Schoo (2008) recognized that practitioners should remember that counseling is an individualized process, and as such, practitioners should attempt to identify solutions to certain questions for each, distinct client. For example, a practitioner should discover why a client has

such a difficult time adhering to a particular program, as well as whether the client understands the program. Furthermore, the practitioner should learn whether the client has confidence in his/her own capability, and if the client perceives an advantage to participating in a health program. Each of these conversations will vary depending on each individual client.

Concerning nutrition, some specific techniques and suggestions have been made by Martin and Martin (1982), who argued that counselors should better understand the relationship between a nutritious diet and psychological health. Their first suggestion was that therapists should encourage clients to avoid “quicky,” packaged foods, as those tend to be more highly processed and contain more pollutants. The counselor should, instead, suggest foods containing vitamins, minerals, and essential fats, such as fish, eggs, and milk. Furthermore, clients should be encouraged to consume more vegetables as they tend to be the most absent food group in most diets. Overall, therapists should recommend that clients redirect or stop usage of foods with salt, caffeine, sugar, white flour, hydrogenated fat, food preservatives, coloring agents, and artificial flavoring. Clients should be informed that breakfast should contain 1/4 to 1/3 of total daily nutrients in order to help boost and maintain elevated mood and well-being (Kemper & Shannon, 2007). Finally, it may be beneficial to suggest vitamin and mineral supplements, since many clients may be unable to completely avoid processed foods.

Specific communication strategies (Gerend & Maner, 2011) and counseling methods (Gormally & Rardin, 1981) for nutrition have also been examined. Behavioral counseling has been found to be extremely effective in changing eating behaviors; however, it is likewise important to include nutritional education in order to ensure maintenance of healthy dietary changes (Gormally & Rardin, 1981). The clinician should also be mindful of a client’s affective state when counseling. One study indicated that those in a more fearful mood were more

responsive to communication strategies that included loss-framed information, which emphasized the costs of not following a healthy diet. However, those in an angry mood ate more fruits and vegetables after being presented with gain-framed information, which indicated the benefits of eating healthily (Gerend & Maner, 2011).

Dixon (2010) proposes that specialized exercise psychotherapy, which contrasts from typical psychotherapy and exercise interventions, could be a very effective treatment modality based on the empirical evidence showing the physical and psychological benefits of exercise. Here, the psychotherapist would be an expert in exercise psychology and physiology, and therapy sessions would usually take place while the practitioner and client exercise (typically walking) together. Populations that tend to benefit the most from exercise psychotherapy are adolescents, older adults, persons with disabilities, and as clients who may be overweight or obese. Clients with anxiety and depression may also experience great benefits from exercise psychotherapy, although clients with a depression diagnosis may struggle with initiating any physical activity due to issues with lack of energy and interest that often accompany depressive disorders.

The exercise psychotherapist would typically incorporate numerous practical suggestions into the session. First, the exercise psychotherapist would help the client choose a type of exercise that would be most enjoyable, as well as help the client choose a time of day to exercise. The exercise psychotherapist might suggest that the client purchase an item, such as running shoes or clothing that would encourage them to exercise, as well as suggest that the client lay out clothing for exercise the night before. It may also be useful to suggest that the client begin by only exercising for 10 or 15 minutes in order to become accustomed to the new behavior. The exercise psychotherapist could also assist the client in identifying barriers to physical activity.

Finally, the psychotherapist should encourage the client to practice the “80/20 rule,” which means the client should practice 80% healthy choices and 20% self-forgiveness when dealing with set-backs (Dixon, 2010).

Otto and Smits (2007) suggest using the Physical Readiness Questionnaire (PAR-Q) in order to determine if clients are truly ready to embark on an exercise regimen. When readiness has been determined, the counselor should engage the client in a variety of conversations in order to determine not only the actual physical activity, but also the time of day that will be most optimal for the client to engage in the activity, and the intensity of the activity. While vigorous-intensity exercise tends to be more effective for improving physical fitness, if a client is not ready for more vigor, moderate-intensity exercises such as walking are typically effective for the improvement of mood and well-being.

A recurring theme in the literature surrounding the promotion of healthy behaviors in therapy is the reported lack of knowledge, training, and confidence in knowledge or training. Herschell, Kolko, Baumann, and Davis (2010) examined which types of intervention training would be necessary and most effective. In their review, it was apparent that reading materials and manuals might prove necessary, but certainly not sufficient, in the training and acquisition of psychosocial treatment skills. While it was shown that participation or attendance in workshops generally increased knowledge regarding a treatment, it did little to change attitudes or behaviors about the treatment. Workshops were shown to be more effective when follow-ups were that provided that included observation, feedback, consultation, and coaching (Herschell, Kolko, Baumann & Davis, 2010).

Statement of the Problem

On one hand, there is clearly a vast array of psychological and medical research indicating the benefits of exercise and nutrition on psychological well-being. On the other hand, there is very little practice-based research indicating how to incorporate such interventions related to physical activity and nutrition into therapy, or how to use these interventions to improve overall client well-being, particularly in terms of nutritional information. The majority of past studies examining practical applications of these health interventions have focused on exercise rather than nutrition and diet. Much more research is necessary in order to shine light on the practical side of health-related therapeutic interventions. Furthermore, a number of studies examining nutrition and exercise therapy practices have been geared toward medical doctors and other healthcare professionals rather than, specifically, psychologists providing psychotherapy. Most studies have focused on the counseling methods of medical doctors and family practice physicians, especially when counseling on the topic of nutrition and weight-related issues, which may be different from counseling for the promotion of psychological well-being in a therapeutic setting. More studies examining current practices of psychologists and other counselors related to their use of health-related interventions could be very useful for the field of counseling psychology.

Rationale for the Study

Based on the currently available literature, it is clear that additional studies are necessary. While there may be countless studies conducted on the physical and psychological benefits of nutrition and exercise, there is a lack of information concerning how to bring exercise and nutrition into a therapeutic setting. Furthermore, while some studies have examined counseling techniques and methods for discussing physical activity behaviors, rarely have studies examined

the practices of psychologists and counselors in addressing nutrition and diet practices in therapy.

As previously stated, often studies that have examined exercise and nutrition counseling practices of practitioners have focused on medical doctors, specifically. Others have generalized to all healthcare professionals including medical doctors, nurses, physiotherapists, and psychologists. The present study will focus on the practices of professionals with a background in psychology, specifically counseling and clinical psychologists.

Purpose

The purpose of this study was to further explore the current practices and attitudes of psychologists and other professionals in the counseling field regarding addressing physical activity and nutritional habits of clients. The study examined the knowledge, attitudes, behaviors, and counseling methods of counseling professionals when addressing or considering addressing such health behaviors in therapy, as well as when prescribing physical activity and/or a nutritious diet as part of clients' treatment plans.

Research Questions

The aim of this study is to address (R1) how often and why therapists do or do not incorporate exercise and diet information or recommendations into client treatment (R2) the type and amount of training that may be viewed to be necessary for a therapist to promote exercise and nutrition with clients, and (R3) what methods are used by therapists in addressing exercise and/or nutrition in therapy?

This study will examine current practices of psychologists and other therapists in using physical activity and diet as part of a treatment plan. This study is not, on the other hand, aiming to measure the efficacy or effectiveness of prescribing such treatments to clients. Therefore, we

will be unable to draw conclusions from this study about how effective health-related behaviors, such as physical activity and a nutritious diet, are to improving mental health or psychological well-being.

METHOD

The purpose of this study was purely exploratory and, therefore, followed a qualitative research approach. This approach fell under the postpositivist paradigm, which has become the foundation for natural and social sciences (Willis, 2007). Postpositivism, or postempiricism, posits that one can never do enough research to prove a theory, but only provide more evidence to support a given theory (Willis, 2007). It accepts the scientific method, and it allows the researcher to guide the practice.

The qualitative approach that this postpositivist study took is that of grounded theory (Corbin & Strauss, 2008). Grounded theory is one of the most common methods for qualitative data analysis in the field of counseling psychology (Fassinger, 2005). The purpose of a grounded theory study is to explain participants' behaviors in a natural setting, and lay the groundwork for future studies in generating a theory rather than testing a developed theory. A grounded theory study is an inductive model of theory development that follows systematic procedures in data collection and data analysis. The theory is also developed within the views, beliefs, and experiences of the participants in the field being studied (Creswell, 2007).

This particular study adopted an abbreviated version of grounded theory proposed by Willig (2008). The abbreviated version is one used when time and resources are limited for the researcher. Therefore, all data analysis was performed upon a closed data set. Only the original data collected from the first round of interviews were the focus for theoretical saturation, theoretical sensitivity, and negative case analysis (Willig, 2008).

Participants

Purposeful sampling was executed in participant selection. Participants were selected based on specific criteria. Participants were a homogenous group of 17 (11 female, 6 male)

licensed practitioners, including those who have earned their doctoral ($n=11$) or Master's degree ($n=6$) in either clinical or counseling psychology with an age range of 30-67 years. In order for the data to provide representation of various types of professionals who may work with more varying populations, this included clinicians in settings including private practice, university counseling centers, and outpatient agencies. Years in practice since being licensed ranged from 1-43 years.

Procedure

Recruitment. Participants were selected and recruited through different means. First, participants were selected via an internet search of licensed psychologists through various websites such as the National Registrar of Healthcare Providers in Psychology, Colorado Psychology Association, and Psychology Today. They were recruited with a scripted email invitation. This invitation provided a brief explanation of the study and then described the interview process. If the participants were willing to be interviewed, they were instructed to reply to the email in order to schedule an interview time.

In the hopes of interviewing a more representative sample, another means of recruitment took place through the Rocky Mountain Psychology Association (RMPA). Members of RMPA were contacted prior to the 2012 RMPA Conference and were invited to participate in the study via email. Two participants consented, and the interviews took place at the conference.

Interviews. After agreeing to participate in the study, each participant took part in an individual, face to face, semi-structured interview. After signing a consent form, participants completed a demographic information form. In addition to basic demographic information, this form was also comprised of questions asking how often participants discuss, recommend, monitor, and assess for exercise and nutrition. Following the completion of the demographic

form, participants were asked about their practices and views regarding recommending, suggesting, and discussing nutrition and exercise to clients in therapy. All interviews were audio recorded and transcribed verbatim.

Analysis

Grounded Theory Analysis. This study followed a grounded theory approach with the application of constant comparative analysis, which follows three steps to ensure quality of coding and analysis (Fassinger, 2005). The first step in the coding process was open coding, or recording initial observations of what the interviews are portraying. In open coding, the researcher was answering the question, “What am I observing here?” and recording salient categories supported by the data. Overall, open coding is a process, in which the data is reduced to small sets of themes that describe the process being explored in the study (Creswell, 2007).

As the coding process progressed, the researcher began axial coding and began to develop a codebook that considered the broader, thematic content. The codebook consisted of categories under which the open codes fit. After the axial codes were initially developed, a recursive process of coding took place, meaning the researcher returned to the raw data and compared one category to another, with the goal of recognizing when categories seemed to interrelate and/or subsume each other. Coders reached consensus, or agreement, on the categorical structure by coding transcripts independently and comparing code applications as a team. When a discrepancy occurred, all coders discussed which code is most appropriate.

Finally, selective coding, which is the broadest level of coding, took place. Selective coding consists of determining a coding paradigm, in which a theory was generated. In this coding phase, a theoretical model was developed, which offers an explanation that embraces the data, and begins to address research questions.

Trustworthiness. Within the paradigm of qualitative research, trustworthiness refers to the strategies taken to ensure the validity of results and conclusion of a study. It is recommended to use a minimum of two strategies to sufficiently address trustworthiness in a grounded theory study (Creswell, 2007). This study utilized a variety of strategies, and undertook a series of credibility checks to verify trustworthiness in the data analysis. This ensured an accurate representation and interpretation of data provided by participants. For the present study, the following four strategies for trustworthiness were utilized.

Clarifying Research Bias. In this grounded theory study, the researcher has identified her personal experiences, views, and biases in order to present the intention of the study what assumptions may be presented. These experiences, views, and biases are explained in the subsequent paragraph.

The researcher is a graduate student at Colorado State University in the counseling psychology program. This study was completed as a thesis in partial fulfillment of her Master's degree in counseling psychology. While there are no expected results, the researcher does recognize the positive effects of both a nutritious diet and regular physical activity regimen, and believes that it may be effective for therapists to suggest nutrition and exercise to clients in order to promote psychological well-being.

The researcher has values regarding the issues of this particular study. First, the researcher frequently prioritizes a healthy lifestyle through making nutritious food choices by choosing to adhere to a pesco-vegetarian diet, as well as exercising regularly. She has experienced many benefits of nutrition and exercise including enhanced positive affect, energy, self-esteem and body image, as well as reduced anxiety, stress, and negative affect. Second, the researcher grew up in a family with a high incidence of mental illness. She has observed

relatives suffering from depression and anxiety disorders benefit from healthy lifestyle changes, such as a healthy diet and physical activity.

Follow-up questions. The initial credibility check was to ask a series of questions at the end of each interview to ensure that the interviewee's experience has been fully represented. An example of such a question is "Is there anything else that you feel is important that I have not asked about?" or "Do you have anything else to add?" These questions provided the interviewee an opportunity to express and share any final thoughts, ideas, or experiences that was not previously addressed in the interview.

Peer review. A second credibility check was to engage in peer review in order to establish coding consensus among all coding team members. This occurred throughout the process of data analysis. The coding team consisted of the researcher and 3 undergraduate research assistants. Each coder coded each interview independently. Then the entire coding team met to discuss each code that was applied. When discrepancies arrived, all members of the coding team discussed the code in question until an agreement was reached. In times that the coding team was unable to reach an agreement, the researcher made the final decision for which code should be applied.

The researcher further consulted with a research committee, which consisted of faculty, including one counseling psychology faculty member, with experience and understanding of qualitative research. This committee helped to monitor the biases of the researcher and provided guidance for the researcher in developing themes and codes by providing the researcher with feedback and considerations regarding the analysis and methodology of the study.

Member checks. As a third credibility check, member checks, in which the participants provided feedback on the results, was utilized. This provided the participants a final opportunity

to ensure their experiences and ideas are being represented and interpreted accurately. With the participants' consent, they were sent a summary of the results and asked to review them. If the results did not accurately represent the experiences of the participants, the results will be reviewed and revised. Only one participant responded and indicated the results to be accurate. The remaining participants did not respond.

RESULTS

Prior to performing the grounded theory analysis, frequencies were totaled for the various methods counselors reported utilizing when examining clients' exercise and nutritional behaviors. This information was located on the demographic information form that participants completed prior to their interview. These frequencies are summarized in Figure 1. Overall, respondents reported discussing the topics of exercise and nutrition more often than specifically recommending, monitoring, or assessing them. Further, the topic of exercise was examined more often than was the topic of nutrition.

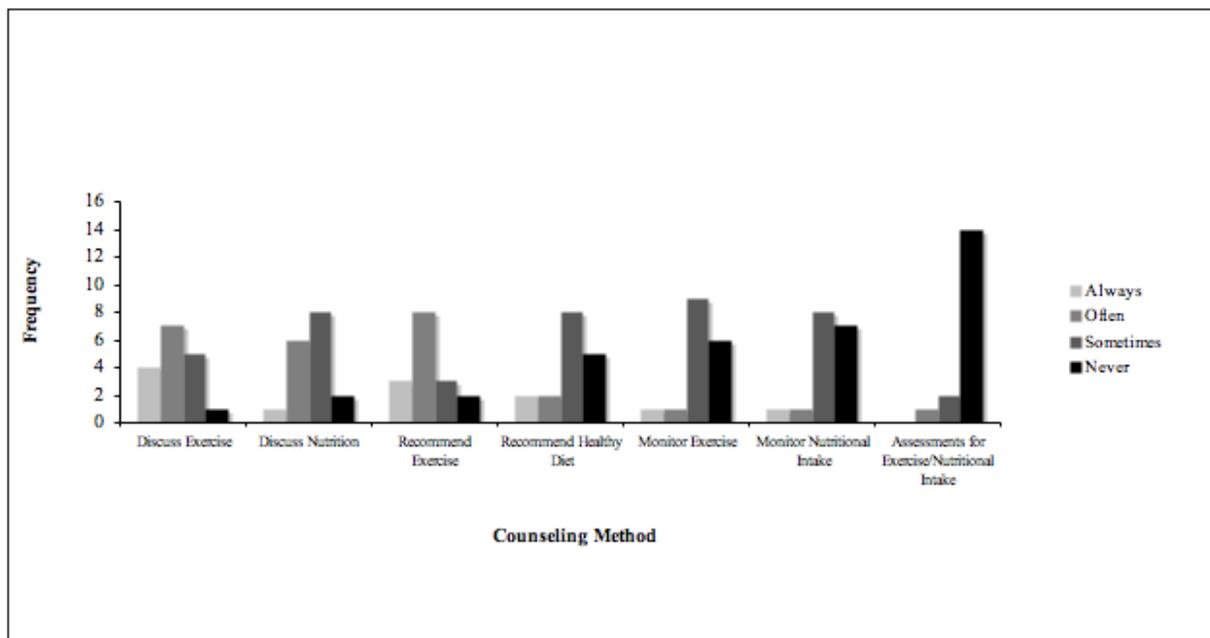


Figure 1: Reported frequencies for counseling behaviors related to exercise and nutrition

The initial analysis yielded four major categories. The four major categories were Therapist Attributes, Client Attributes, Counseling Approaches, and Therapist Health. These were further broken down into secondary, tertiary, and quaternary categories Table 1 displays frequencies of each specified category.

Table 1:

Major and Minor Categories of Exercise and Nutrition in Therapy

Counseling Approaches	
Direct Approaches	
Inquiry	16 (94%)
Education	12 (71%)
Recommendation	11 (65%)
Collaborate	
With Client	11 (65%)
With Other Professionals	9 (53%)
Intervention	
Behavioral	9 (53%)
Other	3 (18%)
Homework	8 (47%)
Goal-setting	8 (47%)
Indirect Approaches	
Discussion	10 (59%)
Referral	10 (59%)
Intake	9 (53%)
Wait for Client	9 (53%)
Support	8 (47%)
Don't Utilize	7 (41%)
Prioritize	4 (24%)
Therapist Attributes	
Beliefs	
In Mind-Body Connection	17 (100%)
About Adequate Training	
Class/Seminar	6 (35%)
Conference/Workshop	2 (12%)
Literature	4 (24%)
General	5 (29%)
Personal Knowledge	
Nutrition	
Children	2 (12%)
Adolescents	5 (29%)
Older Adults	1 (6%)
Mood	4 (24%)
Psychopathology	6 (35%)
Well-Being	8 (47%)
Cognitive Functioning	8 (47%)
Exercise	
Children	4 (24%)
Adolescents	5 (29%)
Mood	8 (47%)
Psychopathology	11 (65%)
Well-Being	9 (53%)
Cognitive Functioning	9 (53%)
Experience	
Personal	17 (100%)
Clinical	14 (82%)
Training	
Self	10 (59%)
Formal Education	6 (35%)

Conference/Workshop	6 (35%)
Fear of shaming	6 (35%)
Competence	12 (71%)
Client Attributes	
Psychopathology	
Depression	13 (76%)
Anxiety	9 (53%)
ADHD	4 (24%)
Eating Disorders	4 (24%)
Other	6 (35%)
Trauma	5 (29%)
Age	
Children	4 (24%)
Adolescents	4 (24%)
Gender	4 (24%)
Motivation	7 (41%)
Current Lifestyle	7 (41%)
Weight	10 (59%)
Therapist Health	
Diet	
General	8 (47%)
Non-processed food	8 (47%)
Self-preparation	5 (29%)
Vegetarian	3 (18%)
Exercise	
General	7 (41%)
Running	5 (29%)
Yoga	5 (29%)
Walking	4 (24%)
Biking	4 (24%)
Health Challenges	
Diet	
Time	8 (47%)
Portion Control	5 (29%)
Illness/Allergy	3 (18%)
Exercise	
Time	12 (71%)
Motivation	3 (18%)
Injury/Pain	3 (18%)
Age	3 (18%)

Counseling Approach

All of our participants described various methods, techniques and clinical interventions utilized when broaching the topic of E & HN. Based on participant reports, twelve categories for counseling approaches were identified: inquiry, education, recommendation, collaboration,

discussion, referral, intervention, intake, wait for client, homework, don't utilize, and prioritize. Each category is presented below in order of frequency of occurrence. Counseling approaches were broken down into either direct or indirect approaches.

Direct approaches. Counseling approaches were considered to be direct when the therapist played an active role in the promotion of E & HN. Counseling approaches that were considered to be direct were inquiry, education, recommendation, collaboration, homework, and goal-setting.

Inquiry. The most commonly identified counseling approach was to simply open a conversation by inquiring about the client's current lifestyle. Sixteen participants reported asking general or open-ended questions about clients' diet and exercise habits in order to gather information and/or to spark a conversation about the topic. This was considered a direct counseling approach with the therapist actively pursuing a conversation surrounding these topics.

“I think it's more my therapeutic approach with clients is asking the right questions. With that framework clients usually come the way themselves. I am just not a prescriptive therapist. I can ask the questions how are things going for you nutritionally, exercising spiritually, with your family, etc. How are things going? I can ask questions from those questions they can make movement to their own answers. I think it's beautiful. I love that framework.” -*Female, doctoral degree, 24 years in practice*

“Ask about their routine, see what they are doing there, see how they are doing, see what they are doing, see how they feel after that, see if it is useful there. I can imagine it would be and seeing what questions come from there or if they are answering yes I do feel better once I am getting this exercise and getting physical active.” -*Female, master's degree, 5 years in practice*

“I definitely- I ask more specific questions and make more inferences from there.” –
Female, doctoral degree, 6 years in practice

Education. Twelve respondents identified education to be the preferred counseling approach. Participants reported providing education to clients regarding the effects of exercise and diet on mental health and psychological functioning. Many participants stated that they have relayed findings from current research regarding a healthy lifestyle and mental health. In most

cases, therapists reported having educated clients regarding exercise, though a few also reported having done so for nutrition. Education was considered a direct counseling approach, because therapists reported actively promoting E & HN in therapy.

“Some psych education just about what we know about the connection between exercise and helping the brain.” -*Female, doctoral degree, 10 years of practice*

“Depending on the client, sometimes they need a lead-in. You know, there’s a big correlation between the amount of exercise you’re getting and how you’re feeling emotionally.” -*Female, master’s degree, 12 years in practice*

“My role, I think, is to highlight and mention the research about that, what I know about it, and to communicate that to people.” -*Male, doctoral degree, 7 years in practice*

Recommendation. Eleven participants reported having made explicit recommendations regarding E & HN behaviors to clients, and implementation of E & HN into their client’s lifestyle. Making a recommendation was deemed a direct counseling approach.

“Exactly yeah, I mean, I would, but it’s pretty easy to say ‘go take a walk for half an hour three times a week’ you know, I mean that’s a pretty safe recommendation to make I think, you know?” -*Female, master’s degree, 2 years of practice*

“Well just to the extent of recommending that they get more exercise. You know what you can do, no it doesn’t cost money, you don’t have to join a health club. Go out for a walk around the block and once it gets easy for you, take two laps around the block.” -*Male, doctoral degree, 43 years in practice*

Collaboration. Participants described collaboration taking place in two contexts: with the client and with other professionals. Collaboration was regarded as a direct counseling approach as therapist reported taking an active role in collaborative work.

With client. Eleven participants reported utilizing collaborative relationships with their clients in order to work together to implement healthier diet and exercise habits in a way that fits each, individual client.

“I would work collaboratively with them. What are the things that help your mood the most? If you are feeling depressed what is going to bring you out of that. If they are identifying exercise, then we will talk about that. Or does it work better for you to have a

plan I am going work out every day then. We just work collaboratively- figure out what works for them.” –*Female, master’s degree, 5 years in practice*

“Ok, so it’ll have to- so being an effective counselor means you have to have wide ranges of latitude and flexibility and can come in from any angle that is beneficial to the client.” –*Male, doctoral degree, 40 years in practice*

With others. Nine participants reported collaborating and consulting with other professionals, including dietitians, physicians, psychiatrists, and other psychologists. Many participants emphasized the importance of consulting with others to ensure high quality treatment for the client. Some participants reported being part of a “treatment team” for some cases, in which they would frequently meet with a client’s other service providers to inform their own work with the client.

“You know, it’s really simple to consult with a dietician or nutritionist, a physician... There are a lot of ways to get educated that won’t necessarily show up as my CV or on a resume. But at the same time give me the knowledge I need to work with it. Even if I get medical releases from my clients and I am talking with their physician, I will ask their physician, ‘What you recommend?’ ‘What do you think?’ ‘Who’s a dietician I can talk to?’ ‘Who’s a nutritionist I can talk to?’ ‘Who knows something that you think will be helpful?’” –*Female, master’s degree, 12 years in practice*

“... partner with exercise professionals, partner with other professionals, with trainers. I don’t think we need to know it all. I don’t think that they need to go to school for 17 years to know it all, but we do need to learn to collaborate with professionals so we aren’t giving the same information.” –*Female, doctoral degree, 12 years in practice*

Intervention. Participants reported using a variety of psychological interventions and evidence-based practices to facilitate the incorporation of nutritional and exercise changes into clients’ lifestyles. Interventions were considered direct counseling approaches.

Behavioral. Nine participants identified some sort of behavioral intervention when attempting to integrate exercise and nutrition into a client’s treatment plan. However, participants did not explicitly describe specific interventions, but rather more general therapeutic

models. The most common type of behavioral intervention mentioned was cognitive-behavioral therapy (CBT).

“I believe in setting structures and routines and if the client’s goal is to lose weight, or to do family weight management, you know everybody’s in this together. We’re going to make this change, then you know, yes I use the tools that I have on hand that are behavioral so long as it’s what the family wants.” –*Female, doctoral degree, 9 years of practice*

“...really I would approach it in a pretty kind of behavioral sort of approach and maybe, you know, figure out what areas- where are they willing to go first. And then really just get them kind of like on a schedule you know, create a diary, or you know, I do, I do have some forms, you know, for them depending on the client.” –*Female, master’s degree, 2 years of practice*

Other. Three participants reported interventions other than behavioral techniques when implementing E & HN into treatment. These additional interventions included motivational interviewing, interpersonal therapy, exposure therapy as being useful to implement E & HN into therapy.

“I love using motivational interviewing types of approaches. I like asking people questions that are really built around that idea of asking questions that get the person thinking about their investment versus non-investment in that.” –*Male, doctoral degree, 7 years of practice*

Homework. Eight participants reported using homework. In some cases, clients were encouraged try to new behaviors or skills outside of therapy sessions. Examples included going for a walk a few times a week, reflecting on their beliefs about their lifestyle and developing ideas for what may be helpful to change. In many cases this included beginning to exercise. Providing homework was considered a direct counseling approach.

“I feel like a treatment plan is a lot of things. It’s what takes place in this room, but it’s also what takes place outside the room. So sometimes that’s a homework assignment. And it may start out as a homework assignment in order to get it implemented and going.” –*Female, master’s degree, 12 years in practice*

“Yeah well homework, I always try to get them involved in things whether it’s that I think they should read some things, or watch a film, or look into, kind of, informational

programming, or read books, um, so yes.” -*Male, doctoral degree, 40 years in practice*

Goal-setting. Eight participants reported talking to clients about E & HN changes as a means of meeting the client’s goals for therapy, including alleviating symptoms, developing coping skills, etc. Often, this included developing a specific plan, which included E & HN, in order to ensure goals were met. This was considered to be a direct counseling approach.

“I try to integrate it with the goals they have created in the onset of their therapy.” –
Female, doctoral degree, 12 years of practice

“To say, ‘Hey these are your goals, not mine, but I can attest that these things, you know, consistently make people feel better.’” –*Male, master’s degree, 10 years of practice*

Indirect Approaches. Counseling approaches were considered to be indirect when the therapist played a passive, rather than active, role in the promotion of E & HN. Indirect counseling approaches included discussion, referral, intake, wait for client, support, don’t utilize, and prioritize.

Discussion. Ten participants reported having general discussions regarding E & HN with clients in which no specific recommendations or suggestions were made and no specific interventions were utilized. Rather, participants would gather general information about the client’s current thoughts, emotions and behaviors around E & HN. These general discussions were considered to be an indirect approach as no active promotion of E & HN took place.

“We discuss it. We’ll discuss what their experiences have been. Then we’ll discuss what they’ve tried. And generally what I have found is that when people get better, they’re not trying anymore. They’re just doing it, because it feels good. It’s self-reinforcing. It’s easy. It’s free...a lot of it is free.” –*Female, doctoral degree, 26 years in practice*

“But I would say that it gets covered with most every client at some point in the process, but I don’t know that I would do it, like, every session.” –*Female, doctoral degree, 20 years in practice*

Referral. Ten participants also endorsed referring to outside professionals. Participants reported referring clients to dietitians, nutritionists, and physicians. The most frequently mentioned type of referral source was a dietitian or nutritionist. This was considered an indirect counseling approach, as the therapists were not taking an active role in implementing E & HN in therapy.

“I will just refer people I mean I will not deal with it in therapy they might have to go to somebody else if they really want to flush out nutrition and plan an exercise plan it’s not something that should be by me.” –*Female, doctoral degree, 24 years of practice*

“Yeah and I know I stay yeah I do make separate referrals to, uh nutritionists in certain instances but um, you know I don’t recommend specific kinds of food per se.” –*Female, doctoral degree, 20 years in practice*

Intake. Nine participants reported that they include questions regarding exercise and nutrition during their intake. Many explained that while they may not follow up and encourage E & HN changes right way, it was a useful piece of data to determine a client’s level of functioning and self-care. This counseling approach was termed an indirect counseling approach as participants noted that they often did not follow up on the subject after the intake appointment.

“Well I’ll assess for it in the initial evaluation, in a couple of different ways. I may just ask outright or ask someone to describe a typical day, just to see what they are doing.” –*Female, doctoral degree, 7 years in practice*

“Well I always take and intake and one of my favorite intake questions is a couple of them are what are you eating how are you sleeping have you gained or lost any weight recently do your pants fit the same. How much do you exercise? Are you sleeping fine? Yes I am how many hours a night are you getting?” –*Female, doctoral degree, 6 years of practice*

Wait for client. Nine participants reported discussing E & HN in therapy only if the client broached the topic first. Many indicated that they did not want to be imposing, and therefore, promoted a client-centered approach in which the client directed conversations,

particularly in relation to exercise and diet. This counseling was deemed an indirect counseling approach with the therapist taking a less active role.

“And for me to... it comes up a lot...it comes up all of the time. It’s not a subject that I have to introduce. They’ll talk about it... And so instead what I’ll do perhaps is when they bring it up, which they always do, is talk about it then, and talk about what have they’ve done. And they’ll tell me about their frustrations with their diets and their lack of willpower, and all of those things.” –*Female, doctoral degree, 26 years in practice*

“I would wait for them to express an interest before I would kind of try and help them. If they expressed interest to me...I’m really overweight, and I want to fix this... then we’ll go off into this discussion.” –*Female, master’s degree, 1 year in practice*

Support. Eight participants reported filling a supportive role for clients in regard to E & HN through expressing empathy and support. Many explained that the therapeutic relationship had to reach a certain level of trust and sense of safety before the therapist would make recommendations or talk about subjects such as exercise and nutrition. This counseling approach was deemed to be indirect.

“Its giving a bit of time to develop that relationship so they know I’m not just sitting here in judgment that um that I generally care about them and them feeling better it’s not like they need to drop 50 pounds and look better for me once they know that I am there with them I can through that out there have you thought about feeling better and it’s about feeling better and they don’t need to fit the stereotype of the ideal weight.” –*Female, doctoral degree, 10 years in practice*

“At the same time being sensitive to how questions about that will affect people. Because the more obese you are, typically the more defensive you will be about that. Or it feels like an evaluation of you...here’s why you have problems, is because of that. I try to be really attentive and sensitive to how that impacts people in a negative way versus a positive way... To me, it’s pretty important, as my role as a psychologist, to show interest in that. I think it’s inherently about valuing the person.” –*Male, doctoral degree, 7 years in practice*

Don’t utilize. Seven participants indicated that although they might discuss it at the client’s request or refer to an outside professional, they would not utilize lifestyle changes as a means of improving the client’s mood, health, or functioning. This was considered an indirect counseling approach.

“There are interventions for which I am willing to be a little bit more directive, exercise and nutrition is not one of them... but we need to look at the whole person and try to understand what are the possible contributors to this distress. And some of that might be exercise and nutrition, but hell, my assessments don’t have any of that. I don’t ask people if they exercise; I don’t ask them what they eat, but maybe I should because it’s ultimately, it’s central to understanding human behavior.” –*Female, doctoral degree, 9 years of practice*

“I haven’t implemented an exercise regimen with any of my private-practice clients... I wouldn’t want to put how I feel about my own life and myself onto them, assuming that I know that this is going to make you better. I think that’s why I haven’t done it so far.” –*Female, master’s degree, 1 year of practice*

Prioritize. Four participants stressed the reality of needing to prioritize topics discussed in therapy sessions. They stated that while they value exercise and nutrition as a means of achieving better functioning both physically and psychologically, there were occasional instances in which there were “more pressing” forces, such as recovery from trauma, very severe psychopathology or time constraints in therapy. Prioritizing was also considered an indirect counseling approach with therapists taking a less active role in the promotion of E & HN in therapy.

“If I felt like their presenting issue superseded it, and uh, and it was so intense that we needed to get that first before we could start doing other things, so...you know like not, uh, not cutting, not drinking, not, you know, using was so intense, we’re so focused on not doing those that we’re like, now’s not the time to talk about all the crap you’ve put in your body.” –*Male, master’s degree, 10 years of practice*

“There may be many times I may not talk about it as much because there are things that are more important in the session it just seems like it is more important that we address what else is coming up and if we need to go more in depth about something or more emotion focused rather than coping focused but that’s just more of a therapeutic decision about what’s happening in the moment rather than an ‘oh, I am not going to mention that because I don’t know how they are going to feel.’ I don’t know yeah.” –*Female, doctoral degree, 12 years of practice*

Relevant Therapist Attributes

All of the participants identified various personal attributes, which influenced whether or not they had approached the topics of exercise and/or healthy nutrition (E & HN) in therapy.

Beliefs. Beliefs refer to personal opinion, values, and views of participants. Two beliefs were extracted from the interviews, which included beliefs about the mind-body connection and beliefs about adequate clinical training.

Mind-body connection. The most commonly mentioned was a belief in the mind-body connection. All 17 participants acknowledged and described a personal belief that the mind and body are in some way connected, and that physical health likely impacts mental health and vice versa.

“That a lot of mental illness well physical medical illness are very tied to mental illness mental illness can cause physical symptoms and I definitely think we underutilized that knowledge and I try to use it sometimes that person sees a medical doctor and prescriptions and first things aren’t referred on to do some therapy.” –*Female, doctoral degree, 10 years of practice*

“I know that, I know that there’s a great deal of relationship between the two. So, if you’re not feeling well, if you’re depressed for example you’re more likely to be sitting on a couch and not exercising and overeating potentially or under eating, but mostly overeating. I mean that’s just an example, but there’s a huge connection...um, our notion actually of the mind and body dichotomy is very cultural. I think we are strange in our, U.S., notion that those two things are disconnected, uh, and I think I don’t see them as particularly so, personally.” –*Female, doctoral degree, 9 years of practice*

“Well, I think they are very tied together. I don’t think they are separate. When I am working with a client, I feel like their physical health has everything to do with their mental health, and their mental health has everything to do with their physical health. We are biological being and part of a system...I feel like we treat them somewhat differently. However, they’re not separate, they are part of the same being. So I feel really strongly about that. I’m not trying to deal with physical issues. I do find that clients that present with somatic symptoms that have origins in anxiety or depression primarily. And so that’s the physical manifestation of what’s going on. I feel that they are very tied together.” –*Female, master’s degree, 12 years of practice*

“...then to me it just makes really basic logical sense that we’re a whole organism, our psychology and our brain function is not separate from the rest of our body and experience. I mean separating that out is such a...to me it’s ridiculous really, actually, so to me it’s...you know I think that we’re still learning how much that inter things really come into play and when and where and you know getting more detailed and nuanced about that connection and we probably will be forever learning details about it but on a whole in general it seems like it’d be impossible not to.” –*Female, master’s degree, 2 years of practice*

“Well, I think it’s pretty clear that people who are healthy in their body and are also healthy in their mind and spirit, and vice versa.” –*Female, doctoral degree, 26 years in practice*

Necessary training. An additional belief discussed by the participants was the amount of training they each believed to be necessary in order for clinicians to discuss and recommend E & HN during therapy sessions. The most common type of necessary training, which was suggested by 6 participants, was for therapists in training to take a course or seminar covering topics related to nutrition, exercise, or the mind-body connection during graduate school.

“I would say they shouldn’t do that unless they have experienced some sort of coursework whether that’s, at very least a weekend seminar most likely a semester’s worth or a quarter’s worth of study. Uh, or at least default to a current model or a program that’s already out there that has some, has some backing to it.” –*Male, master’s degree, 10 years of practice*

“So I do feel like it would be important for any mental health provider that is going to be talking about nutrition or exercise to have taken at least one or two courses and being able to understand not just what a healthy diet is but how metabolism works. You know how your metabolic rate is impacted by how we meet and how we eat is related to our exercise habits. Also that it is able to learn about our genetic predispositions. I think that there is this idea out there that we should all be able a certain way look this way if we just eat and exercise right. I think that it is one of the biggest components to all of the problems we have with eating disorders and obesity and not being able to honor or recognize that all of our bodies are so different our genetics are different. And our metabolic rate is different.” –*Female, doctoral degree, 12 years of practice*

In addition to a course or seminar during graduate school, 4 respondents also suggested that counseling professionals should continue to read books and journal articles in order to remain up-to-date regarding what the literature and research shows with regard to exercise and/or nutrition in relation to psychology and clinical practical.

“And to also take the time to look at what is the peer review literature out there saying about this? That should be 10-20 percent of our reading. Maybe more. Time wise, that’s hard to fit that in, right? When we’re motivated and involved in what we’re doing, I think that would make sense.” –*Male, doctoral degree, 7 years of practice*

“Yeah, yeah I mean you should be reading regularly if you’re gonna talk about diet and exercise. You should have some idea of where it’s coming from and what you’re talking

about. There's always been lots of crazy diets right?" –*Male, master's degrees, 10 years of practice*

The final specific type of training identified by participants stated that clinicians should actively attend and take advantage of conferences, workshops, and other types of didactic trainings in order to become more informed about exercise and/or nutrition in the context of mental health and psychotherapy. It was explained that this would be important in continuing education and remaining up-to-date on effective interventions in psychotherapy.

"...going to see conferences and get flyers and continuing education I think the field moving in that direction more having conferences with speakers discussing about the whole mind body connection from various fields would be helpful not just our niche." –*Female, master's degree, 5 years of practice*

Lastly, 5 participants acknowledged that training related to exercise, nutrition, and the mind-body connection is necessary, but did not identify a specific type of training. They indicated that practitioners should be familiar with information regarding lifestyle changes, such as nutrition and exercise but they did not make any specific suggestion as to how to do so.

"Um, I think that, um, yeah I think they all should have, I think we all should be knowledgeable about what interventions are useful and I often say that the best antidepressant on the market is exercise, and so um I think that to have at least a basic, general awareness of that is, would be an essential part of anybody's clinical training. Um, you know, obviously in terms of recommending how much and getting into specifics about what they're doing, but um that would be again for some collaboration with their physician, make sure that they're healthy enough to even start doing some of that, um, cardiovascular. But I think that's pretty basic stuff that every therapist should know about." –*Male, doctoral degree, 20 years of practice*

"I think a little bit more support about what that could look like and maybe increasing uh, counselors and uh, and psychologists familiarity so they feel confident with discussing these things at least on a basic level enough to get somebody referred to a specific specialist if they need it." –*Female, master's degree, 2 years of practice*

Personal fund of knowledge. Members relayed factual knowledge on a variety topics related to the impact of exercise and nutrition on mental health, including mood, psychological well-being, cognitive functioning, psychopathology, children, adolescents, and older adults. In

general, participants expressed greater knowledge about the effects of exercise on mental health than the effects of nutrition. Respondents emphasized the importance of knowledge and familiarity with regard to a healthy lifestyle when discussing these topics with clients. It was noted that lack of knowledge led to a less active approach in clinical discussions.

Nutrition. Most participants did not relay knowledge regarding the importance or effects of nutrition during interviews. However, two participants indicated that learning about healthy nutrition during childhood is important in order to positively influence future development. They explained that learning healthy eating habits early is relevant for developing healthy nutritional practices as well as the maintenance of physical health across the lifespan.

“I know that children are becoming morbidly obese at incredibly young ages, I know that that has atrocious results for their adult health, that a child becoming obese is infinitely worse than an adult becoming obese because when you become obese at a young age that actually affects your development in ways that are either irreversible or pretty dang hard to reverse. Um, I know that, I know that eating habits are very culturally based and that you get caught in some really funky parent-child interactions around food that set the stage for obesity but also eating disorders of other kinds that are not just over-eating and you know a child that is... because of the developmental piece it’s actually more important to deal with these issues in children because if you have a child who’s now presenting with, let’s say, like depressive symptoms secondary to just poor nutrition. That child is now on a trajectory toward adult life in terms of mental health and well-being that is not good.” –*Female, doctoral degree, 9 years of practice*

“Absolutely it is highly beneficial it sets the stage for a lifetime of staying healthy having them doing different sports or activities.” –*Female, doctoral degree, 10 years of practice*

More respondents were familiar with information regarding nutrition in the context of an adolescent population. Five members noted the importance of autonomy and identity development during adolescence. They explained that one means of assisting with this development is to encourage adolescents to take care of themselves by choosing what foods to eat. Many also expressed concern about the typically poor diets consumed by adolescents and how detrimental they can be to mental health and functioning.

“It’s lots of fast food, lots of soda, um, they usually have poor sleeping patterns, uh, mixed in with some anxiety and some normal childhood stuff, but really poor diet. Uh, they get, like, these big crashes, these sugar crashes... I mean it just doesn’t seem to be, it doesn’t seem to be stable, it doesn’t seem to be healthy, it seems like it exacerbates things like the highs are higher and the lows are lower. Um, you know, uh, well and I just think in terms of brain development, uh, and overall growth of our bodies, like putting healthy things in our body helps things grow the right way versus developing deficiencies from an early age. I mean everything’s always connected you can’t just single out one thing and be like oh, don’t do this or you should do this, you know, it’s all connected. So, they seem to be struggling.” –*Male, master’s degree, 10 years of practice*

“And of course eating well will also help them I think it is a time where eating is more difficult because lots of times they are becoming more independent they are on the run and their schedules are more hectic it’s a lot about helping thing see the importance of it and helping them have conversations to partner with their parents to help them.” –*Female, doctoral degree, 12 years of practice*

“...but I think it’s an interesting time in that it’s when we’re backing off, and it’s when adolescents are starting to make decisions on their own, and these basic decisions...” –*Female, doctoral degree, 9 years of practice*

With the exception of one participant, all denied having knowledge regarding the role and effects of nutrition in older adults. Many relayed an assumption that healthy and balanced nutrition is equally as beneficial for this population as any other. One participant emphasized the need for older adults to maintain health in order to slow the decline associated with aging.

“I feel like good nutrition promotes growth... I feel like at older ages it’s even more important because things are starting to, I mean ‘cause after 26 it’s like our peak and it starts to shut down we go the other way.” –*Male, master’s degree, 10 years of practice*

There were four respondents who indicated having knowledge about the relationship between nutrition and mood. In general, they explained having an understanding that those who adhere to a nutritious diet tend to have a more positive mood and vice versa.

“I guess how you eat impacts how you feel.” –*Female, doctoral degree, 12 years of practice*

“Nutrition is the building block of neurotransmitters ultimately, so yeah, there’s definitely a link. I’d be surprised if it got disproved.” –*Female, master’s degree, 2 years of practice*

With regard to the relationship between nutrition and psychopathology, six members

reported having knowledge in this area. Some participants relayed specific information about particular nutrients and substances, such as caffeine or omega-3 fatty acids. Others provided more general information, most commonly referring to depression.

“I had a client say they were drinking 10 mountain dew’s a day okay well that’s probably not so healthy it can also be tied into things like Attention deficit it could be like a self-medication or way it’s kind of just getting that feel on it seems like in general they are pretty healthy don’t overdo it on caffeine.” –*Female, master’s degree, 5 years of practice*

“I think that in general that people who are depressed are also people who don’t take real good care of themselves, and don’t have the energy or the interest in preparing good meals. And I think that there’s a cascading effect from all of that.” –*Female, doctoral degree, 26 years of practice*

Many more participants expressed knowledge of the effects of nutrition on psychological well-being; eight members reported knowledge regarding how nutrition may relate to psychological well-being. Most referred to the general notion that basic nutrition influences overall physical, mental, and emotional functioning.

“So, when they’re not giving their body the right nutrients, their brains aren’t working the right way, therefore their emotional conditioning is off, uh, they don’t sleep as well, they don’t exercise, they don’t burn off, they don’t release any endorphins, they don’t do things that are natural, very natural to like rejuvenate ourselves in life.” –*Male, master’s degree, 10 years of practice*

“...it’s like what kind of gas are you putting in your car, well you can’t talk about the car’s functioning at any level without really considering what kind of gas are you putting in it.” –*Female, doctoral degree, 9 years of practice*

Eight participants also expressed some knowledge regarding the influence of healthy nutrition on cognitive functioning. Many expressed an understanding that nutritional intake has a direct influence on the brain, which, in turn, affects alertness, memory, ability to focus, learn and more.

“Partly that comes from my awareness of research that suggests healthy diet and good cardiovascular exercise tends to really go along with good cognitive functioning, or at least preserving, or delaying the decay of cognitive functioning.” –*Male, doctoral degree, 7 years of experience*

“Affects brain, affects everything, I think we could affect pretty much every area including Alzheimer’s and all these things by doing a much better job with nutrition, exercise, and utilizing the brain.” –*Male, doctoral degree, 40 years in practice*

Exercise. Overall, participants indicated that when compared to knowledge about nutrition, they were more knowledgeable about exercise and its impact on mental health. It was noted that this increased level of knowledge allowed them to be more direct in discussing exercise in therapy. In general, participants recognized that physical activity is crucial for children. Many noted that movement is useful in assisting with hyperactivity, and some stated that they occasionally utilize physical activity during sessions not only due to its positive effects on mental health, but also because it is helpful in building rapport with young clients.

“There’s good research there as well in terms of positive benefits of exercise in terms of providing outlets and...for elementary school kids in terms of getting their recess, um being outside in nature, that has some good effects with more hyperactive types of kids.” –*Male, doctoral degree, 20 years of practice*

“But with physical activity it’s used a lot with kids... They need to be up and about it can be a really helpful thing in therapy.” –*Female, master’s degree, 5 years of experience*

Five participants reported being knowledgeable about exercise in adolescents. Similar to comments about nutrition, participants mentioned the significance of identity development during adolescence. They explained that exercise could be helpful in identity and autonomy development. Others noted the dramatic hormone changes during puberty suggesting that exercise could be beneficial in stabilizing mood and emotions in adolescents.

“So again for adolescence middle school adolescences hard time with identity and peers and self-concept and I think exercise can kind of like with anxiety can decrease or at least decrees stress or burn off that worry that some kids not all kids have but some kids have.” –*Female, doctoral degree, 10 years of practice*

“I think adolescences is a time that is rot with so much change and hormones and extremes that being able to use exercise as a positive.” –*Female, doctoral degree, 12 years of practice*

With regard to mood, eight participants claimed to be knowledgeable about the potential positive effects of exercise. In general, nearly half of the participants recognized that exercise can have a significant influence on mood. Overall, they had an understanding that physical activity tends to promote positive mood and alleviate negative mood.

“I think it improves their mood in general and as long as there is an intake I feel like it’s good for them between how you are eating and sleeping and exercising.” –*Female, doctoral degree, 6 years of practice*

“Oh, well consistent, consistent exercise will have a positive impact on your mood.” –*Female, doctoral degree, 9 years of practice*

Eleven respondents claimed to have knowledge regarding the link between exercise and psychological disorders; the most common diagnoses mentioned by participants were related to anxiety and depression. Being knowledgeable about the impact of exercise in varying psychological disorders is important for the use of exercise as an intervention. Some participants expressed an assumption that exercise could potentially be beneficial with all psychiatric conditions.

“I know there is a lot of research on doing yoga for PTSD, so I encourage a lot of clients to use yoga with PTSD. But I also know with PTSD comes hypervigilance and anxiety, so you need to also do aerobic exercise to get your heart rate up.” –*Female, master’s degree, 12 years of practice*

“Well a little bit helps with depression stabilizing mood makes a person feel good energy and so forth...” –*Male, doctoral degree, 43 years of practice*

“Yea. Depression. Certainly anxiety- those two being interrelated. People with anxiety...if they get good cardio exercise, it really crosses out...I think it helps alleviate that. If they can connect with the reward of that, then I think it works for them.” –*Male, doctoral degree, 7 years of practice*

Nine members expressed familiarity with the impact of exercise on psychological well-being. Overall, participants reported knowing that exercise assists in increasing one’s level of functioning and having the ability to effectively manage stressful situations. Many also

described the link between movement and self-concept, which relates to psychological well-being.

“There’s the physiological level, which impacts mental health just from that physiological connection. Obviously, the brain...um but then just the pure psychological connection of getting out, being in contact with the world, um moving the body when there’s a big sense of agency with actually movement of the body. And, um, you know there’s a lot of studies that show the... the conceptualization of the self is very related to the physical body. You know so the, the ego, sense of self, is highly connected to the physical body. Yeah.” –*Female, master’s degree, 2 years of practice*

“But, anybody who can do anything, uh, any movement, any kind of exercise, those people are going to be way ahead of the game.” –*Male, doctoral degree, 40 years in practice*

Nine participants reported knowledge about the link between exercise and cognitive functioning. Participants primarily commented on cognitive decline being an aspect of aging, indicating that regular exercise can aid in slowing said decline. In addition, others acknowledged that exercise can be helpful in maintaining and promoting general physical health in older individuals, which may, as a result, promote mental health.

“Well I know the research that I am most familiar with is the geriatric population. You can definitely have cognitive function improvements with that population.” –*Female, doctoral degree, 7 years of practice*

“Ok, ok well definitely with exercise like I’m saying I know there’s several studies that just um link even basic exercise even just walking to being able to reduce the potential for dementia and, you know, cognitive impairment...” –*Female, master’s degree, 2 years of practice*

“And increased levels of activity, I think it also relates to aspects of aging. People who are engaged in cardiovascular health in terms of aging, typically are doing better in terms of measures with memory ability and cognitive ability. Well, not cognitive ability. Cardiovascular health tends to help with preserving cognitive functioning.” –*Male, doctoral degree, 7 years of practice*

Personal experience. All seventeen participants noted their personal experience in adhering to nutritious diets and exercise routines. They each described experiencing positive effects on their mental health through maintaining healthy lifestyles, which increased the

likelihood of discussing or recommending E & HN to clients. However, despite positive personal experiences, 7 participants indicated that they still might not use E & HN in therapy.

“I notice for myself and for my clients who have their regular exercise program it’s just easier to negotiate through challenges if there is that piece going on in regular, not just sporadic, just regular in a sort of routine in place.” –*Female, doctoral degree, 24 years of practice*

“If I have missed those exercise periods for a longer than those little slip away days, or even more than that for me I love to dance so when I didn’t go to any, when I didn’t do any dance or any like creative movements, I saw a huge um, drop in my ability to handle the stress. You know just like I was getting more negative or like ‘this isn’t gonna work out.’ Those thoughts are less easy to manage.” –*Female, master’s degree, 2 years of practice*

“At a personal level for myself, in some ways I am almost experimenting with that. You know like, if I’m in a phase where I am eating in an unhealthy way, how do I feel overall? Versus when I’m eating in a healthy way...I think there’s a difference in that. I feel less fatigued, I feel more effective, it’s easier to concentrate.” –*Male, doctoral degree, 7 years of practice*

Clinical experience. Fourteen participants described having clinical experience in which they have included exercise and/or nutrition changes with clients or have observed it in their work at other agencies. Most participants described observing positive changes in clients who began to include exercise and healthy eating into their routines. Many respondents indicated that this previous clinical experience increased their willingness to discuss these topics in their own practice.

“I was at a residential treatment facility where, it was dual diagnosis, so they were either drug or alcohol addicted and had either an Axis I or Axis II diagnosis on top of that. There was an exercise program in place there. However, it was mostly voluntary, so it wasn’t mandatory. But there was a girl there who tried to incorporate Latin dance stuff...a lot of [the clients] were Hispanic. They absolutely loved it. I noticed a huge difference in their mood after that class. You know, getting to sweat a little bit, and that type of thing.” –*Female, master’s degree, 1 year of practice*

“I think the ones who are really exercising I think it has been their lifestyle I do think in general there are always exceptions they tend to be- I don’t see them as long maybe. I see them for a few sessions or come back for a couple of refreshers. I haven’t really looked at

the relationship myself, but given that they have this active lifestyle that brings them a lot of enjoyment and its exercise so it's good for them and it seems to be very positive for their mental health, and I want to encourage that.” *-Female, doctoral degree, 10 years of practice*

“Client wise I really notice when people are getting exercise I notice that it is helping their state and level of stress and anxiety and the issues they are dealing with it seems to be very effective, so it makes sense to recommend it to some people.” *-Female, master's degree, 5 years of practice*

Training. The most commonly identified type of training that participants reported was to be self-training. Ten participants discussed reading books and articles and becoming familiar with the information available independently. Other participants described knowledge arising from their own lifestyle and personal experience.

“I grew up in this family who is very into this mind/body connection. So, I feel like as a human-being, I have just kind of been that way, because that's the family that I was raised in.” *-Female, master's degree, 1 year of practice*

I guess it's been more integrated to some degree and reading literature in some way maybe trying to find some more literature. As I dealt with some of my own health things seeing oh learning that's a great way to think about that.” *-Female, doctoral degree, 10 years of practice*

Six participants also reported partaking in additional training experiences, such as workshops. Others stated that attending presentations at conferences had been beneficial in becoming informed about both the influence of a healthy lifestyle on mental health as well as the mind-body connection.

“I guess a good example would be that I recently went to a national level conference, and one of the seminars that I actively chose to go to was done by an expert who specifically talked about different kinds of nutritional aspects of things that help mental health.” *-Male, doctoral degree, 7 years of practice*

“...constantly went to associations that were involved in health many of them were in the fields of nutrition or in the field of medical certain areas.” *-Male, doctoral degree, 40 years in practice*

The final type of training experience identified by participants took place during formal education. Six participants reported having undergone training regarding the mind-body connection and how physically healthy behaviors, such as exercise and healthy nutrition, relate to psychological health.

“It’s been my area of study and expertise for quite a long time. I initially started out in my undergrad looking for a degree that I could actually get in sort of mind body connection in undergrad this is very difficult to find. So, I really kind of created my own major and took a lot of twists and turns and then went to graduate school for somatic counseling psychology which is body-centered psychology.” *–Female, master’s degree, 2 years of practice*

“I have a master’s degree in exercise and sports science that included a lot of sports psychology but also a lot of nutrition classes and exercise prescription and use of exercise to be able to improve health and wellness and that kind of thing.” *–Female, doctoral degree, 12 years of practice*

Fear of shaming. The next therapist attribute that influenced whether participants would discuss E & HN with clients was fear. Six participants expressed hesitance about recommending that clients attempt to include exercise or healthier eating into their lifestyles. They described concern about being perceived as judgmental or leaving clients with a sense of failure. Others also worried about imposing their own values regarding health onto their clients.

“...being sensitive about bringing it up and shaming them. you said you want to lose weight? And when I can tell from them that it’s a big issue about that I should look good because I’m young and I want to attract men and don’t want them to feel objectified and you should look different and I am more sensitive with those folks and there have been times I have backed off it for the time being because I worry that they are more prone to ‘oh geez my therapist said that she brought it up does she think something is wrong with me?’ And I know women are more sensitive to that thought. The research talks about self-objectification because women are objectified so many times in the day, so that could be the situation.” *–Female, doctoral degree, 10 years of practice*

“I am cautious with that and of assigning specific amount of things then so I don’t want them to feel like a shameful thing if they don’t.” *–Female, master’s degree, 5 years of practice*

Competence. Twelve participants stated that a therapist's perceived competence played a role in whether they would address the topics of exercise or nutrition in session. Some participants stated that they lacked competence, which made them more likely to avoid those topics.

“I think probably a little more awareness, we don't talk about these issues in psychology broadly, and so I can tell you in all honesty I've been training doctoral students for ten years now, twelve years now, these are not issues that come up.” –*Female, doctoral degree, 9 years of practice*

“I am very careful about not overstepping my expertise I would never expect to have a comprehensive knowledge on nutrition or exercise.” –*Female, master's degree, 5 years of practice*

“Just feeling that it's out of my competence. And the other barriers I can think of besides the competency issue...mmm that's actually the main one. I've actually considered to get a certificate in nutrition, I would like to add that, we'll see.” –*Female, doctoral degree, 7 years of practice*

However, there were some participants who reported being very competent regarding using exercise and/or nutritional information in therapy, and therefore, they were more likely to address those with clients.

“But there aren't, there aren't very many areas where I would say ‘Oh, I can't go there, you know I don't understand’ because I feel like I understand what the body needs and stuff can be real complicated, we made it complicated, but I don't think it's too complicated.” –*Male, master's degree, 10 years of practice*

Client Attributes

All of the respondents identified aspects of a client that may influence them to approach the topic of exercise and/or nutrition within the context of psychotherapy. These included client diagnoses, past trauma, age, gender, motivation, current lifestyle, and weight.

Psychopathology. The most prominent client attribute that participants described was the presence of any psychopathology. Respondents demonstrated awareness of the benefits of

healthy lifestyle behaviors in these cases. Psychopathology was further broken down into depression, anxiety, ADHD, eating disorder, and other symptoms.

Depression. Thirteen participants recognized the benefits that E & HN have to offer for depressed clients. When depression was present, members described a greater likelihood of addressing the topics of exercise and/or nutrition in a direct manner.

“The people I work with who have depression, I always ask them about eating, exercise, sleeping, that sort of thing.” –*Male, master’s degree, 8 years of practice*

“Something that I relatively, consistently mention with people, especially those with depression, encouraging that.” –*Male, doctoral degree, 7 years of practice*

Anxiety. Nine participants stated that symptoms of anxiety may be alleviated by effective health maintenance. Many noted they often tend to promote a healthy lifestyle, particularly exercise, with clients struggling with anxiety.

“I see a lot of clients with anxiety. That’s one of my areas of specialty. So many times I see exercise as burning up that energy that comes with anxiety... when you’re really agitated, to just get out and move.” –*Female, doctoral degree, 7 years of practice*

“I mean almost every client I work with in some way or another has some sort of struggle with anxiety, and I almost always go to sleep, diet, and exercise as the first steps to coping with stress.” –*Male, master’s degree, 10 years of practice*

ADHD. Attention deficit-hyperactivity disorder (ADHD) was an additional psychological disorder for which participants reported being more likely to discuss exercise and/or nutrition. ADHD issues were usually discussed in the context of children, so working with parents was often mentioned.

“I’ve worked with a lot of children with ADD. So we’ll look at their nutritional intake and exercise, that sort of thing.” –*Male, master’s degree, 8 years of practice*

“When you think about exercise and nutrition one of the things thinking about child and family stuff which is my frame... Is that those things, if you do them as part of a lifestyle, they become routines, and routines are important to well being no matter what your diagnosis, ADHD or whatever, or no matter what your mental health challenges.” –*Female, doctoral degree, 9 years of practice*

Eating disorders. The final identified diagnosis where participants found E & HN helpful, if not necessary, with eating disorders. Four participants stated that the topics of exercise and/or nutrition are highly relevant for clients struggling with eating disorders. Some mentioned they would discuss using exercise as a coping skill, and others indicated they would work with clients to use exercise and nutrition in healthy ways.

“I think that I tend to view everything on a continuum partly because I work with so many people with eating disorders who live in the extremes see things as you know as total polar opposites really try to talk to them about finding the middle ground and finding what the continuum of that is.” – *Female, doctoral degree, 12 years of practice*

Other. Six participants mentioned a variety of other categories of disorders and symptoms that led them to discuss exercise and/or nutrition in therapy. These varied from phase of life issues, such as grief and loss and personality issues, such as neuroticism, to more serious psychological disorders, such as bipolar disorder and schizophrenia. Further, other general symptoms such as trouble concentrating or negative mood were common indicators for participants that E & HN may be helpful.

“If I think that the benefits from exercise will improve their mood I will talk about it more.” – *Female, master’s degree, 5 years of practice*

“Probably a little more with mood disorders, especially bipolar. More so as making it part of a routine. How is it going to fit in with your routine to help you stay stable?” – *Female, doctoral degree, 7 years of practice*

“Uh, anytime I can detect that someone’s not happy with just themselves or their life.” – *Male, master’s degree, 10 years of practice*

“I see what happens but especially if they are telling me I feel really foggy I feel really tired I can’t concentration. They give me these symptoms the first thing I will ask is tell me about your eating?” – *Female, doctoral, 12 years of practice*

Trauma. Three participants noted that if a client was a victim of trauma, they were more likely to discuss lifestyle changes, and that exercise can be helpful in trauma cases.

“One of the areas I do see a lot is trauma. I do talk to people with trauma especially those in the acute stages. Just being grounded in your body it should take care of it yourself. Eat sleep even wear soft clothes that you like. Just kind of pamper your body and just to give them a little cushion to live.” –*Female, doctoral degree, 6 years of practice*

On the other hand, two participants stated that they would be less likely to discuss E & HN if the client was dealing with past trauma. They indicated that due to the intense nature of trauma work, there is often very little time to introduce exercise or diet, and that at this particular stage in therapy, the client is usually not ready attempt those changes.

“I have a client who is overweight and she has an immense amount of trauma in her past and...uh talking about exercise and diet, although are very important in her life, seems so less important given the immense amount of trauma and nightmares and unhealthy coping skills that we’ve worked to, that we are working through, uh, I don’t spend a lot of time with diet and exercise.” –*Male, master’s degree, 10 years of practice*

Age. Participants noted that the age of a client may be influential in whether the topics of exercise and/or nutrition were discussed.

Children. Four participants reported using physical activity in therapy with children. Many participants emphasized the concept of play therapy and the importance of using physical activity to help children learn to manage stress and emotions. Overall, physical activity was identified as being more useful with children than was nutrition. None of the participants discussed addressing nutritional information for child clients.

“But the younger ones, and I’m even talking with parents about how can we help relieve their stress? How do we teach them self-control? How do we help them self-regulate? And outdoor activities and physical exercise are a lot of what you do with kids.” –*Female, master’s degree, 12 years of practice*

“Hey, even if it’s a ten year old, you need to get out and play, you need to go run around, play soccer, play football, ride his bike, play with some friends, you know, the body needs to like release built up steam and frustration from a day at school or tough weekend with mom or dad, uh, so I regularly promote being active.” –*Male, master’s degree, 10 years of practice*

Adolescents. Four participants shared general observations about the exercise and eating habits of their adolescent clients, with most of them saying that adolescents often choose a poor diet and few incorporate exercise into their routines. Further, two participants stated that because of this, they were less likely to recommend E & HN for their adolescent clients.

“With most of the adolescents I’ve seen, we haven’t addressed that.” –*Female, doctoral degree, 7 years of practice*

However, two participants reported talking to adolescents about exercise and nutrition as a means of self-care. Participants reported emphasizing these as self-care as behaviors over which adolescents may have some control, and that it might be useful in helping them gain autonomy and independence.

“...definitely when I work with teenagers talk about it and in terms of...’cause you know a lot of their diets are just really poor and so I’ll make...kind of slip that in as it seems relevant in terms of things that they can be doing um, that give them a sense of, of control.” –*Male, doctoral degree, 20 years of practice*

Gender. Four participants stated that the topic of exercise and/or nutrition was more likely to arise in session with female clients. In general, this was due to female clients approaching those subjects. Participants reported women being interested in discussing weight loss, usually as it related to self-esteem and body image issues. Participants reported emphasizing overall health with female clients rather than simply focusing on weight.

“Sure, women talk about it because women are very concerned with appearance, so women will talk about that. And depressed women will talk about it a lot. Overweight women will talk about it a lot. And young women who are out there in the world of men will talk about it.” –*Female, doctoral degree, 26 years of practice*

Motivation. Seven participants stated that client motivation influenced whether they approached the topic of exercise and nutrition. Further, it affected the depth to which participants would discuss such topics. When clients appeared to have low motivation for

adding physical activity or healthier nutrition into their lifestyle, participants reportedly discussed these topics less.

“I remember one person saying that he couldn’t make me...I’d have to give him one hundred dollars to go on a run. So I’m just like...Okay, that’s done.” –*Male, master’s degree, 8 years of practice*

“I think one of the things that happens, is that the people who are more responsive to that, or inherently more interested in it, than I’m more likely to follow up with them. If some people dismiss that... they’re like...’What does that have to do with my life?’ I’m less likely to engage that, partly because it’s the reality of the limited amount of time of interaction you have with someone in the context of doing therapy.” –*Male, doctoral degree, 7 years of practice*

Current lifestyle. Seven participants identified the client’s current lifestyle to be a contributing factor in whether they addressed the topic of E & HN. Many participants stated that if they noticed an obvious deficit of E & HN in the client’s day-to-day routine, they would be more likely to encourage it. On the other hand, participants reported spending less time discussing lifestyle changes with participants already incorporating exercise and/nutrition, but that they did support clients’ continuation in these behaviors.

“I would say that with that if there is not an exercise program in place of some sort then I am going to keep coming back to that with people...” –*Female, doctoral degree, 24 years of practice*

“..if it comes up that they’re not exercising at all or that their diet is particularly poor um, yeah that’s an area that I’m gonna kinda address as soon as I notice that or as soon as it comes up.” –*Female, master’s degree, 2 years in practice*

“Actually this did happen to me a client was talking about nutrition and things and she said all I eat in ramen and I was like oh dear and so we talked about that...” –*Female, doctoral degree, 6 years of practice*

Weight. Ten participants identified the client’s weight as influential in the likelihood of addressing E & HN in therapy, stating that E & HN would be addressed more often with overweight and obese clients. Frequently, this would occur in response to a client mentioning weight loss.

“...if there were weight issues weight changes things like that would be a red flag for me.” –*Female, master’s degree, 5 years of practice*

“A number of clients have come to me for psychological issues surrounding weight loss, so obviously we address it then.” –*Female, doctoral degree, 7 years of practice*

Some participants mentioned, however, that while they would address the topics of E & HN with overweight/obese clients, they might wait longer to do so in order to ensure a strong therapeutic relationship. They indicated a perceived need to be more sensitive with this population, who often already seem to be aware of and embarrassed about their weight.

“I think when I have had obese patients really obese patients and they come in they are having some depression if they don’t bring it up or they don’t notice it well I shouldn’t say that they don’t notice it I bet they do notice it. But um I guess I do worry that they get enough messages I try to be I think for a while that is over quite a few sessions about how I am going to approach this with them... if someone is very overweight I probably hesitate- doesn’t mean I don’t get to it. But there is probably a different speed I get to it.” –*Female, doctoral degree, 10 years of practice*

“If someone is more timid about it or the clients I struggle with are the clients who are overweight, I’m very careful, I probably word it a little differently.” –*Female, master’s degree, 12 years of practice*

Therapist Health

The final general category discovered throughout the interviews was related to the health and lifestyle of the participants themselves. All of the participants described their current dietary and exercise practices, as well as the challenges they face. While all participants described their own E & HN behaviors, the specific descriptions did not appear to influence the conversations about E & HN in therapy, and thus were not included in Therapist Attributes. This category is broken down into three secondary categories (diet, exercise and health challenges).

Diet. All participants discussed their general dietary practices, and reported attempting to follow a healthy diet. Four specific themes were identified related to diet, which we termed general, non-processed food, self-preparation, and vegetarian.

General. Eight participants reported following a healthy and balanced diet, in general, but did not necessarily identify any specifics about a type of diet.

“Extraordinarily healthy. And I put this on the demographic form you know I have my moments but I have always eaten well I have always been about what is going into my body. My body is a temple and this is what we have this is what we have been given to live on this earth and I am going to take as good of care as I can not to sound all high and mighty I just do I just value this.” –*Female, doctoral degree, 24 years of practice*

“I tend to eat really well balanced meals and try to get a lot of whole grains and eat a lot of fish and chicken and fruits and vegetables I try to eat some organically” –*Female, master’s degree, 5 years of practice*

Non-processed food. Eight participants endorsed trying to include mostly organic and non-processed foods in their diet. Participants often used the term “whole foods”.

“But in general I eat a lot of very whole foods I don’t like to eat much processed stuff so just be pretty balanced pretty healthy.” –*Female, doctoral degree, 12 years of practice*

“Yeah, um, my own diet is primarily just I would call it whole foods...” –*Female, master’s degree, 2 years of practice*

Self-preparation. Spending time preparing and cooking food was noted to be important to many respondents. Five participants stated they value preparing their own foods in order to ensure nutritional value.

“I make a lot of my own bread I cook a lot I spend a lot of my time preparing my food a lot of fresh meet and fruits and veggies, which I think is worth it.” –*Female, doctoral degree, 6 years of practice*

“...just um you know I cook from scratch pretty much most of the time. Um, I have a family, I’m the primary cook, um so I mean I eat a lot of fresh vegetables and grains.” –*Female, master’s degree, 2 years of practice*

Vegetarian. Three participants self-identified as being vegetarian. They tended to emphasize the intake of fruits, vegetables, and grains.

“I was raised a vegetarian, so just really heavy on fruits, vegetables, and whole grains.” –*Female, doctoral degree, 7 years of practice*

“Uh, mostly vegetarian, uh, mostly fruits and vegetables.” –*Male, master’s degree, 10 years of practice*

Exercise. All participants disclosed their own exercise habits. They indicated that they included some sort of exercise in their routine. Many other participants identified specific types of exercise, with the most common activities being running, yoga, walking, and biking.

General. Most participants provided a general description of their exercise practices. Seven members indicated they engage in exercise, but did not necessarily elaborate on the specific types of exercise.

“I exercise every day. I go to the gym every day except Sunday, where I’m usually up in the mountains. So I do a variety of cross training things. I like exercise. I’m really lucky. I’ve done it for years.” –*Female, doctoral degree, 26 years of practice*

“Uh, huge. I think it’s something really important, something, family’s very active and, you know, we like doing different things, but um, it’s a very important part of kind of who I am and why we live here.” –*Male, doctoral degree, 20 years of practice*

Running. Five participants self-identified as runners, indicating that running is a significant aspect of their life and of promoting their well-being.

“I have always been a runner since probably age 12 and it is more a meditation for me a place for me I can go in a Zen then it is about a race.” –*Female, doctoral degree, 9 years of practice*

“I’m a runner. I run because I want to be in shape, but it’s more for the endorphin release for me...” –*Female, master’s degree, 1 year of practice*

Yoga. Five respondents noted that they regularly practice yoga. The positive benefits provided by yoga were also described.

“I started doing yoga pretty consistently and that was central to my well-being, and has been central to my well-being because it’s a, it’s actually a yoga class that includes a fair amount of meditation, uh, and mindfulness, more mindfulness than meditation, but just a fair amount of mindfulness stuff.” –*Female, doctoral degree, 9 years of practice*

“You know, usually once sometimes twice a week I’ll do yoga in the morning and those days, uh, it’s like I’m walking on clouds.” –*Male, master’s degree, 10 years of practice*

Walking. Four participants reported that they include walking in their exercise regimen. Many described walking as convenient and easy, allowing them to build fitness.

“I can walk around the neighborhood so that’s what I have been doing that kind of thing kind of build that do a cul-de-sac loop see how sore I am and trying to go to the next block and do it really slow.” –*Female, doctoral degree, 10 years of practice*

“I go through phases typically I will walk and it varies in frequency.” –*Female, master’s degree, 5 years of practice*

Biking. Four participants stated that they have included biking in their exercise routine.

Many also stated that they have used biking as a means of commuting, which aids in fitting exercise into their routine.

“I usually, well I work later now, but I usually commute to work, which is round trip 27 miles. It’s been a lifestyle since my 30s, and I am now 54. I’ve always done it. I used to race mountain bikes. I do ride the Rockies...I’ve done it 12 times.” –*Male, master’s degree, 8 years of practice*

“So, uh, I ride my bike to the office, uh, at least one day a week if not twice, two days a week,” –*Male, master’s degree, 10 years of practice*

Health challenges. All participants reported challenges they have experienced with their own health. These challenges influenced their ability to maintain healthy diet and exercise habits.

Diet. All participants described challenges they encounter when attempting to follow a nutritious diet. These challenges were termed time, portion control, and illness/allergy.

Time. Eight participants indicated that time constraints and scheduling challenges made it difficult at times to follow a nutritious diet. Participants explained that it was occasionally easier to eat packaged foods or foods that were easier to prepare despite their lower nutritional value. Other participants indicated that they have occasionally skipped meals due to time constraints.

“Preparing food that I know is nutritious. It’s so easy to go buy a pre-made thing at the grocery store.... processed, bad for you food. I think that’s my biggest challenge is finding the time to do it.” –*Female, doctoral degree, 7 years of practice*

“Um, work I think is probably the biggest one. Um, and just, not even just eating, but like um choices in terms of how I schedule my practice, my practice I guess is pretty full and

so I would prefer to put people over my lunch hour than, um, extend my day ‘cause I have things that I’d rather be home with my family doing things.” –*Male, doctoral degree, 20 years of practice*

Portion control. Five participants reported a tendency to eat too much food at once.

Many stated they sometimes eat past the point of fullness, which presented a challenge for them.

“And I, I have that kind of experience sometimes where I’ll have, you know if I have a big plate of food, and it’s absolutely delicious, I have to remind myself to listen to my body: are you full now? Are you taking this next bite ‘cause you’re full? Or are you taking this next bite ‘cause it’s so yummy you can’t give it up?” –*Female, doctoral degree, 9 years of practice*

“I would say day-to-day, I would say portion control. I’ll usually wait too long to eat, and then I’ll eat too much instead of having a snack.” –*Female, master’s degree, 1 year of practice*

Illness/Allergy. Three participants reported having food allergies or physical illnesses, and, which made it more challenging to adhere to a nutritious diet, due to the limitations of the physical ailments.

“I discovered I am lactose intolerant I think I have been my whole life it’s just a couple of years ago I did that thing were you don’t drink dairy for 4 weeks and I reintroduced it and ew! It does not set well with my stomach.” –*Female, doctoral degree, 24 years of practice*

Exercise. All participants also reported challenges they encounter related to exercise habits. The most common challenge was time. Other challenges included motivation, injury/pain, and age.

Time. Twelve members indicated they have found it challenging to fit exercise into their work and family schedules. Most participants explained time as being the most significant challenge they faced with exercise.

“Yeah, yeah really that’s it. And you know my daughter is older now, but when she was really young that was a big topic of stress, you can’t get your schedule to line up with my husband’s for who’s going to be watching her, you know, then you really know it’s dark

by the time that happens so how are you gonna exercise? You know get dinner if you're the cook and organizing around other responsibilities as a working mother. That would be the primary challenge I think." –*Female, master's degree, 2 years of practice*

"Um, yeah my work and family just demands and just having kids that are both athletes and involved in doing different kind of competitive level sports and there's a lot of time demands that come after work. And so, really have to be pretty good about making sure that I have my gym bag with me so I make sure that if I have a time that I'm gonna use it. So, I think that work time demands, and then family time demands in terms of regular exercise and then like do things as family on weekends that are exercise related that count as well." –*Male, doctoral degree, 20 years of practice*

Motivation. Three participants indicated that the lack of motivation presented a challenge to including exercise into their routine.

"... trying to go to the next block and do it really slow(like what you tell your clients to do) it's hard to be like so it's hard not to say well I'm not doing it so who cares and I didn't get to it the past few days so why do it today." –*Female, doctoral degree, 10 years of practice*

Injury/Pain. Three participants reported that having physical challenges, such as injuries or other painful ailments, causes exercise to be difficult. Some examples were injuries due to physical activity or arthritis.

"Yes, I blew a disc in my neck. Uh, I used to get up at 5:30 in the morning and pack a lot of weight and blew the disc, um, in football I blew a disc in my lower right. So I have a lot of residual problems, lots of them." –*Male, doctoral degree, 20 years of practice*

Age. Three participants reported that aging had been a challenge as they were unable to continue the type of physical activity they participated in when younger. These participants described this challenge as frustrating.

"The only challenge is that I'm getting older and I'm not able to do the things that I used to do. I have to modify, and I sometimes have to be flexible and shift what I do so I don't get hurt. I can't do what I used to do, and that kind of stinks. But that's what happens. So I have to be more flexible, I have to try new things, and find what is fun now. I have, but that's (learning new things) my challenge, is to keep doing that." –*Female, doctoral degree, 26 years of practice*

Grounded Theoretical Model

In the next section, a grounded theoretical model is provided. The participants emphasized that there are no formal means of addressing E & HN in therapy or of predicting whether it will be helpful for a client, and that if and how they address it often “depends on the client.” However, some common interactions of themes emerged to help form a theory, and these are further discussed below. This model explains how the themes presented in the previous sections may relate and interact. For a visual depiction of a theoretical perspective on how therapist attributes, client attributes, and counseling methods relate, see Figure 2.

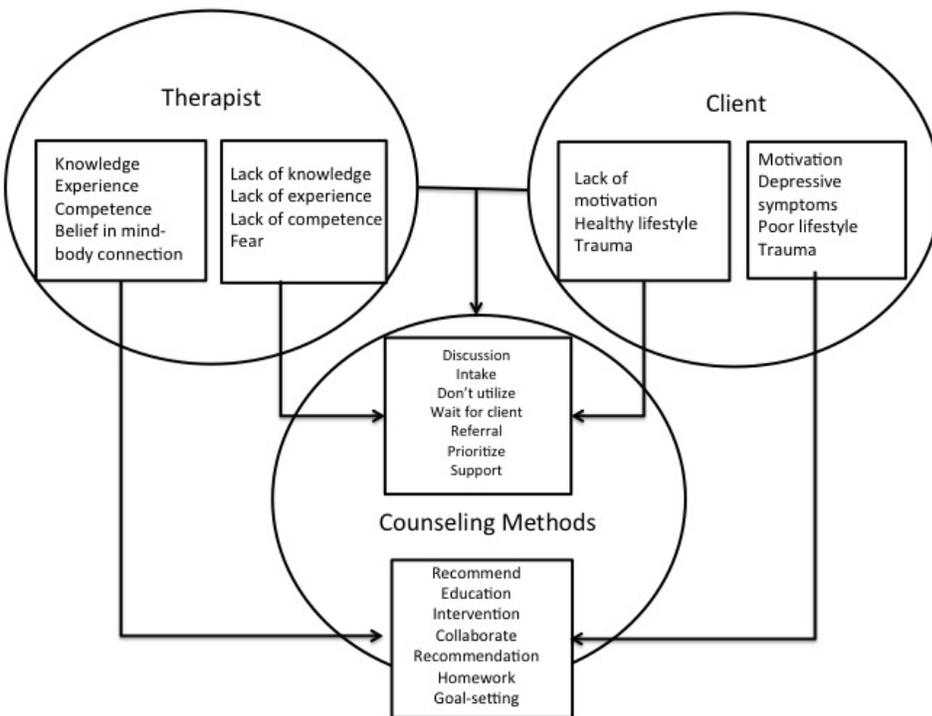


Figure 2. Theoretical model of counseling on exercise and nutrition

Overall, there appeared to be an interaction between the characteristics of the therapist and those of the client, which determined if and how the concepts of E & HN would be

addressed during therapy. For example particular therapist and client attributes may increase the likelihood of direct counseling approaches versus indirect approaches and vice versa.

Often, the therapist attribute and client attributes were mixed. For example, an educated and experienced therapist may have worked with an unmotivated client. In cases where a directive therapist was paired with a indirect client, the therapist would use more directive counseling methods in order to introduce the topics, but not continue to attempt to convince a client exhibiting disinterest or lack of motivation. This was the case with every indirect client attribute except for chronic trauma. If the client was recovering from severe trauma, then all therapists reported focusing on that issue prior to discussing exercise and nutrition.

In the instance wherein a therapist with indirect attributes worked with a client with directive attributes, the tendency was to refer the client to other professionals. However, many therapists would conduct a behavioral intervention with exercise if it was something the client explicitly requested.

All participants, no matter how directive or indirect they were in counseling on lifestyle behaviors, indicated that they conducted more counseling on exercise than healthy nutrition and diet. While some participants indicated going into greater depth than others in terms of recommendations for nutrition, all of them stated that they were more direct with clients about exercise than making healthy changes to diet. Participants reported various reasons for this, such as not feeling comfortable focusing on diet, particularly when there are other professionals (i.e. dieticians, nutritionists) to whom clients easily can be referred. Further, many participants revealed that they felt that they had insufficient knowledge about the relationship between nutrition and mental health.

DISCUSSION

This study may have been one of the first to conduct a qualitative examination of counseling for E & HN. It aimed to answer three research questions. First, how often and why therapists do or do not incorporate exercise and diet information or recommendations into treatment? What type and amount of training may be viewed to be necessary for a therapist to promote exercise and nutrition with clients? Finally, what counseling methods are used by therapists when addressing E & HN in therapy? Three main categories that addressed these questions were found within the data, which related to attributes of the client, the therapist, and counseling methods. The analysis revealed that two of these major categories, client attributes and therapist attributes, influenced if and how E & HN was addressed in psychotherapy. An additional and purely descriptive category, “Therapist Health,” was generated from interviews, which provided a description of types of health behaviors, such as physical activity and nutrition, therapists included into their daily lives.

The first question this study aimed to address was how often and why therapists do or do not incorporate E & HN into treatment. This research question was addressed through the various attributes of both therapists and clients noted throughout the interviews and how these attributes interacted through the generated theoretical model. The most prominent reason for addressing E & HN based on the client was the presence of psychopathology, particularly depression and anxiety. Previous studies have shown that one of the most common reasons for therapists to discuss exercise was for symptom management for psychological disorders, such as depression and anxiety (McEntee & Halgin, 1996). Clearly, the fact that exercise may work to alleviate symptoms is a clinical consideration for practitioners.

Another finding worthy of note was the concept of using E & HN in the treatment of victims of trauma. The majority of participants did not mention trauma as a reason to or not to address E & HN in therapy. Only one participant stated that she was more inclined to suggest exercise to clients suffering from acute symptoms related to trauma. Two other participants explicitly stated that they were less likely to address E & HN with clients dealing with past trauma. However, previous studies have found that exercise is likely beneficial for survivors of traumatic experiences (Walker, 1991; Manger & Motta, 2005; Kendall-Tackett, 2009) and is likely a sound therapeutic recommendation for these clients.

Therapist attributes, or reasons for incorporating discussion about E & HN, included the therapist having beliefs about the mind-body connection and having knowledge and experience regarding E & HN. A particularly interesting finding was the participants' reported level of knowledge of E & HN in relation to age. The majority of participants lacked knowledge about the effects of E & HN in older adults, and were therefore less likely to address lifestyle changes with these clients. However, previous studies had shown that older adults may experience significant benefits from exercise (Hawkins, Kramer, & Capaldi, 1992; Colcombe & Kramer, 2003; Dixon, 2010) and healthy eating (Kang, Ascherio & Grodstein, 2005; Morris, Evans, Tangney, Bienias & Wilson, 2006).

Lack of knowledge in these, and other areas, led to a lack of perceived competence to discussing E & HN for participants. The development of clinical guidelines to approaching these topics may be helpful for clinicians in achieving competence in this area. Greater emphasis on these topics in clinical training may also be helpful in this regard.

The second research question this study addressed was what type and amount of training is viewed to be necessary for a therapist to promote E & HN. This may be one of the first studies

to examine necessary clinical training in relation to E & HN from the perspective of practicing therapists. This study attempted to address this by asking participants what training they have received, if any, and what type of training therapists should receive. The most commonly identified type of training that participants viewed to be necessary was to receive formal training, such as course or seminar, on the topics of exercise and nutrition. However, this type of training was reported to be the least commonly received by participants, indicating a lack of formal education in this area via training programs. Lack of training in counseling regarding exercise and nutrition has been a recurring theme in previous studies and Burton, Pakenham, and Brown (2010) specifically suggest that research be conducted regarding incorporating exercise and nutrition information into clinical training programs.

The third research question addressed in this study was what counseling methods are utilized when discussing E & HN in therapy. Numerous counseling methods were extracted from the interviews, which varied between indirect versus directive counseling techniques. These depended on the interaction between the attributes of the therapist and the client as depicted in Figure 1. This was the first study to investigate the specific counseling methods being utilized by licensed therapists. Other studies have proposed therapeutic models that may be useful when discussing E & HN in therapy (Laitakari & Asikainen, 1998; Nupponen, 1998). However, the present study indicated specific methods that therapists are currently utilizing. For example, an interesting finding of this study was that many therapists provided psychoeducation to clients regarding the psychological and physical benefits of E & HN. Providing psychoeducation on these topics as a therapeutic technique has not been demonstrated prior to this study.

Another interesting therapeutic approach discovered in this study was the use of homework, or tasks related to E & HN for clients to complete outside of therapy sessions. Participants reported encouraging clients to engage in some sort of physical activity prior to the next session. This may be the first study to identify this specific counseling technique as being perceived as useful in approaching E & HN in the context of psychotherapy.

It was also found that a therapeutic relationship comprised of collaboration and support was crucial to the therapist's willingness to discuss lifestyle behaviors with clients. Nupponen (1998) found a cooperative and collaborative therapeutic alliance between therapist and client to be most effective for implementing lifestyle changes, which the participants of the present study also endorsed. Further, many participants reported altering and adjusting plans based on individual clients, which was encouraged by Schoo (2008).

One of the most intriguing findings of this study may be the discrepancy found in counseling regarding nutrition versus exercise. Given Burton et al's (2010) conclusion that counseling in particular areas may be predicted by the therapist's level of knowledge, training, and perceived abilities to counsel on the topic, this finding may reflect psychologists' lack of knowledge and training in regard to nutrition. It was clearly expressed by the participants of this study that there was a lack of knowledge and understanding of the relationship between nutrition and mental health. However, most participants did describe themselves as being familiar with and knowledgeable about exercise, and therefore, intentionally included exercise in therapy more often. This finding seems to reflect the current research in the field of psychology, which overall, has emphasized exercise more than nutrition.

Previous studies have shown that therapists who engage in exercise and healthy eating tend to recommend the same to clients. Barrow, English, and Pinkerton (1987) found there was

a positive relationship between exercise behaviors of the therapists and a tendency to recommend E & HN in therapy. The results of this study, however, also indicated that these same therapists still might not approach the topics of E & HN. This contrast in findings may be due to differences in the methodology of the study. Barrow, English, and Pinkerton (1987) conducted a quantitative study comprised utilizing linear regression for analysis. The present study conducted a qualitative analysis, which may have provided richer explanations for how personal experience and counseling on exercise and nutrition relate. At any rate, it may be that developing guidelines or strategies for broaching these topics directly would affect therapists' behavior in this regard.

Implications for Practice

Therapists must be aware and mindful of the needs of individual clients and use clinical judgment regarding interventions. The idea of whether a client may benefit from the therapist suggesting E & HN as part of treatment may be relatively subjective, and up to one's clinical judgment to determine if that is the case or not. Building a collaborative relationship with the client was reported to be important by participants in this study, since that collaboration will help indicate what the needs of a particular client are. It is further suggested that a strong therapeutic alliance be established before addressing E & HN in therapy.

Many of these practitioners' clinical/counseling programs did not place emphasis on the health psychology, the mind-body connection, or other interventions related to lifestyle behaviors. Because of this, nearly all participants noted the importance of reading books and articles in order to familiarize themselves with the current research. Further, because reading materials may not be entirely sufficient (Herschell, Kolko, Baumann & Davis, 2010), attending workshops and presentations at conferences are recommended as they were reported to be

helpful in continuing training on this topic. It is suggested that therapists remain up-to-date on the current literature and pursue other training opportunities in order to learn about the psychological effects of exercise and nutrition.

It is unethical for therapists to overstep the boundaries of their competence (American Psychological Association, 2010). While the results of this study acknowledge that many therapists may not be comfortable or competent making explicit recommendations regarding exercise and nutrition, it seems important to have a general understanding about how regular exercise and balanced nutrition can impact general psychological well-being. It is possible that clients will initiate conversations about E & HN, as many participants stated has occurred. In these cases, the therapist may have the ability to encourage clients to pursue a healthy lifestyle and the reasons for doing so. Further, therapists should have competent and qualified referral sources, such as dietitians or nutritionists, to provide further support for clients (American Psychological Association, 2010).

In the case wherein a therapist is knowledgeable, and therefore competent, regarding E & HN and mental health, we recommend that the techniques used in approaching E & HN be clear and direct. Psychotherapists should consider providing psychoeducation to clients in order to rationalize and clarify why increased E & HN may be beneficial. Further, therapists might consider providing homework to clients to complete outside of session in order to support clients in achieving goals both in and outside of therapy.

Implications for Training

Lack of formal training has been described in many previous studies (Burks & Keeley, 1989; McEntee & Halgin, 1996; Burton, Pakenham & Brown, 2010), which was also supported by the reports of participants in the present study. Participants in this study also noted a desire to

be more informed about E & HN in relation to mental health. This desire motivated the majority of the participants to pursue extra training opportunities, such as reading materials and conference presentations. Participants also stated that adequate training with regard to these topics should include some sort of formal graduate coursework, such as a class or seminar.

It is recommended that clinical/counseling training programs begin to incorporate information about the benefits of healthy behaviors, such as regular exercise and following a nutritious diet. Not only are practicing psychologists showing interest in this topic, but it appears that clients are likely to address this topic in therapy as well. Training programs should prepare future therapists by including relevant research findings and clinical experiences in their curriculum.

Limitations

As is the case is with any study, this study exhibited various limitations. For grounded theory studies, large samples sizes are recommended in order to ensure saturation (Creswell, 2007). This study consisted of a relatively small sample size of 17 participants. While saturation was still achieved, the study may have benefited from a larger sample.

Further, the sample was recruited from the Rocky Mountain region, with most participants practicing in the state of Colorado. Colorado was recently ranked the 9th healthiest state by the United Health Foundation (2011). The Centers for Disease Control and Prevention (CDC) (2011) also named Colorado as one of the most physically active states in the United States. Therefore, exercise and diet seem to be highly valued in the state of Colorado.

Therefore, the responses of participants in this study may not reflect the views or experiences of other practitioners in other areas. While generalizability was not a goal for this study, this may be something to consider for future research.

This study may have been prone to volunteer bias. While participants were not given any specific information regarding the purpose of this study before agreeing to participate, there still may have been some differences between those who were willing to voluntarily participate in an interview study compared to those that were not willing to participate. Participants were not compensated for the time and data they provided, and it is possible that the sample may have looked different if that had been the case. Further, the social desirability bias may have been activated for some participants. Despite the fact that participants were told responses would be kept anonymous, it is possible that they may have still provided the seemingly desirable or preferred responses regarding their views and experiences

Future Research

Future studies should investigate the perspectives of professionals with specific specializations. For example, child psychologists may have differing views and counseling methods for exercise and nutrition than such a varied sample. Another specialization that would be interesting to investigate would be psychologists who work with clients with eating disorders, as they may take a different approach with clients who struggle with disordered eating or exercise behaviors.

Another direction for future research would be to explore the perspectives of clients. It is possible that the perspectives of clients may differ with regard to exercise and nutrition. Furthermore, clients may provide important feedback as to how they were impacted by a therapist addressing the topics of exercise and/or nutrition. Further, most studies have evaluated the effects of exercise and nutrition through quantitative means (Walsh, 2011; Gomez-Pinilla, 2008; Otto & Smits, 2007; Ryan, et al, 2010). Exploring how clients experience the mental

health effects of exercise and healthy eating though qualitative methods may provide more rich detailed data to the existing literature.

A final suggestion for future research is to put a greater emphasis on examining the psychological effects of a nutritious diet. Overall, participants of this study reported a lack of awareness with regard to this area, leading them to avoid the topic in session and refer to outside professionals. While there is bountiful research reporting the benefits of exercise (Courneya, Freidenreich, Sela, Quinney, Rhodes & Handman, 2003; Walsh, 2011; Wilfley & Kuncze, 1986; Blumenthal et al, 2007; Brosse, Sheets, Lett & Blumenthal, 2002; Ströhle, 2009; Dunn & Jewell, 2010; Dunn, Trivedi, Kampert, Clark & Chambliss, 2005; Simons, McGowan, Epstein & Kupfner, 1985; Skrinar, Huxley, Hutchinson, Menninger & Glew, 2005; Tkackuk & Martin, 1999), there is limited research in psychological journals highlighting the impact of healthy eating.

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APPENDICES

APPENDIX A

Email Invitation

Hello (insert name),

We would like to invite you to participate in a study of clinical work of licensed practitioners.

The purpose of the study is to describe the beliefs, knowledge, practices and experiences of licensed clinical and counseling psychologists. This information is important to developing and improving effective interventions and treatment plans. Personal benefits to you may include clarification and reflection of your own beliefs and practices. We do not foresee any risks to this study. If you are interested in participating, you can elect to be interviewed. The interview is projected to last from 30-45 minutes (depending on how much you have to say in response to the questions). The interview will focus on your knowledge, beliefs, experience, practices, and so forth related to counseling. If you are interested in participating in this study, please contact Lauren Millard (Lauren.millard@rams.colostate.edu). She will answer any questions you have about the study.

With best regards,

Lauren Millard

Department of Psychology

Counseling Psychology

Office: 336 Behavioral Sciences

Email: Lauren.Millard@rams.colostate.edu

APPENDIX B

Consent Form

COLORADO STATE UNIVERSITY INFORMED CONSENT TO PARTICIPATE IN A RESEARCH PROJECT – FORM A

PROJECT TITLE: Counseling Practices of Mental Health in Promoting Physical Activity and Nutrition Behaviors in Therapy

INVESTIGATORS: Lauren Millard

Please contact Lauren Millard (364-3868) or Kathryn Rickard (491-5121) if you have any questions or concerns about this study.

PURPOSE OF THE RESEARCH:

The purpose of this research study is to explore therapeutic practices of psychologists in private practice. It is meant to find out about the knowledge, beliefs, experiences, therapeutic techniques, and so forth in regards to using nutrition and exercise and interventions of part of a treatment plan in therapy. The ultimate goal is to identify ways to utilize healthy behaviors with clients in therapy.

PROCEDURES TO BE USED:

You will be interviewed at one time. The interview will take 30-45 minutes to complete, including completion of a demographic form that will take 5-10 minutes to fill out and which may be completed prior to the interview. The interviews will focus on the following topics:

- Your experience in using nutrition and/or exercise in a therapeutic setting.
- Your knowledge and beliefs about the effects of nutrition and exercise on mental health.
- Reason why you do or do not use nutrition and exercise in therapy.
- Therapeutic techniques and ways you use nutrition and exercise in therapy.
- Training and education you may have received related to nutrition or physical activity.

The interviews will be digitally recorded and then transcribed for analysis. The digital audio files and transcribed interviews will be identified only with an ID number, and kept for up to five years in case the researchers need to refer back to the data.

RISKS INHERENT IN THE PROCEDURES:

There are no known risks. It is not possible to identify all potential risks in research procedures, but the researchers have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

BENEFITS OF THE STUDY:

The interviews are likely to prompt participants to reflect on their career and current practices in working with clients, which can be very important for therapists' development and effectiveness. This study lays the groundwork for developing more effective counseling techniques and interventions. As a result of this study, we hope that more effective methods and training programs will be created to help developing therapists in training.

CONFIDENTIALITY:

The transcribed interviews will have ID numbers but no other identifying information in them. A list with names with IDs and contact information, as well as signed consent forms, will be kept in a locked file cabinet separate from the interview transcripts, so that the information you provide about your career pathway cannot be linked to your name. The list of names and IDs will be kept for five years after the conclusion of the study because we may want to conduct periodic follow-ups of how many participants do pursue careers in science/technology. After five years, the list will be destroyed. Computer files that contain the data also will use IDs. Only general findings will be shared with the public, not the specific information about participants.

LIABILITY:

The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury. Questions about participants' rights may be directed to Janell Barker at (970) 491-1655.

Your participation in this research is voluntary. If you decide to participate in this study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature acknowledges that you have received, on the date signed, a copy of this document containing two pages.

Participant name (please print)

Participant signature

Date

Witness to signature (project staff)

Date

APPENDIX D

Contact Information Form

Name:	
Phone Number:	
E-mail Address:	

May we contact you in the future to review the results to improve reliability? yes no

Preferred method of contact: phone e-mail

APPENDIX E

Interview Questions

- 1.) What do you know about the relationship between physical health and mental health?
 - a. In particular, what do you know about the relationship between nutrition and exercise and mental health? (Follow-up with the following subjects)
 - i. Mood
 - ii. Psychological well-being
 - iii. Psychopathology/psychological disorders
 - iv. Cognitive Functioning
 - v. Children
 - vi. Adolescents
 - vii. Older adults

- 2.) Do you believe that following a nutritious diet and exercise regimen has positive effects on psychological well-being? Please explain why or why not?

- 3.) Have you ever recommended or discussed nutrition and/or exercise with clients in therapy? (If the participant answers 'yes,' follow up with the following questions)
 - a. How often do you tend to use nutrition and/or exercise in therapy?
 - b. Can you give a couple examples where you have chosen to do so, or chosen not to do so?

- 4.) How would you work with a client and integrate exercise and/or nutrition into therapy?
 - a. For what types of client or client issues would you tend to recommend or discuss nutrition and/or exercise?

- b. How would you approach the subject of nutrition and/or exercise to clients in therapy?
 - c. What methods would you utilize when turning to nutrition or exercise (i.e. referral, psychoeducation, homework)
- 5.) What has prevented you from recommending nutrition and/or exercise to clients in the past?
- 6.) What would be useful in overcoming those barriers?
- 7.) What training have you received related to health psychology or using physical health behaviors as an intervention in therapy?
- 8.) How much and what type of training should therapists have to discuss nutrition and/or exercise with clients in therapy?
- 9.) How would you describe your own diet?
- a. What are your beliefs about diet and nutrition?
 - b. What link do you see in your own life between what you eat and your mental, emotional, or cognitive health?
 - c. What challenges do you face with your own eating habits?
- 10.) What role does exercise place in your life?
- a. What are your beliefs about exercise and physical activity?
 - b. What link do you see in your own life between exercise and your mental, emotional, or cognitive health?
 - c. What challenges do you face with your own exercise habits?

11.) Is there anything else you would like to add that I have not asked about that you think would be interesting or important that I haven't directly asked about?