THE RELATIONSHIP BETWEEN LEVEL OF ANXIETY & DEPRESSION WITH THE LEVEL OF MYOPIA IN MYOPIC ADULTS

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF OPTOMETRY, FACULTY OF LIFE SCIENCE, UNIVERSITY OF BENIN IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DOCTOR OF OPTOMETRY(OD) DEGREE

CERTIFICATION AND APPROVAL

This is to certify that the research project title: **THE RELATIONSHIP BETWEEN LEVEL OF ANXIETY & DEPRESSION WITH THE LEVEL OF MYOPIA IN MYOPIC ADULTS**

was carried out by **GAIUS-OKWEZUZU GOFORTH** in the Department of Optometry, Faculty of Life Science, University of Benin in partial fulfillment of the requirement for the DOCTOR OF OPTOMETRY (OD) DEGREE in the 2023/2024 Academic Session.

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DEDICATION

I dedicate this project to my heavenly father and friend, for granting me wisdom, resilience, and the opportunity to complete this work, who has preserved my life and kept me in good health throughout my journey at the University of Benin.

I also want to dedicate this project to my wonderful parents, Ven.Prof. Gaius Emamuzou and Mrs Mary Olubunmi Okwezuzu for their endless love, and unwavering moral, spiritual and financial support, for their sacrifices and guidance that have shaped me into who I am today. and to my siblings, for their emotional support and care.

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ABSTRACT

Myopia, a prevalent refractive error affecting a significant proportion of the global population, has been increasingly linked to psychological health, particularly anxiety and depression. This study investigates the relationship between the severity of myopia and the levels of anxiety and depression among myopic adults. A cross-sectional study was conducted at the University of Benin, Nigeria, involving 371 participants aged 18–75. Participants underwent visual screenings and completed validated psychological assessment tools, including the Patient Health Questionnaire (PHQ-9) for depression and the Generalized Anxiety Disorder scale (GAD-7) for anxiety. Data analysis was performed using SPSS, employing Pearson correlation, regression analysis, and ANOVA. Results indicated a statistically significant positive correlation between the level of myopia and both anxiety and depression levels ($p < 0.05$). The findings suggest that individuals with higher myopia experience greater psychological distress, likely due to concerns about progressive vision loss, social withdrawal, and academic or occupational limitations. Gender-based differences were observed, with female participants reporting higher depression levels. However, anxiety variations with gender and age were not statistically significant. The study underscores the importance of integrating psychological health assessments into routine optometric care and suggests a multidisciplinary approach to managing myopia, including mental health support. Future research should explore longitudinal studies to establish causality and the potential neurobiological mechanisms linking myopia to mental health disorders.

Keywords: Myopia, Anxiety, Depression, Mental Health, Psychological Distress, Optometry

CHAPTER ONE

1.0 INTRODUCTION

Myopia or near-sightedness is a refractive error that is predominantly caused by a mismatch between the optical power of ocular components (i.e., the cornea and the crystalline lens) and the axial length (AL) of the eye whereby light entering the eye is focused anterior to (in front of) the retina, leading to the blurred vision of distant images. (Biswas *et al.,* 2024). Blurred distance vision due to myopia can be corrected using negative (concave) spectacles or contact lenses that refocus the image on the retina (Atchison *et al.,* 2000). The power of the corrective lens in diopters (D) reflects the level/severity of myopia (Rabbetts & Bennett, 2007). For an eye to be considered myopic, the spherical equivalent refractive error (i.e spherical refraction + (1/2 × cylindrical refraction)) with ocular accommodation relaxed must be ≤ −0.50 D. In high myopia, the spherical equivalent refractive error when ocular accommodation is relaxed is ≤ −5.00 D (Flitcroft *et al.,* 2019). Myopia is a wide spread condition that has gained significant attention due to its increasing prevalence in recent years, and this has raised concerns regarding its impact on public health. Individual studies show variations in the prevalence of myopia and high myopia across various regions, ethnic groups and races. Also, recent statistics estimates that by the year 2050, half of the world population will have Myopia. The crude prevalence(i.e the proportion of a population that has a specific characteristic in a given time period without any analysis or adjustment) of myopia (≤0.5 D) and high myopia (≤5.0 D) are 16.2% and 2.1%, respectively in Nigeria (Ezelum *et al.,* 2017).

Depression also known as Depressive disorder is a common mental disorder. It involves a depressed mood or loss of pleasure or interest in activities for long periods of time (WHO, 2023).

According to The World Health Organization, “Worldwide, An estimated 3.8% of the population experience depression, including 5% of adults (4% among men and 6% among women), and 5.7% of adults older than 60 years. Approximately 280 million people in the world have depression. Depression is about 50% more common among women than among men. Worldwide, more than 10% of pregnant women and women who have just given birth experience depression. More than 700 000 people die due to suicide every year. Suicide is the fourth leading cause of death in 15-29-year-olds” (WHO, 2021).

The disorder usually manifests as feelings of sadness, loneliness and mental breakdown while retaining the ability to carry out daily activities and tasks in mild cases, to feelings of low self-esteem, self-blame, anger, peevishness, inability to perform daily activities and tasks, suicidal ideation and suicide in the worst of cases(WHO). In Nigeria, Gureje *et al*. reported ↑a lifetime prevalence rate of a major depressive episode of 3.1% among adults aged 18 years and above↓

1.1 BACKGROUND INFORMATION

1.1.1 Myopia

Myopia, commonly referred to as nearsightedness, is a refractive error that affects millions worldwide. It is characterized by the eye's inability to focus light directly on the retina, resulting in blurred vision for distant objects while near objects remain clear (Holden *et al.,* 2016). Myopia is classified into low, moderate, and high levels based on the refractive error measured in diopters. The prevalence of myopia has risen dramatically in recent years, particularly in urbanized regions of East Asia, where rates among young adults often exceed 80% (Morgan *et al.,* 2018). This increase has been attributed to a combination of genetic predisposition and environmental factors, such as prolonged near work activities and limited time spent outdoors (Flitcroft, 2012).

High myopia, defined as a refractive error greater than -6.00 diopters, poses significant risks for ocular complications, including retinal detachment, myopic maculopathy, and glaucoma (Ohno-Matsui *et al.,* 2016). These complications may lead to irreversible vision loss, emphasizing the importance of early detection and management. While the optical and environmental determinants of myopia are well-documented, emerging research suggests a potential psychosocial dimension, with psychological stressors such as anxiety and depression influencing its development or progression (Saw *et al.,* 2005).

Anxiety and depression are among the most common mental health disorders, affecting millions worldwide. Anxiety disorders are characterized by excessive worry, heightened stress responses, and fear, while depression involves persistent sadness, loss of interest, and cognitive impairments (American Psychiatric Association, 2013). There is emerging evidence suggesting that individuals with myopia, particularly high myopia, may be at a higher risk of experiencing these psychological disorders (Wang *et al.,* 2022).

1.1.2 Anxiety: Definition and prevalence

Anxiety is a psychological state characterized by excessive fear, worry, and nervousness. It encompasses a spectrum of disorders, including generalized anxiety disorder (GAD), panic disorder, and social anxiety disorder, each with distinct diagnostic criteria outlined in the DSM-5 (American Psychiatric Association [APA], 2013). Anxiety disorders are among the most prevalent mental health conditions globally, affecting approximately 3.6% of the global population (World Health Organization [WHO], 2017).

Research has demonstrated a bidirectional relationship between anxiety and physical health conditions, including chronic illnesses and sensory impairments (Lenze & Wetherell, 2011). In vision-related studies, individuals with visual impairments, including myopia, often report

higher levels of anxiety, which may stem from fears of progressive vision loss and its associated functional limitations (van der Aa *et al.,* 2016). Furthermore, anxiety may contribute to physiological changes, such as increased sympathetic nervous system activity, potentially affecting ocular blood flow and contributing to myopia progression (Chen *et al.,* 2014).

1.1.3 Depression: Definition and Impact

Depression, another widespread mental health condition, is characterized by persistent feelings of sadness, loss of interest, and reduced energy levels (APA, 2013). It is a leading cause of disability worldwide, with an estimated 280 million people affected globally (WHO, 2021). Depression often coexists with anxiety, and the two conditions share overlapping neurobiological mechanisms, including dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis and alterations in neurotransmitter systems (Nemeroff, 2008).

Depression has profound implications for individuals' overall well-being and quality of life. Vision loss, including myopia-related complications, has been identified as a significant risk factor for depression, as it impairs daily functioning and increases social isolation (Zhang *et al.,* 2020). Moreover, depression may exacerbate myopic symptoms through behaviors such as reduced physical activity and poor compliance with vision care, highlighting the need for an integrative approach to managing both conditions (Huang *et al.,* 2020).

1.1.4 The Interplay Between Anxiety, Depression, and Myopia

The relationship between anxiety, depression, and myopia in adults is a relatively underexplored but important area of study. Evidence suggests that individuals with higher levels of myopia may be more susceptible to psychological distress due to concerns about progressive vision loss and its social and occupational impacts (McCracken *et al.,* 2021). Conversely, psychological stressors such as anxiety and depression may influence myopia

through physiological mechanisms, including changes in cortisol levels and inflammatory markers, which may affect ocular structures (Chen *et al.,* 2014; Cui *et al.,* 2021).

Additionally, the behavioral impacts of anxiety and depression, such as reduced engagement in outdoor activities and increased screen time, may further contribute to the progression of myopia (Rose *et al.,* 2008). Understanding these interactions is crucial for developing comprehensive interventions that address both the psychological and physiological aspects of myopia management.

1.2 STATEMENT OF PROBLEM

Myopia as a refractive error has been revealed to be linked with Psychological issues such as anxiety and depression in some recent studies on the Mongoloids and Caucasoids population, but insufficient studies have been done on the African Population especially the Nigerian Population where anxiety and depression is on a gradual increase. Gureje *et al.,* 2010 reported "a lifetime prevalence rate of a major depressive episode of 3.1% among adults aged 18 years and above". This seemingly little percentage translates to over six million people because the population of Nigeria is well over 200 million. It is therefore paramount that with this prevalence of psychological issues, the relationship between the level of myopia and anxiety and depresssion be studied. Also, most of the previous studies were done during and shortly after COVID-19 which might have affected the results gotten. In this study, we would be focusing on an adult Nigerian population with minimal effect from the COVID-19 period.

1.3 AIM AND OBJECTIVES

1.3.1 Aim of Study

The study aims to investigate the relationship between level of Myopia and Anxiety & Depression.

1.3.2 Objectives of the Study

1. To determine the relationship between level of myopia and depression in adults.
2. To determine the relationship between level of myopia and anxiety in adults.
3. To investigate the relationship between anxiety, depression and age in adult myopes.
4. To investigate the relationship between anxiety, depression and gender in adult myopes.
5. To determine the relationship between depression and anxiety psychological disorders in adult Myopes.

1.4 RESEARCH QUESTIONS

1. Is there a relationship between the level of myopia and levels of depression in myopic adults?
2. How does the level of myopia correlate with levels of anxiety in myopic adults?
3. How do anxiety and depression vary with age among adult myopes?
4. Are there significant gender differences in the levels of anxiety and depression among adult myopes?
5. What is the relationship between depression and anxiety in adults with myopia?

1.5 SIGNIFICANCE OF STUDY

1. The findings from the study will provide eye care professionals with evidence-based data on the relationship between anxiety and depression with the level of myopia(refractive error), if any.

2. With evidence from the study, eye care professionals can understand if there are any psychological factors associated with myopia and bring about more empathetic and effective patient care, improving treatment outcomes and patient satisfaction.
3. This research can broaden the scope of practice more, incorporating psychological and behavioural aspects into patients care.
4. The study will add to the existing body of literature on the relationship between myopia and an individuals psychological health, providing a deeper understanding on how psychological health is linked with ocular health.
5. This study can foster collaboration between Optometrists, Psychologists and other healthcare professionals, promoting a more comprehensive understanding of myopia and its management.

CHAPTER TWO

2.0 LITERATURE REVIEW

The relationship between anxiety, depression and the level of myopia in adults is a relatively underexplored but important area of study. It has mainly been studied in the Asian population. This literature review explores the relationship between anxiety, depression and myopia.

2.0.1 Importance of Understanding the Relationship

The connection between myopia and mental health is not merely coincidental but may stem from multiple biological, psychological, and social factors. Individuals with severe myopia may experience diminished self-esteem, social isolation, and concerns about future vision loss, all of which contribute to increased anxiety and depression (Wang *et al.,* 2022). Additionally, the physiological mechanisms linking visual impairment to brain function warrant further investigation, as changes in retinal structure and neural pathways could play a role in emotional regulation (Liu *et al.,* 2020).

Understanding the association between myopia severity and mental health disorders can help shape early intervention strategies, improve psychological support for myopic individuals, and enhance treatment approaches. This literature review aims to synthesize existing research on the relationship between myopia, anxiety, and depression, highlighting current findings, potential mechanisms, and future research directions.

2.1 Theoretical Framework and Mechanisms

Understanding the relationship between myopia, anxiety, and depression requires an exploration of the underlying mechanisms. The association may be explained through biological, psychological, and social factors, which interact in complex ways to influence mental health outcomes in myopic adults.

2.1.0 Biological Mechanisms

Several biological factors may link myopia to anxiety and depression. These include neurotransmitter imbalances, structural brain changes, and visual stress.

2.1.1 Retinal and Neural Pathways

The retina plays a critical role in transmitting visual information to the brain. Studies have shown that retinal abnormalities, which are common in high myopia, may affect neural circuits involved in emotional processing. Research suggests that changes in dopaminergic activity in the retina could be linked to both myopia progression and mood disorders (Liu *et al.,* 2020). Dopamine is a neurotransmitter involved in both visual signaling and mood regulation, and its dysfunction has been implicated in depression and anxiety (Huang *et al.,* 2024).

2.1.2 Structural Brain Changes

Neuroimaging studies indicate that individuals with high myopia exhibit differences in brain structure, particularly in regions associated with emotional processing, such as the amygdala, prefrontal cortex, and hippocampus (Yang *et al.,* 2023). These brain regions are also implicated in anxiety and depression, suggesting a potential neurobiological link. Myopic individuals may experience altered visual-sensory integration, leading to increased susceptibility to stress and negative emotions (Wang *et al.,* 2022).

2.1.3 Autonomic Nervous System Dysregulation

Myopia has been associated with dysregulation of the autonomic nervous system, particularly heightened sympathetic nervous system activity (Zhang *et al.,* 2019). This can result in

increased physiological stress responses, contributing to higher levels of anxiety and emotional distress.

2.2 Psychological Mechanisms

Psychological factors also contribute significantly to the relationship between myopia and mental health disorders. These include self-esteem issues, cognitive distortions, and health-related anxieties.

2.2.1 Low Self-Esteem and Body Image Concerns

Individuals with high myopia often experience lower self-esteem, particularly if they rely on thick glasses, which may contribute to feelings of self-consciousness and social anxiety (Wang *et al.,* 2022). Adolescents and young adults with severe myopia report higher levels of dissatisfaction with their appearance, which can lead to depressive symptoms (Liu *et al.,* 2020).

2.2.2 Fear of Vision Loss

Severe myopia increases the risk of retinal detachment, glaucoma, and macular degeneration, leading to health-related anxiety (Huang *et al.,* 2024). Individuals who are aware of these risks may experience chronic worry and distress about potential blindness, further exacerbating anxiety levels.

2.2.3 Cognitive Load and Visual Strain

Myopia often requires constant visual adjustments (e.g., squinting, changing prescriptions, or using corrective lenses), which can increase cognitive load and lead to fatigue, frustration,

and stress (Yang *et al.,* 2023). Over time, this visual strain may contribute to emotional exhaustion and depressive symptoms.

2.3 Social and Environmental Factors

Social and environmental influences also play a crucial role in linking myopia to anxiety and depression. These include academic stress, social isolation, and lifestyle factors.

2.3.1 Academic Pressure and Near Work

High myopia is frequently observed in populations with intensive educational demands, particularly in countries where academic success is highly valued (Wang *et al.,* 2022). Prolonged screen time and near work (e.g., reading, studying) are not only risk factors for myopia progression but are also linked to increased stress and anxiety levels. Students with severe myopia may feel pressured to excel academically while also managing their vision difficulties.

2.3.2 Social Withdrawal and Isolation

Individuals with high myopia may experience social withdrawal due to their reliance on glasses or visual limitations in social settings. Some may avoid activities such as sports, outdoor interactions, or group settings, leading to feelings of loneliness and depression (Liu *et al.,* 2020).

2.3.3 Digital Dependency and Reduced Outdoor Exposure

Modern lifestyles, characterized by high screen time and reduced outdoor activity, contribute to both myopia progression and mental health issues (Huang *et al.,* 2024). Lack of exposure

to natural light has been linked to higher risks of depression and may exacerbate myopia by disrupting circadian rhythms.

2.3.4 Summary of Theoretical Perspectives

The relationship between myopia, anxiety, and depression is multifaceted, involving biological, psychological, and social components.

Biological factors include retinal neurotransmitter changes, brain structure alterations, and autonomic nervous system dysregulation.

Psychological mechanisms involve self-esteem issues, fear of vision loss, and cognitive strain.

Social factors such as academic pressure, social isolation, and excessive digital screen use further contribute to the link.

These mechanisms provide a foundation for understanding how myopia may increase susceptibility to mental health disorders.

2.4 Review of Existing Studies

This section examines key research studies exploring the relationship between myopia, anxiety, and depression. Studies have investigated this association using various methodologies, including cross-sectional surveys, cohort studies, and experimental research. The findings provide insights into the complex links between myopia severity and mental health outcomes.

2.5 Myopia and Anxiety

Several studies suggest that individuals with myopia, especially high myopia, are at an increased risk of experiencing anxiety disorders.

2.5.1 Anxiety Levels in Myopic Adults

A study by Wang *et al*. (2022) examined the psychological impact of myopia in Chinese middle school students and found that myopic individuals reported significantly higher levels of anxiety than their non-myopic peers (Wang *et al.,* 2022). The authors suggested that increased academic stress and social pressures related to wearing glasses may contribute to heightened anxiety.

Similarly, a study by Liu *et al*. (2020) analyzed anxiety symptoms in university students with different levels of myopia. The results indicated that students with high myopia (≥ -6.00 D) had greater levels of anxiety than those with mild or moderate myopia (Liu *et al.,* 2020). The researchers proposed that fears related to worsening vision, reliance on corrective lenses, and concerns about future eye health were key contributors to anxiety symptoms.

2.5.2 Severity of Myopia and Anxiety Risk

The level of myopia appears to be an important factor in determining anxiety risk. Huang *et al*. (2024) conducted a large-scale population study and found that individuals with high myopia were more likely to report generalized anxiety disorder symptoms compared to those with mild myopia (Huang *et al.,* 2024).

A similar study by Yang *et al*. (2023) used neuroimaging techniques to examine brain activity in highly myopic individuals. The findings revealed structural alterations in the prefrontal cortex and amygdala—brain regions associated with anxiety regulation (Yang *et al.,* 2023). These changes may explain the heightened anxiety responses observed in individuals with high myopia.

2.6 Myopia and Depression

The link between myopia and depression is more complex. While some studies suggest a strong association, others indicate that social and environmental factors may play a greater role than myopia itself.

2.6.1 Depression Prevalence Among Myopic Individuals

A study by Wang *et al*. (2022) found that myopic students had significantly higher depression scores compared to non-myopic students, particularly among those with severe myopia (Wang *et al.,* 2022).

Similarly, Liu *et al*. (2020) reported that university students with high myopia exhibited higher rates of depressive symptoms, including sadness, loss of interest, and fatigue, compared to those with mild or moderate myopia (Liu *et al.,* 2020).

2.6.2 Mechanisms Linking Myopia to Depression

The relationship between myopia and depression may be influenced by social isolation, academic pressure, and self-esteem issues rather than myopia itself.

Social isolation: Myopic individuals may avoid sports, outdoor activities, and social gatherings due to vision limitations, leading to feelings of loneliness and depression (Zhang *et al.,* 2019).

Academic pressure: High myopia is prevalent in students with intense study habits. The demands of prolonged near work, high screen time, and academic stress can contribute to both myopia progression and depressive symptoms (Huang *et al.,* 2024).

Self-esteem concerns: Individuals who rely on thick glasses or struggle with visual impairment may experience lower self-esteem, increasing vulnerability to depression (Wang *et al.,* 2022).

2.7 Studies Examining Both Anxiety and Depression in Myopic Adults

Some studies have investigated the co-occurrence of anxiety and depression in myopic individuals, suggesting that both conditions may share common risk factors.

2.7.1 Combined Psychological Burden of Myopia

A systematic review by Huang *et al*. (2024) analyzed multiple studies on myopia and mental health. The authors concluded that high myopia is associated with increased risks of both anxiety and depression, particularly in individuals with progressive myopia (Huang *et al.,* 2024).

2.7.2 Longitudinal Studies on Myopia and Mental Health

A longitudinal study by Wang *et al*. (2022) followed a cohort of adolescents over five years. The findings revealed that:

Anxiety levels increased as myopia worsened, particularly in students facing academic stress.

Depression was more prevalent in individuals with high myopia, especially those from lower socioeconomic backgrounds.

These results highlight the long-term psychological impact of progressive myopia, suggesting that early intervention and mental health support are crucial (Wang *et al.,* 2022).

2.8 Other Major Research Findings

In a cross-sectional study that was conducted by Zhang *et al.,* (2021) at the Tianjin Medical University, China from October 2020 to December 2020. Ophthalmic examination of the eyes was performed by an experienced ophthalmologist. Detailed information on depression, anxiety, and other risk factors was collected via the Self-rating Anxiety Scale and Self-rating Depression Scale. According to the results, the overall prevalence of anxiety and depression in the study was 10.34 and 25.13%, respectively. The prevalence of myopia and high myopia as 92.02 and 26.7%, respectively. There were significant associations between anxiety and spectacle power [odds ratios (OR) = 0.89; 95% CI: 0.81→0.98, P = 0.019], sphere equivalent (OR = 0.89; 95% CI: 0.81– 0.98, P = 0.025), sleep time (OR = 0.53; 95% CI: 0.35–0.79, P = 0.002), and body mass index (OR = 0.93; 95% CI: 0.86–0.99, P = 0.047). In the multivariable linear regression models, spectacle power (β = −0.43; 95% CI: −0.68 to −0.19, P = 0.001) and sphere equivalent (β = −0.36; 95% CI: −0.60 to −0.11, P = 0.005) were negatively associated with anxiety scores, whereas axial length (β = 0.54; 95% CI: 0.02–1.07, P = 0.044) was positively correlated with anxiety scores. Every 1 h decrease in sleep time was associated with a 0.12-point increase in depression score. In Conclusion, Myopia was associated with anxiety and anxiety scores. The greater the level of myopia, the higher the anxiety score. However, myopia was not found to be associated with depression. The results highlight the importance of providing psychological support to students with myopia during the COVID-19 pandemic.

In China Li *et al.,* (2020) conducted a study to investigate the differences in anxiety and depression between adolescents with myopia and those with normal vision and to examine the relationship between the level of anxiety and depression and the level of myopia. A total

of 1,103 first-year high school students aged 14–17 years were included in the study. The study group comprised 916 persons with myopia, while the control group comprised 187 persons without refractive error. Volunteers underwent routine eye examinations and completed a set of questionnaires about anxiety and depression. Then, the Self-Rating Anxiety Scale (SAS) and Self-Rating Depression Scale (SDS) scores were compared between groups, and the relationships between anxiety and the level of myopia and between depression and the level of myopia were analyzed. According to the results, there was a significant difference in anxiety rate between the students with normal vision and those with myopia. The SAS scores among students with mild, moderate, and severe myopia were also significantly different. However, compared with the students with normal vision, the rate of depression was not significantly increased in the students with myopia, except in cases of severe myopia. Additionally, the SAS scores correlated closely with the diopters of the participants→glasses ($r = 0.43$, $p = .045$), while the relationship between SDS scores and the diopters of glasses was not significant ($r = 0.19$, $p = .325$).

In Nigeria, a cross-sectional study was conducted by Osuagwu *et al.,* (2022) on 100 adult participants with high myopia (defined as refractive error ≤-5.00 D or worse, and uncorrected visual acuity worse than 6/18 in the better seeing eye) attending ophthalmology centres in Nigeria from 2 October 2021 to 30 August 2022.There were significant negative correlations between the depression scores and psychological health ($r=-0.48$, $P<0.001$), physical health ($r=-0.29$, $P=0.002$), social and relationship ($r=-0.49$, $P<0.001$), environmental ($r=-0.48$, $P<0.001$) and overall health ($r=-0.49$, $P<0.001$).

In another study by Wu *et al.,* (2017), a community-based cross-sectional study of 4611 adults aged 60 years or older was conducted. Depressive symptoms were measured using the 9-item Patient Health Questionnaire (PHQ-9) depression scale in 4597 adults. Refraction was determined by auto-refraction followed by subjective refraction. Myopia was defined as

spherical equivalent (SE) < -0.50 diopters (D) and high myopia as SE < -6.00 D. After adjusting for age, gender, education, lifestyle-related exposures, presenting visual acuity and age-related cataract, myopic adults were more likely to have any depressive symptoms compared with non-myopic ones (odds ratio = 1.39; 95% confidence interval 1.04, 1.92). There were no significant differences in the risk of having any depressive symptoms between those with and without high myopia. Myopia or high myopia was not associated with having moderate depressive symptoms. The impact of myopia on depressive symptoms was stronger in adults with no formal education compared with those with formal education. In conclusion, Myopia was related with the presence . Discussion

The studies reviewed provide compelling evidence that myopia, particularly high myopia, is associated with an increased risk of anxiety and depression. This section explores possible explanations for these associations, factors influencing variability in findings, and potential interventions for mitigating mental health risks in myopic adults.

Why Is Myopia Linked to Anxiety and Depression?

The relationship between myopia, anxiety, and depression is likely driven by a combination of biological, psychological, and social factors.

Biological Explanations

Neurotransmitter Imbalance: Dopaminergic dysfunction in the retina, which is implicated in both myopia progression and mood disorders, may play a role (Liu *et al.,* 2020).

Brain Structural Changes: Neuroimaging studies reveal that individuals with high myopia exhibit changes in the prefrontal cortex and amygdala, regions responsible for emotional regulation (Yang *et al.,* 2023).

Autonomic Nervous System Dysregulation: Increased sympathetic nervous system activity in myopic individuals may lead to heightened stress responses, contributing to anxiety (Zhang *et al.,* 2019).

Psychological Explanations

Fear of Vision Loss: Myopic individuals, especially those with high myopia, may worry about progressive vision deterioration and the risk of blindness, leading to chronic stress and anxiety (Huang *et al.,* 2024).

Low Self-Esteem: Myopic individuals, particularly those wearing thick glasses, may experience negative body image and social stigma, contributing to anxiety and depressive symptoms (Wang *et al.,* 2022).

Social and Environmental Explanations

Academic Pressure: Myopia is more prevalent among individuals engaged in prolonged near work and intensive study, increasing stress and anxiety (Wang *et al.,* 2022).

Reduced Outdoor Activity: Modern lifestyles characterized by excessive screen time and limited exposure to natural light contribute to both myopia progression and mental health issues (Huang *et al.,* 2024).

Social Withdrawal: Some highly myopic individuals may avoid social interactions and physical activities, leading to isolation and depressive symptoms (Liu *et al.,* 2020).

of depressive symptoms among older adults.

2.9 Summary of Research Findings

The evidence suggests that myopia is significantly associated with both anxiety and depression, though the strength of this relationship varies based on myopia severity, age, and environmental factors.

Anxiety: Strong evidence supports a positive correlation between high myopia and anxiety, possibly due to structural brain changes, autonomic nervous system dysregulation, and vision-related stress (Yang *et al.,* 2023).

Depression: The link between myopia and depression appears to be mediated by social and psychological factors such as low self-esteem, academic stress, and social isolation (Liu *et al.,* 2020).

Combined Impact: Studies show that individuals with high myopia are at increased risk of experiencing both anxiety and depression, particularly when visual impairment limits daily functioning (Huang *et al.,* 2024).

CHAPTER THREE

3.0 MATERIALS AND METHODS

3.1 RESEARCH DESIGN

This study was a cross-sectional study.

3.2 RESEARCH LOCATION

The study was conducted at the University of Benin Optometry Teaching Clinic, Benin City, Edo State, Nigeria.

3.3 STUDY POPULATION

This study participants were adults of 18-75years recruited from the students and staff of University of Benin and the neighbouring communities.

3.4 SAMPLING TECHNIQUE

This study utilized a convenience sampling technique to the identify study participants.

Study Duration

This study was carried out within a period of 3 months.

Sample Size Calculation:

Using Fischer's formula:

$$n=\frac{Z^2P(1-P)}{d^2}$$

Where:

n=Minimum sample size

Z=Statistic level of confidence of 95%(1.96)

P=Standard deviation 4.5%=0.325(Li *et al.,*2020)

d= Confidence interval=5%(0.05)

$$n=\frac{1.96^2 x 0.325(1-0.325)}{(0.05)^2}$$

$$n=\frac{3.8416 \times 0.325(0.675)}{0.0025}$$

$$n=\frac{0.8428}{0.0025}$$

n=337.100

Considering a 10% non-participation rate(attrition rate)

0.1 x 337.100=33.7~34

Final sample size=337+34=371

Therefore,371 subjects will be used for this study

3.5 RESEARCH MATERIALS

1. Nine-item Patient Health Questionnaire (PHQ-9)
2. Generalized Anxiety Disorder 7-item scale (GAD-7)
3. Data collection sheet with Informed consent forms, demographics information, e.t.c.
4. V.A Chart
5. Retinoscope and Ophthalmoscope

3.6 INCLUSION CRITERIA/ EXCLUSION CRITERIA

Inclusion Criteria:

1. Individuals between the ages of 18 -75 years.
2. Individuals that were corrected myopes of either Low, Mid or High Level.
3. Individuals with the most basic reading skills.
4. Individuals who were willing to give consent and participate in the study.

Exclusion Criteria:

1. Individuals who did not meet the inclusion criteria.
2. Individuals who were not willing to give consent and participate in the study.
3. Individuals with any history of psychological attack/breakdown
4. Individuals who just suffered from loss.

3.7 DESCRIPTION OF STUDY

The subjects that met the inclusion criteria were recruited and were briefed about the study. (At this stage subjects were either excluded or included)

3.7.1 Informed Consent

Their consent was obtained in a written form. The consent explained the study procedure, potential risks and benefits to the participants.

3.7.2 Clinical Tests

This included V.A Testing to establish a baseline for their ability to see objects, Preliminary External tests & Ophthalmoscopy to rule out other underlying eye conditions, and Lensometry for the already corrected myopes.

3.7.3 Questionnaire Attempt

Participants filled a questionnaire that contained both the nine-item Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder 7-item scale (GAD-7) questionnaires, and the relationships between anxiety and the level of myopia and between depression and the level of myopia will be analyzed. The e-item Patient Health Questionnaire (PHQ-9) and Generalized Anxiety Disorder 7-item scale (GAD-7) questionnaires are one of the Gold standard for measuring Anxiety and Depression in Modern times (Fortini *et al.,*2024).

3.7.4 Measurement of Anxiety

The Generalized Anxiety Disorder 7-item scale (GAD-7) is a widely used self-administered diagnostic tool designed to screen for and assess the severity of generalized anxiety disorder (GAD) (Spitzer *et al.,* 2006). Comprising seven items, the GAD-7 measures the frequency of anxiety symptoms over the past two weeks, with respondents rating each item on a scale from "not at all" to "nearly every day." Developed by Dr. Robert L. Spitzer and colleagues, (Spitzer *et al.,* 2006). The GAD-7 is commonly used in both clinical settings and research to identify GAD and to monitor treatment outcomes. It is valued for its simplicity, reliability, and validity in detecting anxiety symptoms in diverse populations. A systematic review compared screening tools and concluded that the GAD-7 is the most efficient one for identifying GAD as well as panic disorders in primary care populations.

GAD-7 Score(Anxiety)

0-4: Minimal anxiety

5-9: Mild anxiety

10-14: Moderate anxiety

15+: Severe anxiety

3.7.5 Measurement of Depression

The nine-item Patient Health Questionnaire (PHQ-9) is a depressive symptom scale and diagnostic tool introduced in 2001 to screen adult patients in primary care settings. The instrument assesses for the presence and severity of depressive symptoms and a possible depressive disorder. The PHQ-9 is a component of the larger self-administered Patient Health Questionnaire (PHQ), but can be used as a stand-alone instrument. The PHQ-9 takes less than three minutes to complete. It is scored by simply adding up the individual items' scores.

PHQ-9 Score(Depression)

0 →4 None-minimal depression

5 →9 Mild depression

10 →14 Moderate depression

15 →19 Moderately Severe depression

20 →27 Severe depression

3.8 DATA ANALYSIS

Data is presented in tables and figures using Microsoft Excel 2019 spreadsheet.

The collected data was analyzed using descriptive statistics such as pie charts, mean, standard deviation, percentage and frequency.

Data was analyzed using the Statistical Package for Social Sciences (SPSS version 22).

Pearson correlation coefficient, ANOVA and Chi square was used to determine the relationship between the variables.

3.9 ETHICAL CONSIDERATION

The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. Ethical approval was obtained from the Department Research and Ethics Committee of the Department of Optometry University of Benin, Benin City prior to the start of the study. Participants were fully informed about the study, and their rights to withdraw at any time without penalty was respected. All data were anonymized to protect participant privacy.

3.10 LIMITATIONS OF STUDY

1. Difficulty in measuring certain cofounders like environmental and genetic factors affecting myopia and depression.

2. Students (161, 43.4%) constituted the largest group based on occupation, other covariance like stress on students might be outcomes of depression.

CHAPTER FOUR

4.0 RESULTS AND GRAPHICAL REPRESENTATIONS

Presentation of Results

A total of 371 questionnaires were distributed and 371 were retrieved, giving a 100.0% retrieval rate.

4.1 Data Presentation and Analysis

4.1.1 Demographic Variables

Table 4.1 Frequency Distribution of respondents based on demographic variables

Demographic variables	**Number (%)**	χ^2	**p-value**
Gender		4.531	0.033*
Male	165 (44.5)		
Female	206 (55.5)		
Age		17.854	0.001*
18-20 years	82 (22.1)		
21-25 years	94 (25.3)		
26-40 years	85 (22.9)		
41-60 years	52 (14.0)		
61-75 years	58 (15.6)		
Mean age: 35.08 ±17.49			
Occupation		417.871	0.000*
Student	161 (43.4)		

Teacher	19 (5.1)		
Civil servant	24 (6.5)		
Doctor	27 (7.3)		
Entrepreneur	43 (11.6)		
Lecturer	17 (4.6)		
Lawyer	21 (5.7)		
Nurse	12 (3.2)		
Retiree	47 (12.7)		

The female respondents (206, 55.5%) constituted a larger number of the respondents based on gender and the difference was statistically significant ($p<0.05$). Individuals ages between 21 and 25 years were more represented than other age groups. The difference based on age group was statistically significant ($p<0.05$) with a mean age of 35.08 ± 17.49 years. Students (161, 43.4%) constituted the largest group based on occupation and the difference in number of respondents was statistically significant ($p<0.05$).

level of Myopia, Anxiety score and Depression score

Table 4.2: Frequency distribution for level of Myopia, Depression score and Anxiety score

Variables	**Number (%)**	χ^2	p-value
level of Myopia		4.938	0.085
Low	119 (32.1)		
Mild	143 (38.5)		
High	109 (29.4)		

Depression score		179.633	0.000*
None-minimal	106 (28.6)		
Mild	158 (42.6)		
Moderate	48 (12.9)		
Moderately severe	47 (12.7)		
Severe	12 (3.2)		
Anxiety Score		106.617	0.000*
None-low	152 (41.0)		
Mild	111 (29.9)		
Moderate	93 (25.1)		
Severe	15 (4.0)		

Frequency distribution of the respondents based on level of myopia indicated that mild myopia was the most frequent (143, 38.5%) and the difference in the number of respondents based on level of myopia was statistically insignificant ($p>0.05$); mild depression was also most frequent (158, 42.6%) and the difference in the number of respondents based on depression score was statistically significant ($p<0.05$) and none-low anxiety was the most frequent (152, 41.0%) and the difference in the number of respondents based on anxiety score was statistically significant ($p<0.05$).

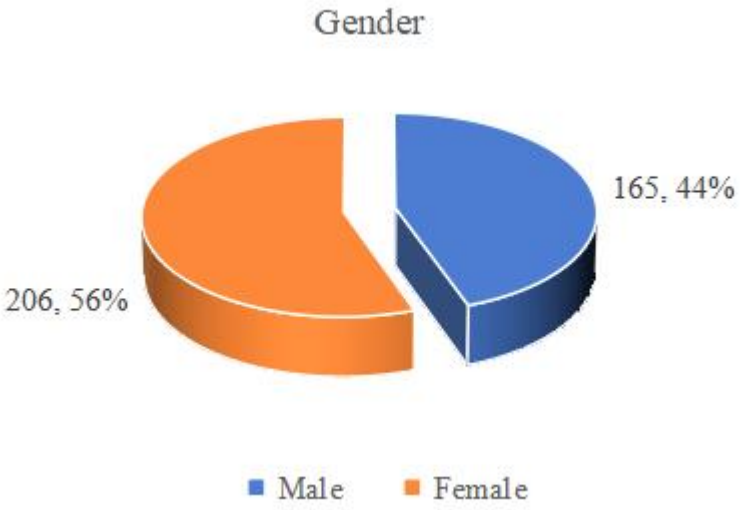

Figure 4.1: Gender of the respondents

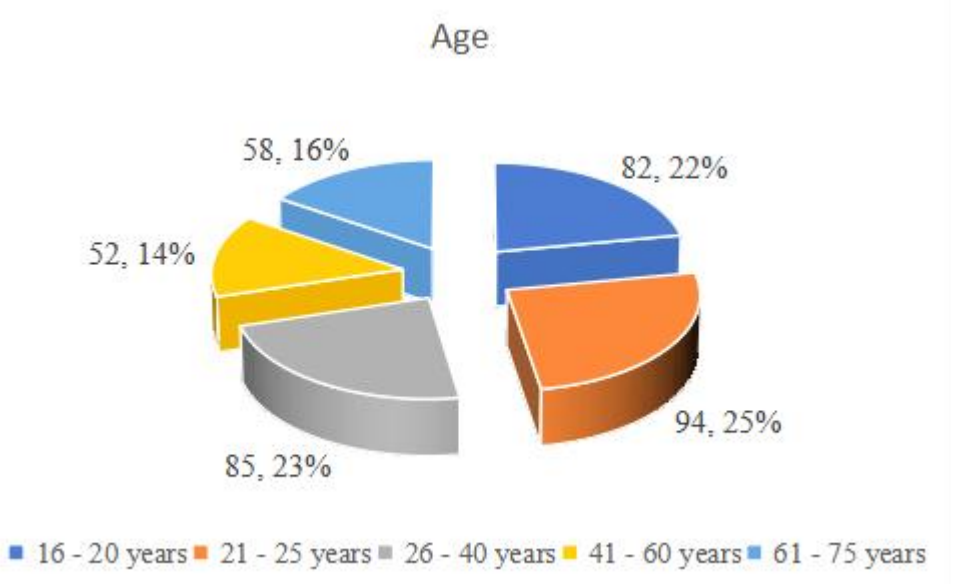

Figure 4.2: Age of the respondents

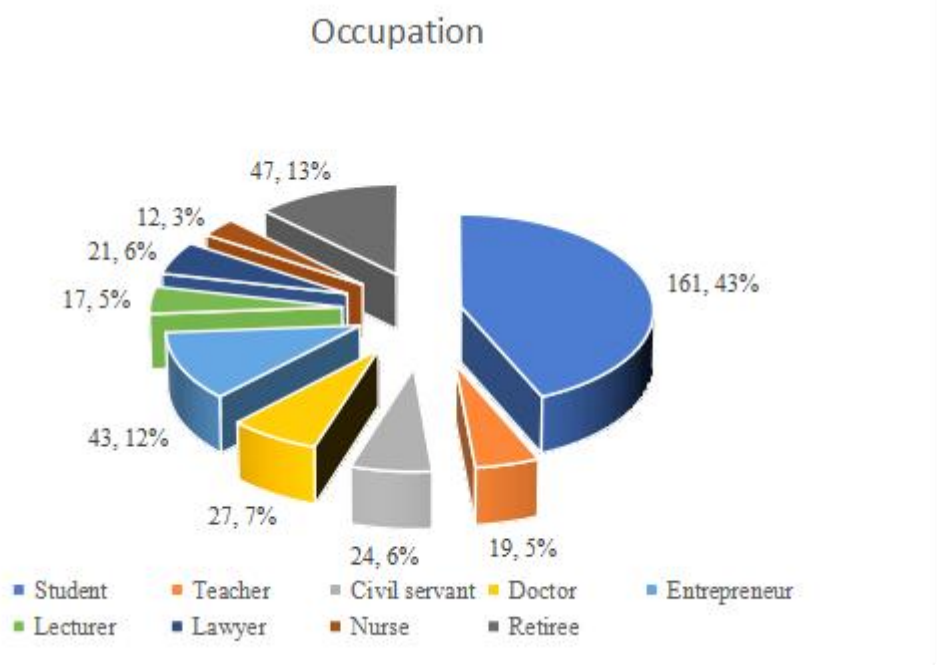

Figure 4.3: Occupation of the respondents

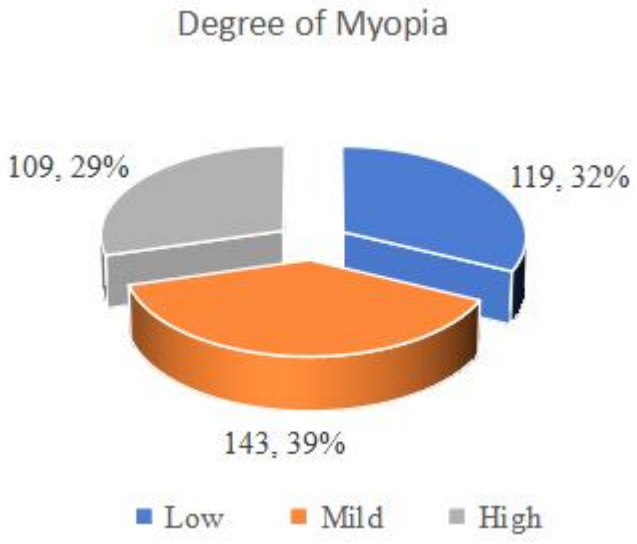

Figure 4.4: level of Myopia among the respondents

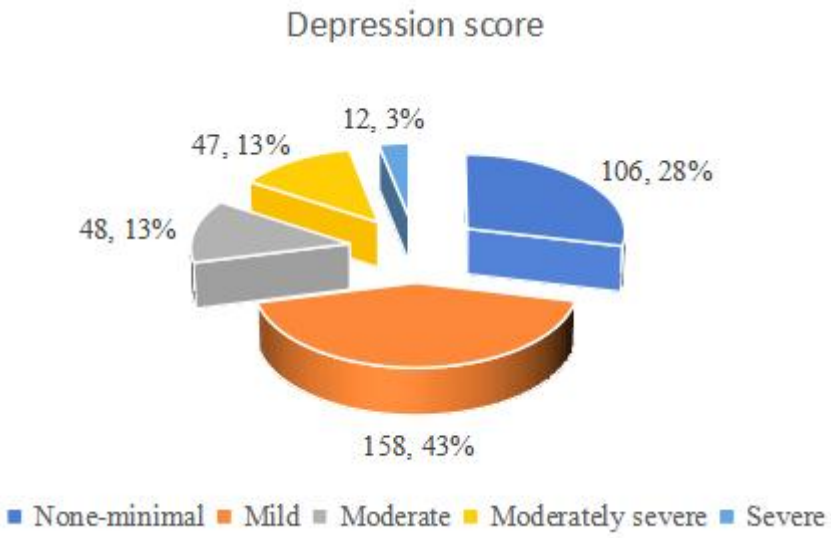

Figure 4.5: Depression score among the respondents

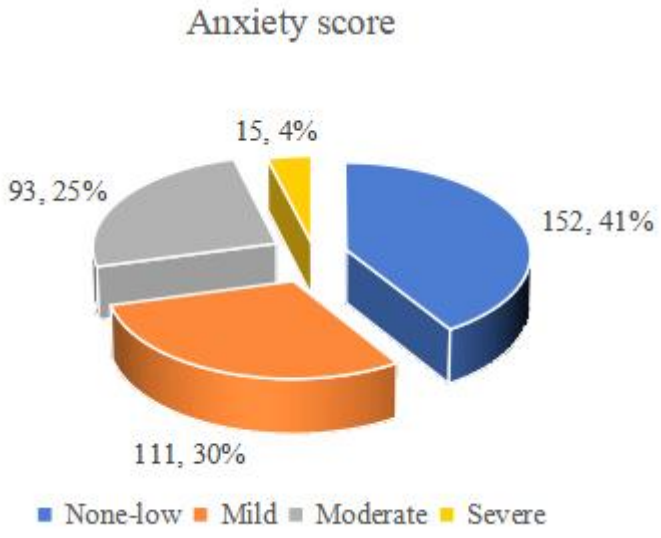

Figure 4.6: Anxiety score of the respondents

4.1.2 Answering Research Questions

Research question one: 1.What is the nature of the relationship between the level of myopia and levels of depression in myopic adults?

Table 4.3 Regression for level of Myopia and Depression level

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498[a]	.248	.246	.68123

a. Predictors: (Constant), Depression score

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	56.488	1	56.488	121.723	.000[b]
	Residual	171.242	369	.464		
	Total	227.730	370			

a. Dependent Variable: Myopia level

b. Predictors: (Constant), Depression score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.183	.080		14.821	.000
	Depression score	.360	.033	.498	11.033	.000

a. Dependent Variable: Myopia level

According to Table 4.3, correlation coefficient of 0.498 indicates a moderate positive correlation between depression scores and myopia severity. While a 0.248 coefficient of determination (R^2) explains 24.8% of the variance in myopia. A p-value of 0.000 indicates that depression scores are a meaningful predictor of level of myopia.

The unstandardised beta value of 0.360 implies that a one unit increase in depression score will lead to a 0.360 unit increase in myopia level.

It is thus established that depression level has a significant relationship with level of myopia.

This plot shows the relationship between depression scores and myopia level. The red regression line indicates the trend, showing a positive correlation between the two variables.

Research question two: How does the level of myopia correlate with levels of anxiety in myopic adults?

Table 4.4: Regression between level of myopia and anxiety level

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.416[a]	0.173	0.171	0.71440

a. Predictors: (Constant), Anxiety score

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	39.403	1	39.403	77.205	.000[b]
	Residual	188.327	369	.510		
	Total	227.730	370			

a. Dependent Variable: Myopia level

b. Predictors: (Constant), Anxiety score

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.280	0.087		14.677	.000
	Anxiety score	.361	0.041	.416	8.787	.000

a. Dependent Variable: Myopia level

According to Table 4.3, correlation coefficient of 0.416 indicates a moderate positive correlation between anxiety scores and myopia severity. While a 0.173 coefficient of determination (R^2) explains 17.3% of the variance in myopia. A p-value of 0.000 indicates that anxiety scores are a meaningful predictor of level of myopia.

The unstandardised beta value of 0.361 implies that a one unit increase in anxiety score will lead to a 0.361 unit increase in myopia level.

It is thus established that anxiety level has a significant relationship with level of myopia.

This plot shows the relationship between anxiety scores and myopia level. The red regression line indicates the trend, showing a positive correlation between the two variables.

Research question three: How do anxiety and depression vary with age among adult myopes?

Table 4.5: Depression variation with age

Age/Depression score	None-minimal	Mild	Moderate	Moderately severe	Severe	χ^2	p-value
18-20 years	30	31	7	12	2	14.562	0.557
21-25 years	26	38	14	11	5		
26-40 years	19	46	8	10	2		
41-60 years	14	23	7	7	1		
61-75 years	17	20	12	7	2		
Total	**106 (28.57%)**	**158 (42.59%)**	**48 (12.94%)**	**47 (12.67%)**	**12 (3.23%)**		

Table 4.5 indicates that among the respondents, mild depression was the most prevalent across the age groups, while severe depression was the least across the age groups. 42.59% of the respondents had mild depression based on age, but the difference in depression level based on age did not differ statistically ($p>0.05$).

Table 4.6: Anxiety variation with age

Age/Anxiety score	None-low	Mild	Moderate	Severe	χ^2	p-value
18-20 years	33	25	22	2	7.214	0.843
21-25 years	42	24	24	4		
26-40 years	37	24	19	5		
41-60 years	23	17	11	1		
61-75 years	17	21	17	3		
Total	**152 (40.97%)**	**111 (29.92%)**	**93 (25.07%)**	**15 (4.04%)**		

Table 4.6 indicates that among the respondents, none-low anxiety was the most prevalent across the age groups, while severe anxiety was the least across the age groups. 40.97% of the respondents had none-low anxiety based on age, but the difference in depression level based on age did not differ statistically ($p>0.05$).

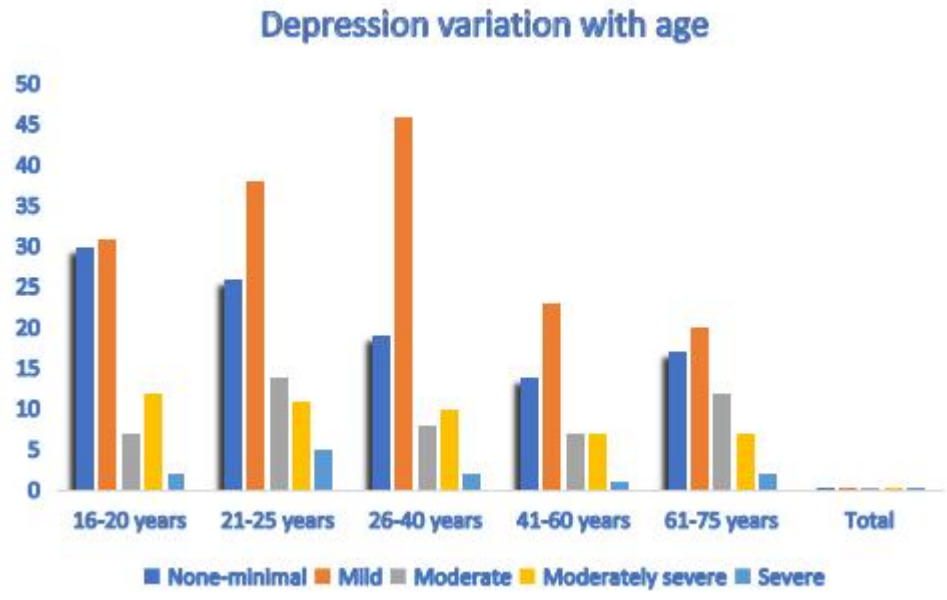

Figure 4.7: Depression variation according to age group of respondents

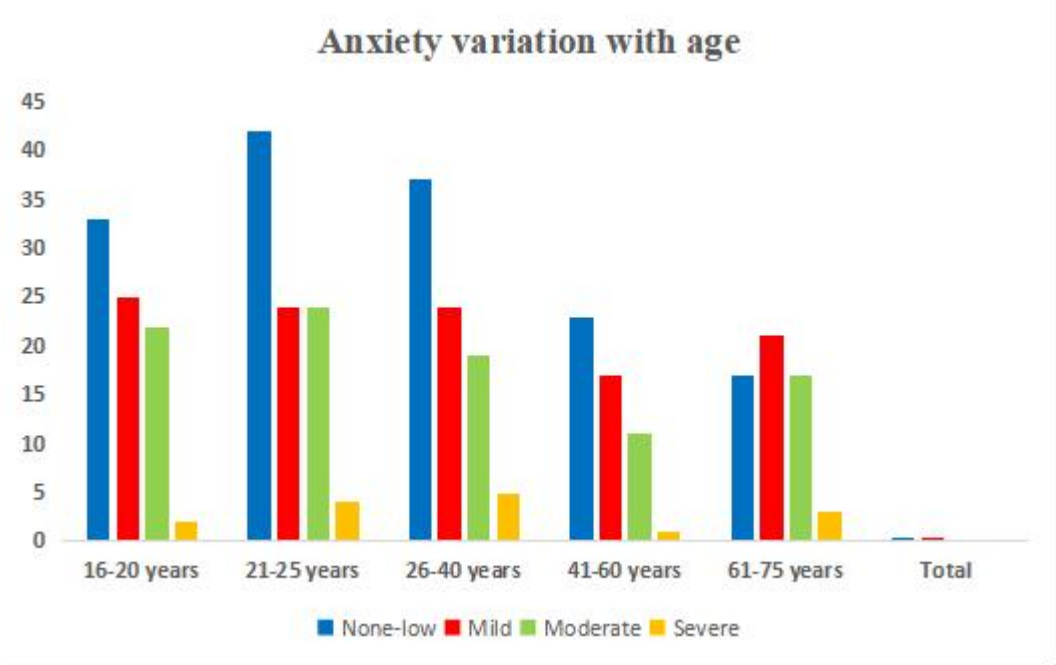

Figure 4.8: Anxiety variation according to age group of the respondents

Research question four: Are there significant gender differences in the levels of anxiety and depression among adult myopes?

Table 4.7: Depression variation with gender

Age/Depression score	None-minimal	Mild	Moderate	Moderately severe	Severe	χ^2	p-value
Female	58	75	34	30	9	11.892	0.018*
Male	48	83	14	17	3		
Total	**106 (28.57%)**	**158 (42.59%)**	**48 (12.94%)**	**47 (12.67%)**	**12 (3.23%)**		

*** significant**

Table 4.7 indicates that among the respondents, mild depression was the most prevalent across the genders, while severe depression was the least in both genders. 42.59% of the respondents had mild depression based on gender, but the difference in depression level based on gender differed statistically ($p<0.05$).

Table 4.8: Anxiety variation with gender

Age/Anxiety score	**None-low**	**Mild**	**Moderate**	**Severe**	χ^2	**p-value**
Female	82	56	55	13	7.694	0.053
Male	70	55	38	2		
Total	**152 (40.97%)**	**111 (29.92%)**	**93 (25.07%)**	**15 (4.04%)**		

Table 4.8 indicates that among the respondents, none-low anxiety was the most prevalent across the age groups, while severe anxiety was the least in both genders. 40.97% of the respondents had none-low anxiety based on gender, but the difference in depression level based on gender did not differ statistically ($p>0.05$).

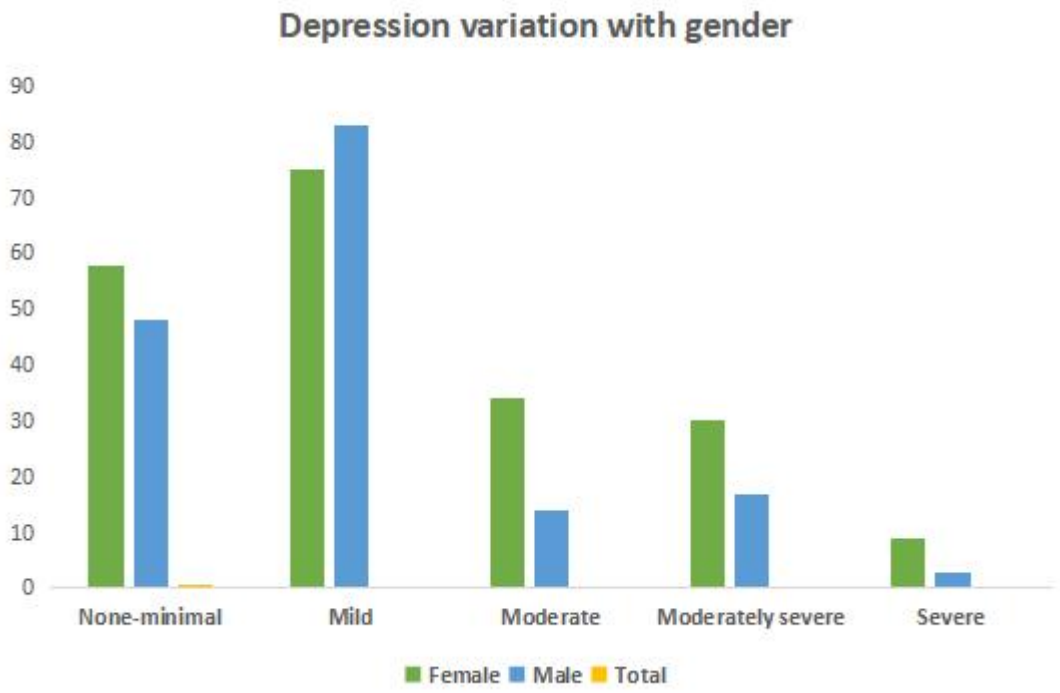

Figure 4.9: Depression variation based on gender of the respondents

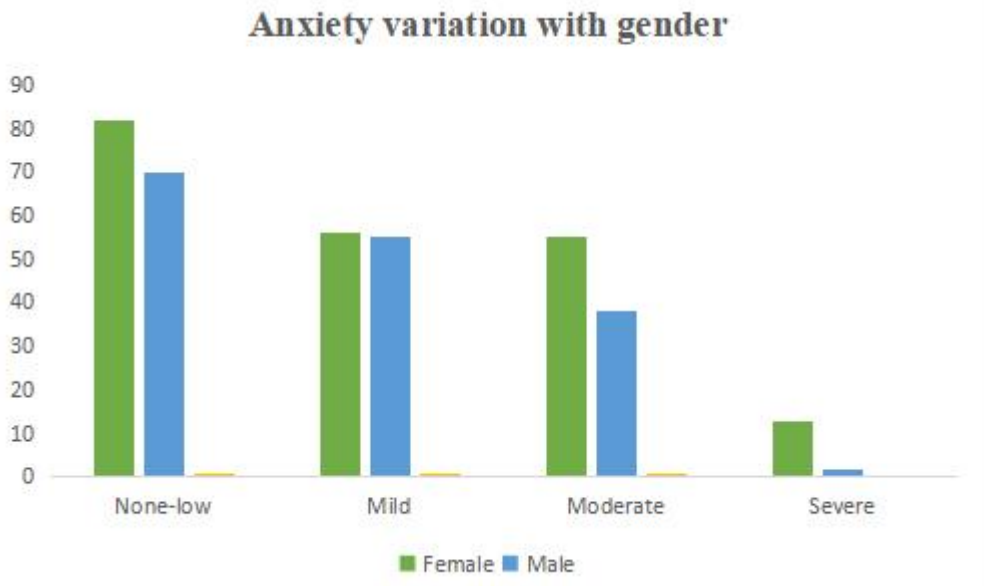

Figure 4.10: Anxiety variation based on gender of the respondents

Research question five: What is the relationship between depression and anxiety in adults with myopia?

Table 4.9: Relationship between depression and anxiety

Correlations

		Depression score	Anxiety score
Depression score	Pearson Correlation	1	0.511**
	Sig. (2-tailed)		0.000
	N	371	371
Anxiety score	Pearson Correlation	0.511**	1
	Sig. (2-tailed)	.000	
	N	371	371

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.9 indicates that there was a positive correlation between depression and anxiety ($p<0.05$). Thus, there is a highly positive relationship between depression and anxiety.

The Scatter plot confirms a moderate positive correlation between depression and anxiety. Higher depression scores tends to be associated with higher anxiety scores, but the relationship is not perfect.

CHAPTER FIVE

The study aimed to investigate the relationship between level of Myopia and Anxiety & Depression. A total of 371 data was analysed (Table 1), comprising 165 (44.5%) male respondents and 206(55.5%) female respondents. The female respondents (206, 55.5%) constituted a larger number of the respondents based on gender and the difference was statistically significant ($p<0.05$). Individuals ages between 21 and 25 years were more represented than other age groups. The difference based on age group was statistically significant ($p<0.05$) with a mean age of 35.08 ± 17.49 years. Students (161, 43.4%) constituted the largest group based on occupation and the difference in number of respondents was statistically significant ($p<0.05$).

5.1 Frequency distribution for level of Myopia, Depression score and Anxiety score

Frequency distribution (Table 2) of the respondents based on level of myopia indicated that mild myopia was the most frequent (143, 38.5%) and the difference in the number of respondents based on level of myopia was statistically insignificant ($p>0.05$); mild depression was also most frequent (158, 42.6%) and the difference in the number of respondents based on depression score was statistically significant ($p<0.05$) and none-low anxiety was the most frequent (152, 41.0%) and the difference in the number of respondents based on anxiety score was statistically significant ($p<0.05$). Pearson's correlation analysis was conducted to examine the relationship between depression and anxiety (Table 4.9). The result revealed that there was a medium positive correlation between depression and anxiety. (r 0.511, p <0.0001), indicating that as the depression score increase, axiety score also increases.

5.2 The nature of the relationship between the level of myopia and levels of depression in myopic adults

This study reveals that depression level has a significant relationship with level of myopia (Table 3). This aligns with the findings of McCracken *et al.,* (2021). Who ↑suggestted that individuals with higher levels of myopia may be more susceptible to psychological distress due to concerns about progressive vision loss and its social and occupational impacts" Mean while China Li *et al.,* (2020), observed ↑the rate of depression was not significantly increased in the students with myopia, except in cases of severe myopia↓. Correlation coefficient of 0.498 indicates a moderate positive correlation between depression scores and myopia severity. While a 0.248 coefficient of determination (R^2) explains 24.8% of the variance in myopia. A p-value of 0.000 indicates that depression scores are a meaningful predictor of level of myopia. The unstandardised beta value of 0.360 implies that a one unit increase in depression score will lead to a 0.360 unit increase in myopia level.

5.3 Correlation of the level of myopia with levels of anxiety in myopic adults.

It was established in this study (Table 3) that anxiety level has a significant relationship with level of myopia. This aligns with previous study by Zhang *et al.,* (2021) who concluded ↑myopia was associated with anxiety and anxiety scores. The greater the level of myopia, the higher the anxiety score↓. According to the results of China Li *et al.,* (2020), ↑there was a significant difference in anxiety rate between the students with normal vision and those with myopia. The SAS scores among students with mild, moderate, and severe myopia were also significantly different↓ The Correlation coefficient of 0.416 indicates a moderate positive correlation between anxiety scores and myopia severity. While a 0.173 coefficient of determination (R^2) explains 17.3% of the variance in myopia. A p-value of 0.000 indicates that anxiety scores are a meaningful predictor of level of myopia. The unstandardised beta

value of 0.361 implies that a one unit increase in anxiety score will lead to a 0.361 unit increase in myopia level.

5.4 How anxiety and depression vary with age among adult myopes

Table 4.5 indicates that among the respondents, mild depression was the most prevalent across the age groups, while severe depression was the least across the age groups. 42.59% of the respondents had mild depression based on age, but the difference in depression level based on age did not differ statistically ($p>0.05$). A study conducted by Osuagwu *et al.,* (2022) revealed that ↑myopic adults were more likely to have any depressive symptoms compared with non-myopic ones (odds ratio = 1.39; 95% confidence interval 1.04, 1.92). There were no significant differences in the risk of having any depressive symptoms between those with and without high myopia↓.

5.5 Anxiety variation with age

Table 4.6 indicates that among the respondents, none-low anxiety was the most prevalent across the age groups, while severe anxiety was the least across the age groups. 40.97% of the respondents had none-low anxiety based on age, but the difference in anxiety level based on age did not differ statistically ($p>0.05$). Smith *et al* in a study study revealed relations among age, social anxiety severity, and neural response during distinct types of social experiences. Results from this meta-analysis indicate that anxiety disorder subtypes differ in the mean age of onset, with onsets ranging from early adolescence to young adulthood.

5.6 Gender differences in the levels of anxiety and depression among adult myopes

Table 4.7 indicates that among the respondents, mild depression was the most prevalent across the genders, while severe depression was the least in both genders. 42.59% of the

respondents had mild depression based on gender, but the difference in depression level based on gender differed statistically ($p<0.05$).

5.7 Anxiety variation with gender

Table 4.8 indicates that among the respondents, none-low anxiety was the most prevalent across the age groups, while severe anxiety was the least in both genders. 40.97% of the respondents had none-low anxiety based on gender, but the difference in anxiety level based on gender did not differ statistically ($p>0.05$). Meta-analysis on the Age of Onset of Anxiety Disorders by Lijster *et all* (2017) revealed no difference in the age of onset between genders.

5.8 Relationship between depression and anxiety in adults with myopia?

Table 4.9 indicates that there was a positive correlation between depression and anxiety ($p<0.05$). Thus, there is a highly positive relationship between depression and anxiety. Similarly, van der Aa *et al.,* (2016) in vision-related study, concluded that "individuals with visual impairments, including myopia, often report higher levels of anxiety, which may stem from fears of progressive vision loss and its associated functional limitations↓.

CHAPTER SIX

6.0 CONCLUSION

In conclusion:

1. The results of this research work revealed highly positive relationship between depression and anxiety, that is statistically significant. This indicates that the higher the level of myopia, the higher the depression score and the higher the anxiety score.
2. There was no statistically significant difference in depression level among the respondents based on age. There was no statistically significant difference in anxiety level among the respondents based on age.
3. The observed difference in depression level based on gender was statistically significant, but the difference in depression level based on gender was not statistically significant.
4. Correlation analysis between depression and anxiety revealed that there was a medium positive correlation between depression and anxiety.

6.1 RECOMMENDATIONS

1. **Longitudinal Studies**: Longitudinal studies should be conducted to examine the relationship between anxiety, depression, and myopia over time.

2. **Intervention Studies**: Intervention studies should be conducted to examine the effectiveness of treatments targeting anxiety, depression, and myopia.

3. **Neurobiological Mechanisms**: Studies should be conducted to examine the neurobiological mechanisms underlying the relationship between anxiety, depression, and myopia.

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APPENDIX

Appendix 1: Ethical approval

Appendix 2: Questionnaire

A QUESTIONNAIRE ON ASSESSING THE RELATIONSHIP BETWEEN ANXIETY AND DEPRESSION WITH THE level OF MYOPIA IN ADULTS IN AND AROUND UNIBEN.

My name is Gaius-Okwezuzu Goforth, a 600 level Optometry student at the University of Benin. In fulfillment of my undergraduate dissertation requirements, I am carrying out a study to assess the Relationship between the level of Myopia and Anxiety and Depression in Adults.

I humbly request your esteemed participation in this study, please kindly answer the questions below. All personal information collected will be kept confidential. Thanks and God bless.

SECTION A

PART A: *(Kindly select/tick or write as is/are applicable to you)*

Gender: Male [ ] Female [ ]

Age: 18-20[ ] 21-25[ ] 26-40[ ] 41-60[ ] 61-75[ ]

Occupation:_____

Do you currently wear any form of eye wear(glasses or contact lenses) for vision Correction?

Yes [ ] No [ ]

PART B: In this part, questions will be asked on some general eye health information

(Kindly select/tick or write as is/are applicable to you)

1. When did you have your eyes last tested? Less than 1 year ago[ ]More than 1 year but less than 5 years ago[ ] More than 5 years ago[ ] Not sure[ ] Never[ ]

2. Were you told the problem with your eyes? Yes[ ] No[ ] Not sure[ ]

Comment: _____

3. If yes what was the problem? *(Kindly select/tick or write as is/are applicable to you)*

Refractive error (long sightedness, short sightedness, astigmatism)[ ]

Pathological condition (Disease condition) [ ]

Binocular vision anomaly/ocular Motility [ ]

Not sure [ ] Comment: _____

4. Were you told you have any of the following?(you can select more than one if applicable)

Short-sightedness (Myopia) [ ] Long-sightedness (Hyperopia) [ ]

Astigmatism [ ] Not sure [ ] Other Disease [ ] Comment:

_____

5. Which of the following treatment or a combination of treatments were mentioned to you?*(you can tick more than one if applicable)*

Glasses/spectacles [ ] Contact lens [ ] Medications [ ] Not sure [ ]

None[ ]

6.What treatment was preferred for the diagnosed refractive error?

Spectacle[ ] Contact lens[ ] Other(specify) _____

7.Did you take the preffered treatment?

Yes [ ] No [ ] Not sure [ ] Comment: _____

8. Do you know your lens Prescription?

Yes [ ] No [ ] Not sure [ ]

9.If **yes/ Not sure,** what is the lens prescription range? (**N.B: you can ask your doctor**)

(-0.5 to -3.00 Dioptres) [ ]

(-3.00 to -6.00 Dioptres) [ ]

(-6.00 or greater Dioptres) [ ]

SECTION B

Standardized Anxiety & Depression questions

For each item below, please place a check mark (✓)in the column which best describes how often you felt or behaved during the past several days.

PHQ- 9

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
1	Little interest or pleasure in doing things	0	1	2	**3**
2	Feeling down, depressed, or hopeless	0	1	2	**3**
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	**3**
4	Feeling tired or having little energy	0	1	2	**3**
5	Poor appetite or overeating	0	1	2	**3**
6	Feeling bad about yourself ↟or that you are a failure or have let yourself or your family down	0	1	2	**3**
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	**3**
8	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**
9	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	**3**
				PHQ9 Total Score	

GAD-7

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**
1	Feeling nervous, anxious or on edge	0	1	2	**3**
2	Not being able to stop or control worrying	0	1	2	**3**

3	Worrying too much about different things	0	1	2	**3**
4	Trouble relaxing	0	1	2	**3**
5	Being so restless that it is hard to sit still	0	1	2	**3**
6	Becoming easily annoyed or irritable	0	1	2	**3**
7	Feeling afraid as if something awful might happen	0	1	2	**3**
				GAD7 Total Score	

Appedix 4 Collected data

GENDER	AGE RANGE	OCCUPATION	MYOPIA level	DEPRESSION SCORE	ANXIETY SCORE
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	41-60	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	DOCTOR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	SEVERE	MODERATE ANXIETY

				DEPRESSION	
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	26-40	DOCTOR	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	61-75	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LECTURER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	TEACHER	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	TEACHER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	LAWYER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	61-75	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	CIVIL SERVANT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	DOCTOR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY

FEMALE	26-40	LAWYER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	26-40	LECTURER	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	DOCTOR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	61-75	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	CIVIL SERVANT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	DOCTOR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
MALE	18-20	ENTREPRENEUR	MID-MYOPIA	SEVERE DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	LECTURER	HIGH-MYOPIA	MODERATE DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	RETIREE	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
MALE	41-60	RETIREE	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	61-75	ENTREPRENEUR	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY

FEMALE	26-40	LECTURER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
MALE	26-40	ENTREPRENEUR	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	41-60	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	CIVIL SERVANT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	ENTREPRENEUR	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LECTURER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	CIVIL SERVANT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY

FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	CIVIL SERVANT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	DOCTOR	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	SEVERE DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	26-40	DOCTOR	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	61-75	RETIREE	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD	MILD ANXIETY

				DEPRESSION	
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	MODERATE	MILD ANXIETY

				DEPRESSION	
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	LAWYER	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	26-40	LECTURER	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
FEMALE	26-40	CIVIL SERVANT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	41-60	RETIREE	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	NURSE	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	LECTURER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	LAWYER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY

MALE	26-40	DOCTOR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LECTURER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	ENTREPRENEUR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	ENTREPRENEUR	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	DOCTOR	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE	MODERATE ANXIETY

				DEPRESSION	
MALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	41-60	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	TEACHER	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	TEACHER	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	CIVIL SERVANT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY

FEMALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	LAWYER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	LECTURER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	SEVERE DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LAWYER	HIGH-MYOPIA	MODERATE DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	LAWYER	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
FEMALE	26-40	DOCTOR	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	DOCTOR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY

MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	LAWYER	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	LAWYER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	LAWYER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	LECTURER	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	26-40	LAWYER	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	21-25	STUDENT	HIGH-MYOPIA	MILD	MILD ANXIETY

				DEPRESSION	
FEMALE	61-75	RETIREE	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
MALE	41-60	LECTURER	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	ENTREPRENEUR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	DOCTOR	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	41-60	TEACHER	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	DOCTOR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	DOCTOR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY

FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	DOCTOR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	ENTREPRENEUR	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	TEACHER	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE	MODERATE ANXIETY

				DEPRESSION	
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	DOCTOR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	21-25	TEACHER	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	CIVIL SERVANT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	21-25	TEACHER	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	LAWYER	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY

MALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	26-40	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	LECTURER	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	CIVIL SERVANT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	CIVIL SERVANT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	TEACHER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	CIVIL SERVANT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	CIVIL SERVANT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	CIVIL SERVANT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY

FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	TEACHER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	TEACHER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	SEVERE DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	21-25	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY

FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
MALE	41-60	CIVIL SERVANT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	DOCTOR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
FEMALE	61-75	RETIREE	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	DOCTOR	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	ENTREPRENEUR	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	LECTURER		MILD DEPRESSION	MILD ANXIETY
MALE	61-75	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	DOCTOR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	DOCTOR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY

MALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	DOCTOR	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	SEVERE DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	ENTREPRENEUR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
MALE	26-40	DOCTOR	LOW-MYOPIA	MILD	MILD ANXIETY

				DEPRESSION	
MALE	18-20	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	ENTREPRENEUR	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	18-20	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	DOCTOR	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	LAWYER	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	26-40	LECTURER	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	NONE-MINIMAL	MILD ANXIETY

				DEPRESSION	
FEMALE	26-40	CIVIL SERVANT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	SEVERE ANXIETY
MALE	41-60	RETIREE	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	NURSE	HIGH-MYOPIA	SEVERE DEPRESSION	MODERATE ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	26-40	LECTURER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	LAWYER	MID-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	DOCTOR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LECTURER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY

MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	ENTREPRENEUR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	26-40	ENTREPRENEUR	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	LAWYER	HIGH-MYOPIA	MODERATE DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	LAWYER	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	NONE-MINIMAL DEPRESSION	MODERATE ANXIETY
FEMALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	SEVERE ANXIETY
FEMALE	26-40	DOCTOR	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	61-75	RETIREE	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	DOCTOR	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL	NONE-LOW ANXIETY

				DEPRESSION	
MALE	21-25	LAWYER	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	LAWYER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	LAWYER	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
FEMALE	41-60	LECTURER	LOW-MYOPIA	MILD DEPRESSION	MILD ANXIETY
MALE	21-25	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	61-75	RETIREE	LOW-MYOPIA	MODERATE DEPRESSION	MILD ANXIETY
FEMALE	26-40	LAWYER	HIGH-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	41-60	DOCTOR	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	ENTREPRENEUR	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY

FEMALE	18-20	STUDENT	MID-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	MODERATE ANXIETY
FEMALE	18-20	STUDENT	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
MALE	26-40	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	18-20	STUDENT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	ENTREPRENEUR	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MODERATE ANXIETY
MALE	41-60	TEACHER	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	26-40	NURSE	MID-MYOPIA	MILD DEPRESSION	NONE-LOW ANXIETY
FEMALE	61-75	RETIREE	HIGH-MYOPIA	MODERATELY SEVERE DEPRESSION	MILD ANXIETY
MALE	26-40	CIVIL SERVANT	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	41-60	ENTREPRENEUR	HIGH-MYOPIA	MODERATE DEPRESSION	MODERATE ANXIETY
MALE	18-20	STUDENT	LOW-MYOPIA	NONE-MINIMAL DEPRESSION	NONE-LOW ANXIETY
MALE	21-25	LAWYER	MID-MYOPIA	MILD DEPRESSION	MILD ANXIETY
FEMALE	21-25	STUDENT	HIGH-MYOPIA	NONE-MINIMAL DEPRESSION	MILD ANXIETY