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Miranda G. Hoffmann

Southern Illinois University Carbondale, miranda.hoffmann@gmail.com

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**BENEFITS OF HUMOR AND LAUGHTER: A BRIEF INTRODUCTION FOR
REHABILITATION COUNSELORS**

by

Miranda G. Hoffmann

B.S. University of Illinois – Urbana-Champaign, 2010

A Research Paper

**Submitted in Partial Fulfillment of the Requirements for the
Master of Science Degree.**

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RESEARCH PAPER APPROVAL

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Fulfillment of the Requirements

For the Degree of

Master of Science

In the field of Rehabilitation Counseling

Approved by:

Dr. Thomas D. Upton, Chair

**Graduate School
Southern Illinois University Carbondale
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CHAPTER I

INTRODUCTION

Norman Cousins, Professor of Medical Humanities for the School of Medicine at the University of California, Los Angeles, was diagnosed with ankylosing spondylitis in 1964 (Pattillo and Itano, 2001). Ankylosing spondylitis is an autoimmune disease and is a type of arthritis that causes inflammation, pain, and stiffness primarily in the spinal joints. As a professor, Cousins studied the biochemistry of emotions. His struggle with this particular disease was detailed in the non-fiction publication of *Anatomy of an Illness*, first published in 1979. This book describes Cousins' techniques used for treatment including: laughter, courage, and tenacity. Cousins proposed that the mind can be an effective healing tool, and with laughter, courage, and tenacity a person with a chronic medical diagnosis can work towards healing oneself and battling their disease (Cousins, 1979).

Cousins describes his battle with ankylosing spondylitis as 'crippling'. When suffering from pain, Cousins took healthy doses of laughter and Vitamin C. Cousins reports that he watched hours of Marx Brother's films to elicit humor and laughter (Cousins, 1979). He experienced a decrease in inflammation and a decrease in his sedimentation rate (Pattillo and Itano, 2001). Cousins explained in his book that ten minutes of genuine belly laughter had a considerable analgesic effect and allowed him at least two hours of pain-free sleep (Mora-Rispoll, 2010).

It has been said that Cousins' decrease in symptoms due to the use of laughter in this case can be described as "probably the beneficiary of a mammoth venture at self-administered placebos" (Sahakian and Frishman, 2007). In other words, Cousins' decrease in symptoms was due to the fact that he believed something positive was supposed to occur and that laughter and

Vitamin C were simply “dummy drugs”. Although the placebo effect may have played a role in the benefits Cousins received, research today shows that emotions can affect the respiratory, cardiovascular, and immune systems as well as our perception of pain.

Like Cousins, many others in the fields of medicine, psychology, and social sciences have studied the effects of laughter on the human mind, body, and spirit. Laughter has been used in a variety of different settings including: vocational trainings, cancer treatment facilities, prisons, mental health agencies, and many other medical and community based facilities. Even with the variety of applications of laughter and humor, these two concepts are often overlooked by many professionals. The health community is slow to accept laughter as a healing tool within contemporary and alternative medicine. Professionals must be willing to break free from the conventional treatments and learn techniques to elicit humor and laughter that could ultimately benefit their clients or patients.

In counseling, humor has been viewed as non-serious, a fantasy, or a moment of joy having no relation to the reason the client is seeking services (Cassell, 1974). Humor and laughter is often viewed as a distraction technique or avoidance, which is not always the case. Research that promotes the use of laughter and humor as a form of treatment, focuses on the physiological benefits of laughter using videos or jokes to introduce humor and elicit laughter.

The field of Rehabilitation Counseling establishes the goal to improve quality of life for people with a variety of disabilities, whether physical or psychological. Rehabilitation counselors work in facilities that aid in the improvement of quality of life in the elderly and in transitional facilities in which they work with young adults with intellectual disabilities. Rehabilitation counselors also have opportunities to work with people with chronic illnesses such as diabetes, heart disease, and cancer. The advantage of working with such a diverse group of

clients means that rehabilitation counselors should acquire a variety of skills. These skills include knowledge of counseling theories and application of such theories, as well as knowledge of medical and psychosocial issues. Research shows that these benefits are not limited to one single type of person but to a variety of people with a variety of medical or psychological diagnoses. Knowledge in the area of laughter and humor in counseling, as well as the proper application of laughter and humor in counseling would expand the abilities of rehabilitation counselors.

Purpose

The purpose of this paper is to provide basic information about the physical and psychological benefits of humor and laughter. This paper will include information about the physiology of laughter, benefits to the cardiovascular system, immune system, respiratory system, and relieving pain. This paper will also provide information about the current use of laughter therapy and laughter yoga in different settings. Many companies use laughter during long days of training and many individuals practice laughter yoga as exercise.

This paper will provide the rehabilitation counselor the tools and information to properly use humor and laughter in their practice. Humor and laughter can be a tricky tool because it can often be misunderstood. A client could be easily offended by a joke or the use of sarcastic humor or laughter. The implementation of humor and laughter requires judgment and knowledge concerning the application and basic information about humor and laughter. Each person receiving services is different and it is the responsibility of the rehabilitation counselor to know when it would be appropriate to use this skill. Having basic understanding of the physical and psychological benefits of laughter and humor and how it can be applied will help rehabilitation counselors improve their effectiveness at helping their clients.

Definition of Terms

aphasia – inability to comprehend or use language through speech, writing, or sign due to brain dysfunction (Falvo, 2009).

dysphagia – difficulty or inability to swallow (Falvo, 2009)

dyspnea – difficulty with breathing, or shortness of breath (Falvo, 2009)

immunoglobulin – also called antibody, proteins that are used in the immune system to identify and destroy or neutralize foreign objects in the body such as bacteria or viruses.

incontinence – involuntary urination or involuntary excretion of bowel contents

mirth – gladness or joy as shown by or accompanied with laughter

paresis – slight or incomplete paralysis, often experiencing a weakness of voluntary movements, or partial loss of voluntary movements.

CHAPTER II

REVIEW OF LITERATURE

This chapter will explore the physiology of laughter, as well as the physiological and psychological benefits of laughter and humor. A review of how laughter has been used in different settings is also included in this chapter. The last topic covered in this chapter is information rehabilitation counselors can use to apply this skill in their practice.

Physiology of Laughter

The study of the physiology of humor is known in science as Gelotology. Those that study gelotology explain that the emotional response to humor is mirth and the behavior is laughter. Laughter can be seen as something that appears to be a unique human characteristic (Sahakian and Frishman, 2007). This is unlike crying, which can be observed throughout the animal kingdom. The physiology of laughter is the same throughout the entire human population. At this time, no human group has been recognized as being devoid of laughter (Miller and Fry, 2009).

Responses to humor, including laughter, involve a variety of different systems of the body. Laughter starts with the contraction of approximately fifteen facial muscles. The contraction of muscles continues down the body to the contraction of the diaphragm and other skeletal muscles found in the abdomen and around the lungs. This last contraction of muscles lower in the body is responsible for the sound of laughter. Changes can occur in respiratory patterns as well as increased contractions of muscles all over the body with a dose of strong laughter (Sahakian and Frishman, 2007).

Laughter and the Cardiovascular System

Michael Miller, professor at University of Maryland Medical Center, and William Fry, professor at Stanford University School of Medicine, proposed a study to explore the relationship between emotions and the cardiovascular system (2009). As science and technology improves, it has been found that negative emotions can contribute to an increased risk in cardiovascular disease. Many negative cardiovascular effects range from sudden cardiac death to temporary myocardial stunning and have been identified in response to emotional distress. Recent studies regarding the interplay between emotions and cardiovascular health have been enhanced through studies of the vascular endothelium (Miller and Fry, 2009).

Previous research found that negative stressors causes vasoconstriction and other adverse effects on endothelial biology. Stressors include social stressors such as finances, difficult relationships, and unhappiness with employment or social activities. Miller and Fry purposed that positive emotions, specifically mirthful laughter, would cause favorable effects on the endothelial biology. Volunteers were randomly assigned to two different situations. One group of volunteers spent time watching a popular television comedy, *Saturday Night Live*. The other group of volunteers viewed the beginning of the film, *Saving Private Ryan*, a movie that promoted mental stress. A total of 160 measurements were collected and showed a 35% reduction in vasodilation when watching a movie that promoted mental stress. In contrast there was a 22% increase in vasodilation when watching a television show that promoted mirthful laughter (Miller and Fry 2009). Through this study it has been proposed that through mirthful laughter the pituitary gland releases endorphins which activate opiate receptors in the vascular endothelium. These opiate receptors are responsible for the production of nitric oxide. Nitric oxide, in turn, is responsible for cardioprotective cellular processes that promotes vasodilation

and reduce vascular inflammation. These results suggest that mirthful laughter and humor may serve as an important skill for the promotion of vascular health (Miller and Fry, 2009).

Laughter and Respiratory System

With all of the research about the benefits to the cardiovascular system, researchers started exploring the benefits of laughter and humor had on diseases of the respiratory system. The cardiovascular system and respiratory system interact with one another almost exclusively at times and many benefits to the cardiovascular system directly benefit the respiratory system. Increase in vasodilation means that more oxygenated blood will move to the lungs and throughout the body for important biological processes.

In a study performed at Ohio State University, researchers explored the effects of laughter and humor among patients with chronic obstructive pulmonary disease (COPD). Twenty-two participants completed assessments regarding sense of humor, depression, anxiety, quality of life, and recent illness. They were then randomly assigned to either a group that viewed a humorous video or a group that viewed a neutral video. Before and after viewing the videos, each participant's pulmonary function, mood state, and dyspnea were measured and assessed (Lebowitz et. al., 2010).

Results of this study showed that sense of humor was associated with fewer symptoms of depression and anxiety. Results also suggested that sense of humor was related to enhanced quality of life. One negative effect of this study was that induction of spontaneous laughter led to hyperinflation of the lungs. This study demonstrates humor among patients with COPD increases positive mood and enhances quality of life, but laughing may cause deterioration in function of the lungs (Lebowitz et. al., 2010).

Breathing pattern disorders (BPDs) describes dysfunction of the breathing process. Symptoms include: dizziness, chest pain, altered vision, feelings of depersonalization and panic attacks, nausea, reflux, fatigue, and difficulty concentrating. There could be a variety of factors that contribute to BPDs, the most common being irregular breathing (Clifton Smith, 2011).

Speech pathologists have used the technique of tickling to elicit laughter and to increase regular, consistent breathing. This technique has to be used with sensitivity as to not exacerbate any symptoms. BPDs are commonly associated with poor stability of the trunk caused by a weakened diaphragm (Clifton Smith, 2011). Due to the role that the diaphragm plays in laughter, one could conclude that laughter would strengthen the diaphragm and in turn reduce the symptoms of BPDs.

Laughter and the Immune System

Research regarding the benefits of laughter and humor on the immune system relates to the diagnosis of cancer. Studies have shown that laughter has a positive correlation with the increase in numbers and activity of natural killer cells. Laughter is also related to the increase in numbers of cytotoxic and helper T cells, as well as B cells. Natural killer cells are lymphocytes that participate in cytolytic activity against tumor cells. T cells and B cells are lymphocytes that are essential in the immune response (Pattillo and Itano, 2001).

The aforementioned benefits can be linked to a few different studies in literature. In an early study performed in 1988, researchers were exploring the basic question of “what are the effects of humor on the immune system?” The subjects of this study, including eighteen males and twenty-two females enrolled at the University of Western Ontario, completed the Daily Hassles Scale and provided saliva samples. This study found that subjects with low scores on the humor scales revealed a stronger negative relationship between hassles and secretory

immunoglobulin A, than did those with higher humor scores (Christie and Moore, 2005). These results indicate that a person has the ability to decrease the effects of stress through the use of humor and laughter.

In a study involving fifty-two healthy men at the schools of medicine and public health at Loma Linda University in California, researchers explored the efficacy of mirthful laughter to modulate neuroimmune parameters in healthy subjects. Participants of the study viewed humorous videos for one hour. Blood samples were collected ten minutes before viewing, and thirty minutes and twelve hours after viewing. This study found increases in natural killer cell activity (NKCA) and increases in immunoglobulins G, A, and M after the viewing of the humorous video. The effects of several immunoglobulins lasted twelve hours after the initiation of the intervention (Beck et. al., 2001). Immunoglobulins are antibodies that play an important role in the immune system by protecting the body surfaces and destroying foreign substances including bacteria and viruses.

Another study involving twenty-one healthy males between the ages of eighteen to twenty-six at outpatient university settings, explored the effect laughter had on natural killer cell activity. Subjects in this study were randomly assigned into two groups; one group spent seventy-five minutes watching a comedy while the other group spent seventy-five minutes watching a documentary video. Researchers found that participants who watched the comic video experienced an increase in the natural killer cell activity levels with laughter. The comic video also improved negative moods such as tension, depression, hostility, and anxiety (Christie and Moore, 2005).

Laughter and Pain Threshold

When people undergo surgery or injuries, they often find themselves in a lot of physical pain and discomfort. A few researchers within the past decade have found that laughter and humor can decrease the levels of pain and discomfort and can increase one's pain threshold. This increase may be due to laughter acting as a distraction from the pain and discomfort. Laughter also causes a sense of relaxation that may be responsible for the results shown in the studies exploring laughter's effects on pain thresholds.

Zillman et. al., explored the question, "does humor facilitate coping with physical discomfort?" In this study, fifty females and fifty males were randomly assigned into groups of ten males and ten females for each condition (stand-up comedy, situation comedy, drama, instruction [neutral], and tragedy). The results of the study showed that exposure to comedy elevates the threshold for physical discomfort, and the threshold for physical discomfort increased after exposure to tragedy. The control group, those that watched the instruction program, did not experience any change in threshold (cited in Christie and Moore, 2005).

At a laboratory in the United Kingdom, Weisenberg et. al. explored the effects on pain perception of video-induced mood as a function of video type and length. Participants included one-hundred female and one-hundred male paid volunteers ages eighteen to twenty-six. The participants were randomly assigned into one of three groups watching either a video about the Holocaust, a comedy, or something neutral. Participants viewed the video while placing an arm in cold water and were asked to rate their pain. The results of this study showed increases in pain tolerance after viewing a humorous video for 30 minutes. The control group that did not watch the comic video showed lower tolerance and reported higher pain ratings (Christie and Moore, 2005).

In a study performed at Brigham Young University – Hawaii Campus, researchers asked the question, “does the expectation of laughter increase discomfort thresholds?” The study included 50 male and 84 female undergraduate students. The participants were given Ziv’s (1979) SHQZ which included questions that explore humor appreciation and humor creation. Participants then were given instructional sets to create an expectation of increased or decreased discomfort while viewing. The participants either watched an episode of the comedy series, *Seinfeld*, or a relaxation video. Results of this study showed that humor, laughter, and relaxation increased the participant’s discomfort level threshold, the effects of which were enhanced by the expectation of improved pain (Mahoney et. al. 2001).

In a pilot study between the University of California, Los Angeles (UCLA) and Rx Laughter™, a nonprofit organization that collaborates with professionals in using humor for healing in clinical practice, research and education, 18 children participated in a study regarding pain thresholds. The participants ranged in ages from 7-16. Results showed that the participants had greater pain tolerance while viewing funny videos while placing their hand in cold water than when viewing the videos right before or after the task (Horowitz, 2009).

Laughter, Humor, and Stroke Rehabilitation

Depression and emotional distress has been shown to affect about 40% of patients following a stroke. A stroke can be described as ‘a significant and traumatic event in an individual’s life’ (Perry, 2005). Strokes can have significant effects on a person both physically and psychologically. Results of a stroke can include: paresis, incontinence, aphasia, dysphagia, reduced cognition, and dyspraxia. It is unknown whether depression in patients who have had a stroke is due to the physiological changes, or lesions on the brain, or if it is due to the physical effects that a stroke can have (Perry, 2005).

Studies have shown that many difficult emotional or behavioral symptoms would have to be taken into consideration when deciding to use laughter and humor therapy with patients who have had a stroke. People who have had a stroke could experience a change in thought patterns, including altered judgment and acute memory impairment. Strokes can also lead to the inability to process information which can result in misinterpretation, frustration, and social withdrawal (Perry, 2005).

Due to the fact that humor may be misinterpreted by a person who has had a stroke, it has been proposed that laughter alone could be introduced without the use of humor. It is advised that when working with someone who has had a stroke it is best to allow them to direct the conversation in the direction of humor with which they are comfortable. One nurse reported using this approach with a man who had a brain stem cerebro-vascular accident (CVA or stroke). She stated that when conversing with the man she asked about his previous job as a baker. The patient responded that he knew he was good at his job because all of his customers were fat. Surprised by the patient's use of humor, the nurse and patient were able to establish a sense of closeness and started communicating more frequently (Perry, 2005).

Laughter and Cancer

Laughter and humor have played important roles as interventions in the treatment of cancer. A research project between Rx Laughter™ and the Mahavajiralongkorn Cancer Center in Bangkok, Thailand, provided therapeutic humor for adult patients with cancer. Approximately fifty males and females participated in this study with the mean age of fifty-six. Patients in the therapy group viewed a total of twenty hours of humor videos, in ten sessions of two hours per day. The patients who watched the videos reported lower levels of overall and treatment-related pain and anxiety, compared to the control group. Patients who watched the

videos also reported greater increases in satisfaction with the treatment, care, and level of comfort over the course of the study compared to the control group (Horowitz, 2009).

Researchers at the University of British Columbia explored the functions and factors that influence engagement with self-health at group meetings. The fieldworkers and participants observed 16 prostate cancer support groups (PCSG) located in rural and urban settings in British Columbia, Canada. The findings indicated that humor was used in a variety of different ways with four themes emerging: disarming stoicism, marking the boundaries, rekindling and reformulating men's sexuality, and when humor goes south. Disarming stoicism refers to the use of humor as a tool to show that understanding and empathy existed within the group. Men would use humor to show that anxiety would dissipate over time. Oftentimes, a joke was shared by a group leader at the beginning of the meeting to break the ice and promote an inclusive environment. Marking the boundaries describes the use of humor in the PCSG to introduce sensitive prostate cancer related issues and mark the boundaries for discussion of such topics. Rekindling and reformulating men's sexuality refers to the use of humor to introduce and address erectile dysfunction (ED), a common side effect induced or exacerbated by prostate cancer treatments. 'When humor goes south' describes the time when humor was used and unintentionally caused discomfort and embarrassment. Fieldworkers and observers of the PCSG found that when humor caused unintentional discomfort or embarrassment, the group leader would redirect the group and quickly resolved the discomfort. A sense of humor and the use of laughter can give a participant and the leaders of support groups the tool to present sensitive information. It is concluded that sharing of humor and laughter in PCSGs can indicate a sense of safety and establishes intimacy among the group (Olfiffe et. al., 2009).

Laughter, humor, and Psychological benefits

Ramon Mora-Ripoll, MD, PhD, is a medical scientific director at the Organización Mundial de la Risa, Barcelona, Spain, who published a review to evaluate and summarize literature about laughter in a variety of different fields. In the review, eight psychological benefits were discovered. These benefits include: reduction in stress, anxiety, and tension, elevation of mood, self-esteem, hope, energy and vigor, enhancement of memory, creative thinking and problem solving, improvement in interpersonal relationships, increase in friendliness and helpfulness, promotion of psychological well-being, improvement of quality of life, and intensifying mirth. The review also discusses the use of humor and laughter to build group identity, solidarity, and cohesiveness. Humor and laughter were also found to improve attraction and closeness (Mora-Ripoll, 2010).

There is an abundance of research that shows that stressful life situations can have negative effects on various aspects of health, including suppression of the immune system, causing a person to be sick or for a disease or illness to worsen (Martin, 2004). Increased risk of heart disease due to the chronic production of stress-related hormones, including catecholamines and cortisol, can also result from stressful life events. Research also shows that certain personalities and coping styles can serve as a determinate to which potential stressors lead to adverse health outcomes. Through research it has been discovered that a humorous outlook on life and the ability to see the funny side in stressful situations may enable one to cope with stress by allowing them to gain perspective and distance themselves from stressful situations (Martin, 2004).

Laughter therapy has also been shown to be a useful, cost-effective, and easily-accessible intervention among community-dwelling elderly. Between July and September 2007, 109

subjects aged over sixty-five years were divided into two groups; forty-eight subjects in the laughter therapy group and sixty-one in the control group. The participants in the laughter therapy group attended laughter therapy four times (one time a week) over one month. The Geriatric Depression Scale, Mini-Mental State Examination, Short-Form Health Survey-36, Insomnia Severity Index, and Pittsburgh Sleep Quality Index were compared between the two groups. The results showed a decrease in scores on the Geriatric Depression Scale among the participants that attended laughter therapy. This indicates that depression decreased among community-dwelling elderly when participating in laughter therapy once a week (Ko and Youn, 2011).

Therapeutic Humor

Humor and laughter have been used as a therapeutic technique for a couple of decades. Many different professional agencies recognize therapeutic humor and each one defines it in similar yet different terms. The Association for Applied and Therapeutic Humor defines therapeutic humor as “any intervention that promotes health and wellness by stimulation a playful discovery, expression, or appreciation of the absurdity or incongruity of life’s situations” (Horowitz, 2009). The American Cancer Society defines therapeutic humor as “the use of humor for the relief of physical or emotional pain or stress...a complementary method to promote health and cope with illness” (Horowitz, 2009). Laughter therapy can be implemented easily and is cost effective.

One type of therapeutic humor is the concept of hospital clowns. Clowning can be dated back to the Middle Ages, where a court jester would entertain guests at parties or people at their homes. The court jester was thought to be a special individual whom God touched with child-like characteristics, including being silly and full of humor and laughter. Court jesters were also

used to rebalance the four humours: sanguine, melancholic, choleric, and phlegmatic. For example, the court jester would be invited to lift a monarch out of an angry or melancholic mood (Spitzer, 2006). This idea of clowning to heal someone has spread and can be seen in hospitals throughout the world.

In Turkey, the Dervishes, who were responsible for taking care of patients, would first feed the patients, then they would entertain the patients and “feed their soul.” In the United States, Dr. “Patch” Adams started entertaining and clowning with his patients in Virginia in the early 1970s. The purpose of hospital clowns is to bring humor, laughter, and play into the facility for the benefit of the patients, as well as their family members and staff. Clowns in hospitals can decrease the stress and anxiety related to routine procedures or traumatic events. They visit many areas of hospitals including surgical wards, intensive care units, outpatient areas, emergency departments, and pre- and postoperative care units. Anywhere there is a patient, a hospital clown may be found (Spitzer, 2006).

Clowning can be used as a distraction technique during difficult procedures. Peter Spitzer shares an experience he had when clowning at a hospital. He states “I recall the time we were asked to see a 12-year-old patient in a major city burns unit... we were asked to see whether we could help him feel more settled.” Spitzer explains that he and a couple other clowns used a “hot-spot remover” to relieve and replace the dreaded, painful “hot-spots” the patient was experiencing. To the surprise of the staff, the child stopped screaming in pain. Action by the clowns proved to be therapeutic to this patient (Spitzer, 2006).

In 1995, Dr. Madan Kataria, an East Indian physician and founder of Laughter Yoga International, developed the first laughter yoga club. Laughter yoga combines unconditional laughter with pranayama (rhythmic control of breathing), stretching, and meditation (Dolgoff-

Kaspar et. al., 2012). According to the Laughter Yoga International website, laughter yoga clubs have expanded outside of India and it is currently reported that there are more than 6,000 laughter clubs in 60 countries worldwide (2012).

Laughter yoga is different than one's normal yoga class in that it does not incorporate the poses such as "downward dog" and "triangle", instead it works through a series of fun activities. These activities include "argument laughter" which invites participants to shake their index fingers at everyone else and argue. Instead of using words to argue, participants belly laugh to make their point. Another exercise is the "electric shock laughter" in which participants will touch another's index finger, jumping back, and laughing (Broderick, 2012).

Laughter Yoga International describes their sessions as consisting of 4 steps. Step one includes clapping and warm-up exercises including gibberish talk (language with sound and no meaning). Participants will clap hands parallel to each other for full finger-to-finger and palm-to-palm contact. Movement is added by lifting one's arms up and down or swinging one's arms from side to side. Dancing movements can then be added to encourage the feelings of joy and happiness. Step two consists of the deep breathing exercises commonly seen in yoga. These exercises are used to flush the lungs and to elicit relaxation both physically and mentally. Step three includes the child-like playfulness. One of the central themes of Laughter Yoga is the sense of laughing without reason. During this section of the class, people will laugh in a variety of different ways such as laughing while making animal noises or laughing and pretending they are on a roller coaster. Step four is continued laughter exercises followed by a few moments to cool down, breath, and refocus ("Laughter Yoga Session", n.d.)

In a pilot study done that explored the effects of laughter yoga on mood and heart rate variability in patients awaiting organ transplantation, researchers introduced the concept of

laughter yoga to patients. A laughter yoga therapist, certified by Laughter Yoga International, instructed a 20-minute laughter yoga session. The participants started with five minutes of simple breathing and stretching exercises, followed by ten minutes of laughter exercises with rhythmic clapping, chanting, movement while maintaining eye contact with others, gentle stretching, and deep breathing. The last five minutes of the session were spent quiet, seated, while participating in deep breathing and guided meditation. The results showed that laughter yoga increased feelings of liveliness, cheerfulness, and friendliness. Participants also showed improvements in tension and fatigue as well as anxiety compared to the control group (Dolgooff-Kapar, 2012).

Use of Humor in Counseling

Humor in counseling has often been overlooked as an important and useful tool or technique. Humor in some situations can be used when monitoring or evaluating the progress of a person with a diagnosis of major depression. At the beginning of treatment the client may have never laughed at a cartoon or joke. Throughout treatment the client begins to laugh once a week increasing to once a day as time goes on. Humor in this case is used as a measuring tool to measure the decrease of the symptoms of depression (Cassell, 1974).

In addition to humor being a tool for measurement of severity of symptoms, humor and laughter can also be used in counseling to reveal anxieties or conflicts. Psychologists in the past have asked client's to relate their favorite joke. With this joke, psychologists have been able to identify the client's central problem area (Cassell, 1974). Clients may tell a joke about a problem that has been bothering them such as finances or relationship problems. This may indicate to the psychologist, counselor, or therapist that the client's core problem lies in the subject of the joke.

Humor can also be used in counseling to build cohesion between two or more people. Humor and laughter can boost morale within a group, and can even build hostility towards an outside group. Researchers have found that people with disabilities will often use humor as a way to ease tensions and build social interactions with others (Cassell, 1974). People could also be offended by misguided humor with people with disabilities as the subjects. Humor and laughter in counseling needs to be used with care and in a manner that would not harm the other person.

In a study performed in Japan, approximately 30 to 50 candidates were gathered to participate in a course describing the Smile-Sun Method. The courses included sharing of the objective of the course, learning by heart, concentration, focusing on points, repetition of theory-practice-theory, sense of humor, and evaluation. The instructor told participants not to take notes, but instead to learn by heart, when meant that the participants to try and relate the topics of discussion to something personal and remember it in that manner. The instructor then describes the Sun-Smile Method (Takayanagi, 2007).

The Sun-Smile Method is best described through and illustration of a picture of a sun that is smiling. The sun has seven triangular rays extending from his body. These seven messages are: thanks, love, your happiness, Sympathy, different perspective, PNP, and I, Love, Eye messages. PNP represents positive-negative-positive messages, which state that when presenting a negative message, one should sandwich the message between two positive messages which can be humorous. The instructor told participants to thank others for little things such as thanking the client for sharing their story. The instructor also emphasized the point of teaching while having a sense of humor. The observations made through this course were that candidates showed improvements in posture and spontaneous laughter arose. Conclusions were made

through this study that if the Sun-Smile Method is used in healing environments, spontaneous laughter will occur which will decrease client's depression and other symptoms and speed up recovery from illness (Takayanagi, 2007).

CHAPTER III

DISCUSSION

Laughter and humor has been the topic of research for decades and continues to be studied. As mentioned in the previous chapter, benefits of laughter have been explored among people with a variety of different conditions including: cardiovascular disease, respiratory disease, immunity, pain, strokes, and psychological distress. It is not uncommon for a Rehabilitation counselor to see these types of conditions in their work. While the client may not be receiving services because of the diseases discussed in this paper, they may still have them and it may need to be addressed.

Laughter and humor through research has been shown to have positive effects on the cardiovascular systems. These effects include increased vasodilation and reduction in vascular inflammation. Increased vasodilation means that blood vessels will widen and open which will increase blood flow throughout the body. Reduction in vascular inflammation also increases blood flow throughout the body because the blood vessels are not enlarged or swollen which causes blockages and decreased blood flow. With increased vasodilation and reduction in vascular dilation, blood can flow without barriers to organs throughout the body including the brain, causing important processes to occur.

Research has shown that laughter and humor can also benefit the respiratory system by strengthening the diaphragm. A weak diaphragm can be the cause of many breathing pattern disorders and through tickling and laughter, a person can strengthen their diaphragm. A strong diaphragm can decrease the symptoms of BPDs including chest pain, dizziness, and fatigue. When working as a Rehabilitation Counselor it would not be uncommon to be working as a support team member with a speech pathologist. The speech pathologist may use a technique

similar to this, and through this research, the Rehabilitation Counselor could know and understand the importance of this technique. Knowledge of this technique may also be shared with a speech pathologist in the case that the speech pathologist is unaware of this technique and searching for alternative treatment modalities.

Laughter and humor has also been shown to boost the immune system. When working in Human Services, it would not be uncommon for the Rehabilitation Counselor to be working with people who have common illnesses such as the common cold, flu, strep, or any other type of bacterial or viral infection. When fighting illness, people can often feel down or experience fatigue. Rehabilitation counselors could encourage their clients to find the joy in life when feeling ill and encourage them to laugh. Through laughter, natural killer cell activity increases as well as immunoglobulins G, A, and M. These are all cells that play a role in decreasing unhealthy bacteria and viruses in our body.

As discussed in the research in Chapter II, laughter can increase a person's pain threshold. There are many studies that have explored the benefits of humor and laughter on human pain threshold that include the technique of viewing a humorous television show or movie. Rehabilitation counselors can be found in hospitals and other community settings in which their client may be experiencing pain. For example, in the community mental health setting a client could be receiving counselor for depression and is experiencing extreme back pain from an injury acquired through a car accident. The client's symptom of depression increases due to the lack of activity due to her back pain. The Rehabilitation counselor could recommend that the client view one hour of humorous television or movie per day. This will hopefully improve client's pain and allow her to enjoy more activities to help decrease symptoms of depression.

Humor and laughter could also be used to establish a relationship with someone who has experienced a cerebral-vascular accident (CVA or stroke). After a CVA, a person can experience confusion and can misunderstand others. Laughter and humor has to be carefully used in this situation. Rehabilitation counselors can work with people who have had a CVA in community health settings and vocational environments. The counselor needs to be aware that humor and laughter can be misunderstood but it could also be a useful tool to build the relationship. Allowing the client to use humor first may be the best approach when working with someone who has had a stroke.

As discussed previously, people with cancer can also greatly benefit from laughter and humor in their treatment. Laughter has been shown to increase cells that fight against tumor cells, therefore decreasing malignant tumors. Laughter has also been shown to decrease treatment-related pain and anxiety. Another use of laughter and humor that can be seen in connection to cancer is in support groups. Studies indicate that it can be used to break the ice and increase inclusiveness. Through the study about the use of humor and laughter in PCSGs, Rehabilitation counselors could expand that to other types of support groups such as – support groups for mental illness, other medical conditions, and any other type of disability. In lieu of groups, Rehabilitation counselors could also use humor and laughter when teaching work skills to a group or addressing a new topic with team members.

Laughter is often described as the shortest distance between two people. Laughter and humor can even be expanded outside of the client/counselor relationship. Rehabilitation counselors often work in collaborative teams with physicians, occupational therapists, physical therapists, human services specialists, psychologists, families, and the client. The counselor could use humor and laughter to build cohesiveness and camaraderie. It can often be

overwhelming to work with so many different professionals and laughter can be used to break down barriers and increase communication. When people laugh and find common ground in humor, they will be more likely to work well with one another.

While the benefits of laughter and humor are apparent in the literature, laughter and humor are not techniques that are exclusive forms of treatment when addressing medical conditions. They are to be used in conjunction with other types of therapy or treatment. For example, in the hospital setting, hospital clowns are added to the benefits of the medical treatment. At Cancer Treatment Centers of American, laughter therapy is added when people are receiving chemotherapy or radiation therapy.

Rehabilitation counselors are working in a field where they may encounter a client with a hearing impairment one day and the next day they are working with a client with breast cancer that has caused lymphodema in both arms. Through education programs, experience, and research, the Rehabilitation counselor should have the tools to be able to help their client. Knowledge about the effectiveness of laughter and humor with the populations described in this research is another tool to add to their 'tool belt'. Rehabilitation counselors can use laughter and humor in many different aspects and it can have tremendous positive effects on their clients.

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VITA

Graduate School
Southern Illinois University

Miranda G. Hoffmann

miranda.hoffmann@gmail.com

University of Illinois Urbana-Champaign
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