A Master Thesis

entitled

Issues and Impacts of Anxiety Among Recreational Therapy Students at a Comprehensive Midwest University

by

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Submitted to the Graduate Faculty as partial fulfillment of the requirements for the Master of Arts Degree in Recreation and Leisure Studies

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An Abstract of

Issues and Impacts of Anxiety Among Recreational Therapy Students at a Comprehensive Midwest University

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This paper offers an insight into anxiety levels in upper level undergraduate students studying recreational therapy at a comprehensive Midwestern university by evaluating their anxiety and stress levels as they enter and exit the professional sequence of the program. Through a series of self-reported questions, the students discussed their coping mechanisms, specific stressors, demographics, and overall feelings of anxiety and stress as it relates to their current life as a student within this academic program. This research lays a foundation of understanding a student's perspective and how anxiety can impact all aspects of one's life. Further concluding with recommendations of how this information can be used to make a positive impact on the academic community and cope with the ever-rising anxiety rates of students enrolled during the current academic climate.

Keywords: Anxiety, Stress, Coping Mechanisms, Recreational Therapy, Undergraduate Students

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List of Abbreviations

ACHA .....American College Health

ADAA .....Anxiety and Depression Association of America

CBT.....Cognitive Behavioral Therapy

CCMH.....Center for Collegiate Mental Health

CTRS.....Certified Therapeutic Recreation Specialist

GAD.....Generalized Anxiety Disorder

NCTRC.....National Council of Therapeutic Recreation Certification

NIH.....National Institute of Mental Health

OCD .....Obsessive Compulsive Disorder

PTSD .....Post-Traumatic Stress Disorder

Chapter 1

Introduction

1.1 Anxiety

"Anxiety disorders are the most common mental illness in the U.S., affecting 40 million adults in the United States age 18 and older, or 18.1% of the population every year" (Anxiety and Depression Association of America [ADAA], 2018a, ¶ 1). According to Masand (2014), while anxiety is one of the most common mental illnesses, it is also one of the most misunderstood. Further, while highly treatable, only approximately 36.9% of those suffering from anxiety receive treatment (ADAA, 2018a).

According to the U.S. Department of Health and Human Services (2014), there are five major classifications of anxiety disorders; Generalized Anxiety, Obsessive-Compulsive, Panic, Post-Traumatic Stress, and Social Phobia. The U.S. Department of Health and Human Services (2014, p. 1) defines these five classifications of anxiety disorders as follows:

- Generalized Anxiety Disorder, GAD, is an anxiety disorder characterized by chronic anxiety, exaggerated worry and tension, even when there is little or nothing to provoke it.

- Obsessive-Compulsive Disorder, OCD, is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive behaviors (compulsions).
- Panic disorder is an anxiety disorder and is characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms.
- Post-Traumatic Stress Disorder, PTSD, is an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. Traumatic events that may trigger PTSD include violent personal assaults, natural or human-caused disasters, accidents, or military combat.
- Social Phobia, or Social Anxiety Disorder, is an anxiety disorder characterized by overwhelming anxiety and excessive self-consciousness in everyday social situations.

1.2 Triggers, Symptoms, and Effects

While the classifications and definitions of the different types of anxiety disorders are relatively straightforward and easy to comprehend, identifying and generalizing the triggers, symptoms, and effects of anxiety can be much more difficult. This difficulty stems from the complex network of triggers that can be associated with genetics, brain function, trauma, and environmental factors known to be root causes of anxiety (National Institute of Mental Health [NIH], 2016; Mayo Clinic, 2016, National Center of PTSD, Cary 2017). According to Folk and Folk (2018), there are over 100 symptoms associated with anxiety. The authors state that all individuals who experience anxiety have a unique set of anxiety symptoms that differ in relation to type, number, frequency and duration. Finally, like symptoms, the authors indirectly indicate that the effects of anxiety also affect individuals in different ways as it relates to type, number, frequency and duration. The complexity and range of the documented triggers, symptoms, and effects of anxiety cannot be realistically presented in comprehensive lists within this research. Common

triggers, symptoms, and effects based on documented research (see Burke, 2016; Cary, 2017; Cherney, 2018; Folk & Folk, 2018; Mayo Clinic, 2016; National Center of PTSD, 2018; National Institute of Mental Health [NIH], 2016; National Social Anxiety Center, 2016; Vanin, 2008) are presented in table 1.2.1 on page 4.

1.3 Primary Treatments

Treatment for anxiety and associated disorders can vary as much as the symptoms and the effects of the disorders. The treatment process typically begins with one's primary care physician. Further treatment may involve a variety of different professionals, such as psychologists, psychiatrists, and social workers (Legg, 2016). In addition, individuals may also seek assistance from established support groups or other therapy professionals (Maizes, 2008). Generally, regardless of the medical or mental health services one may receive for the treatment of anxiety, primary treatment options that have been documented to be effective in treating anxiety include: Cognitive-Behavioral Therapy (CBT), medications, residential treatment, complementary and alternative treatment, and Transcranial Magnetic Stimulation (ADAA, 2018b).

1.4 Academic Related Anxiety and Triggers

As it relates to mental health problems, increased attention has been given to the mental health of college students over the last decade. According to Hunt and Eisenberg (2010), epidemiological data clearly indicated that mental health problems were highly prevalent among college students in 2010. Recent research substantiates a high

Table 1 2.1

Anxiety Triggers, Symptoms & Effects			
Anxiety Disorder	**Common Triggers**	**Common Symptoms**	**Common Effects**
Generalized (GAD)	• Family history of anxiety • Prolonged exposure stress • Excessive use of caffeine tobacco, alcohol, or drugs • Physical or Mental abuse	• Restlessness/ • Being easily fatigued • Difficulty concentrating • Irritability • Muscle tension • Difficulty controlling worry • Sleep problems	• Weakened immune system • medications effectiveness • Digestive upset • Increased risk of heart disease, high blood pressure, clinical depression and substance abuse
Obsessive-Compulsive (OCD)	• Not being able to finish a ritual • New situation/environment • Non-control of situations • Untreated symptoms	• Extreme washing/cleaning • Checking, Counting • Orderliness/strict routines • Demanding reassurances • Unpleasant thoughts	• Strain on time/relationships • Late/missing engagements • Physical pain/discomfort due to ritual
Panic	• Genetic History • Major Life Transitions • Excessive worry or perseveration on a stressor • Ignoring signs that the body is in a state of stress • prolonged period of being in a stressed state	• Sudden and repeated attacks of intense fear • Chest tightness/pain • Nausea • Dizziness/lightheadedness • Intense worries about when the next attack will happen • Fear or avoidance of specific places	• Palpitations Pounding heart/ accelerated heart rate • Sweating • Trembling/shaking • Shortness of breath/smothering/or choking • Feeling of impending doom
Post-Traumatic Stress Disorder PTSD	• Experiencing a traumatic event such as being subject to extreme physical/emotional/sexual/or mental abuse, acts of violence, witnessing disasters, military combat, and other unusual situations that can cause mental disturbance.	• Reoccurring memories, flashbacks, and nightmares that seem unstoppable • Living with an underlying fear and trepidation • Overly vigilant in uncertain situations • A persistent internal struggle • Negative beliefs/feelings	• Persistently feeling unsafe and at risk • Situational avoidance that interferes with normal social functioning • Social Suppression due to avoiding others and triggers
Social Phobia or Social Anxiety	• Introducing yourself to strangers/small talk/sustaining conversations/speaking on the phone • Inviting others to a social activity/hosting an event • Flirting/telling a story/making group commentary • Asserting your needs/asking for help with people in authority • Avoiding conflict and anger	• Feeling highly anxious about being with other people and having a hard time talking to them • Feeling very self-conscious • Fearful of offending others • Afraid other people will judge them • Worrying for days or weeks before an event with others • Staying away from places where there are other people	• Blushing, sweating, or trembling around other people • Feeling nauseous or sick to your stomach when other people are around • Low self-esteem • Low self-efficacy • Having a hard time making and keeping friends • Social suppression

Note. Table developed by author based on research and information from Burke, 2016; Cary, 2017; Cherney, 2018; Folk & Folk, 2018; Mayo Clinic, 2016; National Center of PTSD, 2018; National Institute of Mental Health [NIH], 2016; National Social Anxiety Center, 2016; Vanin & Helsley, 2008.

prevalence still exists today (Center for Collegiate Mental Health [CCMH], 2016, 2017, 2018).

In relation to anxiety, according to the CCMH in 2016, anxiety had replaced depression as the number one mental health issue facing U.S. college students. In addition, the research showed there was a slight but steady increase in the number of students that self-reported having experienced distress as it related to generalized anxiety, social anxiety and academic success. According to the CCMH (2018), the average rate of students that self-reported generalized anxiety continued to increase.

When considering the most common triggers for which college students sought mental health counseling or treatment, CCMH (2018) statistics indicated that, of students who sought mental health assistance during the 2017-2018 academic year, 61.8% sought mental health services for anxiety, with the most prevalent types of anxiety being general (41.5%), social (19.6%) and panic (11.1%). Table 1.4.1, page 6, reports the most common mental health triggers for which college students sought counseling or treatment for AY 2017-2018.

It is important to note that the percentages presented in Table 1.4.1 are based on students who sought mental health counseling or treatment. There is a potentially strong argument that these percentages could be higher because only 36.9% of those suffering from anxiety receive treatment. Despite the recognition of the high prevalence of mental health problems among college students, research suggests that colleges and universities are under-equipped and under-staffed to meet the mental health needs of their student populations (Reilly, 2018).

Table 1 4.1

Mental Health Triggers for which Counseling or Treatment was Sought	
Triggers	Percentage
Anxiety	61 8
Depression	49.8
Stress	43 9
Family Issues	31 0
Academic Performance	25 2
Relationship Problems	24.2
Interpersonal Functioning	21.7
Self-Esteem/Confidence	20 3
Sleep	15 9
Trauma	14.3
Body Image	14 0
Adjustment to New Environment	14 0
Social Isolation	13.1
Grief or Loss	10 4
Attention or Concentration	10 4
Suicidality	9 9
Identity Development	8 9
Sexual Abuse or Assault	8.9
Career	8 7
Emotional Dysregulation	13 6
Alcohol	8 0
Perfectionism	7.9
Drugs	6.3
Finances	4 8

Note· Table developed by author based on research and information from CCMH, 2018

The suggestion that colleges and universities may be falling behind in meeting the mental health needs of their students has the potential to become a serious issue.

1.5 General Anxiety and Coping Mechanisms

As previously mentioned, there are over 100 symptoms of anxiety (Folk & Folk, 2018). In addition, there are equally as many triggers that can cause an individual to experience anxiety (ACHA, 2018; CCMH, 2018). Further, primary effective treatment options include Cognitive-Behavioral Therapy (CBT), medications, residential treatment, complementary and alternative treatment, and Transcranial Magnetic Stimulation (ADAA, 2018b).

When considering the extent of symptoms for anxiety and anxiety triggers, it is not surprising that there is also equally as many coping mechanisms that have been identified for dealing with anxiety. This is particularly evident when one considers complementary and alternative treatments. If one was to search and review current information addressing complementary and alternative treatment coping mechanisms for generalized anxiety, they would find well over 100 suggested coping mechanisms ranging from physical activity to appropriate levels of sleep. (see ADAA, Boyes, 2015; Williams, 2015; Pathway2success, 2017). When considering the academic environment, other potential coping mechanisms could include the following:

- deep breathing
- mindful relaxation
- creative arts
- utilizing supportive relationships
- accepting and acknowledging negative feelings
- problem solving
- humor

- eating healthier
- scheduling rest breaks
- engaging in pleasurable activities
- drawing from past experiences
- positive affirmation
- avoiding excessive caffeine or alcohol

1.6 UToledo Recreational Therapy Program's General Anxiety Triggers

Based on a comprehensive review of limited published research addressing generalized anxiety triggers within an academic environment (American College Health Association [ACHA], 2018; Calaguas, 2012; CCMH, 2018), as well as, the authors understanding of the University of Toledo's Recreational Therapy curriculum, common potential generalized anxiety triggers associated with the recreational therapy academic experience at the University of Toledo would include:

- identification of Recreational Therapy as a major
- enrollment process
- course scheduling
- course sequencing
- timely degree completion
- satisfying prerequisite requirements
- completing professional sequence requirements
- preparing for course examinations
- passing course examinations
- participating in course discussions
- successfully completing assignments
- successfully completing group assignments
- meeting assignment deadlines
- writing assignment expectations
- completing clinical experiences
- coping with faculty teaching methodologies
- establishing student-faculty relationships
- competing with classmates
- public speaking or course presentations
- attending classes as scheduled
- overcrowded classrooms
- available classroom technology

- preparing for internship
- covering internship expenses
- gaining acceptance into graduate school
- finding gainful employment after graduation
- academic standing upon graduation
- meeting the academic expectations of others
- meeting your own academic expectations

1.7 Statement of the Problem

When considering:

- Anxiety is the most common mental illness among individuals 18 years and older
- That reported levels of anxiety have reached epidemic proportions among college students

In conjunction with:

- Limited research on anxiety within the collegiate undergraduate environment
- No identified research on the anxiety experienced by students majoring in recreational therapy

The primary purpose of this research is to collect baseline data associated with anxiety among recreational therapy undergraduate students. Specifically, as it relates to anxiety, the current study examines considerations for seeking treatment or counseling, perceived health, levels and frequency of anxiety, general anxiety triggers, academic-specific anxiety triggers, and coping mechanisms.

Chapter 2

Review of Literature

2.1 Etiology of Anxiety

The etiology of anxiety, or its manner of causation, includes many complexities and can be difficult to identify. This difficulty stems from the complex network of triggers that can be associated with genetics, brain function, trauma, and environmental factors known to be root causes of anxiety (National Institute of Mental Health [NIH], 2016; Mayo Clinic, 2016, National Center of PTSD, Cary 2017). According to Martin, Ressler, Binder & Nemeroff, (2009, p.1)

> "Mood and anxiety disorders are characterized by a variety of neuroendocrine, neurotransmitter, and neuroanatomical disruptions. Identifying the most functionally relevant differences is complicated by the high degree of interconnectivity between neurotransmitter- and neuropeptide-containing circuits in limbic, brain stem, and higher cortical brain areas. Furthermore, a primary alteration in brain structure or function or in neurotransmitter signaling may result from environmental experiences and underlying genetic predisposition; such alterations can increase the risk for psychopathology" (p. 1).

Researching anxiety from a biopsychosocial perspective, Bhatt & Baker (2018) further reiterate the complexity of identifying the etiology of anxiety concluding: "Anxiety disorders appear to be caused by an interaction of biopsychosocial factors, including

genetic vulnerability, which interact with situations, stress, or trauma to produce clinically significant syndromes"(¶ 3). Example classifications of biopsychosocial factors presented in Varnekar (2018) and Physiopedia (2018) include:

- Biological – illness, disability, genetic issues
- Psychological – behavior, personality, self-esteem, self-control, impulsivity
- Social – culture, relationships, peer group, religion, economic status
- Biological/Psychological – I.Q., attitude, temperament
- Biological/Social – drug or medication effects, gender
- Psychological/Social – family relationships, trauma

In many cases, the etiology of anxiety is researched based on isolating the influence of a particular biological, psychological, or sociological factor as it relates to anxiety. For example, gender (McLean, Asnaani, Litz & Hofmann, 2011), culture (Hofmann, Asnaani & Hinton, 2010) or sexual orientation (Bostwick, Boyd, Hughes & McCabe, 2010)

Despite the many etiological complexities associated with anxiety, research has identified a number of causal factors, typically referred to as triggers that are recognized as contributing to different anxiety types (National Institute of Mental Health [NIH] 2016; Mayo Clinic 2016; National Center of PTSD 2018; Cary 2017; Folk & Folk 2018; Cherney 2018; Burke 2016; National Social Anxiety Center 2016). Examples include:

- Family history of anxiety
- Recent or prolonged exposure to stressful environments or situations
- Excessive use of caffeine tobacco, alcohol, drugs or other stimulating substances
- Physical or Mental abuse
- Not being able to finish a ritual
- Ignoring signs that the body is in a state of stress
- Prolonged period of being in a stressed state
- Experiencing a traumatic event such as being subject to extreme physical/emotional/ sexual/or mental abuse, acts of violence, witnessing disasters, military combat, and other

- Being in a new situation/exposure to a new environment
- Not being in control of situations
- Genetic History
- Major Life Transitions
- Excessive worry or perseveration on a stressor
- Avoiding conflict and anger
- unusual situations that can cause mental disturbance
- Introducing yourself to strangers/small talk/sustaining conversations
- Speaking on the phone
- Inviting others to a social activity/hosting an event
- Asserting your needs/asking for help with people in authority

2.2 Types of Anxiety

There are five primary classifications of anxiety disorders according to the U.S. Department of Health and Human Services (2014). These classifications include Generalized Anxiety Disorder (GAD), Obsessive Compulsive Disorder (OCD), Panic, Post-Traumatic Stress Disorder (PTSD), and Social Phobia or Social Anxiety. According to the Department of Health and Human Services (2014):

> "Generalized Anxiety Disorder, GAD, is an anxiety disorder characterized by chronic anxiety, exaggerated worry and tension, even when there is little or nothing to provoke it", "Obsessive-Compulsive Disorder, OCD, is an anxiety disorder and is characterized by recurrent, unwanted thoughts (obsessions) and/or repetitive behaviors (compulsions)", "Panic disorder is an anxiety disorder and is characterized by unexpected and repeated episodes of intense fear accompanied by physical symptoms", "Post-Traumatic Stress Disorder, PTSD, is an anxiety disorder that can develop after exposure to a terrifying event or ordeal in which grave physical harm occurred or was threatened. Traumatic events that may trigger PTSD include: violent personal assaults, natural or human-caused disasters, accidents, or military combat", and "Social Phobia, or Social Anxiety Disorder, is an anxiety disorder characterized by overwhelming anxiety and excessive self-consciousness in everyday social situations" (pg.1).

2.3 Common Symptoms of Anxiety

According to Folk and Folk (2018) there are over 100 symptoms associated with anxiety. The authors further state that all individuals who experience anxiety have a unique set of anxiety symptoms that differ in relation to type, number, frequency and duration. According to the National Institute of Mental Health [NIH], common symptoms include: feeling restless, wound-up, or on-edge; being easily fatigued; having difficulty concentrating; mind going blank; being irritable; having muscle tension; difficulty controlling feelings of worry; and having sleep problems, such as difficulty falling or staying asleep, restlessness, or unsatisfying sleep. Other common symptoms include persistent worrying about a number of areas that are out of proportion to the impact of the events; overthinking plans and solutions to all possible worst-case outcomes; perceiving situations and events as threatening even when they are not; difficulty handling uncertainty; indecisiveness and fear of making the wrong decision; trembling or feeling twitchy; nervousness or being easily startled; sweating; and nausea, diarrhea or irritable bowel syndrome (Mayo Clinic, 2016).

Beyond common symptoms related to generalized anxiety, more specific symptoms for OCD, Panic, PTSD, and Social Anxiety have also been identified (National Center of PTSD, 2018; Cary 2017; Folk & Folk 2018; Cherney 2014; Burke 2016; National Social Anxiety Center 2016). Examples include:

OCD – extreme displays of washing or cleaning, checking, counting, orderliness, following a strict routine, demanding reassurances, pervasive or unpleasant thoughts.

Panic – sudden and repeated attacks of intense fear chest tightness/pain, nausea, dizziness/lightheadedness intense worries about when the next attack will happen, fear or avoidance of specific places.

PTSD - reoccurring memories, flashbacks, and nightmares that seem unstoppable; ongoing anxiety and worry; living with an underlying fear and trepidation; overly vigilant in uncertain situations/hyperarousal; a persistent internal struggle; negative changes in beliefs and feelings.

Social – feeling highly anxious about being with other people and having a hard time talking to them; feeling very self-conscious/worried about feeling humiliated, embarrassed, rejected; fearful of offending others; afraid that other people will judge them; worrying for days or weeks before an event with others; staying away from places where there are other people.

2.4 Effects of Anxiety

According to Folk and Folk (2018), like symptoms, the effects of anxiety present differently for individuals as it relates to type, number, frequency and duration. Effects of anxiety can be as simple as a slight increase in heart rate, worrisome thoughts, or as debilitating as a panic attack or the perseveration of a topic or situation that consumes one's entire thought processes (Vanin & Helsley 2008). Also like symptoms, there are a number of identifiable effects for the different types of anxiety disorders (National Institute of Mental Health [NIH] 2016; Mayo Clinic 2016; National Center of PTSD 2018; Cary 2017; Folk & Folk 2018; Cherney 2018; Burke 2016; National Social Anxiety Center 2016). Examples include:

GAD – weakened immune system; vaccines and medications can be less effective, digestive upset, increased risk of heart disease and high blood pressure, increased risk of clinical depression and substance abuse.

OCD – strain on time, personal relationships suffer due to the excessive rituals/processes, late/missing engagements due to time spent because of compulsions, physical pain/discomfort due to ritual (i.e. washing hands until skin is raw).

Panic – palpitations, pounding heart/accelerated heart rate, sweating, trembling/shaking, shortness of breath/smothering/or choking, feeling of impending doom.

PTSD – persistently feeling unsafe and at risk, situational avoidance that interferes with normal social functioning, social suppression due to avoiding others and triggers.

Social – blushing, sweating, or trembling around other people, feeling nauseous or sick to your stomach when other people are around, low self-esteem, low self-efficacy, having a hard time making and keeping friends, social suppression.

2.5 Prevalence of Anxiety and the Collegiate Experience

"Anxiety disorders are the most common mental illness in the U.S., affecting 40 million adults in the United States age 18 and older, or 18.1% of the population every year" (Anxiety and Depression Association of America [ADAA], 2018a, ¶ 1). According to Masand (2014), while anxiety is one of the most common mental illnesses, it is also one of the most misunderstood. Further, while highly treatable, only 36.9% of those suffering from anxiety receive treatment (ADAA, 2018a).

As it relates to mental health problems, increased attention has been given to the mental health of college students over the last decade. According to Hunt and Eisenberg (2010), epidemiological data clearly indicated that mental health problems were highly prevalent among college students in 2010. Recent research substantiates a high prevalence still exists today (Center for Collegiate Mental Health [CCMH], 2016, 2017, 2018).

In 2016, anxiety had replaced depression as the number one mental health issue facing U.S. college students (CCMH, 2016). In addition, there was a slight but steady increase in the number of students self-reporting experiencing distress as it relates to

generalized anxiety, social anxiety and academic success. According to the CCMH (2018), the average rates of students self-reporting generalized anxiety continues to increase. Despite the recognition of the high prevalence of mental health problems among college students, research suggests that colleges and universities are under-equipped and under-staffed to meet the mental health needs of their student populations (Reilly, 2018).

The suggestion that colleges and universities may be falling behind in meeting the mental health needs of their students has the potential to become a serious issue. According to the most recent annual report published by the CCMH (2018), of students who sought mental health assistance during the 2017-2018 academic year, 61.8% sought the services for anxiety, with the most prevalent types of anxiety being general (41.5%), social (19.6%) and panic (11.1%).

Additional triggers in which students sought mental health counseling or treatment included depression (49.8%), stress (43.9%), family (31.0%), academic performance (25.2%), relationship problems (24,2%), interpersonal functioning (21.7%), self-esteem/ confidence (20.3%), sleep (15,9%), trauma (14.3%), body image (14.0%), adjusting to a new environment (14.0%), social isolation (13.1%), grief or loss (10.4%), attention or concentration difficulties (10.4%), suicidality (9.9%), identity development (8.9%), sexual abuse or assault (8.9%), career (8.7%), emotion dysregulation (8.2%), alcohol (8.0%) perfectionism (7.9%), drugs (6.3%) and finances (4.8%) (CCMH, 2018). It is important to keep in mind that these percentages are based on students who sought mental health counseling or treatment. There is possibly a strong argument that these percentages could potentially be higher when considering that only 36.9% of those suffering from anxiety receive treatment (ADAA, 2018a).

Examining specific mental health triggers reported to have affected student academic performance during the 2017-2018 academic year, the ACHA (2018) reported the following affected student academic performance: stress (31.9%), anxiety (25.9%), sleep difficulties (20.2%), depression (16.9%), work (12.5%), relationship difficulties (8.1%), concern for a troubled friend or family member (10.5%), finances (6.3%) death of a friend or family member (5.4%), homesickness (4.3%), alcohol use (2.5%) and drug use (1.6%).

2.6 Coping Mechanisms

It is apparent in the literature that anxiety has the potential to have negative effects on college students' mental health. According to Ekpenyong, Daniel, and Aribo (2013) empirical evidence shows that undergraduate college students often suffer from psychosocial distress that can lead to negative patterns of behavior, the development of psychosomatic symptoms, and decreased academic performance.

There are over 100 symptoms of anxiety (Folk & Folk, 2018). In addition, there are equally as many triggers that can cause an individual to experience anxiety (ACHA, 2018; CCMH, 2018). Further, primary effective treatment options include Cognitive-Behavioral Therapy (CBT), medications, residential treatment, complementary and alternative treatment, and Transcranial Magnetic Stimulation (ADAA, 2018b).

When considering the extent of symptoms for anxiety and anxiety triggers, it is not surprising that there are also as many coping mechanisms that have been identified for dealing with anxiety. This is particularly evident when one considers complementary and alternative treatments. If one were to search and review current information

addressing complementary and alternative treatment coping mechanisms for generalized anxiety, they would find well over 100 suggested coping mechanisms ranging from physical activity to appropriate levels of sleep (ADAA, 2015, Boyes, 2015; Williams, 2015; Pathway2success, 2017). It should be noted that developing appropriate mechanisms for dealing with anxiety is important, particularly for the traditional college-age student. According to Monterio, Balogan, and Oratile (2014) during this age, young adults are still developing mentally and socially, and continuous stress has been linked to long-term mental health problems and further identity disruption.

Literature has also linked mental health problems to physical health problems. According to Warburton, Gledhill, and Quinney (2006), psychological well-being plays an important role in the prevention and/or management of cardiovascular disease, diabetes, hypertension, obesity and cancer. With mood disorders such as anxiety, people may become less motivated to be physically active. The opposite can be said for the positive effects physical exercise can have on reducing anxiety. According to Anderson and Shivakumar (2013), physical exercise has the ability to reduce stressors. Additionally, indirect benefits of exercise such as improved sleep, mood, energy and a reduction in stress fatigue, weight, cholesterol and other health effects that can contribute to reducing high levels of anxiety (Sharma, Madaan, & Petty 2006).

In addition to physical activity, there are other forms of coping mechanisms that can be put in place to help manage the stressors that come with being a college student. Some of the recommended strategies are making a problem list, editing lifestyle habits, seeking professional help, medication, and relaxation techniques (Burton 2012). Burton suggests that a creating a comprehensive problem list should be the first step in

identifying existing stressors, suggesting that once the trigger is revealed coping strategies can be put into place to help manage the resulting stressors. Some of the changes recommended by Burton were creating a schedule, getting enough sleep, eating a healthy diet, prioritizing tasks, and connecting socially.

Research also suggests different relaxation techniques that can be implemented to prevent, or cope with, current anxiety and stressors. Active engagement in mindfulness can help calm and refocus the brain. Specifically, practices of meditation, yoga, tai chi, deep breathing, and breath focus activities can help to reduce stress (Corliss 2016). By counteracting a stress response with the relaxation techniques, the body can remain calm in triggering situations. Further, when properly employed, relaxation techniques can alleviate stress and aid in refocusing the mind in a positive manner (National Center for Complementary and Integrative Health, 2018). The use of relaxation can be a standalone treatment for an individual who has a proper understanding of the techniques and their personal symptoms or as a supplemental treatment for those who have more severe symptoms that need additional professional, medicinal, or other help.

When considering the academic environment, other potential coping mechanisms could include creative arts, utilizing supportive relationships, accepting and acknowledging negative feelings, problem solving, humor, eating healthier, scheduling rest breaks, engaging in pleasurable activities, drawing from past experiences, positive affirmation, and avoiding excessive caffeine or alcohol.

Chapter 3

Methods

3.1 Research Design

The current study employed a descriptive, cross-sectional, survey research design using a self-administered paper questionnaire.

3.2 Population

A sample of 91 Recreational Therapy majors were identified to participate in the current study. In order to be eligible to be included in the current study, a survey respondent had to be: (1) a baccalaureate or graduate major at the University of Toledo, (2) officially declared as a Recreational Therapy Major, and (3) been accepted into the Recreational Therapy program's professional sequence prior to August 27, 2017.

3.3 Procedures

The researcher's Institutional Human Research Protection Program and Institutional Review Board (IRB) approved the current study in the spring of 2019. A total of 48 recreational therapy majors in their first year of professional sequence study were solicited to participate in the current study through RCRT 4790 Medical and

Clinical Aspects in Therapeutic Recreation II. In addition, a total of 43 recreational therapy majors in their second year of professional sequence study were solicited to participate through RCRT 4870 Program Planning in Recreational Therapy. Each potential survey respondent solicited to participate in the study received: (1) a University of Toledo Institutional Review Board (IRB) Informed Consent form indicating study: investigators, purpose, procedures, risks, anxiety support services, benefits, confidentiality, voluntary participation, IRB contact information and informed consent approval process, and (2) a copy of the anxiety questionnaire.

3.4 Instrument

The four-page questionnaire was a paper survey that contained 85-items developed based on a thorough review of research, and information specifically related to anxiety and the collegiate experience. The survey questionnaire included five items addressing consideration of anxiety treatment, four items addressing health concerns, eight items addressing anxiety affect and frequency, 16 items addressing general anxiety triggers, 27 items addressing academic experience anxiety triggers, 16 items addressing coping mechanisms, and nine demographic items. To help ensure reliability of instrument questions, percent congruence measurements were calculated for all survey questionnaire items using a test-retest procedure. This procedure allowed the researcher to identify any percentage differences in test-retest responses for all survey questionnaire items. Overall, the measurement instrument was identified by the researcher as reliable with an 86% congruence.

3.5 Response Rate

Of the 91eligible study participants, a sample of 82 Recreational Therapy majors participated in the study resulting in a 90% response rate. The remaining nine eligible participants were not present in the classroom when the survey was distributed. No survey instruments received were removed from the study due to incomplete or unusable data, providing a usable response rate of 90%.

3.6 Data Analysis

Data analyses for the study were done using SPSS statistical computer software. All data received for this study was analyzed based on frequency of response and is reported as group data. A select number of respondents did not respond to all items. As a result, areas of analysis may include points of missing data. Where applicable, the total number of respondents is reported.

3.7 Limitations

Limitations to the current study do exist. One limitation is the usable response rate (90%) for the study. While very high, any non-response represents a potential threat to the external validity of the results. A second limitation is that the questionnaire was self-administered, thus potential threats to internal validity may exist if respondents provided responses they perceived to be desirable to the researcher of the current study, rather than data reflecting their true personal perceptions. A third limitation was that respondents solicited to participate in the study came from sample of Recreational Therapy students at

one Midwestern university, possibly limiting the external validity of the study to Recreational Therapy students nationally.

Chapter 4

Results

Results are reported in eight sections identifying: (a) demographics, (b) consideration of anxiety treatment, (c) health concerns, (d) anxiety affect, (e) anxiety frequency, (f) general anxiety triggers, (g) academic experience anxiety levels, and (h) coping mechanisms.

4.1 Demographics

Students participating in the current study (n=82) were asked to identify their age, race/ethnicity, gender, academic year, enrollment status, living situation, use of university wellness services, employment, and post-graduation plans.

Primary demographic results indicated that 62.2% (n=51) of students were between the ages of 21 to 23, that 93.9% (n=77) were female, 81.5% (n=66) were white, 54.9% (n=45) were in their first year of professional sequence study, 98.8% (n=81) were enrolled full time, 89.1% (n=73) lived off campus, 74.4% (n=61) had never used university wellness services, 75.6% (n=72) were currently employed, and that 51.2% (n=41) planned on attending graduate school. Table 4.1.1, page 24, presents the comprehensive results of the primary demographical variables of the current study.

Table 4.1.1

DEMOGRAPHICS		
AGE (n=82)	**Frequency**	**Percentage**
18-20 Years	25	30 5
21-23 Years	51	62.2
24-24 Years	3	3.7
27-29 Years	2	2 4
Over 30 Years	1	1.2
GENDER (n=82)	**Frequency**	**Percentage**
Male	5	6.1
Female	77	93.9
RACE / ETHNICITY (N=81)	**Frequency**	**Percentage**
White	66	81 5
Black	6	7 4
Latino	5	6.2
Asian	0	0 0
Native American	0	0.0
Other	4	4.9
PROFESSIONAL SEQUENCE (n=82)	**Frequency**	**Percentage**
First Year	45	54.9
Second Year	37	45.1
ENROLLMENT STATUS (n=82)	**Frequency**	**Percentage**
Full Time	81	98.8
Part-Time	1	1 2
LIVING SITUATION (n=82)	**Frequency**	**Percentage**
On Campus	9	10 9
Off Campus	73	89 1
USE UNIVERSITY WELLNESS PROGRAMS (n=82)	**Frequency**	**Percentage**
Yes	21	25 6
No	61	74 4
CURRENTLY EMPLOYED (n=82)	**Frequency**	**Percentage**
Yes	62	75.6
No	20	24.4
POST GRADUATION PLANS (N=80)	**Frequency**	**Percentage**
Graduate School	41	51 2
RT Profession	30	37 5
Other Profession	4	5.0
Unsure	5	6.3

In examining addition levels of the demographical variables of living situation and employment, of the 89.1% (n=73) of students reporting living off-campus, 27.4% (n=20) reported living at home. As previously indicated in table 1, 75.6% (n=62) of students indicated currently working during professional sequence study. Table 4.1.2, page 26, presents the number of work hours per week reported.

4.2 Considerations of Anxiety Treatment

Students were asked to report if they ever sought treatment or counseling in the last year for any of the five primary types of anxiety including: Generalized Anxiety Disorder (GAD), Obsessive-Compulsive Disorder (OCD), Panic Disorder, Post-Traumatic Stress Disorder (PTSD), and Social Phobia or Social Anxiety Disorder. The most common anxiety disorder for which treatment or counseling was sought was Generalized Anxiety Disorder. Out of the 80 students reporting, 48.8% (n=39) reported seeking treatment for GAD. Table 4.2.1, page 26, reports all results for considerations of anxiety treatment.

4.3 Health Concerns

In relation to health, students were asked to report on physical and mental health concerns over the last year, as well as, their perception of their overall physical and mental health. Out of 82 students reporting on health factors, 47.6% reported having concerns associated with their physical health, while 58.5% reported concerns associated

Table 4.1.2

WORK & ACADEMICS (n=62)		
Work Per Week	**Frequency**	**Percentage**
Under 5 Hours	2	3 2
6-10 Hours	6	9 6
11-19 Hours	21	33 9
20-29 Hours	24	38.8
30-39 Hours	5	8 0
40 or More Hours	4	6 5

Table 4 2 1

CONSIDERED ANXIETY TREATMENT	**n**	**Frequency**	**Percentage**
Generalized Anxiety Disorder	80	39	48 8
Obsessive-Compulsive Disorder	78	2	2 6
Panic Disorder	79	10	12.7
Post-Traumatic Stress Disorder	79	6	7.6
Social Phobia or Anxiety Disorder	78	13	6.7

with mental health. Despite a plethora of students reporting having been concerned with their physical health over the last year, 69.5% reported the felt they were currently in excellent to good physical health. In contrast, only 35.3% reported currently being in excellent to good mental health. Table 4.3.1, page 28, presents all results for health concerns.

4.4 Anxiety Effects

When asked whether anxiety had affected aspects of the students' (n=82) lives over the last year, 71.9% (n=59) reported it had affected their personal life, 41.5% (n=34) reported it had affected their work life, while 61% reported it had affected their academic life. Table 4.4.1, page 28, presents all results for anxiety effects.

4.5 Anxiety Frequency

To further examine if anxiety had affected students over the last year, students were asked to report the frequency in which they experienced a variety of different anxiety events. Out of 82 students, 64.6% (n=53) reported having experienced at least one panic event lasting at least one hour. Further, of those students (n=53) reported experiencing a panic event of at least one hour, 18.3% (n=15) reported experiencing seven or more panic events. Additional results yielded the following regarding anxiety frequency.

Of 82 students 63.4% (n=52) reported experiencing an occasional event of anxiety lasting one week or less. Further, out of the 53 students reported experiencing an

Table 4.3.1

OVERALL HEALTH (N=82)	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree	
	F	%	*F*	%	*F*	%	*F*	%	*F*	%
Concerned with an aspect of my physical health	8	9 8	31	37.8	6	7.3	25	30 5	12	14.6
Concerned with an aspect of my mental health	20	24 4	28	34 1	8	9 8	18	22 0	8	9.8
I am in excellent to good physical health	16	19.5	41	50.0	10	12 2	14	17.1	1	1.2
I am in excellent to good mental health	5	6.1	24	29.3	31	37 8	19	23 2	3	3 7

Table 4 4 1

ANXIETY EFFECTS	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree	
	F	%	*F*	%	*F*	%	*F*	%	*F*	%
Anxiety has effected aspects of my personal life (n=81)	22	27 2	37	45 7	6	7 4	7	8 6	9	11 1
Anxiety has effected aspects of my work life (n=82)	10	12 2	24	29 3	15	18 3	22	26 8	11	13 4
Anxiety has effected aspects of my academic life (n=82)	14	17.1	36	43.9	12	14 6	13	15.9	7	8.5

occasional event of anxiety lasting one week or less, 8.5% (n=7) reported experiencing seven or more occasional events.

Of 81 responding students, 27.1% (n=22) reported experiencing a moderate event of anxiety lasting at least one month. Of these 22, 3.6% (n=3) reported experiencing seven or more moderate events.

Of 80 responding students, 21.3% (n=17) reported experiencing a continued event of anxiety that lasted more than one month, with 2.5% (n=2) experiencing 10 or more continued events.

Finally, of 81responding students, 45.7% (n=37) reported experiencing overwhelming anxiety that impacted their ability to function in at least one aspect of daily life. Of these 37 students, 6.2% (n=5) reported experiencing seven or more overwhelming events. Table 4.5.1, page 30, presents all results for anxiety frequency.

4.6 General Anxiety Triggers

To gain a better understanding of the general environmental triggers causing anxiety among student participants, as well as the frequency in which such triggers were experienced, students were asked to identify if and how commonly they were affected by commonly identified factors associated with anxiety.

Results yielded that a strong majority of participating students experienced anxiety as a result of difficulty sleeping (90.2%), depression (72.0%), work (64.6%), concern for troubled friend or family member (77.8%), relationship difficulties (75.3%), finances (81.5%) and academic success (82.9%). While less than a majority, factors such as the death of a loved one (31.7%), roommate difficulties (50.0%), homesickness (42.7%), alcohol (20.7%), chronic pain (20.7), non-alcohol drug use (9.8%),

Table 4.5.1

ANXIETY FREQUENCY	At No Time		1–3 Times		4-6 Times		7-9 Times		10 or More Times	
	F	%	*F*	%	*F*	%	*F*	%	*F*	%
I experienced a panic event of anxiety that lasted an hour or less (n=82)	29	35 4	33	40 2	5	6.1	7	8.5	8	9.8
I experienced an occasional event of anxiety that lasted one week or less (n=82)	30	36.6	37	45.1	8	9.8	2	2 4	5	6 1
I experienced a moderate event of anxiety that lasted at least one month (n=81)	59	72 8	15	18 5	4	4 9	2	2 5	1	1 2
I experienced a continued event of anxiety that lasted more than one month (n=80)	63	78 8	15	18 8	0	0	0	0	2	2.5
I experienced an overwhelming event of anxiety that impacted my ability to function in at least one aspect of my daily life (n=81)	44	54 3	24	29 6	8	9.9	3	3 7	2	2 5

assault (8.5%), harassment (12.2%), and discrimination (7.3%) were also identified as triggers causing anxiety among student participants. Table 4.6.1, page 32, presents the results for anxiety triggers and frequency of experience.

4.7 Academic Factors and Anxiety Levels

While there are a number of identifiable triggers for anxiety in the professional literature, one specific objective of the current study was to examine experiences of anxiety in the academic setting, particularly within the academic preparation of recreational therapy students. To gain a better understanding of anxiety experienced within the academic setting, student participants were asked to report their level of anxiety experienced in correspondence with a variety of general academic environmental factors and factors specific to completing a degree in Recreational Therapy at the University of Toledo.

Results from the current study indicated that out of 82 students, a majority experienced at least low to moderate levels of anxiety in navigating the recreational therapy enrollment process (51.3%), establishing course schedules (76.8%), maintaining course sequence (60.5%), passing prerequisite courses (52.4%), passing professional sequence courses (59.7%), passing examinations (56.1%), completing assignments (67%), submitting assignments by deadlines (64.2%), writing expectations (58.6%), preparing for exams (58.6%), coping with faculty (56.1%), completing group assignments (58.5%), and giving class presentations (51.2%).

Furthermore, it is important to note that additional factors are reported to cause high to severe levels of anxiety by students including completing clinical experiences

Table 4.6.1

GENERAL ANXIETY TRIGGERS	At No Time		1-3 Times		4-6 Times		7-9 Times		10 or More Times	
	F	%	*F*	%	*F*	%	*F*	%	*F*	%
Difficulty Sleeping (n=82)	8	9.8	21	25.6	17	20.7	8	9 8	28	34.1
Depression (n=82)	23	28.0	24	29.3	15	18.3	5	6 1	15	18 3
Work (n=82)	29	35 4	24	29 3	21	25.6	5	6 1	3	3 7
Concern for a Troubled Friend or Family Member (n=81)	18	22 2	33	40 7	19	23.5	8	9.9	3	3 7
Relationship Difficulties (n=81)	20	24 7	28	34 6	9	11 1	14	17 3	10	12.3
Finances (n=81)	15	18.5	24	29.6	22	26.8	10	12 3	10	12.3
Death of a Loved One (n=82)	56	68 3	20	24 4	3	3 7	2	2.4	1	1 2
Roommate Difficulties (n=82)	41	50 0	24	29 3	11	13 4	2	2 4	4	4 9
Homesickness (n=82)	47	57 3	24	29.3	5	6.1	3	3.7	3	3 7
Alcohol Use (n=82)	65	79 3	6	7.3	7	8.5	2	2.4	2	2 4
Chronic Pain (n=82)	58	70.7	11	13.4	6	7.3	3	3.7	4	4.9
Drug Use (Non-Alcohol) (n=82)	74	90.2	4	4 9	1	1 2	0	0 0	3	3.7
Assault (n=82)	75	91 5	6	7 3	0	0 0	0	0 0	1	1 2
Harassment (n=82)	72	87 8	8	9 8	0	0 0	1	1 2	1	1 2
Discrimination (n=82)	76	92 7	4	4 9	1	1 2	0	0 0	1	1 2
Academic Success (n=82)	14	17 1	29	35 4	16	19 5	8	9 8	15	18.3

(47%), giving class presentations (33%), preparing for internship (46.4%), gaining acceptance into graduate school (45.7%), finding employment (58.0%), and final academic status (29.6%). Table 4.7.1, page 34, presents the results for academic factors and anxiety levels.

4.8 Coping Mechanisms

To gain a better understanding of how the student participants cope with anxiety, as well as the frequency in which coping mechanisms are used, students were asked to identify if and how commonly they engaged in common coping mechanisms used to reduce anxiety.

Results indicated that a majority of student participants engaged in all coping mechanisms identified on the anxiety questionnaire. Out of 82 students, the most common coping mechanisms reported were physical recreation or exercise (96.3%), utilizing supportive relationships (98.8%), problem solving (90.2%), humor (96.3%), eating healthy (91.5%), and engaging in pleasurable activities (92.7%). Coping mechanisms least used included mindful relaxation (52.4%), drawing on past experiences (58%), and avoiding excess caffeine or alcohol (65.4%). Provided the opportunity to indicate additional coping mechanisms, one student respondent indicated using essential oils and one student respondent reported using medication. Tables 4.8.1 and 4.8.2, report the results for coping mechanism use and frequency.

Table 4.7.1

ACADEMIC ANXIETY TRIGGERS	No Anxiety		Low Anxiety		Moderate Anxiety		High Anxiety		Severe Anxiety	
	F	%	*F*	%	*F*	%	*F*	%	*F*	%
Identifying the Major in Recreational Therapy	40	40.8	27	32 9	11	13.4	3	3.7	1	1 2
Recreational Therapy Enrollment Process	38	46 3	29	35 4	13	15.9	2	2 4	0	0 0
Establishing Course Schedules	14	17 1	40	48.8	23	28 0	5	6.1	0	0 0
Maintaining Course Sequencing for Degree Completion (n=81)	22	26 8	22	26 8	27	33.3	8	9 9	2	2.5
Passing Prerequisite Courses (n=82)	28	34.1	27	32 9	16	19.5	9	11.0	2	2 4
Passing Professional Sequence Courses (n=82)	18	22.0	26	31 7	23	28.0	14	17 1	1	1.2
Passing Course Examinations (n=82)	9	11.0	24	29.3	22	26.8	20	24.4	7	8.5
Participating in Course Discussions (n=82)	39	47 6	23	28.0	12	14.6	8	9 8	0	0.0
Completing Assignments (n=82)	19	23 2	32	39 0	23	28.0	5	6.1	3	3 7
Submitting Assignments per Assignment Deadlines (n=81)	21	25 9	30	37.0	22	27 2	4	4.9	4	4.9
Writing Assignment Expectations (n=82)	24	29.3	35	42.7	13	15.9	7	8.5	3	3.7
Preparing for Examinations (n=81)	7	8.6	33	40.7	16	19.8	21	25.9	4	4.9
Completing or Preparing to Complete Clinical Experiences (n=81)	12	14.8	10	12.3	21	25.9	19	23.5	19	23.5
Coping with Faculty Teaching Methodologies (n=82)	27	32 9	28	34 1	18	22 0	8	9 8	1	1 2
Establishing Relationships with Faculty (n=82)	37	45 1	26	31.7	12	14 6	6	7.3	1	1 2
Competing with Classmates (n=82)	32	39 0	22	26.8	18	22 0	8	9 8	2	2 4
Completing Group Assignments (n=82)	17	20 7	32	39.0	16	19 5	13	15.9	4	4.9
Giving Class Presentations (n=82)	13	15.9	23	28.0	19	23 2	19	23.2	8	9.8
Attending Classes as Scheduled (n=82)	59	72 0	16	19.5	6	7.3	0	0 0	1	1.2
Overcrowded Classrooms (n=81)	52	64.2	17	21.0	10	12.3	0	0.0	2	2.4
Available Technology in Classrooms (n=82)	66	80 5	12	14.6	3	3 7	1	1.2	0	0.0
Preparing for Internship (n=82)	6	7.3	16	19.5	22	26.8	25	30.5	13	15 9
Gaining Acceptance into Graduate Study (n=81)	19	23 5	10	12 3	15	18.3	25	30.9	12	14 8
Finding Gainful Employment after Graduation (n=81)	7	8.6	7	8 6	20	24 7	27	33 3	20	24.7
Academic Standing upon Graduation (e.g , GPA or Academic Honors) (n=81)	19	23.5	26	32 1	12	14.8	17	20 7	7	8 6
Meeting the Academic Expectations of Others (e.g , Parents, Spouses, Peers) (n=82)	24	29 3	14	17 2	24	29 3	13	15 9	7	8 5
Meeting your Own Academic Expectations (n=82)	11	13.4	15	18 3	14	17.1	26	31 7	16	19.5

Table 4.8.1

COPING MECHANISMS	YES		NO	
	F	%	*F*	%
Physical Recreation Activities or Exercise (n=82)	79	96 3	3	3 7
Deep Breathing (n=81)	56	69.1	25	30.9
Mindful Relaxation (n=81)	43	53.1	38	46.9
Creative Arts (n=81)	71	87.7	10	12.3
Utilizing Supportive Relationships (n=81)	81	100 0	0	0 0
Accept & Acknowledge Negative Feelings (n=82)	72	87 8	10	12 2
Problem Solving (n=82)	74	90 2	8	9.8
Humor (n=82)	79	96 3	3	3 7
Assuring Appropriate Sleep (n=82)	66	80 5	16	19 5
Eating Healthier (n=82)	75	91 5	7	8 5
Schedule Rest Breaks (n=82)	58	70 7	24	29 3
Engage in Pleasurable Activities (n=82)	76	92 7	6	7 3
Drawing from Past Experiences (n=80)	47	58 8	33	41.2
Positive Affirmation (n=82)	63	76 8	19	23.2
Avoid Excessive Caffeine or Alcohol (n=81)	53	65 4	28	34.6

Table 4 8 2

FREQUENCY OF COPING MECHANISM ENGAGEMENT	Daily		Weekly		Monthly		Yearly	
	F	%	*F*	%	*F*	%	*F*	%
Physical Recreation Activities or Exercise (n=79)	28	35.4	42	53 2	8	10.1	1	1.3
Deep Breathing (n=57)	11	19 3	27	47.4	16	28 0	3	5 3
Mindful Relaxation (n=44)	8	18.2	18	40.9	16	36.4	2	4 5
Creative Arts (n=72)	30	41.7	26	36.1	16	22 2	0	0
Utilizing Supportive Relationships (n=81)	64	79.0	11	13 6	5	6.2	1	1.2
Accept & Acknowledge Negative Feelings (n=71)	35	49 3	28	39.4	7	9 9	1	1 4
Problem Solving (n=74)	52	70 3	18	24.3	3	4 1	1	1.3
Humor (n=79)	61	77.2	16	20 3	2	2.5	0	0
Assuring Appropriate Sleep (n=66)	25	37 9	34	51.5	6	9 1	1	1 5
Eating Healthier (n=75)	28	37 3	35	46.7	11	14 7	1	1 3
Schedule Rest Breaks (n=58)	21	36 2	31	53.4	6	10 4	0	0
Engage in Pleasurable Activities (n=76)	29	38.2	37	48.7	11	14.5	0	0
Drawing from Past Experiences (n=49)	11	22 4	16	32.7	19	38 8	3	6 1
Positive Affirmation (n=63)	26	41.3	23	36 5	11	17.4	3	4.8
Avoid Excessive Caffeine or Alcohol (n=53)	18	34.0	19	35.8	15	28.3	1	1.9

Chapter 5

Conclusions and Implications

5.1 Conclusion

The current study explored the issue of anxiety among students majoring in recreational therapy at the University of Toledo. Overall, results from the current study confirmed that anxiety among recreational therapy majors at the University of Toledo was prevalent, affirming previous research suggesting that anxiety is emerging as a prominent mental health issue facing U.S. college students. Further, the current research supported that college students face numerous unique stressors as part of their academic experience.

While, results confirmed a prevalence of anxiety among study participants, results also confirmed that all study participants engaged in multiple coping mechanisms on a continuing basis to counter the effects of triggers causing their anxiety. This was not surprising when considering that students majoring in recreational therapy are typically introduced to intervention-based modalities that can be used with clients to treat anxiety and improve stress management skills. What is of more interest, is the students' reported

self-directed use of common intervention-based modalities they have been taught as part of their degree program, possibly suggesting that there could be an important role that recreational therapy could play in the mental health counseling services provided at colleges and universities.

5.2 Implications

When considering other counseling-based professions that provide treatment for anxiety on college campuses or within a college campuses' community, one could reflect on the role that Recreational Therapy can play in the treatment of anxiety.

> "Recreational therapy includes, but is not limited to, providing treatment services and recreation activities to individuals using a variety of techniques including arts and crafts, animals, sports, games, dance and movement, drama, music, and community outings. Recreational therapists treat and help maintain the physical, mental, and emotional well-being of their clients by seeking to reduce depression, stress, and anxiety; recover basic motor functioning and reasoning abilities; build confidence; and socialize effectively..." National Council for Therapeutic Recreation Certification (NCTRC, 2018, ¶ 3).

According to Bibbins (2016), "within a behavioral health setting Recreation Therapy uses a therapeutic approach that allows patients with various mental health diagnoses to engage in actions, movements, and activities to face problems and concerns and improve their quality of life" (p.1).

Results from the current study support that many of the common intervention modalities taught to recreational therapy students that could be used to treat anxiety, could also contribute to addressing the epidemic of anxiety on college campuses. This assumption is rooted in the number of study participants who identified using coping

mechanisms such as physical recreation or exercise, deep breathing, mindful relaxation, creative arts, supportive relationships, accepting and acknowledging negative feelings, problem solving, humor, eating healthier, scheduling rest breaks, engaging in pleasurable activities, drawing from past experiences, positive affirmation, and avoiding excessive caffeine or alcohol on a continual basis to assist in managing their own anxiety.

Regarding the use of recreational therapy intervention modalities to assist in reducing student anxiety, universities could invest in hiring recreational therapists into their existing mental health services infrastructure. Another possible opportunity could include allowing recreational therapy faculty and/or graduate students with their CTRS certification to provide anxiety clinics throughout the academic year on a scheduled basis. Additionally, the development and instruction of one-credit hour activity-based elective courses students could take to regularly participate in activities such as curated fitness, mindful relaxation, mediation, yoga, etc. could be another consideration. Although it would require an investment of resources, colleges could consider opening a designated mental health and wellness clinic through which rehabilitative services could be coordinated and provided by a number of health and human service programs such as recreational therapy, counseling, exercise science and occupational therapy. One final opportunity could be for recreational therapy programs to engage in establishing co-sponsored graduate assistantships with other service sectors of a college such as residence life, campus recreation, or athletics to provide recreational therapy services targeted at reducing student anxiety.

5.3 Future Research

As previously identified, the primary purpose of this research was to collect baseline data associated with anxiety among recreational therapy undergraduate students. Specifically, as it relates to anxiety, the current study examined considerations for seeking treatment or counseling, perceived health, levels and frequency of anxiety, general anxiety triggers, academic-specific anxiety triggers, and coping mechanisms. Additional recommendations for future research could include:

- Examining the effects of anxiety on the academic performance of students majoring in recreational therapy programs.
- Comparing and contrasting the effects of anxiety on the academic performance of students majoring in recreational therapy programs in relation to other rehabilitation based academic programs.
- Examining recreational therapy student's perspectives on the extent in which engagement in common anxiety coping mechanisms reduced the triggers, symptoms and effects of anxiety during their academic experience.
- Longitudinally examining the effects of anxiety as recreational therapy students' progresses through their academic career (i.e., freshman, sophomore, junior, senior years).
- Longitudinally examining how the use of coping mechanisms evolve or change over the course of recreational therapy students' academic careers.
- Examining student perceptions on what academic recreational therapy programs could do internally to reduce and/or assist students in coping with generalized anxiety experiences.

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