The relationship between an employee's anxiety and depression symptoms, job satisfaction, and turnover intention in tipped vs. non-tipped employees.

by

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Abstract

The stress levels experienced by Americans is steadily increasing in response to the pandemic and has continued too today. Subsequently, the number of individuals experiencing anxiety rose to 19.1% of the population, while 6.7% experienced depression. The impact these two disorders have on individuals is great and results in missed days of work, and in some cases leads to job turnover if the employee perceives the workplace to be the cause of their mental health issues. Further, eight million American restaurant employees' lives changed in 2020 as a result of the Covid-19 pandemic, which has only exacerbated the mental health issues of those working on the front lines of restaurants from coast to coast.

The purpose of this study was to understand the impact anxiety and depression have on restaurant industry employees. Specifically, this research sought to explore if employee mental health was related to an employee's job satisfaction and turnover intention.

To accurately measure these aspects, a 45-item survey consisting of the Patient Health Questionnaire Anxiety and Depression Scale, the Minnesota Satisfaction Questionnaire short form, three questions related to turnover intention, and seven demographic questions were utilized. Means and standard deviations were computed to accurately compare each section of the survey. Then, t-tests were conducted on the differing severity levels of anxiety and depression. After conducting t-tests, the severity groupings were grouped into primary compensation type to allow for more t-tests to be run to understand the relationship between compensation and a restaurant employee's mental health.

Results noted that those who experience anxiety and depression symptoms at an increased severity level were deemed to experience higher levels of job satisfaction than their less afflicted counterparts, which is in direct contradiction to the literature available presently.

Comparatively, those experiencing higher severity levels of anxiety and depression symptoms experienced higher levels of turnover intention. To further these findings, the need to determine if personal or work-related anxiety and depression drove turnover intention is great.

While compensation was found to have no impact on the manifestation of either anxiety or depression symptoms, it remains a topic for further research as politics in America continue to vie for a minimum wage increase. Future research would benefit from an increase in specificity of the main symptoms of anxiety and depression being experienced by restaurant employees, and thus, to understand further the changes restauranteurs could make to benefit their businesses.

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Chapter 1 - Introduction

Turnover in the restaurant industry is a common problem. The 2018 restaurants-and-accommodations turnover rate topped 74.9%, including a 54.2% quit rate that helped propel the turnover rate to the highest since the Great Recession. Causes for this high turnover rate include that the restaurant industry employs the largest number of teenagers (1.7 million), the highest proportion of students (28%), and depends on seasonal staff, who comprise 30% of the restaurant workforce (National Restaurant Association, 2019). Other factors, such as layoffs and retirements, do not affect the industry as greatly as employees who are quitting.

The turnover rate was exacerbated further during the Coronavirus Pandemic. The restaurant industry saw some of the largest transitions of labor power, as government shutdowns forced all industry leaders to make difficult decisions. Restaurant industry leadership changed the livelihoods of more than 8 million restaurant industry employees at the height of the pandemic during the first few months of 2020 (National Restaurant Association, 2020). As the country began to slowly reopen in 2021, Miller and Yamada (2022) coined the term “great resignation” when more than 47 million Americans left the national workforce, including key frontline employees in the restaurant industry. This affected the restaurant industry further with constant understaffing and issues attracting worthy candidates.

The great resignation and the global pandemic are not the only paradigm shifts the world and restaurant owners must deal with. Even without these unexpected events, the restaurant industry turnover rate is substantial. Restaurant operators have begun to evaluate why the number of individuals leaving the industry has increased greatly since 2020. There are many reasons for this phenomenon, including burnout (Walters & Raybould, 2007), role ambiguity (Boles & Babin, 1996), and financial rewards not equaling the hours worked (Ghiselli et al.,

2001). However, because of the recent pressures of the Covid-19 pandemic and an unstable economy, mental health may play a major role in retaining or recruiting employees and may be a factor that restaurant owners and managers have yet to understand.

Many factors play a role in affecting an individual's mental health. Anxiety, depression, and substance abuse are three of the most common issues from which restaurant employees suffer (Saah et al., 2021). However, the main contributor to these issues is job stress (Boles & Babin, 1996; Hight & Park, 2019; Jung & Yoon, 2014; Walters & Raybould, 2007). Because the success of many restaurants falls on the shoulders of non-supervisory employees, the pressure from managers to ensure guest satisfaction affects these employees greatly. Non-supervisory positions boast over 10 million employees in May of 2022 according to the U.S. Bureau of Labor and Statistics (2022), which estimated a total of 11.6 million Americans were employed in over 677,000 restaurants in the United States. Many of these non-supervisory positions include tips as part of their compensation and rely heavily on the generosity of customers (Lynn, 2003). Reliance on the generosity of customers puts an undo strain on tipped employees, who often live paycheck to paycheck due to the inconsistency of total compensation received (Hight & Park, 2019).

For those who depend on tipped income as the main source of their livelihood, this was further exacerbated by the Coronavirus Pandemic. Bufquin et al. (2021) determined that employees who worked through the pandemic experienced higher levels of psychological distress versus their furloughed counterparts despite retaining their job. This increased stress was largely due to an increase in stressful circumstances, such as the possibility of virus exposure and the reduction in compensation due to a decrease in tips (Bufquin et al., 2021). Because of the

effects of the pandemic, the working class has been subjected to an onslaught of mental health impacts during the two previous work years (Panchal et al., 2021).

During the pandemic, the lack of tips and increased risk of virus exposure caused many employees to explore other job opportunities outside of the hospitality industry. A restaurant employee's turnover intention is affected by several factors. The most common factors include poor job satisfaction, role or job stress, and symptoms of anxiety and depression.

An employee's job satisfaction has been negatively associated with turnover intention (Ghiselli et al., 2001). The findings of Boles and Babin (1996) determined that role stress and job satisfaction were negatively related. Jung and Yoon (2014) found that job stress from emotional labor increased the turnover intention of an employee. Work stress has also been linked to burnout (Hayes & Weathington, 2007) and has a significant prevalence in restaurant employees, alongside anxiety and depression (Saah et al., 2021).

Muth et al. (2020) found a significant prevalence of depression and burnout among employees in the restaurant industry, focusing on the factors of bullying, perfectionism, and lack of social support as determinants of depression and burnout. However, the findings of Ross (1995) indicated mood responses by hospitality employees were more positive toward their work stress ratings. Despite more positive mood responses, Ross believed a "being tense" response to hospitality work indicated potential future unhappiness due to the accompanying anxiety responses. In Saah et al. (2021), 52.3% of waiters in Ghana indicated they experienced symptoms of anxiety. However, anxiety is not the only factor playing a role in the decreased mental health of the world.

An individual's mental health can play a significant role in their lives, affecting all aspects of their day-to-day routines. According to Reinert et al. (2021), almost 20% of the adult

population in the United States is diagnosed with a mental illness. The impact of mental illness is especially prevalent in the restaurant industry. Randall (2018) noted that 80% of restaurant employees in Australia believe that mental health issues, such as anxiety and depression, are a significant challenge for the restaurant industry.

To combat the challenges presented by anxiety and depression, studies have explored the association of anxiety and depression to shift work. Lee et al. (2016) utilized the Patient Health Questionnaire (PHQ-9), a 9-question assessment used to estimate the severity of depression in a patient. Lee et al. (2016) determined a higher prevalence of depression symptoms in shift-working nurses. Jaradat et al. (2020) used a version of the PHQ-9, the PHQ-4, which determines the prevalence of depression and anxiety in a four-question assessment. Jaradat et al. (2020) determined that individuals who worked six or more on-call shifts in a month reported more consistent anxiety and depression scores. As anxiety and depression increase in the United States (Panchal et al., 2021), there is a paucity of studies specific to the effects of anxiety and depression on restaurant employees.

Justification

An employee's work stress levels have a significant effect on job satisfaction and turnover intention. According to the American Psychological Association (2020), stress is considered a national mental health crisis. Because stressful situations are a major cause of anxiety (Anxiety and Depression Association of America, 2021b; National Institute of Mental Health, 2020) and anxiety is a symptom of the onset of depression (National Institute of Mental Health, 2018), it would be beneficial to understand the impact these two disorders have on restaurant employees' turnover intention and workplace satisfaction. Ross (1995) determined

that even the most effective employees could experience stress, which can affect anyone and can be detrimental to the workforce in the form of anxiety and depression.

By further discussing the prevalence of anxiety and depression in the workplace and understanding the root causes of stress, the potential to decrease employee turnover intentions could follow. Jung and Yoon (2014) studied employees in the foodservice industry and determined that stress is influential on an employee's turnover intent but can be reduced by effective stress controls. Karakas and Tezcan (2019) evaluated the effect of work stress due to work-family conflict on worker performance and found that as work-family conflict increased, worker performance decreased. These results from Karakas and Tezcan (2019) help to confirm the findings of Jung and Yoon (2014) further solidifying the need to understand the impact stress has on employees.

An employee's stress level has major implications on turnover intentions and workplace satisfaction. Parker and DeCotiis (1983) focused on determining the causes of work stress and their findings have led to the abundance of research related to the impact of work stress (Ghiselli et al., 2001; Jung & Yoon, 2014; Karakas & Tezcan, 2019; Ross, 1995). Several studies have explored the relationship between shift work and affective disorders. However, there is a paucity of research on the impact anxiety and depression have on the employee turnover intention and workplace satisfaction within the restaurant industry.

Purpose of Study

The overall purpose of this study is to understand the impact of anxiety and depression on restaurant employees' intent to leave and workplace satisfaction.

Research Questions

1. What is the extent of anxiety and depression among restaurant employees in the United States?
2. Is turnover intention higher among employees who score moderately severe or severe for anxiety and depression than their less affected counterparts?
3. Is workplace satisfaction lower among employees who score moderately severe or severe for anxiety and depression than their less affected counterparts?
4. Are there differences in anxiety and depression severity among tipped versus non-tipped employees?

Significance of Study

As a new generation of employees enter the work force after the significant impact Covid-19 had on the mental health of the United States, the need for increased knowledge on the effects anxiety and depression have on employees is increasingly important. This study will focus on employee's anxiety and depression severity as a determinant of turnover intention and workplace satisfaction. Restaurant leaders can use the results of this study to be more aware of the role mental health has on hourly employees. An increased understanding of the impacts that anxiety and depression have on the restaurant industry employees will emphasize the importance of mental health as it continues to ravage the workforce. Understanding the impacts of anxiety and depression will also give the restaurant industry leadership a chance to decrease the stressful aspects of the restaurant in hopes of decreasing anxiety and depression symptoms and ultimately reducing turnover. As awareness increases and the stressful aspects of the restaurant decrease, the industry may see a lower turnover rate in the future, helping restaurant leaders tremendously.

Definition of Terms

Anxiety – The feeling of fear, dread, and uneasiness; normally a reaction to stress *(National Library of Medicine, 2020).*

Depression – A mood or emotional state that is marked by feelings of low self-worth or guilt and a reduced ability to enjoy life *(Britannica, 2021).*

Employee – One employed by another usually for wages or salary and in a position below the executive level *(Merriam-Webster, n.d.a).*

Employer – A person or company that provides a job paying wages or a salary to one or more people *(Merriam-Webster, n.d.b).*

Job Satisfaction - A positive emotional state produced from a person's experience associated with his or her job *(Locke, 1969).*

Job Stress – A particular individual's awareness or feeling of personal dysfunction as a result of perceived conditions or happenings in the work setting (*Parker & Decotiis, 1983).*

Mental Health – A person's emotional, psychological, and social well-being *(Center for Disease Control, 2021).*

Restaurant Industry – Any eating or drinking place which prepares and offers food or beverages for human consumption either on any of its premises or by such services as catering, banquets, box lunch, or curb service *(Law Insider, n.d.).*

Turnover Intention – One's desire or willingness to leave an organization *(Thoresen et al., 2003).*

Workplace Satisfaction (Syn: Job Satisfaction) **-** The feeling of pleasure and achievement that you experience in your job when you know that your work is worth doing, or the degree to which your work gives you this feeling *(Cambridge, n.d.).*

Chapter 2 - Literature Review

Mental Health in America

Mental illness affects more than 20% of the adult population of the United States (Reinert et al., 2021). Of all mental illnesses, anxiety and depression are two of the most well-known disorders, affecting 19.1% and 6.7%, respectively, of the American population aged 18 and older (Anxiety and Depression Association of America, 2021b).

The United States has been subjected to an onslaught of issues that has caused an increase in the incidents of mental health issues among the population. From the onset of the Coronavirus Pandemic in 2020, Americans are experiencing levels of stress not previously encountered. Nearly 80% of Americans deemed the Covid-19 pandemic as a significant source of stress (American Psychological Association, 2020). The impact of this increased stress has caused an increase in anxiety and depression.

Anxiety

Anxiety disorders are the most common mental illness in America today, affecting over 40 million people (Anxiety and Depression Association of America, 2021b). Anxiety is best explained as persistent, excessive worrying about many different things and is diagnosed when occurring for six or more months in a row (National Institute of Mental Health, 2022). Many of the symptoms, such as headaches and difficulty sleeping (National Institute of Mental Health, 2022), have physical impacts on an individual's ability to function. Although anxiety is a highly treatable disorder, less than 37% of individuals who experience anxiety seek treatment (Anxiety and Depression Association of America, 2021b). According to Reinert et al. (2021), almost 28 million adults with mental illnesses did not receive treatment in 2018-2019, and 54% of these

would have been covered for mental health through their insurance plans. As Americans navigate in a post Covid-19 world, anxiety disorders will continue to be a common occurrence.

Due to the complexity of anxiety disorders and the many ways to measure the severity of each disorder, anxiety needed to be carefully defined for this research. To help determine anxiety symptoms most likely experienced by restaurant employees, the disorder known as Generalized Anxiety Disorder, or GAD, was chosen for this research, in large part due to it having one of the highest prevalence rates among psychiatric disorders (Wittchen & Hoyer, 2001).

Along with its high prevalence rate, those who suffer from GAD are more likely to be women and have high rates of comorbidity with other anxiety disorders, such as panic, bipolar disorders, and depression (Wittchen & Hoyer, 2001). Wittchen and Hoyer (2001) determined that GAD reduces work productivity in similar fashion to depressive disorders. This decrease in work productivity can be attributed to the major symptoms of GAD, which are shown in Table 1.

Table 1: Symptoms of Anxiety (National Institute of Mental Health, 2022)

Feeling restless, wound up, or on-edge
Being easily fatigued
Having difficulty concentrating
Being irritable
Having headaches, muscle aches, stomach aches, or unexplained pains
Difficulty controlling feelings of worry

These symptoms, though not exclusive to anxiety, show how detrimental anxiety disorders can be for a person. Unfortunately, GAD is not the only oppressive mental disorder from which Americans suffer.

Assessing Anxiety

Due to the complexity of anxiety disorders and the large number of different disorders, there have been many studies related to how to best determine the severity of these disorders. In the early 1990s, the Primary Care Evaluation of Mental Disorders patient health questionnaire was used to efficiently diagnose depressive and anxiety disorders as well as somatoform, alcohol, and eating disorders (Kroenke & Spitzer, 2002; Spitzer et al., 1994). It worked in two parts: a 26-item screener followed by a structured clinician interview (Spitzer et al., 1999). This process took almost 15 minutes of the clinician's already busy schedule.

To combat the need for clinician interviews, the Patient Health Questionnaire was developed (Spitzer et al., 1999). In its initial validation study, the Patient Health Questionnaire was determined to have similar validity to that of its predecessor, the Primary Care Evaluation of Mental Disorders Patient Health Questionnaire (Spitzer et al., 1999).

The most common diagnoses from the original Patient Health Questionnaire were major depressive syndrome and panic syndrome when hitting specific coding criteria (Spitzer et al., 1999). To increase the chances of determining other anxiety disorders, Spitzer et al. (2006) sought to develop a scale that could be utilized in a more efficient manner. Based on the nine required symptom criteria indicated by the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (1994) and four items that reviewed other anxiety scales at the time, a 13-item questionnaire was developed (Spitzer et al., 2006). After sampling 1,184 patients, the top seven items were chosen by best rank order from the original 13 questions (Spitzer et al., 2006). The seven questions determined by Spitzer et al. (2006) proved to be internally consistent in their study with a Cronbach alpha of 0.92 while the test-retest reliability was considered strong at a 0.83 interclass correlation. The procedural validity of the test was strong as well when self-

administered versus orally by a mental health practitioner with an interclass correlation of 0.83 as well. This assessment is now referred to as the Generalized Anxiety Disorder Questionnaire or GAD-7.

The GAD-7 scale consists of seven questions that capture the two core criteria of the definition of generalized anxiety disorder in the Diagnostic and Statistical Manual of Mental Disorders (Spitzer et al., 2006). These questions are asked in relation to how often the respondent identified with the subject of the question over the last two weeks on a Likert-type scale from not at all (0) to nearly every day (3; Spitzer et al., 2006). The total scores of the GAD-7 can range from zero to 21, with a cutoff score of 10 or greater indicating a more likely generalized anxiety disorder diagnosis (Spitzer et al., 2006). When patients diagnosed with generalized anxiety disorder by a mental health practitioner took the GAD-7 test, they had an average score of 14.4, whereas patients without generalized anxiety disorder scored 4.9, on average (Spitzer et al., 2006).

Convergent validity of the GAD-7 was explored during the initial study, and it was compared to two commonly used anxiety scales, the Beck Anxiety Inventory scale, and the Symptom Checklist-90 anxiety subscale (Spitzer et al., 2006). The GAD-7 was highly correlated with the Beck Anxiety Inventory Scale ($r=0.72$) and the Symptom Checklist-90 anxiety subscale ($r=0.74$, Spitzer et al., 2006). Additionally, Spitzer et al. (2006) compared the GAD-7 to the Patient Health Questionnaire (PHQ-8) eight-item assessment that measures depression severity. Spitzer et al. (2006) determined that over half of respondents showing severe anxiety tendencies did not show severe depression tendencies. While anxiety and depression may manifest with similar symptoms, the two disorders are very different and can be experienced separately, thus indicating the need for accurate scales to measure both anxiety and depression.

The GAD-7 questionnaire has been utilized to determine the severity of generalized anxiety disorder for almost 20 years and it has accurately helped people find relief from one of the most commonly diagnosed mental illnesses.

Depression

In 2017, 17.3 million Americans experienced a major depressive episode (Anxiety and Depression Association of America, 2021c), making depression a very common but serious ailment (National Institute of Mental Health, 2018). Many researchers believe there are several factors that play a pivotal role in the onset of depression. Circumstances related to a person's genetics, environment, biology, and even psychology may lead to the onset of this common mental disorder (National Institute of Mental Health, 2018).

Most individuals who are diagnosed with depression are often plagued by sad feelings, hopelessness, and may experience very low activity levels (National Institute of Mental Health, 2018). Other signs or symptoms of depression are included in Table 2.

Table 2: Symptoms of Depression (National Institute of Mental Health, 2018)

Persistent sad, anxious, or "empty" mood.
Feelings of hopelessness or pessimism.
Feelings of irritability, frustration, or restlessness.
Feelings of guilt, worthlessness, or helplessness.
Loss of interest or pleasure in hobbies and activities.
Decreased energy, fatigue, or feeling "slowed down."
Difficulty sleeping, early morning awakening, or oversleeping.
Changes in appetite or unplanned weight changes.
Thoughts of death or suicide, or suicide attempts.
Aches or pains, headaches, cramps, or digestive problems without clear physical cause that do not ease with treatment.

The number of symptoms and frequency with which they are experienced varies for each individual. Depression occurs more frequently in women, and gender and age have been determined as causes for manifestation differences (Anxiety and Depression Association of America, 2021c). Men tend to experience irritability, anger, and recklessness, whereas women experience worthlessness and guilt (Anxiety and Depression Association of America, 2021c).

Young adults or teenagers are frequently irritable and get into trouble in school, whereas older adults tend to be less likely to admit their depressive feelings (Anxiety and Depression Association of America, 2021c). Unfortunately, depression is often diagnosed at the same time as other mental disorders, such as anxiety (Anxiety and Depression Association of America, 2021c). Approximately 50% of those diagnosed with depression are also diagnosed with an anxiety disorder (Anxiety and Depression Association of America, 2021b). While the odds of being diagnosed with both anxiety and depression are high, neither disorder has been proven to cause the other (Anxiety and Depression Association of America, 2021c).

Assessing Depression

The most prevalent mental disorder that is highly treatable is depression (Kroenke et al., 2001; Kroenke & Spitzer, 2002; Spitzer et al., 1999). Unfortunately, screening instruments utilized oral administration by clinicians which took upwards to half an hour and were largely seen as an inefficient way to determine a diagnosis (Kroenke & Spitzer, 2002; Spitzer et al., 1999). Utilizing the Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition and Fourth Edition, the Primary Care Evaluation of Mental Disorders patient health questionnaire was developed to diagnosis specific disorders more efficiently in primary care settings (Spitzer et al., 1994).

The Primary Care Evaluation of Mental Disorders patient health questionnaire consisted of two stages: a 26-item questionnaire followed by a physician evaluation for those who scored positively on the questionnaire (Spitzer et al., 1999). Due to the time required by a physician after the initial questionnaire, the Primary Care Evaluation of Mental Disorders patient health questionnaire was actively utilized in clinical research rather than the original intention of use in clinical settings (Spitzer et al., 1999). The diagnostic validity of the Primary Care Evaluation of Mental Disorders patient health questionnaire was strong at 0.86 for the overall accuracy for diagnosing any psychiatric disorder (Spitzer et al., 1999).

To combat the need for a physician to complete the instrument, Spitzer et al. (1999) developed the Patient Health Questionnaire (PHQ), a self-administered 3-page questionnaire that assessed threshold and subthreshold disorders, such as major depressive disorder, panic disorder, other anxiety, and depressive disorders, probable alcohol abuse/dependence, somatoform, bulimia nervosa, and binge eating disorder (Spitzer et al., 2001).

The PHQ asks questions to determine if specific symptoms laid out by the Diagnostic and Statistical Manual of Mental Disorders are met in a variety of mental illness categories (Kroenke et al. 2001; Kroenke & Spitzer, 2002). Within the Diagnostic and Statistical Manual of Mental Disorders there are nine criteria in the diagnosis of depression. Kroenke et al. (2001) formed questions specific to each criterion and created a diagnostic depression scale. This scale, the Patient Health Questionnaire Depression Scale (PHQ-9), was found to be internally reliable with a Cronbach's alpha of 0.89 in the initial primary care study (Kroenke et al., 2001). The correlation between mental health professionals administering the test telephonically and patients completing the survey themselves was significantly strong at 0.84 (Kroenke et al., 2001).

The PHQ-9 consists of nine questions (Kroenke et al., 2001; Kroenke & Spitzer, 2002; Spitzer et al., 1999). These questions are asked in relation to how often the respondents identified with the subject of the question over the last two weeks on a Likert-type scale from not at all (0) to nearly every day (3; Kroenke et al., 2001; Kroenke & Spitzer, 2002). With total scores ranging from zero to 27, severity of symptoms can be determined as well as the likelihood of major depressive disorder being present (Kroenke et al., 2001; Kroenke & Spitzer, 2002). When scores range from zero to four, minimal depressive symptoms are present and the likelihood of major depressive disorder being present is extremely low (Kroenke et al., 2001; Kroenke & Spitzer, 2002). When scores range from five to nine, 10-14, 15-19, or 20-27, symptom severity and the likelihood that major depressive disorder is present is categorized as mild, moderate, moderately severe, and severe, respectively (Kroenke et al., 2001; Kroenke & Spitzer, 2002).

The PHQ-9, with its ease of use and strong validity for diagnosis and ability to measure symptom severity, was increasingly used for clinical studies (Kroenke & Spitzer, 2002). Kroenke and Spitzer (2002) deemed that in certain research projects it was desirable to omit the ninth question related to suicidal ideation, and thus the modified PHQ-9, the PHQ-8, was created. The PHQ-8 was found to be almost identical to the PHQ-9 in terms of sensitivity and specificity due to the ninth question, "thoughts that you would be better off dead or of hurting yourself in some way," typically contributing only a point or two to a respondent's total score (Kroenke & Spitzer, 2002). While the need for the ninth question is necessary in a clinical setting, the ninth question did little to affect the outcomes of the study in question.

Due to the simplicity of analysis, the PHQ-9 has been increasingly used in clinical settings and offers researchers accurate results in their pursuit of understanding one of the most debilitating mental illnesses in America today.

The Restaurant Industry and Mental Health

The restaurant industry employs a large percentage of the United States workforce. To operate over 677,000 restaurants, leadership in the industry employs close to 11.6 million Americans (U.S. Bureau of Labor and Statistics, 2022). According to the U.S. Bureau of Labor and Statistics (2022), 10 million or more of these employees are considered non-supervisory employees. Non-supervisory employees have the greatest impact on the overall success of the restaurant industry, which relies on these non-supervisory employees to complete many of the most impactful day-to-day tasks.

The heavy reliance on non-supervisory employees may cause the restaurant industry to have inflated turnover rates. In 2018, 74.9% of employees turned over their positions, the largest the American restaurant industry has seen, taking a major toll (National Restaurant Association, 2019). The coronavirus pandemic in 2020 amplified this issue within the restaurant industry as eight million Americans were furloughed (National Restaurant Association, 2020). As the effects of the pandemic slowly faded, the restaurant industry is continuing to feel the effects of high turnover rates as employees look to other industries to pay the bills.

Factors Affecting Mental Health in the Restaurant Industry

As restaurant leadership continues to search for employees, the Covid-19 pandemic, as discussed by Bufquin et al. (2021), had a significant impact on restaurant employees' mental health. Bufquin et al. (2021) found that during the pandemic, individuals who kept their jobs experienced higher levels of psychological distress. These findings contradicted the research available at the time. Parts of this could be attributed to the increased stressors of virus exposure, learning new operational standards, and decreased gratuities the employees relied on before the pandemic (Bufquin et al., 2021).

Unfortunately, these stressors aren't specific to the onset of the pandemic. Hellebuyck et al. (2017) noted that among their sample, 81% allowed workplace stress to impact their relationship with their families. Further, Hellebuyck et al. (2017) identified three industries, manufacturing, retail, and food and beverage, which are prone to unhealthy industry traits, such as poor workplace environment, increased levels of stress, and poor employee engagement.

The food and beverage industry boasted the third-highest percentage of employees, at 50%, who stated that their work stress often impacted their personal relationships (Hellebuyck et al., 2017). This stress felt by food and beverage employees could explain the increase in mental health disorders affecting the restaurant industry.

Randall (2018) found that 80% of Australian restaurant industry employees identified that mental health issues, most notably anxiety and depression, as a significant challenge. Muth et al. (2020) found that over two-thirds of the American restaurant industry employees suffered from moderate to severe depression, based on the use of the PHQ-9 (Kroenke et al., 2002). Muth et al. (2020) also discovered significant differences between the depression severity scores of front-of-house and back-of-house employees, with an average score of 11.46 and 14.43, respectively, on a scale of zero to 27. In addition, Muth et al. (2020) noted that individuals who earned less or worked more hours suffered from more severe depression symptoms than their higher-earning or part-time counterparts. While the results of Muth et al. (2020) are helpful in determining the prevalence of depression in restaurant workers in the United States, there is a paucity of studies completed on the prevalence of anxiety, beyond stress, and this study aims to rectify that dearth.

Scheduling employees has been determined to affect the mental health of employees in the hospitality industry. Moon et al. (2015) found that depressive symptoms increased in Korean

hotel employees who worked rotating shifts. Most restaurants don't abide by shift schedules but some American restaurants schedule on a week-by-week basis, causing potential increased stressful situations for employees, when needing a day off, and for restaurant leadership, when employees don't show up to scheduled shifts.

Saah et al. (2021) studied the prevalence of depression, anxiety, and stress among waiters in upscale restaurants in Ghana. Of the 384 respondents in the study, 59.6% reported at least one mental health problem while 24.7% reported having all three. Depression was prevalent 38.3% of the time, anxiety was present in 52.3% of the respondents, and 34.4% of respondents reported stress in the workplace (Saah et al., 2021). To add to the results determined previously on the prevalence of anxiety and depression in hotels and restaurants (Moon et al.,2015; Saah et al., 2021), this study aimed to determine if anxiety and depression play a role on an employee's job satisfaction and turnover intention.

Job Satisfaction and Turnover Intention

Job Satisfaction

Despite job satisfaction not having one agreed upon definition, Gruneberg (1979) explained it as the emotional reactions of an individual to a particular job. This was initially determined by Lawler and Porter (1967) in their expectancy theory, which proposed that employee performance leads to employee job satisfaction. Gruneberg (1979) posited that employees will not work in situations where reward motivations do not exist. Hackman and Lawler (1971) found that satisfaction within four job dimensions, autonomy, variety, identity, and knowledge, would result in an increase in productivity. Despite the impact on productivity due to the satisfaction of these job dimensions, there are plenty of outside factors that affect job satisfaction.

Porter and Steers (1973) found that employees with high levels of anxiety and emotional insecurity were more likely to leave an organization than their counterparts with moderate levels of such traits. These traits were also the subject of a recent study completed by Allan et al. (2018), who used job satisfaction as a moderator between mental health (anxiety, depression, stress) and meaningful work. The results found that job satisfaction and depression were negatively related, and anxiety was only decreased by a combination of perceived meaningful work and high job satisfaction. The Allan et al. (2018) study was completed in an online format to seek out employees from many different organizations and industries and therefore it is difficult to generalize these results to a specific industry.

Salma and Hasan (2020) delved into the relationship between depression, anxiety, stress and job satisfaction of female nurses in Bangladesh. While using the Depression Anxiety Stress Scale – 21 to determine the severity levels of each disorder and the Minnesota Satisfaction Questionnaire short form to indicate the job satisfaction the nurses experienced. It was found that the nurses experiencing dissatisfaction with their jobs showed higher levels of anxiety and depression. Salma and Hasan (2020) and Allan et al. (2018) showed the negative relationship between job satisfaction, depression, and anxiety. The statistical impact found in these two studies shows the importance of understanding the impact of these disorders in other industries.

Hancer and Geroge (2003) used the Minnesota Satisfaction Questionnaire to determine overall levels of job satisfaction among restaurant employees and determined these employees exhibit moderately high levels of satisfaction from their job. Despite these results, job satisfaction in the restaurant industry can be negatively affected by the increased unhealthy coping mechanisms due to the stress involved in the restaurant industry (Hellebuyck et al., 2017).

Ghiselli et al. (2001) determined that compensation is a component of job satisfaction and Hight and Park (2019) found that stress caused by customer reward-based evaluations, or compensation based on tips, negatively affects job satisfaction. Because job satisfaction is such an important aspect of the workforce, understanding the facets of overall job satisfaction is significant.

While the subject of this research is rooted in the restaurant industry, seeking the impact job satisfaction has on other industries is beneficial. In a study of Australian nurses, it was determined that as job satisfaction decreases, the risk of that respondent developing symptoms of depression would increase in a statistically significant way (Maharaj et al., 2019). While job satisfaction was determined as a predictor of depression, Maharaj et al. (2019) determined that job satisfaction had no statistical significance in relation to anxiety prevalence. However, a study done by Dirlam and Zheng (2017) found that prolonged job satisfaction or dissatisfaction plays a significant role in the onset of mental health problems. Those identified as a part of the group with the lowest job satisfaction scores over the longevity of the study show the most cases of onset of mental health or emotional problems (Dirlam & Zheng, 2017). While these studies help solidify the impact that job satisfaction has on employee mental health, the impact that job satisfaction has on other job characteristics is great. Finding the best way to determine job satisfaction will help determine the impact imparted by this significant job characteristic.

Assessing Job Satisfaction

Many studies have been conducted on how to accurately measure an individual's job satisfaction. One of the original measures of jobs satisfaction was the Cornell Job Descriptive Index (Smith et al., 1969). This measure focused on five subscales related to the satisfaction of the individual in the areas of compensation: ability for promotion, coworkers, supervisors, and

overall work satisfaction. This assessment was widely accepted because it covered many of the potential aspects of overall job satisfaction, rather than other scales at the time, which focused on one or two variables (Gruneberg, 1979). Gruneberg (1979) posited that the best measure of job satisfaction depends on the variable related to overall satisfaction. Due to the complexity of job satisfaction, on an individual level, it was difficult to understand why each employee was satisfied or dissatisfied with their jobs.

At the University of Minnesota, in studies focused on vocational rehabilitation, Weiss et al. (1967) developed a 100-item questionnaire that measured satisfaction on 21 scales related to working environments as well as specific aspects of the job. This questionnaire, the Minnesota Satisfaction Questionnaire (MSQ), can be administered in a long- or short-form (Weiss et al., 1967). While initially used to evaluate the specific needs of an individual looking for a new job through vocational counseling (Weiss et al., 1967), the reliability of the instrument is significantly high when used to measure current employee satisfaction. Hancer and George (2003) found a Cronbach's alpha of 0.90 within their study of nonsupervisory restaurant employees, indicating high reliability.

The Minnesota Satisfaction Questionnaire long form consists of 100 items on 21 different scales, whereas the short form consists of 20 questions related to three scales: intrinsic, extrinsic, and general satisfaction (Weiss et al., 1967). The MSQ is scored on a Likert-type scale, ranging from very dissatisfied (1) to very satisfied (5), giving the short form a score range of 20 to 100 (Weiss et al., 1967). Weiss et al. (1967) determined that percentile ranges were the best way to categorize individuals with low, average, or high satisfaction being measured by scores of below the 25^{th} percentile, scores within the 25^{th} and 75^{th} percentiles, and scores greater than the 75^{th} percentile, respectively. While the specificity of the scales measured in the long-form is much

greater than the short-form, the short-form measures each of the original 20 scales (without general satisfaction) by asking one question rather than five for each aspect scale (Weiss et al., 1967). This allows for general satisfaction to be measured on the short-form by a summation of the scores for each question (Weiss et al., 1967).

Even though the MSQ was developed as a tool to help vocational counselors do their job, the construct validity based on the Theory of Work Adjustment is significant (Weiss et al., 1967). This theory was developed by Dawis et al. (1964) and updated by Lofquist and Dawis (1969). According to Dawis and Lofquist (1984), the basic ideation of the theory is that individuals seek to maintain relationships with their environments. In short, in terms of the workplace, individuals must meet the requirements of the environment while the environment must reciprocate to those requirements of the individual (Dawis & Lofquist, 1984). Satisfaction, and its relationship between individual and environment, according to the expectations posed by the Theory of Work Adjustment, was accurately measured by the MSQ (Weiss et al., 1967).

While the complexity of job satisfaction continues to baffle researchers, having the correct tools such as the MSQ to help understand individual relationships to working aspects is critical. Such an understanding of job satisfaction can be a significant help for the management of an organization to deal with turnover.

Turnover Intention

Turnover is responsible for business costs of upwards of one trillion dollars in the United States, ranging from one-half to two times the annual salary per employee lost (McFeely & Wigert, 2019). Unfortunately, the financial impact is not the only impact the restaurant industry experiences with turnover. McFeely and Wigert (2019) explained that losing the top 1% of employees means that leadership has lost the proven problem solvers who they have depended

upon. Leadership teams who lost their top performers could have retained those employees if they had exercised a positive change. According to McFeely and Wigert (2019), 52% of the employees leaving said that something could have been done by the leadership to prevent them leaving. To prevent employees from leaving, understanding why they are leaving is critical.

Turnover intention is an increasingly important topic that has been researched thoroughly since the 1970s. Mobley (1977) helped to determine the steps employees take in the process of leaving their positions. Mobley et al. (1978) dove further into the turnover process and determined that the age of the employee, tenure with the company, overall satisfaction, and overall commitment to the job are negatively related to turnover.

Michaels and Spector (1982), in a test of the Mobely et al. (1979) model, concluded that turnover was more likely in good job markets due to plentiful opportunities for alternative employment but found that compensation and tenure were not significantly correlated with turnover or turnover intention. Bothma and Roodt (2013) concluded that a decision to leave a workplace is influenced by several outside factors, such as labor market conditions and the employability of said employee.

Mobley (1982) mentions six potential negative consequences of turnover: financial costs, disruption of performance, disruption of social and communication patterns, decline in morale, undifferentiated control strategies, and strategic opportunity costs. Mobley (1982) also found that turnover has four potential positive consequences: displacement of poor performers; innovation, flexibility, and adaptability; decrease in other withdrawal behaviors, and reduction of conflict. Many of the negative consequences could lead to organizational hinderances, such as if the employee leaving had a pivotal role or unique skills to offer to the business, performance disruption was not uncommon. Additionally, disruption of communication in the business and

morale decreases were common consequences to turnover (Mobley, 1982). Despite the negative consequences discussed, if the individual who leaves the business was a poor performer, then a potential positive replacement would be a positive benefit of turnover. Whether positive or negative consequences follow an employee turnover event, there are many reasons behind the event taking place.

Park and Min (2020) completed a meta-analysis of antecedents of turnover intention in the hospitality industry. The results of the analysis found that organizational commitment and job satisfaction were the most impactful in increasing turnover intention. As organizational commitment and job satisfaction decreased, turnover intention increased with p-values at -0.62 and -0.56 respectively (Park & Min, 2020). Park and Min (2020) also found that job strain antecedents were positively related to turnover intention, including job stress and emotional exhaustion with p-values at 0.56 for each. The results of Park and Min (2020) show that turnover intention is onset for several different reasons, and it cannot be attributed to one instance or reason but rather a culmination of all factors that an employee goes through.

Assessing Turnover Intention

Turnover poses a significant threat to businesses everywhere, especially in terms of monetary cost (Mobley, 1982). However, it is extremely difficult to predict if, or when, an individual will choose to leave a position. Michaels and Spector (1982), in their quest to determine causes of employee turnover, used multiple instruments and scales. Additionally, they wrote three questions related directly to the intention of employees leaving (Michaels & Spector, 1982). These questions related to an employee considering, wanting to, and planning to leave their positions helped to correlate intention with turnover at a statistically significant level of 0.41 (Michaels & Spector, 1982). While the use of this turnover intention scale created by

Michaels and Spector (1982) is overshadowed by the more modern Turnover Intention Scale validated by Bothma and Roodt (2013), the impact these questions have on research is just as significant.

Michaels and Spector (1982) scored their original intention scale as a Likert-type scale, with values ranging from strongly disagree (1) to strongly agree (6) and a summation of the three scores determined the impact of intention on a score scale of three to 18. While scores were not separated by certain cutoff points for low, average, or high turnover intention in Michaels and Spector (1982), it can still be helpful in quantifying an item as complex as turnover intention.

While the Michaels and Spector (1982) turnover intention scale is rarely used for research purposes, its simplicity in how the questions are worded makes it ideal for the present study where quantifiable comparisons are the main desire for inquiring about each respondent's intent to leave. When turnover impacts businesses as significantly as it does, there will always be a desire for more knowledge to understand such an impactful aspect businesses must deal with.

Poor Job Satisfaction as a Predictor of Turnover

Job satisfaction and turnover have been thoroughly researched for decades. Most notably, job satisfaction was used as a determination of employee turnover in multiple industries (Castle et al., 2007; Ghiselli et al., 2001; Mobley, 1977; Mobley et al., 1979). The consistent negative relationship between job satisfaction and turnover was confirmed by Porter and Steers (1973). Mobley (1982) posited that overall job satisfaction has a lack of diagnostic value regarding what is contributing to turnover. Other variables that affect turnover include pay, supervision, working conditions, promotions, and coworkers (Mobley, 1982). To expand further on these variables, Mobley (1982) indicated that another variable, organizational stress, could also cause turnover.

Jung and Yoon (2014) determined that job stress makes employees feel exhausted, both physically and mentally, which increases turnover intent. It was also determined that this stress was expressed through the emotional labor, which includes practices of surface acting or deep acting, and emotional dissonance, which is when the emotions of the individual are not expressed as true to the individual but to the needs of the organization. Park and Min (2020) supports Jung and Yoon (2014) regarding the impact emotional exhaustion can play on turnover intention while also solidifying the impact that job satisfaction has on turnover intention. Park and Min (2020) determined that job satisfaction decreasing was the second most impactful reason behind turnover intention increasing.

The results of Jung and Yoon (2014) can be seen as a culmination of Porter and Steers (1973) results when it comes to the tendency between personality factors affecting the increased rate of individuals leaving, specifically the high degrees of anxiety and emotional insecurity felt by those individuals who are leaving. Hayes and Weathington (2007) also support the claim that the higher an individual's stress levels were, the more likely job burnout was experienced. As burnout increases, absenteeism increases, tardiness increases, and productivity decreases leading to increased levels of staff turnover (Walters & Raybould, 2007). Despite the ample research on job satisfaction and turnover, it is becoming increasingly difficult to pinpoint a specific reason these job aspects are constantly affected.

Understanding the impacts anxiety and depression have on an employee's overall job satisfaction and turnover intention can help to decrease the impact these two business factors have on the restaurant industry. The results of this research could be used by restaurant leadership to adopt or expand mental health specific benefits to decrease the potential consequences from severe mental illness. While turnover will always be a problem in the

restaurant industry, decreasing the impact anxiety and depression have on turnover could have significant impacts on finances and the overall morale of the organizations in question. However, before that could manifest, the first things to determine is the prevalence of anxiety and depression in the restaurant industry and the actual impact, whether positively or negatively related, on an individual employee's overall job satisfaction and turnover intention.

Tipped vs Non-Tipped Employees

The American restaurant industry has been one of the largest employers for decades. The need to retain and attract good employees is imperative to the success of the industry. One way the restaurant industry tries to set itself apart and entice those employees to work for them is a competitive compensation offering. The two most common types of compensation in the restaurant industry in America are: an hourly wage rate plus consumer determined gratuities (tipped employee) or a higher hourly rate with no tip (non-tipped employee). There are many instances of positives and negatives being found for both.

While tipping has been one of the most common forms of compensation within the American restaurant industry since the early 1900's, not all restaurant employees are compensated through tips. Many front-of-house employees within the realm of service (including servers, server assistants, bartenders, hosts) are more often compensated with a primarily tipped wage rate (Maier, 2021). While back-of-house employees within the realm of production (including chefs, dishwashers, prep cooks) experience more often an hourly wage for their contributions to the workplace (Maier, 2021). However, according to Lynn (2016), several restaurant operators have done away with tipping, instead opting for a more consistent service charge to help pay employees in both the front- and back-of-house operations. While the transition to service charges could be ideal for restaurant operators with a less price sensitive

clientele or those restaurant operators paying front-of-house employees significantly more than back-of-house employees (Lynn, 2016), the federal tip credit is a good option for those operators not experiencing those situations. The tip credit allows restaurant operators to pay those who receive tips a lower base pay if the tips received by the employee exceed the current minimum wage rates of the area. Despite the use of the federal tip credit across America for decades, many states have increased the minimum wage to be greater than the federal minimum wage (Lynn, 2016; Maier, 2021). With this statehood increase, the tip credit is utilized less or not at all depending on which state the operation is in. This impacts the largest operating expense within the restaurant industry, labor. California's annual increase until 2022 to $15 dollars an hour for the minimum wage grew the minimum by 50% from ten years prior (Maier, 2021). Both service charge introductions and increases in minimum wage rates are playing major roles in the profitability of the restaurant industry.

While the changes to tipping could be positive or negative depending on the restaurant, the minimum wage affects the restaurant industry heavily. Kim and Jang (2019) studied the overall impact minimum wage increases have on the productivity of restaurant operations. It was determined that when minimum wage increases the operational productivity grows positively by 1.52% for every 1% of minimum wage increase (Kim & Jang, 2019). The maximization of productivity happened within one year of a minimum wage increase with a continued 0.18% productivity increase over the next year. However, productivity ceases to increase two years after a minimum wage increase. Despite operational productivity bottoming out within two years of a minimum wage increase, operators paying lower wages initially before a minimum wage rate increase saw an increase in operational productivity more than their higher-paying counterparts (Kim and Jang, 2019). Kim and Jang (2019) posit that minimum wage rate increases affect

employee performance in a positive manner. Beyond productivity and performance, minimum wage rate hikes also affect hourly wages for front-of-house employees more than back-of-house employees. With front-of-house employees seeing an average wage rate increase of 5.24% yearly over 2014-2018 to a maximum of $14.64 in California, over the same period back-of-house wages increased on an average of 4.46% to a $17.53 maximum wage (Maier, 2021). These high averages for both front-of-house and back-of-house employees reflect a trend that could be seen across the country as there has been a large political push to increase the federal minimum wage over the past few years. Results from a study completed by Even and Macpherson (2014) estimated that an increase in the minimum wage would increase earnings but subsequently reduce employment within the full-service restaurant sector. Lynn (2016) showed that tipping at the full-service restaurant level was a hinderance on the restauranteur as much of their potential revenue was sent out the door due to high customer tips. He suggested that rather than using a service charge to pay employees, a menu price increase could allow the restaurant owner to control their revenue more effectively (Lynn, 2016). While more control for the restaurant owner over their revenue would be a welcome sight, tipped wages and the range of pay employees receive have several business impacts that many inexperienced restaurant owners may pass over in favor of potential increased revenues.

While compensation type is a necessary part of the restaurant industry, Zeng and Honig (2017) posited that a living standard wage, which is defined as a wage that provides for an employee's survival needs and social needs, would decrease turnover intention. This legislation has been discussed as a replacement for the minimum wage, which only covers an employee's basic survival needs. Zeng and Honig (2017) found that employees that made significantly more than the minimum wage were more likely to experience higher affective commitment and a

lower overall intent to turnover. This was also supported by Mun and Woo (2020), who determined that hotel operations in the United States showed significantly lower revenue per room, occupancy percentage, and average daily room rates during times when minimum wage did not change. The effect of the minimum wage has a direct impact on the profitability of businesses in the United States and the restaurant industry is no exception.

In the early 1990's, Wessels (1993) determined that a 10% tipped minimum wage increase would cause a 4% decrease in employment for tipped workers. At the time of the study, the minimum wage was $4.25, and the federal tip credit only allowed employers to leverage 50% of an employee's wage to tips ($2.13, an hour in 1993). A 10% increase to the tipped minimum wage would be $0.21 or a total employer responsibility of $2.34. This tipped minimum wage increase not only would reduce tipped employee employment, but the restaurant employment rate would decrease by 1.5%. A complete elimination of the tip credit at the time would reduce employment in the restaurant by at least 7.6% (Wessels, 1993). If a full tip credit was introduced at the time, restaurant employment would increase drastically, 8.5% or 450,000 new jobs, paying well over the minimum wage of the time. Wessels (1993) determined that continuing to allow restaurant operators to use tipped income to satisfy the minimum wage requirements, at least 360,000 jobs could be created while increasing tipped employee's total income by 8%. Employment numbers have increased in the restaurant industry since Wessels (1993), but the tipped minimum wage has stayed the same at $2.13. Thus, following Wessels (1993) determination, restaurant employee employment would increase when the employer is responsible for less of a tipped employee's minimum wages. Despite the increase in employment within the restaurant industry there are many other factors that affect tipped and non-tipped employees alike.

Bufquin et al. (2021) determined that those employed during the pandemic experienced higher levels of psychological distress despite keeping their employment status. This same concept could be seen in those servers who keep their job during a minimum wage increase as posed by Wessels (1993). While minimum wages increase and a subsequent decrease in the number of employees happens, those who remain may need to be asked to complete more tasks they would otherwise not be expected to do. This could lead to an increase in psychological distress, as posed by Bufquin et al. (2021). If those employees see a reduction in hours worked as well as an increase in expectations, it could be seen as a role stressor occurrence that could lead to many different symptoms specific to role strain, such as anxiety (Walters & Raybould, 2007). If these stressors are left unchecked by employees, burnout and other psychological outcomes could manifest. While this focuses on the impacts on tipped workers, there is a paucity of research related to the impact compensation has on the non-tipped employee and their susceptibility to anxiety and depression. The proposed research looks to rectify the dearth of background information as a groundwork for future research.

Chapter 3 - Methodology

The overall purpose of this study was to understand the impact of anxiety and depression on restaurant employees' intent to leave and workplace satisfaction. Specific research questions included:

1. What is the extent of anxiety and depression among restaurant employees in the United States?
2. Is turnover intention higher among employees who score moderately severe or severe for anxiety and depression than their less-affected counterparts?
3. Is workplace satisfaction lower among employees who score moderately severe or severe for anxiety and depression than their less-affected counterparts?
4. Are there differences in anxiety and depression severity among tipped versus non-tipped employees?

The following sections outline the methodology that was utilized to address the research questions.

Population and Sample

The population for this study included all non-supervisory restaurant employees of chain full-service casual restaurants in the United States. As of May 2022, 9,213,620 individuals in the United States worked in food preparation and serving-related occupations (Bureau of Labor and Statistics, 2023). The purpose behind probing employees of full-service casual restaurants was to have the ability to reach numerous different types of job positions that fast food or fast casual restaurants do not typically utilize, such as server's assistants, hosts, and bartenders.

To determine the total population for this study, the Bureau of Labor and Statistics occupation codes of 35-2014 (Cooks, Restaurant), 35-3011 (Bartenders), 35-3031 (Waiters and

Waitresses), 35-9011 (Dining Room and Cafeteria Attendants and Bartender Helpers), 35-9021 (Dishwashers), and 35-9031 (Host and Hostesses, Restaurant, Lounge and Coffee Shop) of the United States was explored. The total number of employees within these sub-occupation categories is 4,108,900 (Bureau of Labor and Statistics, 2023). To achieve a 90% confidence level with a 10% margin of error, the number of responses for this survey is calculated at 106 by G*Power (Faul et al., 2007).

Research Design and Instrument

This research followed a quantitative research approach. An online survey was distributed through Amazon's Mechanical Turk program (Appendix C). Amazon Mechanical Turk was utilized as it was determined to be the most cost effective and efficient data collection method readily available. The survey began with specific demographic questions to make sure those that fit the criteria of non-supervisory front-of-house and back-of-house employees were allowed to complete the survey in its entirety. The survey also included a modified Patient Health Questionnaire-Anxiety and Depression Scale (PHQ-ADS; Kroenke et al., 2016), the 20-question Minnesota Satisfaction Questionnaire short form (Vocational Psychology Research, University of Minnesota, 1977), and three questions, as used by Michales and Spector (1982), to determine the respondent's turnover intention. To help maintain data validity, attention checks were included in each section of the survey and the demographic questions that completed the survey were also compared to the original weed out demographic questions to confirm the survey criteria was maintained.

Patient Health Questionnaire-Anxiety and Depression Scale (PHQ-ADS)

The survey included a modified version of the 16-question PHQ-ADS test (Kroenke et al., 2016), which was used to determine the severity of the individual's anxiety and depression

symptoms. This test is a combination of the Patient Health Questionnaire (PHQ-9 or PHQ-8) and the General Anxiety Disorder Questionnaire (GAD-7; see Table 3). Each of these tests asked the respondent how often each symptom occurred in the past two weeks. Each is scored on a scale of 0 (not at all) to 3 (nearly every day). Each test was scored as a summation with the PHQ-8 having a score ranging from 0-24, the GAD-7 having a score range of 0-21, and the PHQ-ADS being a summation of the two tests combined, with a score range of 0-45.

Table 3: Tests making up the PHQ-ADS: The PHQ-8 and GAD-7 Tests (Spitzer et al., 1999).

PHQ-8	GAD-7
Little interest or pleasure in doing things	Feeling nervous, anxious, or on edge
Feeling down, depressed, or hopeless	Not being able to stop or control worrying
Trouble falling or staying asleep, or sleeping too much	Worrying too much about different things
Feeling tired or having little energy	Trouble relaxing
Poor appetite or overeating	Being so restless that it's hard to sit still
Feeling bad about yourself – or that you are a failure or have let yourself or your family down	Becoming easily annoyed or irritable
Trouble concentrating on things, such as reading the newspaper or watching television	Feeling afraid as if something awful might happen
Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	

The mentioned modification was the removal of the ninth question within the PHQ-9: "Thoughts that you would be better off dead or of hurting yourself in some way." Kroenke and Spitzer (2002) have determined in cases where the test is being self-administered rather than interview style, this question can be eliminated. Because the test was delivered over the internet,

the ninth question was deemed unnecessary for the purpose of the study. Cronbach's alpha of the PHQ-8 was 0.86 in the validity tests completed by Prankeviciene et al. (2022). Even with the deletion of the ninth question this test has been shown to be a reliable screening tool (Kroenke and Spitzer, 2001).

Pranckeviciene et al. (2022), also determined the validity of the GAD-7 at 0.91. Due to the research done by Kroenke et al. (2016), the PHQ-ADS complements the results of the two tests it encompasses with a Cronbach alpha score of 0.8 to 0.9 in the initial validity tests. Because the test scores can be used individually as well as have a significant reliability as a composite score, each respondent's PHQ-8 score, GAD-7 score, and the composite score was determined. These scores determined the severity of the respondent's anxiety and depression symptoms.

Minnesota Satisfaction Questionnaire

Respondents were then asked to complete the Minnesota Satisfaction Questionnaire (MSQ) short form (Table 4). This 20-question survey is commonly used to determine employees' general job satisfaction with a Cronbach's alpha of 0.90 (Weiss et al., 1967).

The MSQ has been widely accepted as a research instrument because of its ease of completion. Because the MSQ is originally 100 questions, the short form was developed to ease the respondent burden in research. The 20-question test focuses on 12 intrinsic and six extrinsic job factors (Table 4). It also adds two questions related to general job satisfaction. The use of a Likert-type scale, with one associated with very dissatisfied and five associated with very satisfied, allows for comparisons to be made easily. An overall score is then determined by a summation of each response. Each respondent's job satisfaction ranged from 20 to 100 and was compared to the severity level of the respondent's anxiety and depression symptoms. Hancer and

George (2003) used the MSQ to measure nonsupervisory restaurant employees' general job satisfaction and found that over 50% of respondents were classified as having low levels of job satisfaction.

Table 4: Minnesota Satisfaction Questionnaire Short Form (University of Minnesota, 1977).

Intrinsic [a]	Extrinsic [a]
Being able to keep busy all the time	The way my boss handles his/her workers
The chance to work alone on the job	The competence of my supervisor in making decisions
The chance to do different things from time to time	The way company policies are put into practice
The chance to be "somebody" in the community	My pay and the amount of work I do
Being able to do things that don't go against my conscience	The chances for advancement on this job
The way my job provides for steady employment	The praise I get for doing a good job
The chance to do things for other people	
The chance to tell people what to do	
The chance to do something that makes use of my abilities	
The freedom to use my own judgment	
The chance to try my own methods of doing the job	
The working conditions	
The way my co-workers get along with each other	
The feeling of accomplishment I get from the job	

[a] Each variable is measured on a Likert-type scale with 1=Very dissatisfied, 3=Not Satisfied or dissatisfied, 5= Very satisfied.

Turnover Intention Scale

To complete the survey, respondents were requested to answer a three-item questionnaire relating to their intention to leave their current position (Table 5). This questionnaire was utilized by Michaels and Spector (1982) as a test of the Mobley et al. (1979) turnover intention model. Michaels and Spector found a significant correlation between intention and turnover with a Pearson correlation coefficient of 0.41 at a p-value of $p>0.05$. The Likert type scale with six answers ranging from strongly disagree (1) to strongly agree (6) is scored as a summation of the three items, resulting in scores between three and 18. The scores of the turnover intention scale were compared to the respondent's anxiety and depression severity scores.

Table 5: Turnover Intention Scale (Michaels & Spector, 1982).

Scale Items [a]
I often seriously consider leaving my current job
I intend to quit my current job
I have started to look for other jobs

[a] A Likert-type scale from strongly disagree (1) to strongly agree (6) is scored as a summation of the three items, resulting in scores between three and 18.

Institutional Review Board

The Kansas State University Institutional Review Board approved the research procedures prior to data collection. A copy of the approval is available in Appendix B.

Pilot Test

A singular pilot test was completed with the use of paper surveys (Appendix A) as was the initial intended form of survey distribution and was completed to only determine the usability of the survey design. The results of the pilot tests focused on the amount of time it took to

complete the survey and potential updates to questions to make questions more modern. No data from the pilot test was used in the main analysis of the study as the demographics of the respondents were not within the target for the current study. No changes to the survey were made from the pilot test, due to the average time taken to finish the survey being under 15 minutes and all feedback was positive when questioned about what could be improved upon.

Data Collection

Data collection took place over a two-week time frame, within Amazon Mechanical Turk using a Qualtrics developed online survey (Appendix C). Due to the nature of Mechanical Turk, screening questions were developed to prevent unusable data and were included prior to the actual survey. The first question determined if the respondent fit into the criteria of the survey by asking what industry they worked in. If the foodservice option was not chosen, the respondent was not allowed to complete the survey. The second question determined if the respondent worked in the correct classification of restaurant. If casual full-service restaurant was chosen, the respondent was allowed to complete the survey. The third question determined what role the respondent played in the restaurant. Of the 12 options, the four pertaining to a managerial role resulted in the employee not being allowed to complete the survey. Finally, a question related to tipped or non-tipped compensation was asked to try to get as close to a 50-50 split on compensation type with quotas being placed on the Qualtrics program.

The number of respondents returned was well over 3,000 but due to the screening questions only 779 surveys were completed. Further analysis determined that 347 of those respondents were either duplicate responses or the responses on the demographic questions used for screening did not match survey demographic question responses. After removing these surveys, this yielded 432 usable surveys. Due to the use of a psychological test being

administered, confidentiality was ensured, and a brief overview of the survey was provided prior to entering the survey in accordance with the IRB standards provided by the University Review Board. To encourage response rate and completion on Mechanical Turk, a worker compensation of $1.60 per survey was offered.

Data Analysis

The data collected from the completion of the survey was used to calculate means and standard deviations. The first level of analysis was to explore means and standard deviations for all variables. Then, for the PHQ-ADS, t-tests were utilized to compare job satisfaction and turnover intention scores among the two groups. The first group included respondents with a PHQ-8 overall severity score considered mild (5-9) and moderate (10-14), while the second group consisted of the respondents with severity scores considered moderately severe (15-19) and severe (20-24). Respondents with a severity score considered no symptoms present (0-4) were not included in the t-test comparisons.

This division process was completed with the scores of the GAD-7, with the same severity cut points as the PHQ-8, as well as the composite score of the PHQ-ADS and its severity cut points of mild (10-19), moderate (20-29), moderately severe (30-39), and severe (40-45). The t-tests determined the affects symptom severity had on respondent's job satisfaction and turnover intention.

The groups were also divided into categories relating to the primary form of compensation each respondent receives. Each respondent was considered a tipped or non-tipped employee, regardless of job title. Further dividing the respondents into categories based on their compensation patterns helped to correlate compensation with anxiety and depression severity.

Finally, a Welch Analysis of Variance was utilized to determine if a respondent's job type would have any effect on anxiety and depression severity, job satisfaction, and turnover intention. Dividing the respondents by each job type helped to determine if a specific job would correlate to an increase or decrease in each category of dependent variables measured.

Chapter 4 - Results

Due to the demographic specificity of the survey, the total number of responses was inflated. While 3,045 surveys were started, many of the respondents took the survey twice or did not fit specific demographic questions related to their employment status or fit the specific job titles the research wanted to probe. A total of 779 fit the demographic criteria the research was looking to probe. Of those 779 responses, 432 were considered completed survey responses. The 347 responses that were removed did not fit the specific criteria of working in the foodservice industry, within the casual full-service restaurant sector, or were not considered a non-supervisory employee. The final response rate for this survey was calculated at 14.2%, with an overall response total of N=432. The average survey completion time was 20.3 minutes.

A Cronbach Alpha Reliability Coefficient was determined for all four scales, as well as the combined alpha of the PHQ-ADS, which combines the depression and anxiety scales into one. The PHQ-8 had an alpha of 0.815, the GAD-7 was 0.795, while the combined alpha of the PHQ-ADS was 0.897. This shows strong reliability on measuring depression and anxiety levels. The job satisfaction scale, the MSQ, showed a strong alpha of 0.904. Finally, the turnover scale used showed an alpha of 0.732. For all scales within the survey, if any item was removed, the alphas would only decrease.

Demographics of Respondents

Overall demographics of the sample are presented in Table 6. Of the 432 respondents, 58.8% were male. The mean age of respondents was just shy of 31 years old, with the largest percentage of respondents (32.2%) being 25 years of age.

Table 6: Demographics of Respondents

	N	%
Gender		
Male	254	58.8
Female	178	41.2
Age		
18-25 years	151	35.0
26-39 years	233	53.9
39+ years	48	11.1
Years in the Restaurant Industry		
1-4 years	145	33.6
5-9 years	198	45.8
10+ years	89	20.6
Years in Current Position		
1-4 years	244	56.5
5-9 years	174	40.3
10+ years	14	3.2
Job Classification		
Part-Time	9	2.1
Full-Time	423	97.9
Personal Income		
Under $25,000	41	9.5
$25,000-$49,999	158	36.6
$50,000-$99,999	228	52.8
Above $100,000	3	0.7
Household Income		
Under $25,000	27	6.3
$25,000-$49,999	92	21.3
$50,000-$99,999	297	68.8
Above $100,000	15	3.5
Marital Status		
Single	29	6.7
Married	394	91.2
Divorced	6	1.4
Number of Children		
None	9	2.1
One	250	57.9
Two	168	38.9
Three or More	5	1.1
Highest Level of Education		
High school/GED	21	4.9
Associate's Degree	12	2.8
Bachelor's Degree	366	84.7
Master's Degree/PhD	33	7.6

Years of experience in the restaurant industry ranged from one year to 30 years. The largest percentage of respondents had worked in the industry between five and nine years (31.9%). While the largest percentage of respondents indicated having the same job title for at least one to four years (56.5%).

The median household income for most respondents fell within $50,000 to $99,999 with 68.9% of respondents reporting this range. Approximately 92% of respondents reported being married, while 97.9% of respondents reported having at least one child. Many of the respondents have spent time at a place of higher education with 92.3% of respondents reporting having a bachelor's degree or higher.

PHQ-8

The results of the PHQ-8 are shown in Table 7 and the reliability of this test was calculated at a Cronbach's alpha of 0.82. First means and standard deviations for the severity of depression were determined for all participants. Then an overall average was calculated. The average overall PHQ-8 score was 14.28 with a standard deviation of 4.18 and a range of zero to 24.

Table 7: Depression Severity Groups Descriptives

	N	Mean ± SD
Depression		
Composite	432	14.28 ± 4.18
Mild	27	7.22 ± 1.60
Moderate	180	12.44 ± 1.05
Moderate Severe	160	16.83 ± 1.37
Severe	49	20.37 ± 0.78
Mild and Moderate	207	11.76 ± 2.10
Moderately Severe and Severe	209	17.66 ± 1.96

The severity scale utilized by the PHQ-8 categorizes symptoms in five severity categories. If an individual scores within zero to four, they are categorized as having minimal

depressive symptoms. When individuals score from five to nine, they are categorized as mild, 10-14 is considered moderate, 15-19 is considered moderately severe, and finally 20-24 is considered severe in terms of depressive symptoms being present and the likelihood of a major depressive disorder manifesting. According to the results of the study, the respondents experienced moderate depressive symptoms overall (14.28).

After overall means and standard deviations were determined, groups were formed to facilitate further comparisons. The scores were split into two with one group encompassing those respondent scores in the mild and moderate ranges of five to 14. The second group included those with more severe symptom severity, with the scores ranging from 15 to 24. Respondents scoring in the range of zero to four were eliminated from the groupings as their symptom severity was measured as having minimal symptoms, therefore having no significant effect to this study. The mild/moderate group consisted of 207 respondents, while the moderately severe/severe group consisted of 209 respondents.

Means and standard deviations were run on the two separate groups and those means were compared utilizing a t-test. Table 8 shows the results of the t-tests when split based on depression severity. The mild/moderate grouping showed an average depression severity score of 11.76 with a standard deviation of 2.10, an average anxiety score of 10.86 with a standard deviation of 2.74, and an overall average combined severity score of 22.63 with a standard deviation of 4.36. The moderately severe/severe grouping showed an average depression score of 17.66 with a standard deviation of 1.96, an average anxiety score of 15.26 with a standard deviation of 2.33, and an overall average combined severity score of 32.92 with a standard deviation of 3.88.

Table 8: Independent Samples Test when grouped by Depression Severity

	Mild And Moderate	Moderately Severe and Severe	t(df)	p	Effect Size
Depression Severity Grouped	Mean ± SD		Independent Sample Test = Variances Assumed		
PHQ-8	11.76 ± 2.10	17.66 ± 1.96	-29.64(414)	<.001	-2.91
GAD-7	10.86 ± 2.74	15.26 ± 2.33	-17.66(414)	<.001	-1.73
PHQADS	22.63 ± 4.36	32.92 ± 3.88	-25.43(414)	<.001	-2.49

Those within the moderately severe/severe depression group showed higher levels of depression than the mild/moderate severe depression group ($t(414) = -29.64$, $p = <.001$). The same group showed greater levels of anxiety ($t(414) = -17.66$, $p = <.001$), and greater levels of both anxiety and depression being present ($t(414) = -25.43$, $p = <.001$). The effect sizes of these t-tests returned rather large effects as well. The PHQ-8 effect size had a Cohen's d of -2.91, the GAD-7 had a Cohen's d of -1.73, and the PHQADS had a Cohen's d of -2.49, when the groups are determined by severity of depression.

GAD-7

The results of the GAD-7 are shown in Table 9, and Cronbach's alpha was 0.80. The overall average GAD-7 score was 12.71 with a standard deviation of 3.82 with a range of zero to 21. The GAD-7 is also categorized into severity categories, similar to the PHQ-8 as previously discussed. The scores ranging from zero to four indicate minimal anxiety symptoms present, five to nine indicates mild, 10-14 indicates moderate, 15-19, indicates moderately severe, and 20-21 indicates severe anxiety symptoms present. The higher the score, the greater the likelihood of generalized anxiety disorder being present. The overall sample in this study showed a moderate level of anxiety symptoms (12.71).

Table 9: Anxiety Severity Groups Descriptives

	N	Mean ± SD
Anxiety		
Composite	432	12.71 ± 3.82
Mild	32	6.91 ± 1.38
Moderate	249	12.07 ± 1.41
Moderate Severe	127	16.66 ± 1.32
Severe	5	20.40 ± 0.55
Mild and Moderate	281	11.48 ± 2.16
Moderately Severe and Severe	132	16.80 ± 1.48

After overall means and standard deviations were determined, groups were formed to run t-tests. The scores were split into two, with one group encompassing those respondent scores in the mild and moderate ranges of five to 14. The second group included those with more severe symptom severity with the scores ranging from 15 to 21. Respondents scoring in the range of zero to four were eliminated from the groupings as their symptom severity was measured as having minimal symptoms, therefore having no significant effect to this study. The mild/moderate group consisted of 281 respondents while the moderately severe and severe group consisted of 132 respondents.

Means and standard deviations were run again on the two separate groups and those means were compared utilizing a t-test. Table 10 shows the results of the t-tests when split based on anxiety severity. The mild/moderate grouping showed an average anxiety severity score of 11.48 with a standard deviation of 2.16, an average depression score of 13.18 with a standard deviation of 3.00, and an average combined severity score of 24.66 with a standard deviation of 4.78. The moderately severe/severe grouping showed an average anxiety score of 16.80 with a standard deviation of 1.48, and average depression score of 18.03 with a standard deviation of 2.56, and an average combined severity score of 34.83 with a standard deviation of 3.54.

Table 10: Independent Samples Test when grouped by Anxiety Severity

Anxiety Severity Split	Mild And Moderate	Moderately Severe and Severe	t(df)	p	Effect Size
	Mean ± SD		Independent Sample Test = Variances Assumed		
PHQ-8	13.18 ± 3.00	18.03 ± 2.56	-16.03(411)	<.001	-1.69
GAD-7	11.48 ± 2.16	16.80 ± 1.48	-25.59(411)	<.001	-2.70
PHQADS	24.66 ± 4.78	34.83 ± 3.54	-21.79(411)	<.001	-2.30

Those within the moderately severe/severe anxiety group showed higher levels of anxiety than the mild/moderate anxiety group ($t(411) = -25.59$, $p = <.001$). The same group showed greater levels of depression ($t(411) = -16.03$, $p = <.001$) and greater levels of both anxiety and depression being present ($t(411) = -21.79$, $p = <.001$). The effect sizes of these t-tests returned rather large effects as well. The PHQ-8 effect size had a Cohen's d of -1.69, the GAD-7 had a Cohen's d of -2.70, and the PHQADS had a Cohen's d of -2.30 when the groups are determined by severity of anxiety.

PHQ-ADS

The results of the PHQ-ADS are shown in Table 11. Many times, anxiety and depression can manifest together so an overall anxiety and depression score was determined by combing the results of the PHQ-8 and GAD-7 tests. The PHQ-ADS is scored as a composite of the PHQ-8 and GAD-7 tests. Cronbach's alpha score was measured at 0.90.

The overall scores range from zero to 45, with cut points of severity similar to the tests of which it consists. Those individuals who score from zero to nine are seen as having minimal depression and anxiety severity. Individuals scoring 10 to 19, 20 to 29, 30 to 39, and 40 to 45 are split into the severity groups of mild, moderate, moderately severe, and severe depression and anxiety severity, respectively. The overall average score for all respondents was measured at

26.99 with a standard deviation of 7.70. Overall, the sample for the study showed a moderate level of both anxiety and depression prevalence, which is consistent with the results of the two tests it consists of.

Table 11: Depression and Anxiety Severity Groups Descriptives

	N	Mean ± SD
Depression and Anxiety		
Composite	432	26.99 ± 7.70
Mild	29	14.69 ± 2.95
Moderate	220	24.90 ± 2.60
Moderate Severe	156	33.87 ± 2.97
Severe	9	40.56 ± 1.67
Mild and Moderate	249	23.71 ± 4.21
Moderately Severe and Severe	165	34.23 ± 3.29

After overall means and standard deviations were determined, groups were formed to run t-tests. The scores were split into two, with one group encompassing those respondent scores in the mild and moderate ranges of 10 to 29. The second group included those with more severe symptom severity with the scores ranging from 30 to 45. The mild/moderate group consisted of 249 respondents while the moderately severe and severe group consisted of 165 respondents. Respondents scoring in the range of zero to nine were eliminated from the groupings as their limited symptom severity was not deemed usable for this study.

Means and standard deviations were run again on the two separate groups and those means were compared utilizing a t-test. Table 12 shows the results of the t-tests when split based on combined anxiety and depression severity. The mild/moderate grouping showed an average combined severity score of 23.71 with a standard deviation of 4.21, an average depression score of 12.51 with a with a standard deviation of 2.45, and an average anxiety score of 11.20 with a standard deviation of 2.34. The moderately severe/severe grouping showed an average combined score of 34.23 with a standard deviation of 3.29, and average depression score of 18.15 with a

standard deviation of 1.91, and an average anxiety score of 16.08 with a standard deviation of 1.93.

Table 12: Independent Samples Test when grouped by Combined Severity

	Mild And Moderate	Moderately Severe and Severe	t(df)	p	Effect Size
Depression and Anxiety Split	Mean ± SD		Independent Sample Test = Variances Assumed		
PHQ-8	12.51 ± 2.45	18.15 ± 1.91	-24.97(412)	<.001	-2.51
GAD-7	11.20 ± 2.34	16.08 ± 1.93	-22.19(412)	<.001	-2.23
PHQADS	23.71 ± 4.21	34.23 ± 3.29	-27.07(412)	<.001	-2.72

Those within the moderately severe/severe combined severity group showed higher levels of combined anxiety and depression than the mild/moderate combined severity group ($t(412) = -27.07$, $p = <.001$). The same group showed greater levels of depression ($t(412) = -24.97$, $p = <.001$), and greater levels of anxiety being present ($t(412) = -22.19$, $p = <.001$). The effect sizes of these t-tests returned rather large effects as well. The PHQ-8 effect size had a Cohen's d of -2.51, the GAD-7 had a Cohen's d of -2.23, and the PHQADS had a Cohen's d of -2.72, when the groups are determined by combined anxiety and depression severity.

Job Satisfaction

The results of the MSQ to measure job satisfaction are shown in Table 13. The MSQ was scored on a scale of very dissatisfied (1) to very satisfied (5) with a range of scores from 20 to 100. The satisfaction scores measured by the MSQ returned an overall average of 75.31 with a standard deviation of 10.46 and a range of 29 to 100. The Cronbach alpha was determined to be 0.90.

Table 13: Job Satisfaction according to Severity Level

	N	Mean ± SD
Job Satisfaction		
Composite	432	75.31 ± 10.46
Depression		
Mild	27	73.48 ± 11.67
Moderate	180	69.57 ± 7.64
Moderately Severe	160	78.65 ± 8.07
Severe	49	87.31 ± 11.43
Mild and Moderate	207	70.08 ± 8.35
Moderately Severe and Severe	209	80.68 ± 9.67
Anxiety		
Mild	32	71.38 ± 10.85
Moderate	249	72.02 ± 8.19
Moderately Severe	127	82.93 ± 9.29
Severe	5	70.80 ± 29.52
Mild and Moderate	281	71.95 ± 8.52
Moderately Severe and Severe	132	82.47 ± 10.73
Depression and Anxiety		
Mild	29	72.79 ± 10.71
Moderate	220	70.73 ± 7.96
Moderately Severe	156	81.70 ± 8.66
Severe	9	87.33 ± 22.05
Mild and Moderate	249	70.98 ± 8.33
Moderately Severe and Severe	165	82.01 ± 9.81

Percentiles for job satisfaction were determined to show low, average, and high levels of satisfaction. The results of this study showed that those with a score of 68.00 (25^{th} percentile) or below have low levels of job satisfaction and those with a score of 82.75 (75^{th} percentile) or higher have high levels of job satisfaction. Those respondents within the range of 68.01 to 82.74 were considered to have average levels of job satisfaction.

The groups related to anxiety and depression, as discussed previously, were then compared to job satisfaction by way of an independent samples t-test. The results of this t-test are in Table 14. In relation to depression only, the mild/moderate group showed an average satisfaction score of 70.08 with a standard deviation of 8.35. Comparatively the moderately severe/severe group showed an average satisfaction score of 80.68 with a standard deviation of

9.67. Compared to anxiety scores, the mild/moderate group showed an average satisfaction score of 71.95 with a standard deviation of 8.52. The moderately severe/severe anxiety scores showed an average satisfaction score of 82.47 with a standard deviation of 10.73.

Table 14: Job Satisfaction compared to Severity Groupings

Job Satisfaction	Mild And Moderate	Moderately Severe and Severe	t(df)	p	Effect Size
	Mean ± SD		Independent Sample Test = Variances Assumed		
Depression Split	70.08 ± 8.35	80.68 ± 9.67	-11.97(414)	<.001	-1.17
Anxiety Split	71.95 ± 8.52	82.47 ± 10.73	-10.74(411)	<.001	-1.13
Depression and Anxiety Split	70.98 ± 8.33	82.01 ± 9.81	-12.28(412)	<.001	-1.23

Finally, the composite of the depression and anxiety scores was compared to job satisfaction and the mild/moderate group showed an average satisfaction score of 70.98 with a standard deviation of 8.33. The moderately severe/severe group showed average satisfaction scores with a result of 82.01 with a standard deviation of 9.81.

Those within the moderately severe/severe depression severity group showed higher levels of job satisfaction than the mild/moderate depression severity group ($t(414) = -11.97$, $p = <.001$). Those within the moderately severe/severe anxiety severity group showed greater levels of job satisfaction than the mild/moderate anxiety severity group ($t(411) = -10.74$, $p = <.001$). Those within the moderately severe/severe combined severity group showed greater levels of job satisfaction being present than the mild/moderate combined severity group ($t(412) = -12.28$, $p = <.001$). The effect sizes of these t-tests returned rather large effects as well. The PHQ-8 effect size had a Cohen's d of -1.17, the GAD-7 had a Cohen's d of -1.13, and the PHQADS had a Cohen's d of -1.23, when the groups are compared to job satisfaction. These results show a positive relationship between anxiety and depression and job satisfaction.

Turnover Intention

The results of the scale used to measure turnover intention are shown in Table 15. The turnover intention scale was scored on a scale of strongly disagree (1) to strongly agree (6) with a score range of three to 18. The scores of the turnover scale returned an average score of 13.17 with a standard deviation of 2.69 with a range of three to 18. The turnover scale's Cronbach's alpha was calculated at 0.73.

Table 15: Groups compared to Turnover Intention

	N	Mean ± SD
Turnover Intention		
Composite	432	13.17 ± 2.69
Depression		
Mild	27	11.44 ± 3.88
Moderate	180	12.16 ± 1.85
Moderately Severe	160	14.09 ± 2.26
Severe	49	16.00 ± 1.21
Mild and Moderate	207	12.06 ± 2.22
Moderately Severe and Severe	209	14.54 ± 2.22
Anxiety		
Mild	32	11.56 ± 3.80
Moderate	249	12.56 ± 2.15
Moderately Severe	127	14.90 ± 2.24
Severe	5	16.40 ± 1.95
Mild and Moderate	281	12.44 ± 2.40
Moderately Severe and Severe	132	14.95 ± 2.24
Depression and Anxiety		
Mild	29	11.72 ± 3.59
Moderate	220	12.30 ± 2.07
Moderately Severe	156	14.78 ± 2.01
Severe	9	16.89 ± 0.33
Mild and Moderate	249	12.23 ± 2.30
Moderately Severe and Severe	165	14.89 ± 2.02

The groups related to anxiety and depression, as previously discussed, were then compared to turnover intention by way of an independent samples t-test. The results of this t-test are in Table 16. In relation to depression only, the mild/moderate group showed an average

turnover intention score of 12.06 with a standard deviation of 2.22. Comparatively the moderately severe/severe group showed an average turnover intention score of 14.54 with a standard deviation of 2.22.

Table 16: Turnover Intention compared to Severity Groupings

Turnover Intention	Mild And Moderate	Moderately Severe and Severe	t(df)	p	Effect Size
	Mean ± SD		Independent Sample Test = Variances Assumed		
Depression Split	12.06 ± 2.22	14.54 ± 2.22	-11.40(414)	<.001	-1.12
Anxiety Split	12.44 ± 2.40	14.95 ± 2.24	-10.11(411)	<.001	-1.07
Depression and Anxiety Split	12.23 ± 2.30	14.89 ± 2.02	-12.10(412)	<.001	-1.21

When exploring anxiety scores, the mild/moderate group showed an average turnover intention score of 12.40 with a standard deviation of 2.40. The moderately severe/severe anxiety scores showed an average turnover intention score of 14.95 with a standard deviation of 2.24. Finally, the composite of the depression and anxiety scores was compared to turnover intention and the mild/moderate group showed an average turnover intention score of 12.23 with a standard deviation of 2.30. The moderately severe/severe group showed higher average turnover intention scores with a result of 14.89 with a standard deviation of 2.02.

Those within the moderately severe/severe depression severity group showed higher levels of turnover intention than the mild/moderate depression severity group ($t(414) = -11.40$, $p = <.001$). Those within the moderately severe/severe anxiety severity group showed greater levels of turnover intention than the mild/moderate anxiety severity group ($t(411) = -10.11$, $p = <.001$). Those within the moderately severe/severe combined severity group showed greater levels of turnover intention being present than the mild/moderate combined severity group ($t(412) = -12.10$, $p = <.001$).

The effect sizes of these t-tests returned rather large effects as well. The PHQ-8 effect size had a Cohen's d of -1.12, the GAD-7 had a Cohen's d of -1.07, and the PHQADS had a Cohen's d of -1.21, when the groups are compared to turnover intention. These results show a positive relationship between anxiety and depression and turnover intention.

Compensation Type

To further understand the impact anxiety and depression has on restaurant employees, the overall severity scores were compared with the respondent's compensation type.

Independent sample tests were first conducted to determine if compensation played a role in affecting those with anxiety and depression. The results showed no significance when means were compared across total and grouped anxiety and depression severity (Table 17).

Seven different job titles were represented by these respondents with food runners being the largest percentage of tipped employees (N=137, 51.1%) and cooks encompassing the largest group of respondents with an hourly wage rate (N=64, 39.0%). To better understand the impact of wages on an employee's anxiety and depression severity, an ANOVA test was run. This test allowed for severity scores to be compared on an individual job title level. The results in Table 18 show the average severity score of anxiety and depression in relation to each respondent's job title, as well as job satisfaction and turnover intention statistics.

Table 17: Independent Samples test to compare Compensation types to Groups.

	Hourly Wage + Tips n=268	Hourly Wage n=164	df	p	t
	Mean ± SD		Independent Sample Test = Variances Assumed		
Depression					
Mild	7.29 ± 1.73	7.15 ± 1.52	25	.418	-.210
Moderate	12.37 ± 0.95	12.56 ± 1.20	178	.127	1.15
Moderately Severe	16.83 ± 1.41	16.84 ± 1.33	158	.486	.035
Severe	20.29 ± 0.52	20.57 ± 1.22	47	.126	1.159
Mild and Moderate	11.80 ± 1.93	11.71 ± 2.33	205	.385	-.294
Moderate Severe and Severe	17.73 ± 1.96	17.53 ± 1.96	207	.242	-.700
Composite	14.42 ± 4.21	14.07 ± 4.14	430	.199	-.846
Anxiety					
Mild	6.80 ± 1.36	7.08 ± 1.44	30	.291	.557
Moderate	12.16 ± 1.43	11.90 ± 1.37	247	.078	-1.422
Moderately Severe	16.71 ± 1.35	16.57 ± 1.28	125	.286	-.566
Severe	20.00	20.50 ± 0.58	3	.248	.775
Mild and Moderate	11.56 ± 2.21	11.34 ± 2.07	279	.204	-.829
Moderate Severe and Severe	16.75 ± 1.39	16.88 ± 1.63	130	.314	.486
Composite	12.80 ± 3.71	12.55 ± 3.99	430	.257	-.653
Depression and Anxiety					
Mild	14.58 ± 3.24	14.90 ± 2.47	27	.393	.274
Moderate	25.07 ± 2.65	24.64 ± 2.51	218	.121	-1.173
Moderately Severe	33.92 ± 3.02	33.78 ± 2.90	154	.387	-.289
Severe	40.00 ± 0.00	41.67 ± 2.89	7	.085	1.528
Mild and Moderate	23.78 ± 4.39	23.61 ± 3.92	247	.376	-.316
Moderate Severe and Severe	34.27 ± 3.26	34.16 ± 3.35	163	.422	-.198
Composite	27.22 ± 7.65	26.62 ± 7.80	430	.217	-.783

Table 18: Descriptive Statistics according to Job Title

	Mean ± SD
Server's Assistant (n=66)	
Composite PHQ-8	15.03 ± 3.36
Composite GAD-7	12.64 ± 3.13
Composite PHQADS	27.67 ± 6.16
Job Satisfaction	78.98 ± 8.13
Turnover Intention	14.11 ± 2.19
Waiter/Waitress (n=115)	
Composite PHQ-8	14.03 ± 5.10
Composite GAD-7	12.88 ± 4.37
Composite PHQADS	26.90 ± 9.17
Job Satisfaction	73.43 ± 14.04
Turnover Intention	12.77 ± 3.15
Bartender (n=2)	
Composite PHQ-8	6.00 ± 7.07
Composite GAD-7	6.50 ± 7.78
Composite PHQADS	12.50 ± 14.85
Job Satisfaction	62.50 ± 3.54
Turnover Intention	13.50 ± 0.71
Cook (n=77)	
Composite PHQ-8	13.35 ± 4.94
Composite GAD-7	11.81 ± 4.86
Composite PHQADS	25.16 ± 9.57
Job Satisfaction	74.78 ± 10.97
Turnover Intention	13.14 ± 3.19
Host/Hostess (n=4)	
Composite PHQ-8	9.50 ± 6.81
Composite GAD-7	9.75 ± 7.18
Composite PHQADS	19.25 ± 13.94
Job Satisfaction	65.00 ± 17.45
Turnover Intention	9.50 ± 5.69
Food Runner (n=167)	
Composite PHQ-8	14.80 ± 2.92
Composite GAD-7	13.19 ± 2.73
Composite PHQADS	27.99 ± 5.28
Job Satisfaction	75.83 ± 7.02
Turnover Intention	13.19 ± 2.01

Due to the dishwasher job title having only one respondent, it was removed to provide accurate post-hoc data to determine the statistically significant results of the ANOVA.

When the ANOVA was performed, the test to determine homogeneity of variances was violated with a significance level of $p<.001$ on every basis. Because there was a violation of the homogeneity of variances, the Welch ANOVA (Table 19) was performed and determined an adjusted F value for job satisfaction $F(5, 8.93) = 6.74$, $p=<.007$. This means that when overall job satisfaction is compared between job titles there is a statistically significant difference in means, which is unlikely to be attributed to random sampling. In the Games-Howell post hoc test, used to determine which comparison would create statistically significant differences of means, the job titles of Server's Assistant (n=66, Job Sat = 78.98 ± 8.13) and Waiter/Waitress (n=115, Job Sat 73.43 ± 14.04) were found to be significantly different at the P<0.05 level.

While exploring turnover intention ($F(5, 9.25) = 2.30$, $p=<.129$), despite the lack of statistically significant differences of means for overall populations, the Games-Howell post-hoc test did determine that the job title Server's Assistant (n=66, Turn Int = 14.11 ± 2.19) had different means when compared to Waiter/Waitress (n=115, Turn Int = 12.77±3.15) and Food Runner (n=167, Turn Int = 13.19±2.01) at the P<0.05 level.

When the results of the PHQ-8 ($F(5, 8.59) = 2.06$, $p=<.168$), GAD-7 ($F(5, 8.58) = 1.27$, $p=<.358$), and the PHQADS ($F(5, 8.59) = 1.53$, $p=<.277$) for all job titles were analyzed, there was no statistically significant differences in means at the P<0.05 level. The results of the Welch ANOVA and the Games-Howell post-hoc test determined that anxiety and depression symptoms were not more severe based on the employee's position of employment.

Table 19: Comparison of Job Title-specific outcomes

Dependent Variables	Server's Assistant	Waiters / Waitress	Bartender	Cook	Host / Hostess	Food Runner	F^a	p
	Mean ± SD							
PHQ-8 Composite	15.03 ± 3.36^{x}	14.03 ± 5.10^{x}	6.00 ± 7.07^{x}	13.35 ± 4.94^{x}	9.50 ± 6.81^{x}	14.80 ± 2.92^{x}	2.06	.168
GAD-7 Composite	12.64 ± 3.13^{x}	12.88 ± 4.37^{x}	6.50 ± 7.78^{x}	11.81 ± 4.86^{x}	9.75 ± 7.18^{x}	13.19 ± 2.73^{x}	1.27	.358
PHQADS Composite	27.67 ± 6.16^{x}	26.90 ± 9.17^{x}	12.50 ± 14.85^{x}	25.16 ± 9.57^{x}	19.25 ± 13.94^{x}	27.99 ± 5.28^{x}	1.53	.277
Job Satisfaction	78.98 ± 8.13^{x}	73.43 ± 14.04^{y}	62.50 ± 3.54^{x}	74.78 ± 10.97^{x}	65.00 ± 17.45^{x}	75.83 ± 7.02^{x}	6.74	.007
Turnover Intention	14.11 ± 2.19^{x}	12.77 ± 3.15^{y}	13.50 ± 0.71^{xy}	13.14 ± 3.19^{xy}	9.50 ± 5.69^{xy}	13.19 ± 2.01^{y}	2.30	.129

Note: Means with different subscripts (x, y series) differed significantly by Games-Howell post-hoc test, $P<0.05$

[a] Results from Welch Analysis of Variance (Equal Variance was not assumed)

Chapter 5 - Summary, Discussion, and Implications

Summary

Major Findings

RQ 1: What is the extent of anxiety and depression among restaurant employees in the United States?

This study sought to understand the impact anxiety and depression have on restaurant employees' job satisfaction and turnover intentions, specifically targeting those within the full-service casual chain restaurant classification. Respondents were asked to answer 15 questions related to their anxiety and depression symptoms and to rate the consistency of those symptoms over a two-week time frame (0=Not at all, 3=Nearly every day). It was determined that restaurant employees in this study experienced moderate severity levels of depression with a PHQ-8 mean score of 14.28 and a standard deviation of 4.18. Moderate levels of anxiety were also measured with respondents indicating a GAD-7 mean score of 12.71 and a standard deviation of 3.82. Overall, the PHQ-8 and GAD-7 scales can be combined to give a composite anxiety and depression severity score and it was determined that restaurant employees have a moderate severity level of both anxiety and depression with a mean score of 26.99 with a standard deviation of 7.70.

RQ 2: Is turnover intention higher among employees who score moderately severe or severe for anxiety and depression than their less affected counterparts?

When determining a respondent's turnover intention, 3 questions were asked about their desire to leave their current position (1=strongly disagree, 6=strongly agree). Overall, the respondents showed higher levels of turnover with a mean score of 13.17 and a standard deviation of 2.69. It was determined that as a respondent's depression and anxiety increased so

did their turnover intentions. When split into severity groupings (mild, moderate, moderately severe, and severe) those with higher severity levels of anxiety and depression saw a 2.5-point increase in their turnover intentions than their less affected counterparts.

RQ 3: Is workplace satisfaction lower among employees who score moderately severe or severe for anxiety and depression than their less affected counterparts?

Respondents were asked to answer 20 questions encompassed in the Minnesota Satisfaction Questionnaire. This questionnaire asked respondents how likely they agreed with intrinsic and extrinsic factors relating to their satisfaction with their job. This was measured with a Likert type scale where one (1) was equivalent to very dissatisfied and five (5) was equivalent to very satisfied. Respondents were determined to have average levels of job satisfaction with a mean score of 75.31 with a standard deviation of 10.46. When grouped based on severity of depression and anxiety, as symptom severity increased so did the respondents job satisfaction. This is significant as the results of this study contradict many of the research presently available on this topic. While the results of this study show a positive relationship between an employee's job satisfaction and anxiety and depression symptom severity, other studies showed a negative relationship.

RQ 4: Are there differences in anxiety and depression severity among tipped versus non-tipped employees?

To determine a potential cause for an employee's anxiety and depression, the respondents scores were compared based on compensation type (Hourly wage and Hourly plus tip wage) as well as their primary job title. Based on the results of this study those employees being paid with an hourly wage experience a statistically insignificant difference of means than those being paid primarily through tips. While there was no statistically significant difference of means when

comparing groups based of compensation type, when grouped based on primary job title results were significant in specific situations. A Welch Analysis of Variance, where equal variance was not assumed, was conducted to determine the statistically significant difference of means. Overall, the only significant difference of means at the $p<.05$ level was when job satisfaction was measured. When a Games-Howell post-hoc test was conducted, it was determined that the significant mean differences were between Server's Assistants (78.98±8.13) and Waiters/Waitresses (73.43±14.04). When turnover intention was compared between job titles, Server's Assistants' mean (14.11±2.19) was statistically significant when compared to Waiters/Waitresses (12.77±3.15) and Food Runners (13.19±2.01). When compared based on depression and anxiety composite scores there was no statistical significance found.

Discussion

The primary purpose of this study was to understand the impact anxiety and depression have on restaurant employees, specifically related to their job satisfaction and turnover intention. Results showed that more than 87% of respondents reported anxiety and depression symptoms at or above the moderate severity level. This severity level, a score of 10 or more on the PHQ-8 and GAD-7, is what helps physicians to diagnose anxiety or depression as an overall disorder. The results of this study should not be taken as diagnoses of the respondents, but merely as antecedents to the potential diagnosis of anxiety or depression within the restaurant employee. Overall, the results of this study should not be seen as restaurant employees having depression and anxiety but rather, they have the building blocks for a potential future diagnosis.

Restaurant employees on average experience anxiety at a moderate severity level with a mean respondent level of 12.71 while their depression averaged in the moderate severity level as well but was scored as two points (14.28) more severe than anxiety (due to having one extra

question being scored on the PHQ-8 vs the GAD-7). When the scores were summed to give a total severity level of both anxiety and depression, respondents continued to stay within the moderate severity grouping at a mean score of 26.99 being reported for overall anxiety and depression combined. This supports the results of Muth et al. (2020), which determined that over two-thirds of American restaurant employees suffered from moderate to severe depressive symptoms (10-27, on the PHQ-9). Despite these moderate level results for the overall average, the number of respondents for each grouping shows a different story.

When anxiety severity levels were categorized by cut points, those with mild or moderate (GAD-7 scores of 5-14) severity of anxiety symptoms greatly outnumbered those with moderately severe or severe (GAD-7 scores of 15-21) severity of anxiety symptoms, nearly two to one. However, those with depression levels of moderately severe or severe (PHQ-8 scores of 15-24) were very similar to those with depression levels of mild or moderate (PHQ-8 scores of 5-14).

When the summation of the two scores is categorized by cut point, those with a mild or moderate (PHQADS score of 10-29) numbered far greater than the moderately severe or severe group (PHQADS score of 30-45), 249 respondents against 165 respondents, respectively. While both anxiety and depression are directly related to one another and neither disorder has been proven to cause the other, the prevalence of symptoms of both being present was significantly high in this study. Eighty-nine percent of respondents showed significant symptom severity levels on the combined PHQ-ADS, in the score range of 20 to 45, deeming those respondents in the moderate to severe categories for both anxiety and depression. These prevalence levels greatly outweigh the American average of 19.1% prevalence rate for anxiety and 6.7% prevalence rate for depression in those aged 18 and older (Anxiety and Depression Association

of America, 2021b). Thus, the results of this study show that the American restaurant employees may be more susceptible to the manifestation of these two disorders.

To accurately compare job satisfaction scores between severity levels of anxiety and depression, the percentile scores were determined in accordance with Weiss et al. (1967). These percentile scores easily determine low (≤68.00), average (68.01 to 82.74), and high (≥82.75) levels of job satisfaction, similar to the satisfaction percentiles of Hancer and George (2003). An interesting relationship was found when comparing job satisfaction scores to each severity level. It was determined that as anxiety levels increased, up to the moderately severe group (GAD-7 score of 15-19), the mean job satisfaction scores increased. However, when job satisfaction was measured in the most severe group (GAD-7 score of 20-21) it significantly decreased by almost 12 points from the moderately severe group. When percentiles were compared, those in the mild (5-9), moderate (10-14), and severe (20-21) anxiety symptom severity groups had average levels of job satisfaction (71.38, 72.03, and 70.80, respectively). However, those in the moderately severe (15-19) anxiety severity group reported high levels of job satisfaction (82.93). It is difficult to speculate why those with a higher propensity to anxiety would be the most satisfied with their jobs. One reason may be that those with anxiety of that severity may just be thankful for having a job, and the satisfaction could stem from personal desire to keep employment. Financial need, despite what is shown in the results of this research, has been seen as a great motivator and could also increase an individual's job satisfaction despite the increase in anxiety symptom severity. Many times, anxiety could be a silent battle individuals deal with, especially those in the Generation X or older age range. One other potential increase of job satisfaction is that those that have had time to build a regular clientele, in terms of waiters/waitresses, could have higher levels of satisfaction as they enjoy the ease and camaraderie that is shared when

serving a guest on a regular basis. Whether personal or job related, this increase within the moderately severe severity grouping is an avenue to explore in the future.

Depression showed a similar trend with job satisfaction scores increasing as depression severity increased. However, the moderate severity group (PHQ-8 score of 10-14, Job Sat = 69.57) saw an almost four-point decrease in satisfaction when compared to the mild severity group (PHQ-8 score of 5-9, Job Sat = 73.48). Percentile scores for depression severity cut points indicated that those in the mild (5-9), moderate (10-14), and moderately severe (15-19) all had average levels of job satisfaction while those with the highest symptom severity levels (20-24) showed high levels of job satisfaction with an overall average score of 87.31. The increase in job satisfaction as depression severity increases is difficult to pinpoint through this research. However, based on the results we could speculate that the respondents may not attribute their higher levels of depression to their jobs. This could explain the results of this study being contradictory to the present literature. If individuals do not attribute their depression severity onset with their employment, it would make sense that there is a positive relationship between the two. If this is the case, understanding restaurant employee's mindsets in the workplace would do well to determine if restaurant industry employees are affected by depression at a higher rate than their other industry counterparts.

This trend found within the depression scores was also reported in the summation scale satisfaction scores. As both anxiety and depression increased, job satisfaction did too. Despite the decrease from mild PHQADS scores to moderate PHQADS scores, a positive relationship between anxiety and depression and job satisfaction was determined. When compared to the percentile scores for job satisfaction, those in the mild (10-19), moderate (20-29), and moderately severe (30-39) severity categories for both anxiety and depression showed average

levels of job satisfaction. The most severe group of anxiety and depression symptoms (40-45) was determined to have high levels of job satisfaction with an average score of 87.33.

These results of a positive relationship between anxiety and depression symptoms and job satisfaction are in direct contradiction to Ross (1995). Ross (1995) determined that those who are satisfied with their work show more mood states in association with cheerfulness and enthusiasm, while depressed or miserable mood states indicate lower levels of work satisfaction (Ross, 1995). In comparison, the results of the current study determined that as respondents experienced more severe levels of anxiety and depression symptoms, their job satisfaction scores increased. While the results of this study do little to illustrate any negative effect anxiety and depression have on an employee's job satisfaction, as the results of Ross (1995) indicated, the effects anxiety and depression have on turnover intention are significant.

Turnover has always been an issue for the American restaurant industry, with a 2018 turnover rate of 74.9% (National Restaurant Association, 2019). Quitting was one of the highest reasons people left that same year with restaurant employees voluntarily leaving at a 54.2% rate (National Restaurant Association, 2019). The respondents of this study show increased turnover intentions with an overall average turnover intention to be above the median within the results. As with the results of Jung and Yoon (2014), where stress was found to have a partial mediating role on turnover intent through an employee's emotional labor, the results of this study also indicate a positive relationship between anxiety and depression symptoms and an employee's turnover intention. While the restaurant industry is considered one of the most stressful industries in America, the results of Jung and Yoon (2014) and the results of this study could be used to determine that turnover intent could be controlled through effective and efficient controls of stress, a major symptom of both anxiety and depression.

As the political call for an increase to the minimum wage continues in America, determining if compensation type had any effect on a restaurant employee's anxiety and depression severity was explored. There were no statistical differences found in the relationship between compensation type, tipped employee versus non-tipped employee, anxiety, depression, job satisfaction, or turnover intention. Despite the results of Hight and Park (2019) showing that tipping may cause an increase in role ambiguity, which was found to have a statistically significant negative relationship to job satisfaction, the direct impact compensation plays is difficult to determine.

Based on the individual questions statistics within the MSQ, question 13 (My pay and the amount of work I do) had a mean score of 3.71 with a standard deviation of 0.92 indicating that pay is not the most significant driver of job satisfaction as it was the second to lowest mean score individually within the MSQ, which is similar to the results of Hancer and George (2003). While Muth et al. (2020) found compensation to be negatively related to an individual's depression severity, this study determined a dearth of statistical significance to support that claim.

Some of the results of this study are contradictory to the literature currently available. It was determined from this current study that as anxiety and depression severity levels increase, job satisfaction increase. However, the results of Allan et al. (2018) determined the exact opposite. Boles and Babin (1996) determined that stress decreases job satisfaction and Hight and Park (2019) determined that as a restaurant employee's role ambiguity (a symptom of role stress) increases, employee job satisfaction decreases. As discussed in Chapter 2, we note that stress is a symptom of anxiety and depression. The results of this study directly contradict the findings of Allan et al. (2018), Boles and Babin (1996), and Hight and Park (2019) when discussing job satisfaction.

Implications

Industry Implications

The overall findings of this study determined that anxiety and depression symptoms are prevalent within the restaurant industry. The restaurant employees within this study show a moderate severity of both anxiety and depression symptoms, which can lead to significant consequences within the industry as a result. According to this research, anxiety and depression symptoms affect everyone in some way. While those experiencing higher levels of anxiety and depression seem to be more satisfied with their job in this study, those same employees indicating higher satisfaction also showed higher levels of turnover intention.

These results indicate it may be difficult for restaurant leadership to combat the effects of anxiety and depression in the restaurant. Gruneberg (1979) has indicated that the relationship between an employee's mental health and job satisfaction is relatively low, and the results of this study indicate the same. When an employee is highly satisfied yet feels high levels of anxiety and depression symptoms, it indicates that the impact mental health has on job satisfaction is seemingly insignificant.

Turnover intention has had a large impact on the restaurant industry for generations and today is no different. From the results of this study, we can determine that as an employee experiences higher levels of anxiety and depression, their desire to leave their job increases. This could be for several different reasons but according to Jung and Yoon (2014) stress led to mental and physical exhaustion, which in turn lead to a slight increase in turnover intention. From the results of this study, we can determine that employers within the restaurant industry would retain more employees if their employee's anxiety and depression symptoms were kept at a minimum. Restaurant industry leadership would do well to decrease an employee's propensity to anxiety

and depression-inducing situations, mainly in the form of job stress. Increasing the number of individuals on a shift or decreasing the number of job-specific duties that individual is expected to handle at one time may be beneficial in decreasing the overall manifestation of anxiety and depression. Some examples include decreasing the number of menu options, decreasing the number of tables servers are responsible for, or offering classes on how to multitask in a restaurant setting.

Finally, the results of this study show no statistically significant indication that how an employee is compensated leads to an increase in an employee's anxiety and depression symptom severity. Depending on the location of the restaurant in question, eliminating tips from customers could lead to increased costs and decreased patronage as prices will inevitably increase to cover the increased labor costs. However, compensating appropriately for their work outputs would potentially increase productivity and decrease turnover rates as determined by Zeng and Honig (2017).

Research Implications

With the results of this study, there are avenues for future research relating to this topic. Regarding anxiety, depression, and their impact on job satisfaction, the need for further exploratory studies focused on why an individual's job satisfaction may rise despite the increase in severity of anxiety and depression symptoms being experienced is great. According to the present literature, as stress increases, job satisfaction should decrease (Boles & Babin, 1996; Hight &Park, 2019). However, the current study has determined the opposite. Thus, the need for further specificity when it comes to the reasons for an individual's job satisfaction may be necessary to confirm or refute the results from the current study.

When discussing turnover intention and its positive relationship to anxiety and depression symptom severity, future research should explore the best way to decrease this already debilitating aspect of business. While it is difficult to pinpoint one reason for turnover, it has been proven to encompass many aspects before coming to fruition (Mobley et al., 1979). Studying the stages of turnover intention in the restaurant industry could help to determine the most likely reason behind the drive to leave a position and would be quite valuable within the industry.

Finally, while no statistical significance was found between anxiety and depression and compensation, the idea that employee pay doesn't mediate a person's stress is rash. One of the main reasons for divorce is financial issues and to assume that employee pay has no mediating role in an employee's job satisfaction or overall anxiety and depression levels is unfathomable. To rectify the dearth in this research, an exploratory study of employees' anxiety and depression severity levels before and after a compensation change would be beneficial, perhaps utilizing many of the same methods within the present research, and administering the survey before and after a compensation type change to determine the benefits or downfalls of the change. Lynn (2016) has explored the business benefits and downfalls but the paucity of research relating to employee mental health impacts because of these changes is great.

While the quantitative nature of this research at present was beneficial to determine the answers to the research questions, further research in the theoretical impacts of anxiety and depression could have added benefits to further this research topic. This could also help restaurant industry leadership to reduce the stigma around anxiety and depression, or all mental health disorders experienced by the individuals they employ.

Limitations and Future Research

A limitation of this study was using an Amazon Mechanical Turk online survey to gather data. While the ease and convenience of an Amazon Mechanical Turk online survey is beneficial, the lack of control of who responds is limiting. Future research may be better suited in an in-person survey, or specific online survey sent to restaurants directly, to guarantee those responses are from restaurant employees.

Another limitation is that the PHQ-8 and GAD-7 tests are used as evaluation tools for physicians to recommend treatment for major depressive disorder or generalized anxiety disorder. They do not diagnose either of these disorders, so it is difficult to tell if someone experiences those disorders or if just those last two weeks were hard to get through. In a future study, maybe a second survey after a set amount of time would be beneficial to determine the prevalence of depression and anxiety within the restaurant industry. Developing a new set of anxiety and depression scales purely to understand the impact of common day-to-day experiences in the restaurant industry would also create new avenues to increase knowledge of this subject.

Another limitation is the generalizability of the results. Because the survey yielded a small sample size, it is difficult to generalize the results as the response rate was low in comparison to the grand total of restaurant employees in the United States. Future research should find ways to reach a specified area, like a metropolitan city, or create an online survey to reach a broader audience of respondents.

Response bias is a limitation due to data being self-reported. Those responding could have different levels of anxiety and depression than those restaurant employees that did not respond. Despite the number of questions to funnel the correct demographic into the survey

medium, it was not out of the realm of possibility that someone who fit the criteria of the survey did not end up taking it for failing a simple entrance questionnaire.

The survey was administered solely online and those lacking the proper skills necessary to access the survey would have been excluded from the sample. Future research may benefit from multiple survey instruments, such as online surveys on multiple websites as well as a paper survey administered in person.

Finally, this research focused on unpleasant ideas and could lead those respondents to succumb to social desirability bias by answering in a way that is different from the anxiety and depression severity they may experience. Future research could benefit from a licensed physician administering the test or inclusion of a statement of non-diagnosis for those concerned about having one or the other disorder.

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Appendix A - Pilot Test Survey

Dear Participant,

Almost one in five Americans have been diagnosed with a mental illness and mental health is a major issue that faces the employees in the restaurant industry each day. To help restaurant managers understand the impact of anxiety and depression on employee job satisfaction and turnover intention, we are conducting this study. The results will be used to determine the impact of mental health symptoms on employee job satisfaction and turnover intention. Results will be useful in helping identify potential outside factors that affect an employee's job satisfaction and the restaurant industry's inflated turnover rates.

On the following pages, you will be asked to respond to various questions pertaining to your mental health over the last two weeks. Additionally, you will be asked to evaluate your satisfaction with your position and your potential intentions to leave your current position. Carefully read each question and take your time responding. Please do not leave any items blank. It is important to note there are not right or wrong answers. Your consent to be included in the research will be understood after completion of the survey. You may refuse to participate at no penalty, and you may choose to terminate participation early without penalty. Individual responses will be kept anonymous. Please be assured that your responses will be confidential, and all data will be reported as group data.

To help further the understanding of mental health on restaurant employees, your responses are very important. Should questions arise about the study, please contact Anthony Fink at (620) 708-2545 or Dr. Kevin Roberts at (785) 532-2399. If questions related to the rights of individuals in this study or how it is conducted arise, please contact the University Research Compliance Office at (785) 532-3224. Thank you for your time.

Respectfully,

Anthony J. Fink
Master's Student
Department of Hospitality Management
Kansas State University
(620) 708-2545

Kevin R. Roberts, PhD
Professor
Department of Hospitality Management
Kansas State University
(785) 532-2399

PART I: ANXIETY AND STRESS

Over the last 2 weeks, how often have you been bothered by any of the following problems? Please circle your answers. Please answer each question carefully and be aware there is no right or wrong answer.

	Not at All	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things.	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much.	0	1	2	3
Feeling tired or having little energy.	0	1	2	3
Poor appetite or overeating.	0	1	2	3
Feeling bad about yourself or that you are a failure or have let yourself or your family down.	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television.	0	1	2	3
Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual.	0	1	2	3
Feeling nervous, anxious, or on edge.	0	1	2	3
Not being able to stop or control worrying.	0	1	2	3
Worrying too much about different things.	0	1	2	3
Trouble relaxing.	0	1	2	3
Being so restless that it's hard to sit still.	0	1	2	3
Becoming easily annoyed or irritable.	0	1	2	3
Feeling afraid as if something awful might happen.	0	1	2	3

PART II: JOB SATISFACTION

Please circle the number that best describes how satisfied you are with each statement about your job. Please answer each question carefully; there is no right or wrong answer.

	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
Being able to keep busy all the time.	1	2	3	4	5
The chance to work alone on the job.	1	2	3	4	5
The chance to do different things from time to time.	1	2	3	4	5
The chance to be "somebody" in the community.	1	2	3	4	5
The way my boss handles his/her workers.	1	2	3	4	5
The competence of my supervisor in making decisions.	1	2	3	4	5
Being able to do things that don't go against my conscience.	1	2	3	4	5
The way my job provides for steady employment.	1	2	3	4	5
The chance to do things for other people.	1	2	3	4	5
The chance to tell people what to do.	1	2	3	4	5
The chance to do something that makes use of my abilities.	1	2	3	4	5
The way company policies are put into practice.	1	2	3	4	5
My pay and the amount of work I do.	1	2	3	4	5
The chances for advancement on this job.	1	2	3	4	5
The freedom to use my own judgement.	1	2	3	4	5
The chance to try my own methods of doing the job.	1	2	3	4	5
The workings conditions.	1	2	3	4	5
The way my co-workers get along with each other.	1	2	3	4	5
The praise I get for doing a good job.	1	2	3	4	5
The feeling of accomplishment I get from the job.	1	2	3	4	5

PART III: QUITTING INTENTIONS

Please circle the number that most describes your agreeability to the following statements. Please answer each question carefully; there is no right or wrong answer.

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately agree	Strongly agree
I often seriously consider leaving my current job.	1	2	3	4	5	6
I intend to quit my current job.	1	2	3	4	5	6
I have started to look for other jobs.	1	2	3	4	5	6

PART IV: DEMOGRAPHIC INFORMATION

What is your age?

_____years old

What is your gender assigned at birth?

A. Male

B. Female

How many years have you been at your current job?

_____ years

How many years have you been in the restaurant industry?

_____ years

How many years at your current position?

_____ years

Is your position compensated primarily through customer tips?

A. No

B. Yes ⟶ **What percentage of your compensation is tips?**

_____%

THANK YOU FOR COMPLETING THIS SURVEY!

Appendix B - IRB Approval

KANSAS STATE UNIVERSITY | University Research Compliance Office

TO: Kevin Roberts
Hospitality Management
Manhattan, KS 66506

Proposal Number: IRB-11502

FROM: Lisa Rubin, Chair
Committee on Research Involving Human Subjects

DATE: 02/07/2023

RE: Proposal Entitled, "The relationship between restaurant employees' anxiety and depression symptoms, job satisfaction, and turnover intention.."

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category:Exempt Category 2 Subsection ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Lisa Rubin on 02/07/2023 11:24 AM ET

203 Fairchild Hall, Manhattan, KS 66502 | (785) 532-3224 | fax: (785) 532-3278

Appendix C - Qualtrics Survey

Dear Participant,

Almost one in five Americans have been diagnosed with a mental illness and mental health is a major issue that faces the employees in the restaurant industry each day. To help restaurant managers understand the impact of anxiety and depression on employee job satisfaction and turnover intention, we are conducting this study. The results will be used to determine the impact of mental health symptoms on employee job satisfaction and turnover intention. Results will be useful in helping identify potential outside factors that affect an employee's job satisfaction and the restaurant industry's inflated turnover rates.

On the following pages, you will be asked to respond to various questions pertaining to your mental health over the last two weeks. Additionally, you will be asked to evaluate your satisfaction with your position and your potential intentions to leave your current position. Carefully read each question and take your time responding. Please do not leave any items blank. It is important to note there are not right or wrong answers. Your consent to be included in the research will be understood after completion of the survey. You may refuse to participate at no penalty, and you may choose to terminate participation early without penalty. Individual responses will be kept anonymous. Please be assured that your responses will be confidential, and all data will be reported as group data.

To help further the understanding of mental health on restaurant employees, your responses are very important. Should questions arise about the study, please contact Anthony Fink at (620) 708-2545 or Dr. Kevin Roberts at (785) 532-2399. If questions related to the rights of individuals in this study or how it is conducted arise, please contact the University Research Compliance Office at (785) 532-3224. Thank you for your time.

Respectfully,

Anthony J. Fink
Master's Student
Department of Hospitality Management
Kansas State University
(620) 708-2545

Kevin R. Roberts, PhD
Professor
Department of Hospitality Management
Kansas State University
(785) 532-2399

I understand this is a qualifying survey. Answering the questions honestly is vital to the success of the research. Your truthful and thoughtful contribution is greatly appreciated.

What is your Mturk ID number? Please copy and paste it below.

If you previously entered your MTurk ID number during the country verification process, please enter it again.

In which industry, if any, are you currently employed?

Manufacturing	Construction
Business	Education
Engineering	Financial Services
Foodservice	Agriculture

What would you consider the classification of the foodservice establishment in which you currently work?

Fast Food (e.g. McDonalds)	Fine Dining (e.g. Capital Grille)
Fast Casual (e.g. Chipotle)	HealthCare
Casual Full Service (e.g. Texas Roadhouse)	Long Term Care

→

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Which of the following would be closest to your current PRIMARY job title?

Assistant Manager	District Manager
Server's Assistant	Assistant District Manager
Waiter/Waitress	Host/Hostess
Bartender	Food Runner
Cook	Dishwasher
General Manager	Prep Cook

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What is your primary form of compensation?

- Hourly Wage
- Hourly Wage + Tips

→

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PART I: ANXIETY AND STRESS

Please answer each question carefully and be aware there is no right or wrong answer.

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things.	○	○	○	○
Feeling down, depressed, or hopeless.	○	○	○	○
Trouble falling or staying asleep, or sleeping too much.	○	○	○	○
Feeling tired or having little energy.	○	○	○	○
Poor appetite or overheating.	○	○	○	○
Feeling bad about yourself or that you are a failure or have let yourself or your family down.	○	○	○	○
This is an attention check, please select "Not at all".	○	○	○	○
Trouble concentrating on things, such as reading the newspaper or watching television.	○	○	○	○
Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual.	○	○	○	○
Feeling nervous, anxious, or on edge.	○	○	○	○
Not being able to stop or control worrying.	○	○	○	○
Worrying too much about different things.	○	○	○	○
Trouble relaxing.	○	○	○	○
Being so restless that it's hard to sit still.	○	○	○	○
Becoming easily annoyed or irritable.	○	○	○	○
Feeling afraid as if something awful might happen.	○	○	○	○

→

PART II: JOB SATISFACTION

Please answer each question carefully; there is no right or wrong answer.

Please choose the bubble that best describes how satisfied you are with each statement about your job.

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
Being able to keep busy all the time.	○	○	○	○	○
The chance to work alone on the job.	○	○	○	○	○
The chance to do different things from time to time.	○	○	○	○	○
The chance to be "somebody" in the community.	○	○	○	○	○
The way my boss handles his/her workers.	○	○	○	○	○
The competence of my supervisor in making decisions.	○	○	○	○	○
Being able to do things that don't go against my conscience.	○	○	○	○	○
The way my job provides for steady employment.	○	○	○	○	○
The chance to do things for other people.	○	○	○	○	○
The chance to tell people what to do.	○	○	○	○	○
The chance to do something that makes use of my abilities.	○	○	○	○	○
The way company policies are put into practice.	○	○	○	○	○
My pay and the amount of work I do.	○	○	○	○	○
The chances for advancement on this job.	○	○	○	○	○
This is an attention check, please select "Neither satisfied nor dissatisfied".	○	○	○	○	○
The freedom to use my own judgement.	○	○	○	○	○
The chance to try my own methods of doing the job.	○	○	○	○	○
The working conditions.	○	○	○	○	○
The way my co-workers get along with each other.	○	○	○	○	○
The praise I get for doing a good job.	○	○	○	○	○
The feeling of accomplishment I get from the job.	○	○	○	○	○

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PART III: QUITTING INTENTIONS

Please answer each question carefully; there is no right or wrong answer.

Please choose the bubble that most describes your agreeability to the following statements.

	Strongly disagree	Moderately disagree	Slightly disagree	Slightly agree	Moderately Agree	Strongly agree
This is an attention check, please select "Moderately agree".	○	○	○	○	○	○
I often seriously consider leaving my current job.	○	○	○	○	○	○
I intend to quit my current job.	○	○	○	○	○	○
I have started to look for other jobs.	○	○	○	○	○	○

What is your age?

What is your gender assigned at birth?

Male

Female

How many years have you been at your current job?

How many years have you been in the restaurant industry?

How many years have you been in your CURRENT position?

What is your job classification?

- Full-Time
- Part-Time

What is your PRIMARY job title?

What is your **personal** income from this position over the past 12 months?

- $0 - $24,999
- $25,000 - $49,999
- $50,000 - $99,999
- $100,000 +

What is your **household** income over the past 12 months?

- $0 - $24,999
- $25,000 - $49,999
- $50,000 - $99,999
- $100,000 +

What is your marital status?

- Single
- Married
- Divorced

Do you have children? If so, how many?

What is the highest level of education completed?

- Highschool/GED
- Associates
- Bachelor's
- Master's/PhD's

Is your position compensated primarily through customer tips?

- No
- Yes