2004

An Occupational Therapy Home Maintenance Program for College Students with Depression

Laura F. Morton
University of North Dakota

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An Occupational Therapy Home Maintenance Program for
College Students with Depression

By

By Laura F. Morton, MOTS

Dr. Lavonne Fox, PhD, OTR: Advisor

A Scholarly Project
Submitted to the Occupational Therapy Department
of the
University of North Dakota
in partial fulfillment of the requirements for the degree of
Masters of Occupational Therapy

Grand Forks, ND

May 2004
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Chapter 1

Introduction

Research indicates that the prevalence of depression among college students is on the rise with a number of college students reporting feeling hopeless and so depressed that they could barely function (Voelker, 2003). Voelker (2003) indicated that 61% reported feeling hopeless, 45% reported feeling so depressed that they could barely function, and 9% reported feeling suicidal. Most student health centers only offer short-term services (Latham, 2004). For some campuses the demand for services exceeds the amount of services available and campuses simply don’t have the resources to do more (O’Connor, 2001). College student health centers have been unable to provide appropriate maintenance therapy for students with depression (Voelker, 2003).

Maintenance therapy can include such things as: medication, exercise, guided imagery, music, aromatherapy, acupuncture, and journaling. Maintenance therapy is an extension of therapy to prevent recurrence and does not have a limit on its duration. Its focus is preventative as well as supportive. Maintenance therapy for college students is of primary focus because the prevalence of depression amongst this population is rising and treatment centers haven’t always been able to provide the most thorough and appropriate interventions. Some reasons for increased depression amongst college students may be that they have less social support. During this time period students are finding themselves moving away to college and away from family, friends, home, and a familiar community. College students also have an increase in other stressors such as greater academic demands, being on their own in a new environment, changes in family relations, financial responsibilities, changes in social life, exposure to new people, ideas,
and temptations, awareness of sexual identity and orientation and preparing for life after graduation (National Institute of Mental Health, 2004).

A report by Cathy Bell (2004) stated that suicide is the third leading cause of death among ages 15-24. Most colleges do not have the appropriate resources to deal with students who have long-term issues and tend to only offer short-term services (Latham, 2004). Also, untreated depression can be very disabling, interfering with a student's ability to learn, work, socialize and enjoy life (Gavin, 2003). This is an alarming statistic that supports the need for maintenance therapy for this population.

There has been minimal research on maintenance therapy for depression, and significantly less research on maintenance therapy for college students with depression. There is considerable research related to traditional treatment, such as medication and counseling. This scholarly project gathered information on maintenance therapy for depression and formulated a maintenance therapy program that is appropriate for college students with depression.

Chapter two presents the information gathered through an extensive literature review on traditional and complementary therapies for depression. Chapter three provides an account of the methodology used for the development of the product. Chapter four is the product in its entirety. Finally chapter five provides the reader with the project's conclusions.
Chapter 2

Literature Review

Introduction

An extensive literature review was conducted to explore the needs of college students who suffer from depression and the therapy options they may have. The therapy options primarily reviewed were traditional interventions such as medication. These were compared to complementary therapies such as exercise, movement therapy, guided imagery, music, acupuncture, aromatherapy, and journaling.

One boundary of this project is that it only addressed college students. Therefore, the product completed will not be available to everyone with depression. A second boundary is that the final product is meant to be distributed by occupational therapists or other mental health professionals and distributed to clients already seeking treatment. Therefore, this product will not be available to everyone that may benefit from it.

Depression

According to criteria published in the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, (American Psychiatric Association, 2000, p 349-352), a diagnosis of depression requires that an adult experience five or more of the following symptoms within the same two weeks:

- depressed or irritable mood nearly everyday for most of the day
- markedly diminished interest or pleasure in previously enjoyed activities
- weight loss or weight gain
- changes in pattern of sleep (increases or decreases in amount of time spent sleeping)
• psychomotor agitation
• fatigue or loss of energy
• feelings of worthlessness or excessive or inappropriate guilt
• indecisiveness or diminished ability to concentrate
• recurrent thoughts of death

Symptoms must also represent a change from the previous level of functioning and cause significant distress or impairment. Symptoms of anxiety are prominent and somatic complaints, like headaches, are often seen.

Research indicates that the prevalence of depression among college students is rising. A study from the American College Health Association in 2000 reported that 10% of college students have been diagnosed with depression (Peterson, 2003). The US Surgeon General’s Report on Mental Health, 1999, indicated that about 20% of students will experience depression at some time in their lives (Voelker, 2003). Patients with depression are also at significant risk for chronicity and relapse. Among patients that have recovered, 87% will have a recurring episode within 15 years (Keller, 2001).

According to Peterson (2003) 85% of college counseling centers report an increase in students with severe psychological problems. Unfortunately, student health centers and campus counseling centers have not been able to keep pace with this increased demand for mental health treatment and therefore may not be able to provide the most thorough and appropriate intervention (Voelker, 2003).

These statistics support the need for some type of continuing intervention in the form of maintenance therapy. Some of the personal suffering that college students experience may be in the form of their symptoms, such as feeling hopeless and overwhelmed.
According to the National Mental Health Association (2004), 30% of college freshmen reported feeling overwhelmed a majority of the time. Maintenance therapy is an extension of therapy to prevent recurrence and does not have a limit on its duration. Its focus is preventative as well as supportive. Candidates for maintenance therapy may include patients who have had three or more episodes of major depression or those who have had two or more episodes but also have a family history of mood disorder, a rapid recurrence rate, or severe episodes (Keller, 2001).

The presentation on therapeutic interventions for depression will begin with the traditional approaches used in dealing with depression and progress to discussion on various complementary approaches. There is considerably less literature available on these complementary interventions and even less literature available on programs combining these therapies into a comprehensive program for patient use. It is the combination of these approaches that maintenance therapy intervention will be introduced and discussed more thoroughly in relation to occupational therapy. Combining these therapies into a maintenance program for college students with depression could create a vital tool for student health centers and other programs to aid in decreasing student depression, therefore increasing productiveness, student success and decreasing health care costs.

**Interventions**

**Traditional Therapy**

As mentioned prior, medication and exercise are the traditional interventions utilized in maintenance therapy. One article, by Kupfer, Frank, Perel, Cornes, Mallinger, Thase et al. (1992), looked at the efficacy of maintaining antidepressant medication treatment...
Participants for this study were recruited from a previous study on extended maintenance where they had been in one of two active medication treatment conditions for three years. Twenty participants completed this study and they were randomly assigned to receive either continued medication treatment or a placebo for an additional two years. There were eleven participants who received medication treatment and nine who received the placebo. In addition to the medication/placebo, the participants, in both groups, continued to receive psychotherapy. Those receiving the placebo were placed on drug withdrawal schedules and those receiving medication continued on their regular schedule. The participants that presented a state of substantial worsening regarding depression, or reported this worsening to the clinic, were then observed and examined twice within a 7-day period. If the participant then met the criteria for major depression, as rated on the Hamilton Rating Scale for Depression (HRSD), the patient was then scheduled to also be seen by an independent senior psychiatrist. A new episode of depression was confirmed if the psychiatrist also indicated the presence of depression along with the HRSD score. The Mantel-Cox test was used to compare the survival curves for these groups. The results of this study found that the continuation of imipramine (medication treatment) was highly significant in delaying the recurrence of depression. The authors of this study recommend medication treatment, for recurrent depression, for at least 5 years.

Keller (2001) reviewed and presented a variety of studies completed on the use of antidepressants in maintenance therapy. One study, reviewed by Keller (2001), compared nefazodone, cognitive-behavioral analysis therapy, and a combination of the two for the treatment of chronic depression. The results demonstrated a response rate of
about 50% for the individual therapies and a response rate of 85% when the groups were combined. Another study discussed by Keller (2001), compared the results of continuation medication therapy with fluoxetine, paroxetine, sertraline, citalopram, nefazodone, or mirtazapine compared to a placebo. The rate of relapse with the placebo was significantly higher than treatment with any of the above listed antidepressant treatments. A final study Keller (2001) reviewed, compared imipramine, interpersonal therapy, a combination, interpersonal therapy with placebo and placebo alone. The placebo alone had the highest rate of recurrence, which was 78% and the imipramine alone or with therapy had the lowest rates of 22% and 24%. The results of all these studies indicate that medication plays a significant role in the treatment of chronic or recurring depression.

Complementary Therapy

Although medication plays a significant role in maintenance therapy, clients continue to use complementary therapy. Complementary therapy is defined by Ernst, Rand, and Stevinson (1998, p. 1026) as "...diagnosis, treatment, and/or prevention which complements mainstream medicine by contributing to a common whole, by satisfying a demand not met by orthodoxy..." Patient reasoning for choosing complementary forms of therapy as opposed to only choosing medication might include: the medication causes too many adverse effects, some clients have trouble with medication compliance, and for some patients medication just doesn’t work. Wagner (2004) found that one in five patients, who are frequently reminded, do not take their medication. Ernst et al. (1998), state that depression is among the top 10 indications for using complementary therapies
and that 34% of the U.S. population used at least one complementary therapy during the course of one year.

**Exercise**

One of the forms of complementary therapy that is both most commonly researched and utilized is exercise therapy. In a study titled, 'Exercise Treatment for Major Depression: Maintenance of Therapeutic Benefit at 10 months', Babyak, Blumenthal, Herman, Khatri, Doraiswamy, Moore et al. (2000) assessed the status of participants 6 months after the completion of treatment in aerobic exercise, sertraline therapy, or a combination of the two. The participants were volunteers who met the Diagnostic and Statistical Manual-IV (DSM-IV) criteria for major depressive disorder and scored at least 13 on the Hamilton Rating Scale for Depression (Babyak et al. 2000). Contraindications for participants to join this study were: current use of antidepressant medications, current problems with alcohol or substance abuse, medical contraindications to exercise, an Axis I Disorder other than depression, imminently suicidal, and currently in psychotherapy. Babyak et al. (2000) indicated that one of the measures used for depression was the Diagnostic Interview Schedule; the Hamilton Rating Scale for Depression and the Beck Depression Inventory were also used to measure the depression. After the assessment the participants were randomly assigned to one of three treatment groups: exercise, medication, or exercise and medication combined. The participants in the exercise group attended three supervised sessions per week for 16 consecutive weeks. The sessions consisted of a warm-up, cycling or brisk walking/jogging within target heart rate, and a cooldown. The participants in the medication group received Zoloft for 16 weeks which was initiated with 50 mg and then further managed by a psychiatrist. The
combined group received both the exercise and medication protocol presented prior. Evaluations, including the Diagnostic Interview Schedule, the Hamilton Rating Scale for Depression, and the Beck Depression Inventory, were conducted at baseline, immediately after the four-month treatment period, and at six months after treatment ended. The results of the study indicated that at the six-month follow-up participants in the exercise group exhibited lower rates of depression than participants of the other two groups. Also, participants in the exercise group were more likely than those in the medication group to be partially or fully recovered at the six-month follow-up visit.

Wyshak (2001) conducted an exercise study that focused on college alumnae and the physical activity they participated in during their college years. The purpose of the study was to identify if there was an association between women’s athletic activity in college and physician-diagnosed depression in the years after college. The participants included alumnae from 10 colleges and universities. Of these participants, 2622 were former athletes and 2776 were former nonathletes. A detailed self-administered questionnaire was mailed out to each participant which included questions on athletics, and a detailed medical history including a history of medications. A 15-year follow-up was conducted on the women studied and questionnaires were mailed to the women in which addresses were available. The revised questionnaire included questions about the following areas: occupation and living arrangements, current exercise or athletic activity, medical history, weight gain or loss, diet, family history of cancer, along with many other questions on health, diet, and exercise. Questions on mental health were derived from the Rand Mental Health Inventory (RHMI-5). The results of the college alumnae’s physical activity study indicated that the percent of physician-diagnosed depression is significantly
lower in the former athletes compared to nonathletes. In addition, the scores from the RHMI-5 indicated less psychological distress in athletes. A final outcome of the study was that the women who were athletes in college, have significantly less self-reported physician-diagnosed depression in their middle and older ages. Some theories about the effect of exercise on depression state that girls may derive positive self-esteem from physical activity. Therefore, these girls become more confident and feel better about their appearance and weight. Another conclusion is that exercise helps to release endorphins and increase epinephrine levels in your body, which has been linked to decreasing depression.

A final study to present on exercise for this literature review was conducted by DiLorenzo, Bargman, Stucky-Ropp, Brassington, Frensch, and LaFontaine (1999). This study focused on the long and short-term psychological effects of exercise by examining the short and long-term psychological effects of completing a 12-week aerobic fitness program. The participants in this study were recruited from a Midwestern university town. The participants were randomly assigned to either an exercise or control group. The participants in the control group were asked not to initiate an exercise program or any other self-help programs during the duration of the study. Contraindications for participation included serious physical illness, use of hypertensive, hyperlipidemic, or psychotropic drugs, current smoking, obesity, and clinical depression. The participants took part in maximal and submaximal exercise tests and were asked to exercise at 70-85% of their peak heart rate. Other assessments used included the State-Trait Anxiety Inventory (STAI-State), the BDI, subscales of the Profile of Mood States (POMS), and subscales of the Tennessee Self-Concept Scale (TSCS). These assessments were
administered at baseline, at the end of the 12 week program and at 3, 6, and 12 month follow-up. Findings from this study indicated that the exercise participants experienced a larger decrease in depression and anxiety symptoms along with an increase in self-concept and vigor over time. Also, the participants maintained some level of fitness gain at a one-year follow-up compared to at baseline. More importantly, participants also displayed reliable mood improvements at one-year follow-up compared to their baseline scores.

The findings from these studies presented on exercise indicate that exercise has a significant, positive long-term effect on mood and depression. Therefore, it can be assumed that exercise is established as an excellent potential complementary treatment intervention for maintenance therapy.

**Movement Therapy**

Movement therapy focuses on similar aspects of treatment as exercise therapy. In a study by Stewart, McMullen, and Rubin (1994), the researchers evaluated the effects of movement therapy on depression. The hypothesis was that clinically depressed inpatients would experience a reduction in depressed mood after group movement therapy. The participants for this study were 12 inpatients who were diagnosed with a major unipolar depression. Movement Therapy was then randomly assigned to each one of them for 7 days within 14 possible intervention days. The intervention components included simple dance steps for warm-up, dyad movements with partners on the floor and alternating leading, solo floor movement, a creative jive dance, a "trust rock" and formation of a group sculpture. Each of the sessions lasted about 45 minutes. Mood was assessed daily using the Depression Adjective Checklist (DACL).
The results of the study revealed a significant reduction of symptoms for five of the twelve participants; the remaining seven participants had no significant change. The results indicate that movement therapy was able to contribute to improved mood for several inpatients with depression. Similar to exercise, movement therapy also shows positive implications for the treatment of depression as a complementary maintenance therapy for some individuals.

**Guided Imagery**

Guided imagery has been used in a variety of health settings for the past three to four decades (Heinschel, 2002). One literature review, conducted by Gruzelier (2002), studied the impact of hypnosis, relaxation, and guided imagery. The purpose of the review was to examine psychological interventions involving relaxation and guided imagery targeting immune functions. Gruzelier (2002) highlighted two of the studies in his review which both focused on self-hypnosis and its effects on college medical students. These two studies are presented in the following paragraphs.

The first study presented in the Gruzelier (2002) review examined self-hypnosis and relaxation was with twenty-one first year medical students. The students had to complete a self-report which focused on psychosocial and symptom measures. They also had to experience blood draws which were assessed at four intervals; during orientation, late semester, exam time, and post semester recovery. The participants were also administered the Harvard Group Scale of Hypnotic Susceptibility and the Inventory of Self-Hypnosis. The participants received 90 minutes of group training sessions weekly and 15 minutes of home practice daily that focused on practicing relaxation. The results of the study indicated that participants had higher ratings of mood disturbance, fatigue,
loss of vigor, hostility, depression and obsessive-compulsive symptoms. However, following the relaxation training the participants experienced lowered anxiety and distress.

A second study highlighted by Gruzelier (2002) included participants that were predominantly second year medical students. In this study, a control group was compared with a group receiving self-hypnosis instructions that included relaxation, immune imagery, and cognitive alertness. The participants were provided training with an audiotape and were instructed to use the audiotape for three weeks prior to exams. The Spielberger State Anxiety Scale and the Thayer Activation-deactivation Checklists were used to assess mood and the subjects also completed a lifestyle questionnaire. The results of the study revealed that exams increased anxiety and tension, but hypnosis provided an increase in energy and calmness. Both studies demonstrated that self-hypnosis combined with relaxation is an effective complementary therapy for increasing mood and could possibly be effective in treating depression.

Heinschel (2002) conducted a qualitative study to describe the experience of participating in Interactive Guided Imagery. The participants for this study were patients who were recruited by nurses who already practiced interactive guided imagery. The participants were interviewed about their experience with interactive guided imagery using a semistructured audiotaped interview. The participants indicated that the average interactive guided imagery session was one hour and the total number of sessions ranged from three sessions to every two weeks for nine years. The participants used interactive guided imagery for a variety of purposes including personal growth or help with anxiety, depression, or stress. The participants also identified various positive changes that had
occurred in their lives with the use of interactive guided imagery. These patterns of positive change included; major personal transformation, specific life changes, expanded awareness, healing, and the wholeness of the experience.

Guided Imagery and Music, "may help people to identify and explore less accessible emotional material" (McKinney, Antoni, Kumar, Tims, and McCabe, 1997, p. 390). In a study conducted by McKinney et al. (1997), effects of guided imagery, combined with music therapy were evaluated. In this study, guided imagery and music consisted of "self-exploration that involves listening to specially designed sequences of classical music to allow spontaneous images to come to conscious awareness and sharing the experiences with a therapist" (McKinney et al., 1997, p. 392). Procedures used for the guided imagery and music were in accordance with the Bonny Method of Guided Imagery and Music. The Bonny Method of Guided Imagery and Music is a "depth approach to music psychotherapy in which specifically programmed classical music is used to generate a dynamic unfolding of inner experiences" (McKinney et al., 1997, p.390). The hypothesis of this study was that individuals who experienced six guided imagery and music sessions would report a decrease in mood disturbance and levels of cortisol and that these changes would be sustained at a six-week follow-up. The twenty-four participants for this study were recruited through advertisements in a newspaper and by word of mouth and were then randomly assigned to either a guided imagery and music group or a control group. Contraindications for participation included: use of antibiotics, use of recreational drugs, cigarette smoking, alcohol intake exceeding 10 drinks a week, pregnancy, present or history of a psychiatric illness, a skin reactive disease, symptoms of acute infections, and/or a history of head injury. The participants had 6 individual
sessions of guided imagery and music every other week; each session lasted 1.5 to 2 hours. The assessments for both of the groups were conducted at baseline, immediately following the 13-week intervention period, and at a 6-month follow-up. The Marlowe-Crowne Social Desirability Scale and the Creative Imagination Scale were administered upon study entry to assess disposition. To measure daily stressors the Hassles Scale was administered at each time point. Mood was also measured at each time point using the Profile of Mood States and the Total Mood Disturbance score. A blood sample was also collected at each time point to measure cortisol levels. The results of the study indicated that the experimental group showed a significant decline in Total Mood Disturbance and Profile of Mood States scores between pre- and postsession and the results were also sustained at follow-up. The results also revealed that the cortisol level was significantly lower. Increased levels of cortisol have been associated with several negative effects on health including cognitive effects. The results of the study indicate that guided imagery and music can contribute to increasing mood levels in healthy adults and the effect is sustained for at least 6 months. Guided imagery and music could be a possible consideration as an intervention for patients with depression or other mood disorders.

Music Listening

Lai (1999), solely studied music listening and depression. The purpose of Lai’s (1999) study was to assess the physiological and psychological effects of music listening on women with depression. The participants were selected from inpatient and outpatient psychiatric units at a hospital in Taiwan. The female participants were diagnosed with major depression and randomly assigned to either an experimental or a control group. The women’s heart rate, respiratory rate, blood pressure, and mood state were all
measured 5 minutes before and after the intervention. Their immediate mood state was measured using a mood adjective checklist and the Cantril Ladder Format. In addition, four questions were asked about the music that that patients listened to. The participants in the experimental group separately experienced 30 minutes of music listening activity of their choice, consisting of either classical, new age, Chinese, or Oriental new age music. The control group experienced the same steps except they listened to pink sound for 30 minutes instead of music. Pink sound is a specific frequency of sound, similar to white noise. The participants in the experimental group experienced a greater reduction in heart rate, respiratory rate, blood pressure and short-term mood state compared to the participants in the control group. Music may have helped participants to reveal their feelings and it appears that music was effective in positively influencing participants' mood states. In this study, music was a beneficial addition to the women’s inpatient therapy. Additionally, the reader may infer that long-term use of music listening could also be effective in treating patients after they have been discharged from their inpatient stays.

**Aromatherapy**

Aromatherapy has been defined as “the controlled use of essential oils to maintain and promote physical and mental well being” (Edge, 2003, p. 90). The purpose of Edge’s (2003) study was to assess the effect of aromatherapy sessions on participants’ levels of mood, anxiety, and relaxation. The participants for the study were referred by their consultant psychiatrist. The participants also needed to have and International Classification of Diseases-10 diagnosis and could not have an acute mental or physical health problem or be in their first trimester of pregnancy. The Hospital Anxiety and
Depression Scale was administered to participants immediately prior to the first treatment and immediately after the last treatment. The 10cm Visual Analogue Scale, which measures mood, relaxation, and anxiety, was administered to participants before and after each massage and six weeks after the final treatment was completed. Each participant was seen for six aromatherapy sessions for one hour each and the session was conducted at the same time and day for each participant. Aromatherapy sessions included the use of a standardized massage technique and essential oils selected specifically for that specific client. The focus of the oils selected was to reduce anxiety and depression. The results of the 10cm Visual Analogue Scale demonstrated a 50% improvement in the level of relaxation and anxiety and a 30% improvement in level of mood. The Hospital Anxiety and Depression Scale scores indicated that 75% of clients demonstrated an improvement in both anxiety and depression levels. Aromatherapy appears to also have a positive effect on decreasing depressive symptoms and could be considered as a complementary therapy for patients with depression. An additional benefit is that aromatherapy allows the patients to make their own choices in choosing the oils and it is an easy treatment for patients to administer on their own.

**Acupuncture**

Electro-acupuncture has been used in China for the treatment of somatic and mental diseases since the 1950s. To further study electro-acupuncture, Luo, Meng, Jia, and Zhao (1998), implemented a study on its effects on individuals who experienced depression. The purpose of the study was to confirm previous results, which found that electro-acupuncture was as effective as amitriptyline. The subjects recruited for this study were inpatients whose total score on the Hamilton Rating Scale for Depression was
20. The first phase of this study was a placebo-controlled, double blind study. A total of 29 patients were recruited for this phase of the study and all were drug free for at least one week prior to treatment. The subjects were then randomly divided into three treatment groups: electro-acupuncture, amitriptyline, and combination. In the electro-acupuncture group, the subjects received electro-acupuncture six times a week for six weeks in combination with placebo capsules. In the amitriptyline group, patients received amitriptyline for 6 weeks, and in the combination group subjects received both electro-acupuncture for 6 weeks and amitriptyline for 6 weeks. The second phase of the research was a collaborative study where 241 patients were recruited from psychiatric hospitals. After the subjects remained drug free for at least a week, they were randomly assigned to one of two treatment groups. These treatment groups were equivalent to the electro-acupuncture and amitriptyline treatment groups described in the first phase of the study. Trained psychiatrists were used in both research phases to evaluate the patients. The psychiatrists used the Hamilton Rating Scale for Depression the Clinical Global Impression Chart and the Rating Scale for Side-effect (ASBERG). Results for the first phase of the research show that scores on the Hamilton Rating Scale for Depression and the Clinical Global Impression Chart reduced significantly for all three groups after 6 weeks of treatment. The second phase of the research had similar findings; however, the findings also showed that electro-acupuncture had a better therapeutic effect for anxiety somatization and cognitive process disturbance compared to amitriptyline. Electro-acupuncture was also more effective in treating reactive depression and side effects were significantly. For patients with depression, looking for complementary treatments to medications, electro-acupuncture could be their answer.
Tao (1993) also conducted research on the effects of acupuncture. The purpose of this study by Tao (1993) was to determine the effects of acupuncture on reducing anxiety and depression in patients with chronic illnesses. Participants of this study were patients who chose to receive acupuncture for their chronic conditions. Participants had not previously received acupuncture treatment and their Hospital Anxiety and Depression Scale score (HADS) was greater than or equal to eight, indicating that the patient had anxiety or depression. The Participants were excluded if they were taking mood-altering drugs. Traditional Chinese acupuncture techniques and standard acupuncture points were selected appropriately according to each patient’s diagnosis. HADS scores revealed provides the results, presented prior, without side effects.

Journaling

A final consideration for complementary therapy is journaling. The hypothesis of a study by Ullrich and Lutgendorf (2002) was that individuals who were encouraged to focus on cognitive processing versus emotional aspects, when writing about a stressful event, would experience more of the positive benefits of journaling. Ullrich and Lutgendorf (2002) studied the concept of writing about stressful or traumatic events. The participants were undergraduate psychology students who received course credit for enrolling in the study. The subjects were assigned to one of three experimental groups: emotional expression, cognitions and emotions, and a control group. Each group received a journaling assignment to write at least twice a week for at least ten minutes. Groups 1 and 2 were instructed to write about a previously experienced trauma or stressor that continues to be a source of distress. In addition to the first set of instructions, Group
1 also received the instructions of: “We would like you to keep a journal of your deepest feelings about this topic over the next month” (Ullrich & Lutgendorf, 2002, p.246)

In addition to the first set of instructions Group 2 received a different set of instructions that stated:

“We would like you to keep a journal of your deepest thoughts and feelings about this topic over the next month. We are particularly interested in understanding how you have tried to make sense of this situation and what you tell yourself about it to help you deal with it. If the situation you are describing does not yet make sense to you, or it is difficult to deal with, describe how you are trying to understand it, make sense of it, and deal with it and how your feelings may change about it.”

(Ullrich & Lutgendorf, 2002, p. 246)

Group 3 received the following instructions:

“We would like you to keep a journal of events from the media involving loss and trauma over the next month. Your accounts should include what were the facts about the events leading up to the event, what happened, and what was the outcome. Please stick to the facts as much as possible.” (Ullrich & Lutgendorf, 2002, p.246)

One of the measures used in the study was the Positive Growth Inventory which is a 21-item scale that assessed perceived benefits from coping with a traumatic event. The second measure used was the Infectious Illness Episodes and Symptom Severity is a 13-item questionnaire that was used to assess infectious illness episodes and severity. Both measures were administered before and after the journaling intervention. The Linguistic
Inquiry and Word Count Program were also used to analyze the content of the writing samples. The cognitions and emotions groups showed an increase in growth from trauma, over time after journaling, and the other two groups showed no change. The emotional expression group reported more physical illness during this study. These findings suggest that focusing on both the cognitions and emotions can raise awareness of the benefits of the event. The study indicated that the most beneficial method of journaling, used in Group 2, did contribute to help patients deal with stresses in their life positively, therefore decreasing the risk of reoccurring depression. Journaling is the final complementary therapy presented as a worthy consideration for a maintenance program.

**Maintenance Therapy Intervention**

The majority of literature on maintenance therapy focuses mainly on the use of antidepressants and exercise as primary interventions. However, several complementary interventions have been presented in this literature review that could be considered and utilized when designing a student's maintenance therapy program. A combination of a variety of interventions could more appropriately meet the student's diverse needs and prevent a future relapse and possibly minimize the severity of a relapse.

College student health centers have been unable to provide appropriate maintenance therapy for students with depression (Voelker, 2003). For some campuses, the demand for services exceeds the amount of services available and campuses simply don't have the resources to do more (O'Connor, 2001) Most student health centers only offer short-term services (Latham, 2004).

The program that this scholarly project proposes is a Home Maintenance Program to prevent the relapse of depression in the young adult population and maintain mental
health wellbeing. The US Surgeon General’s Report on Mental Health, 1999, indicated that about 20% of students will experience depression at some time in their lives (Voelker, 2003). Patients with depression are also at significant risk for chronicity and relapse. Among patients that have recovered, 87% will have a recurring episode within 15 years (Keller, 2001). This Home Maintenance Program will include recommended complementary therapies and provide resources that will be useful for young adults to use after they have been discharged from a formal mental health setting or are receiving outpatient services for the treatment of depression. Complementary therapies that have been demonstrated to be effective for some individuals in the treatment of depression include journaling, exercise, music therapy, guided imagery, aromatherapy, and acupuncture. It is hoped that this Home Maintenance Program will be used by student health centers and other facilities to aid in increasing student mental health and wellbeing.

Summary

An appropriate home program will be able to address disparities in the treatment of college students with depression. If the program is implemented and appropriately supported, it is hopeful that the prevalence of depression among college students, that use the program, will decrease instead of continue to rise. Treatment interventions including medication therapy and complementary therapies such as exercise, guided imagery, music, aromatherapy, acupuncture, and journaling, have been effective in treating adults with depression and are appropriate interventions for maintenance therapy. Maintenance therapy is needed because of college students increased stress level and lack
of social support. Maintenance therapy programs are also indicated because of the lack
of long-term treatment currently available for students.

Chapter three will focus on methodologies that were used in developing the literature
review and the final product for the scholarly project.
Chapter 3

Activities and Methodology

Depression is a serious and often chronic condition that may cause a significant amount of personal suffering and disability. There is a significant risk for relapse in individuals diagnosed with depression which can contribute significantly to increasing health care costs. Therefore, it is critical to treat the client with depression thoroughly and holistically, with a program that can aid in preventing relapse and maintain healthy function.

The literature indicates there is a need for a maintenance therapy program for patients with depression. However, there is little information available on specific programs of maintenance therapy designed for clients diagnosed with depression. Based on the identified need, a specific home program was developed, for clients with depression, to include maintenance therapy activities. This program should be provided post-discharge from formal treatment or in conjunction with these formal treatments.

Each activity of the program includes:

- a definition of the activity, the benefits of utilization,
- how to use the activity,
- an example, and
- resources for that activity.

With the guidance of a faculty advisor, a topic proposal was developed and approved by the University of North Dakota Graduate School. The proposal briefly summarized the areas to be addressed within the literature review and included an outline of the contents of the project.
An extensive literature review was then conducted to identify appropriate interventions of maintenance therapy, specifically for college students with depression. A result of the literature review was the identification of key interventions for maintenance therapy. The key interventions that were chosen for closer examination which included; medication, exercise, journaling, music therapy, relaxation, aromatherapy, guided imagery, and acupuncture. For each key intervention, additional research was then conducted to describe and develop an understanding of how they work and what they can do for the college student with depression. The literature review served as a guide for developing the Occupational Therapy Home Maintenance Program which was then designed into a formal product which will be discussed in further detail in Chapter 4.
Chapter 4

Product

A goal of this project was to develop a home program for college students with depression in order to aid in preventing relapse and promote positive student emotional health. The Home Maintenance Program focuses on the use of complementary therapies as the primary components of maintenance therapy for college students with depression.

The design and organization of the project is as follows:

1. There is a section on the definition of depression
2. There is a section on individual goals for using the program; a support network, ideas for managing stress, and additional resourced for college students with depression.
3. There are six main complementary therapies presented. These are: journaling, exercise, guided imagery, music listening, aromatherapy, and acupuncture.
4. Each therapy is listed on its own individual page(s).
5. Each section is divided into: a brief definition/description of the complementary therapy; the benefits of the therapy; a narrative on how to use the program and the information provided; examples of the therapy, and then additional resources the individual can access to learn more about the complementary therapy.

Tips for Therapists

1. It is recommended that the Occupational Therapy Home Maintenance Program be used in conjunction with other professional treatment such as.
counseling and medication. It is not meant to be a substitute for traditional treatment approaches.

2. This program should be provided to the client prior to discharge from a formal inpatient or outpatient program.

3. It is recommended that an occupational therapist or other qualified mental health professional review the program with the client, including how to use the program, benefits, safety and other precautions, and address any questions or concerns the client may have.

4. A plan to follow up with the client is strongly recommended.
Occupational Therapy
Home Maintenance Program
For Depression

Designed by Laura Morton MOTS
Occupational Therapy Program, University of North Dakota
2004
Occupational Therapy Home Maintenance Program

This home program is designed for college age persons with depression. For a diagnosis of major depression a person must have five of the following symptoms within 2 weeks. Symptoms may include:

- Sadness, anxiety, or "empty" feelings
- Decreased energy, fatigue, being "slowed down"
- Loss of interest or pleasure in usual activities
- Sleep disturbances (insomnia, oversleeping, or waking much earlier than usual)
- Appetite and weight changes (either loss or gain)
- Feelings of hopelessness, guilt, and worthlessness
- Thoughts of death or suicide, or suicide attempts
- Difficulty concentrating, making decisions, or remembering
- Irritability or excessive crying
- Chronic aches and pains not explained by another physical condition

(National Institute of Mental Health, 2004)

This home maintenance program is intended for your use at home to aid in preventing a relapse of your depression and to maintain your mental health. Benefits of the activities used in this program may include:

- decreased anxiety,
- a healthy way to release emotions,
- improved mood and sleep,
- improve memory,
- give you a feeling of control,
- reduce hopelessness,
- reduce stress and help you relax.

This home maintenance program will provide you with a variety of activities that can be used as an important part of your therapy plan, it is not an alternative to medication or counseling. There are six examples of activities that are part of something called complementary therapy. The examples of complementary therapy that will be used in this program are:

- Journaling,
- Exercise,
- Guided imagery,
- Music listening,
- Aromatherapy, and
- Acupuncture

This is not an entire list of all complementary therapies available. This program does not guarantee that you will benefit from these activities which is why it is important
to try each at a time and see what works for you and what does not. Everybody is unique. It is important to note:

- When using this program you can and it is recommended that you should use journaling and exercise as much as needed.
- Do not mix guided imagery, aromatherapy, and acupuncture until you know which activities work for you, individually, and which ones don’t. If you do these activities together you won’t know which one is helping you or which one is not working.
- Try one for a week or two to see if it is helping you, then you can stop and try a different activity for a couple of weeks.

**Organization of Home Program**

- The program begins with identifying the goals for using this program.
- General information is present on managing stress, and developing a support network.
- General resources for depression are then provided.
- The program then introduces you to each activity with a brief description of what that activity is,
- the benefits of the activity are then listed,
- following the benefits there is a section on how to do that activity with an example provided and
- extra resources are listed for you to find more information on the activity if you wish.
Goals for My Home Program

In order to get the most out of the activities listed here it is recommended that you write some goals for yourself and try to complete them. Try to write at least three goals for yourself. You can write goals about what or how many activities you complete or what benefits you hope to get out of the program. You may also list a reward that you will give yourself if you complete the goal.

Sample goals might be:

1. I will complete 3 exercise activities a week for 4 weeks in a row.
   or
2. I will be more relaxed, I will know this because I am able to sleep through the whole night.

Sample rewards for completing a goal: take yourself for ice cream, let yourself buy one item at your favorite store, or at least be proud of yourself for your accomplishment.

Goals:

1. ____________________________________________________
   ____________________________________________________
2. ____________________________________________________
   ____________________________________________________
3. ____________________________________________________
   ____________________________________________________
Ideas for managing stress and enhancing the college experience:

1. Better plan the use of your time. Prioritize. Create a schedule and fill in class time, work, homework time, exercise, sleep, etc.

2. Eat right, exercise, and get enough sleep.

3. Eliminate the use of alcohol as a drug.

4. Take time for yourself each day.

5. Join an extracurricular activity. This provides you with opportunities to meet new people and gives you a break from classwork.

6. Keep your space and consequently your mind organized.

7. Go to class.

8. Keep up with course work. Two hours of study per one hour of class is recommended.

9. Maintain communication with your family.

10. Make a friend.

11. Form healthy relationships.

12. Take advantage of campus resources.

13. Get to know your professors.

14. Talk to someone about your problems.

15. Find ways to relax.

(Wisconsin United for Mental Health, 2004 and National Mental Health Association, 2004)
Who is in Your Support Network?

When students move away to college they often lose their support network or are distanced from them. The following is an activity to look at your support network; if you feel like it looks empty think of ways that you can add to it (meet new people, renew old relationships, etc.).

*My support network*

Spouse/partner__________________________________________

Family_________________________________________________

Old friends_____________________________________________

New friends_____________________________________________

Community Acquaintances________________________________

(professors, church members, self-help group members, etc.)

Other_________________________________________________

Ways to add to my support network

____________________________________________________________________

____________________________________________________________________

____________________________________________________________________

(Adapted from Mosby, 1996)
Resources for Depression


- Getting your life back: The complete guide to recovery from depression. By Jesse H. Wright and Monica Ramirez Basco.


- The National Institute of Mental Health. Available at http://www.nimh.nih.gov/

- The National Mental Health Association. Available at http://www.nmha.org/

- Wisconsin United for Mental Health. Available at http://www.wimentalhealth.org
Journaling

Writing about stress or traumatic events has been linked to improvements in mental and physical health (Ullrich & Lutgendorf, 2002). Using a beneficial system of journaling may help you deal with your life more positively, and help to decrease the risk of recurring depression.

Benefits of journaling:
✓ A healthy release of feelings and stress
✓ A way to gain perspective on emotions
✓ A way to resolve past trauma
✓ A path to awareness of self
✓ A way to take control of your life

Here is how to do journaling:
1. Choose a stressful or traumatic topic.
2. Journal about your deepest thoughts and feelings about this topic.
3. Write about how you have tried to make sense of the situation in your topic and what you tell yourself about it that helps you deal with it or describe how you are currently trying to deal with it and how your feelings might change.
4. Try to write at least twice a week for ten minutes.
   (Ullrich & Lutgendorf, 2002)

Example of a journaling entry:
When I was in college I found out that my dad was an alcoholic. I was shocked. Even though my family life wasn’t perfect, I would have never thought that my dad had a drinking problem. I always thought that my family was the average American family. My mom also told me that she would divorce my dad if he ever drank again. I thought “Not one drink, ever again? That is impossible”. All of this information at once only added to the stress in my life and I wasn’t sure I could handle it. To make sense of this situation now I look back and see how it has changed my life positively. My dad was able to get counseling for his addiction and he is now an amazing father in my life. My parents get a long much better and I enjoy going home to visit them. I have received counseling, learned a lot about myself, and have become a stronger person because of it. To deal with this information I did several things. One of the things I did was go to an open AA meeting, there I learned that there were people who were able to give up drinking and had been sober for many years. I also talked with others close to me about how I was feeling...

Resources:
• The Secret Diary- http://www.spies.com/~diane/journals.html#Intro
• Echoing Whispers- http://www.journal-writing.webjinni.net/
Exercise

Regular physical activity has been identified as very important in preventing and treating many disorders.

Benefits of exercise:
✓ help lift your mood
✓ help you sleep better,
✓ improve your concentration and memory,
✓ burn excess pounds,
✓ boost your self-esteem,
✓ give you a feeling of control over your life
✓ help reduce dependence on drugs and alcohol

(Mosby, 1996).

Recommendations for exercising:
1. Ask your physician to make sure there are no exercise limitations for you and to determine your target heart rate.
2. Find an exercise space where you feel comfortable. This space may be a gym, outdoors, in your room; wherever you choose.
3. Choose a form of exercise; try walking, jogging, exercise bike, yoga. To prevent getting bored try new exercises or vary your routine.
4. Warm-up for ten minutes.
5. Exercise for 30 minutes within your target heart rate.
6. Cooldown for five minutes.
7. Try to exercise 3-4 times a week. Significant results have been noted after 12 weeks.

Example of a schedule you could develop:

<table>
<thead>
<tr>
<th>Example</th>
<th>Mon</th>
<th>Tues</th>
<th>Weds</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex. #1</td>
<td>Treadmill</td>
<td></td>
<td>Treadmill</td>
<td>Treadmill</td>
<td>Yoga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex. #2</td>
<td>Exercise bike</td>
<td>Yoga</td>
<td></td>
<td>Exercise bike</td>
<td>Yoga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex. #3</td>
<td>Treadmill</td>
<td>Ex. bike</td>
<td>Treadmill</td>
<td></td>
<td>Ex. bike</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Guided Imagery

Guided imagery is listening to a tape/CD or videotape and following the directions on the tape/CD or videotape to relax. In the background there usually is soft music playing to help you relax. For example, the person is guided to imagine their favorite place in order to be more relaxed.

Benefits of Guided Imagery:
- Decrease Anxiety
- Reduce Hopelessness
- Immediate effects
- Improved access to emotions
- Decrease Stress

Here is how to use guided imagery:
1. Find a guided imagery CD that you like. You may be able to find one at your public library or at. A recommended CD/tape is General Wellness by Belleruth Naparstek, there are several other CD/tapes by the same author at Health Journeys.
2. Find somewhere comfortable and quiet.
3. Use your guided imagery CD according to the directions on the CD.
4. Do this at least every other week or whenever you feel guided imagery is needed.

Example:
Part of a guided imagery sample from [http://www.guideyourspirit.com](http://www.guideyourspirit.com).

"Begin with a few deep breaths. Begin to focus on your breathing. I want you to start with an exhale and then an inhale. Exhale and inhale. Exhale - inhale. You begin to feel the white light that surrounds you. On each Exhale you push out the tension of the day and on the inhale you bring in the soothing white light that surrounds you. You begin to feel a tingle at the top of your head as it surrounds your face relaxing each and every facial muscle. Each and every breath brings in new life and healing to each and every cell. You begin to feel the white light fill your neck and chest and it flows through to your arms and fingers. Each wave of light brings a sense of peace and relaxation. This wave of white light fills your legs and flows out your toes. Each and every muscle feels completely relaxed."

Resources:
- Meditative Moments- [http://www.relax-online.com/imageryonline.htm](http://www.relax-online.com/imageryonline.htm)
**Music**

Listening to music can provide a reduction in short-term mood. Music may decrease anxiety and depression if listened to in the right setting.

**Benefits of music listening:**
- Outlet for expression of feelings
- Eat and sleep better
- Enhance self-awareness
- Reduce stress and anxiety
- Relax muscle tension
- Uplifting
- Ease mental fatigue

**Here is how to participate in music listening:**
1. Find a music CD that you like and that is calming to you. It is recommended to listen to classical, baroque, and New Age music.
   - Look at your local public library, at a bookstore, or search online.
2. Find a private space where you can listen to your CD.
3. While listening to your CD you can do a variety of things:
   - think of something happy or something relaxing that relates to the music
   - let your mind go blank, let all of the negative thoughts go
   - just listen and enjoy yourself
4. Listen to the music whenever you feel stressed, or on a more regular basis to prevent stress.

**Example:**

<table>
<thead>
<tr>
<th>Style</th>
<th>Musician and Songs</th>
</tr>
</thead>
</table>
| Classical | Hayden, F.J.- Symphony No. 45 in F-sharp minor (Farewell)  
Mozart, M.A.- Symphony No. 41 (Jupiter) |
| Baroque | Handel, G.F.- Water Music, Fireworks Music, Largo from “Xerxes”  
Pachelbel, J.- Canon in D  
Vivaldi, A.- The Four Seasons  
Bach, J.S.- Air for the G string, Prelude for Violin (from Partita No. 3) |
| New Age | Rowland, M.- The Fairy Ring  
Kobialka, D.- Afternoon of a Fawn  
Halpern, S.- Radiance, Crystal Suite  
Intuition Music Musical Massage, Vol. 1, 2, and 3 |

(Mornhingweg, G.C., 1992)

**Resources:**
- The Sounds of... - [http://www.thesoundsof.com](http://www.thesoundsof.com)
- River Bend Research - [http://www.riverbendresearch.com](http://www.riverbendresearch.com)
Aromatherapy

Aromatherapy is “the controlled use of essential oils to maintain and promote physical and mental well being” (Edge, 2003, p.90). People who are pregnant, have high blood pressure, or epilepsy should not use aromatherapy, a person should also be aware of allergies. Do not use concentrated oils, and do not consume oils. For an entire list of safety issues go to:

- http://www.holisticonline.com/Aromatherapy/aroma_safety.htm

**Benefits of aromatherapy:**

- Lessen mental fatigue
- Reduce Anxiety
- Promote Relaxation
- Uplifting
- Aid in sleep

**Here is how to use aromatherapy:**

1. Identify the essential oil that is right for you. (Refer to resources below.) A recommended essential oil for depression is Lavender, it is soothing and used for relaxation.
2. The essential oil is recommended to be used with a massage but may also be added to warm bath water, to your pillow, to steaming water, or inhaled. For massage add a few drops of oil to a massage cream.
3. Use as needed to decrease depression, anxiety, and stress.

**Example:**

A recipe for an essential oil blend for depression from Holistic Online:

- Basil, Clary sage, Jasmine, Rose, and German chamomile (matricaria recutita)
- Mix the oil together. Place it in a bowl of steaming water (2 or 3 drops), or in a bath (5 or 6 drops), or on the edge of your pillow (1 or 2 drops).

**Resources:**

- Holistic Online-
**Acupuncture**

Acupuncture is the process of inserting small hair-like needles into specific acupressure points on the skin, and does not hurt (Acupuncture Today, 2004). Acupuncture encourages the body to heal itself, if the body is able to do so.

**Benefits of acupuncture:**
- Decrease symptoms of stress
- It's relaxing
- Feel emotionally balanced
- Increase mental clarity
- Improved sense of well-being

**Here is how to use acupuncture:**
1. Find an acupuncturist in your area. Before you go, call the office of the acupuncturist to make sure that they are licensed and ask around to see if other people have found an acupuncturist they liked.
2. Consult with your chosen acupuncturist on the treatment appropriate for you.
3. Follow through on the acupuncturist's recommendations.

**Example:** To see samples acupuncture points and more information on how acupuncture is used, go to:
- [http://holisticonline.com/Remedies/Depression/dep_acupuncture.htm](http://holisticonline.com/Remedies/Depression/dep_acupuncture.htm)

**Resources:**
  - this site has a good acupuncturist locator
- Acupuncture.Com- [http://acupuncture.com](http://acupuncture.com)
Chapter 5

Conclusions

A general finding of this scholarly project was that the number of college students with depression is rising. In addition, it was identified that student health centers have not been able to provide adequate services for those students, with depression. Based on this information, an extensive literature review was conducted to discover appropriate methods of maintenance therapy for college students with depression.

It was determined, from the literature review, that traditional therapy and complementary therapy were appropriate maintenance therapy therapeutic approaches in the treatment of college students with depression. For purposes of this project, traditional therapy is considered as medication and complementary therapy is defined to include activities such as; journaling, guided imagery, exercise, aromatherapy, music listening, and acupuncture. A home maintenance program, which included complementary therapies, was then created with the following goals; 1. to aid in preventing relapse and 2. maintain positive emotional health for the college student with depression.

Recommendations

1. A recommendation for further research on this subject includes completing a study on the efficacy of this program.

2. Additional review of the literature could be conducted to include other types of complementary therapy such as art therapy, reflexology, and herbal medicine.

3. A final recommendation would be to include methods of complementary therapy in the client’s formal treatment so that the client can learn and practice these
methods with help from professionals and so that the client knows what works for them before they are discharged.

**Limitations**

1. A limitation of the Home Maintenance Program is that the program, as a whole, has not yet been proven to be effective.

2. This program also does not cover the entire realm of complementary therapies available; therefore there may also be other complementary therapies that could be useful for college students with depression.
References


