ASSESSMENT OF PUBLIC KNOWLEDGE AND UNDERSTANDING OF LOW VISION AND BLINDNESS IN THE UNIVERSITY OF BENIN COMMUNITY

BY

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FACULTY OF LIFE SCIENCES

UNIVERSITY OF BENIN

BENIN CITY

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF OPTOMETRY, FACULTY OF LIFE SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DOCTOR OF OPTOMETRY (O.D) DEGREE IN OPTOMETRY.

APRIL, 2024

CERTIFICATION

DEDICATION

I dedicate this work to God for His Love and Care, to my beloved brother David and to my humble self

ACKNOWLEDGEMENT

My most sincere gratitude to God for His Love and sustenance throughout my academic pursuit.

To my lovely parents and siblings , I am so grateful for your love, prayers and support throughout my journey.

To the family of Mr. Omobude Emmanuel, i am sincerely grateful for your love and support expressed in both words and actions.

Special appreciation to my Christians brothers and sisters for their support and love.

Special appreciation goes to Dr. K.N Bazuaye, my project supervisor, for his support and guidance throughout the course of this research work. His insights and feedbacks were invaluable.

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And to my humble self for holding on despite challenges.

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ABSTRACT

This research project delves into the level of awareness and understanding of low vision and blindness within the University of Benin community, leveraging a sample population of 403 individuals. The study aims to uncover prevalent perceptions, attitudes, and knowledge gaps surrounding visual impairments among students, faculty, and staff members. Employing a mixed-methods approach including surveys and interviews, the research seeks to provide nuanced insights into the community's comprehension of low vision and blindness. Key areas of exploration include misconceptions regarding visual impairments, prevailing societal attitudes, and the availability of support and resources for affected individuals. The findings of this study are anticipated to offer valuable insights into the existing knowledge landscape within the University of Benin community. By identifying areas of misconception and knowledge deficits, the research aims to inform targeted interventions and educational initiatives aimed at fostering inclusivity and empathy towards individuals with low vision and blindness. Particpant responses were obtained and analysed using tables and simple percentages. Participans" responses regarding low vision and blindness indicated a relatively high level of awareness among the surveyed population. Most respondents had heard of both low vision (86.1%) and blindness (96.0%), with a higher percentage acknowledging blindness compared to low vision. Several concerning misconceptions and societal perceptions surrounding low vision and blindness were also identified during this work. Ultimately, this research endeavors to contribute to the creation of a more informed and supportive environment within the University of Benin community.

CHAPTER ONE

1.1. INTRODUCTION

Low vision is defined as a distance visual acuity of less than 20/60 or a visual field of equal to or less than 20° in the better eye after refractive correction and medical or surgical treatment if necessary. Low vision is the main problem targeted by the Vision 2020 program, a global collaborative initiative by the WHO and International Agency for the Prevention of Blindness that aimed to eliminate preventable blindness.

Blindness involves a complete loss of vision.The characteristics that define 'blindness' are VA ≤ 3/60 and/or central fixation VF ≤ 10 degrees.

Low vision and blindness are significant public health concerns globally, impacting millions of individuals and their communities. According to the World Health Organization (WHO), an estimated 2.2 billion people worldwide have a vision impairment or blindness, with 1 billion of these cases considered preventable or treatable (WHO, 2019). In Nigeria, visual impairment remains a prevalent issue, with various factors contributing to its occurrence and persistence.

1.2. Background of the Study

Low vision and blindness are significant public health concerns globally, impacting millions of individuals and their communities. According to the World Health Organization (WHO), an estimated 2.2 billion people worldwide have a vision impairment or blindness, with 1 billion of these cases considered preventable or treatable (WHO, 2019). In Nigeria, visual impairment remains a prevalent issue, with various factors contributing to its occurrence and persistence.

The University of Benin community, located in Edo State, Nigeria, represents a diverse population with unique socio-cultural characteristics and healthcare needs. Despite efforts to address visual impairment at national and international levels, there is limited understanding of the prevalence, causes, and implications of low vision and blindness within this community. Understanding the level of knowledge and awareness among the University of Benin community members regarding low vision and blindness is crucial for developing targeted interventions and support systems.

Previous research has highlighted the importance of public education and awareness in reducing the burden of visual impairment and promoting inclusivity for individuals with low vision or blindness (Bourn et al., 2017). However, studies focusing on the University of Benin community specifically are scarce, necessitating a comprehensive assessment to fill this gap in knowledge.

1.3. Statement of The Problem

Low vision and blindness are significant public health challenges globally, affecting millions of individuals and imposing substantial burdens on healthcare systems and communities. Despite advancements in medical technology and increased awareness of eye health, visual impairment remains a persistent issue, particularly in low- and middle-income countries like Nigeria. Within the context of the University of Benin community, several key challenges and issues contribute to the problem of low vision and blindness:

i. Lack of Awareness and Education: There is a notable lack of awareness and understanding of low vision and blindness within the University of Benin community. Many individuals may not recognize the signs and symptoms of visual impairment, leading to delays in seeking appropriate care and treatment. Moreover, misconceptions and myths surrounding visual impairment may perpetuate stigma and hinder efforts to promote inclusivity and support for affected individuals.

ii. Socioeconomic Disparities: Socioeconomic disparities play a significant role in the prevalence and impact of low vision and blindness within the University of Benin community. Individuals from lower socioeconomic backgrounds may face greater challenges in accessing eye care services, obtaining assistive devices, and coping with the economic consequences of visual impairment. Furthermore, limited educational and employment opportunities may exacerbate the social and economic marginalization of individuals with visual impairments, perpetuating cycles of poverty and inequality.

iii. Inadequate Support Systems: The University of Benin community lacks comprehensive support systems and resources for individuals with low vision or blindness. Rehabilitation services, assistive technologies, and educational accommodations may be insufficient or unavailable, limiting the ability of affected individuals to participate fully in academic, social, and vocational activities. Furthermore, societal attitudes and perceptions towards visual impairment may contribute to the marginalization and exclusion of individuals with low vision or blindness, further exacerbating the problem.

1.4. Aim and Objectives

1.5. Aim

The aim of this study is to assess public knowledge and understanding of low vision andblindness concepts, using the University of Benin as a case study.

1.5.1 Objectives

i. To assess the levels of knowledge and understanding of low vision and blindness within the University of Benin community. This includes understanding the community's awareness of the causes, symptoms, and implications of visual impairment. By gauging existing knowledge levels, the study aims to identify areas of misconception or inadequate understanding among community members.

ii. To explore the attitudes and perceptions of individuals within the University of Benin community towards individuals with low vision or blindness. This involves understanding how the community perceives and interacts with individuals with visual impairments, including any existing stigmas or stereotypes. Examining attitudes towards visual impairment can provide insights into potential barriers to inclusivity and support within the community.

iii. To identify the educational needs of the University of Benin community regarding low vision and blindness. By understanding areas where knowledge gaps exist or misconceptions prevail, the research aims to inform the development of targeted educational interventions and awareness campaigns. This objective aligns with broader efforts to promote visual health literacy and inclusivity within the community.

iv. To provide valuable insights to policymakers, healthcare providers, and community stakeholders regarding the status of visual health awareness and support systems within the

University of Benin community. By highlighting areas of concern and potential opportunities for intervention, the research aims to inform the development of evidence-based policies and initiatives aimed at promoting visual health and inclusivity.

1.6. Research Questions

i. What is the level of knowledge and understanding of low vision and blindness within the University of Benin community?

ii. How do demographic factors such as age, gender, education level, and occupation influence knowledge and understanding of low vision and blindness?

iii. What are the common misconceptions and attitudes towards low vision and blindness within the University of Benin community?

iv. How can educational interventions and awareness campaigns be tailored to address the specific needs and challenges related to low vision and blindness within the University of Benin community?

1.7. Significance of the Study

i. Public Health Impact: Visual impairment has significant implications for public health, affecting individuals' well-being, productivity, and overall quality of life. By addressing the root causes of visual impairment and promoting eye health awareness, the burden of low vision and blindness can be reduced, leading to improved health outcomes and social inclusion.

ii. Educational and Socioeconomic Opportunities: Ensuring access to comprehensive eye care services and support systems can enhance educational and socioeconomic opportunities for individuals with visual impairments within the University of Benin community. By promoting inclusivity and providing necessary accommodations,

affected individuals can participate fully in academic, social, and vocational activities, contributing to their personal development and economic empowerment.

iii. Human Rights and Social Justice: Addressing the problem of low vision and blindness aligns with principles of human rights and social justice, ensuring that all individuals have equal opportunities to access healthcare, education, and employment regardless of their visual abilities. By combating stigma, discrimination, and barriers to inclusion, the University of Benin community can uphold the rights and dignity of individuals with visual impairments, fostering a more equitable and inclusive society.

1.8. Definition of Terms

i. **LowVision**: Low vision refers to a significant visual impairment that cannot be fully corrected with eyeglasses, contact lenses, medication, or surgery.

ii. **Blindness**: Blindness represents a severe visual impairment characterized by the inability to see or perceive light.

iii. **Demographic Factors**: Demographic factors refer to characteristics of individuals or populations that can be used for statistical analysis and classification. These factors may include age, gender, education level, occupation, income level, ethnicity, and geographic location

iv. **Awareness**: Awareness refers to the knowledge or consciousness of a particular issue, topic, or situation.

v. **Attitudes**: Attitudes represent individuals' evaluations, beliefs, feelings, and behavioral tendencies towards a particular object, person, group, or situation.

vi. **Perceptions**: Perceptions refer to individuals' subjective interpretations and understandings of their environment, experiences, and interactions.

vii. **Inclusivity**: Inclusivity refers to the practice of ensuring equal access and participation for individuals of diverse backgrounds, abilities, and identities.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.2 Definition of Low Vision and Blindness

Low vision and blindness are visual impairments that significantly impact an individual's ability to perform daily activities. According to the World Health Organization (WHO), low vision is defined as "a visual impairment that cannot be corrected fully with glasses, contact lenses, medication, or surgery, and it interferes with the ability to perform everyday activities." On the other hand, blindness is characterized by "a complete or nearly complete absence of vision." These definitions are crucial for understanding the spectrum of visual impairments and their implications for individuals and society (WHO, 2021).

Recent studies have highlighted the importance of precise definitions in assessing the prevalence and impact of low vision and blindness. For example, a study by Shah et al. (2020) emphasized the need for standardized definitions to ensure consistency in research outcomes and healthcare interventions. The authors argued that variations in terminology and diagnostic criteria can lead to discrepancies in reported prevalence rates and hinder effective policy development.

Moreover, advancements in medical technology and understanding have contributed to evolving definitions of low vision and blindness. For instance, the International Classification of Diseases (ICD-11) introduced by the WHO includes updated criteria for classifying visual impairments based on functional limitations rather than solely relying on visual acuity measurements. This shift reflects a more holistic approach to assessing visual disabilities and acknowledges the diverse needs of individuals with varying degrees of impairment (ICD-11, 2020).

Optometrists are eye care providers who provide comprehensive eye and vision care services, including vision rehabilitation to the visually impaired (American Optometric Association, 2017). These services are limited in developing countries such as Nigeria because of the limited

eye health workforce, which may result in a high prevalence of undetected visual problems and consequently, visual impairment (Binns et al., 2021). Visual impairment contributes to poor academic performance amongst children in developing countries and as such, about 90% of children with blindness do not attend school (Pararajasegaram R, 2019).

2.3 Causes and Types of Low Vision and Blindness

Low vision and blindness can stem from a multitude of causes, ranging from congenital conditions to acquired diseases and injuries. Understanding the diverse etiologies and classifications of visual impairments is crucial for effective prevention, diagnosis, and management strategies.

2.3.1 Congenital Causes

Congenital visual impairments are those present at birth and often have genetic, developmental, or environmental origins. These conditions include congenital cataracts, retinal dystrophies like retinitis pigmentosa, and congenital abnormalities such as optic nerve hypoplasia. Recent research underscores the importance of genetic counseling and early interventions to address congenital visual impairments, emphasizing the role of early detection through newborn screening programs (Liew et al., 2020; Hartong et al., 2021). These conditions can significantly affect visual development and may lead to lifelong impairment if not detected and managed early.

Congenital Cataracts

Congenital cataracts are opacities in the lens of the eye that obstruct light transmission, resulting in blurred vision or visual deprivation if left untreated. They can be inherited or acquired due to prenatal infections, metabolic disorders, or maternal drug use during pregnancy. Early diagnosis through newborn screening and prompt surgical intervention are critical for restoring visual function and preventing amblyopia (Nucci et al., 2017; Lambert et al., 2020).

Retinal Dystrophies

Retinal dystrophies encompass a group of inherited disorders characterized by progressive degeneration of retinal cells, leading to visual impairment or blindness. Conditions such as retinitis pigmentosa (RP), Leber congenital amaurosis (LCA), and Stargardt disease typically manifest in childhood and result in night blindness, peripheral vision loss, and eventual central vision decline. Advances in genetic testing and gene therapy offer promising avenues for early diagnosis and targeted interventions to slow disease progression (Ferrari et al., 2020; Banin & Bandah-Rozenfeld, 2021).

Optic Nerve Hypoplasia

Optic nerve hypoplasia (ONH) is a congenital condition characterized by underdevelopment of the optic nerve, leading to reduced visual acuity and visual field defects. It often presents with additional neurological and endocrine abnormalities, including septo-optic dysplasia (SOD) and hypothalamic-pituitary dysfunction. Early identification and multidisciplinary management are essential for optimizing visual outcomes and addressing associated systemic complications (Chen et al., 2019; Kelberman et al., 2021).

Congenital Glaucoma

Congenital glaucoma is a rare but potentially blinding condition characterized by elevated intraocular pressure and optic nerve damage. It results from abnormal development of the aqueous outflow pathways during fetal development. Infants with congenital glaucoma may present with photophobia, excessive tearing, and corneal edema. Timely diagnosis and surgical intervention, such as trabeculotomy or goniotomy, are crucial for preserving vision and preventing irreversible optic nerve damage (Kulkarni et al., 2020; Senthil et al., 2021).

2.4 Acquired Disease

Acquired visual impairments encompass a broad spectrum of conditions that develop later in life due to various diseases affecting the eye or visual pathways. Age-related macular degeneration (AMD), diabetic retinopathy, glaucoma, and cataracts are among the leading causes of acquired vision loss globally. Recent studies have highlighted the impact of modifiable risk factors, such as smoking, obesity, and hypertension, on the development and progression of these conditions, emphasizing the importance of preventive healthcare and lifestyle modifications (Wong et al., 2020; Pasquale et al., 2021). These conditions often manifest gradually and can lead to irreversible vision loss if left untreated. Understanding the etiology, risk factors, and management strategies for acquired visual impairments is essential for preserving vision and improving quality of life.

Age-Related Macular Degeneration (AMD)

Age-related macular degeneration (AMD) is a leading cause of visual impairment and blindness among older adults, particularly in developed countries. AMD primarily affects the macula, the central region of the retina responsible for detailed central vision. It is characterized by the accumulation of drusen, pigmentary changes, and degenerative alterations in the retinal pigment epithelium (RPE) and photoreceptors. AMD can manifest as either dry (non-neovascular) or wet (neovascular) forms, with the latter associated with choroidal neovascularization and rapid vision loss. While the exact etiology of AMD remains unclear, age, genetics, smoking, and dietary factors are known risk factors. Recent research has focused on identifying genetic biomarkers, inflammatory pathways, and novel therapeutic targets for AMD management, including anti-vascular endothelial growth factor (VEGF) therapies, complement inhibitors, and retinal gene therapy (Wong et al., 2020; Yonekawa et al., 2021).

Diabetic Retinopathy

Diabetic retinopathy is a common complication of diabetes mellitus and a leading cause of vision loss globally. It results from microvascular damage to the retinal blood vessels, leading to retinal ischemia, neovascularization, and macular edema. Diabetic retinopathy can progress through non-proliferative and proliferative stages, with the latter characterized by the growth of abnormal blood vessels on the retinal surface. Strict glycemic control, blood pressure management, and regular ophthalmic screenings are essential for preventing and managing diabetic retinopathy. Recent advancements in imaging modalities, such as optical coherence tomography (OCT) and fundus fluorescein angiography (FFA), have facilitated early detection and monitoring of diabetic retinopathy, enabling timely intervention with laser therapy, intravitreal injections, or vitreoretinal surgery (Wong et al., 2018; Wang & Lo, 2020).

Glaucoma

Glaucoma encompasses a group of progressive optic neuropathies characterized by optic nerve damage, visual field loss, and elevated intraocular pressure (IOP). It is a leading cause of irreversible blindness worldwide, affecting individuals of all ages. Primary open-angle glaucoma (POAG) and angle-closure glaucoma (ACG) are the two main subtypes, with POAG being more prevalent in Western populations and ACG more common in Asian populations. While elevated IOP is a major risk factor for glaucoma, other factors such as genetics, age, ethnicity, and structural anomalies of the anterior chamber angle contribute to disease pathogenesis. Early diagnosis and timely intervention are crucial for preventing progressive optic nerve damage and vision loss in glaucoma patients. Treatment modalities include topical medications, laser trabeculoplasty, minimally invasive glaucoma surgery (MIGS), and traditional filtration surgery (Tham et al., 2021; Weinreb et al., 2021).

2.4.1 Injuries and Trauma

Traumatic injuries to the eye or head can result in significant visual impairment or blindness. These injuries may be caused by accidents, assaults, or occupational hazards, leading to conditions such as corneal abrasions, traumatic cataracts, and retinal detachments. Recent advances in trauma care and surgical techniques have improved outcomes for individuals with traumatic eye injuries, highlighting the importance of prompt evaluation and multidisciplinary management (Tandon et al., 2021; Kashani et al., 2022).

Ocular Trauma

Ocular trauma encompasses a wide range of injuries to the eye, including blunt trauma, penetrating injuries, chemical burns, and foreign body intrusion. Blunt trauma, such as from sports-related activities or motor vehicle accidents, can cause contusions, corneal abrasions, hyphema, and traumatic cataracts. Penetrating injuries, resulting from sharp objects or projectiles, can lead to corneal or scleral lacerations, intraocular hemorrhage, and globe rupture, posing a risk of permanent vision loss. Chemical burns, caused by exposure to acids, alkalis, or irritants, can induce rapid and severe damage to ocular tissues, leading to corneal opacification, anterior segment ischemia, and secondary glaucoma. Prompt evaluation, irrigation, wound repair, and appropriate medical or surgical interventions are essential for preserving vision and preventing complications in ocular trauma cases (Peng et al., 2020; McGhee et al., 2021).

Preventing ocular and head injuries requires a multifaceted approach involving education, environmental modifications, and safety measures. Public awareness campaigns highlighting the importance of eye protection, workplace safety, sports safety, and safe driving practices can reduce the incidence of ocular trauma. Implementation of safety standards, such as wearing protective eyewear, helmets, and seat belts, can mitigate the risk of injury in various settings. Occupational

health and safety regulations, school policies, and community initiatives aimed at injury prevention can contribute to reducing the burden of ocular and head injuries and safeguarding visual health (Peck et al., 2021; AAO, 2021).

Traumatic Brain Injury (TBI):

Traumatic brain injury (TBI) refers to head trauma resulting in neurological dysfunction, which can impact visual function and perception. Closed head injuries, such as concussions or contusions, can cause diffuse axonal injury, cerebral edema, and intracranial hemorrhage, affecting visual pathways and cortical processing. Visual symptoms associated with TBI may include blurred vision, diplopia, photophobia, visual field defects, and visual motion sensitivity. Post-traumatic visual dysfunction, including visual processing deficits and visual perceptual disorders, can significantly impair daily activities and quality of life in TBI survivors. Multidisciplinary management involving neurologists, ophthalmologists, rehabilitation specialists, and vision therapists is essential for assessing visual function, optimizing visual rehabilitation, and addressing associated cognitive and motor impairments (Barton et al., 2020; Ciuffreda et al., 2021).

2.4.2 Age Related Changes

Age-related changes in the eye, such as presbyopia, cataracts, and age-related macular degeneration, are common causes of visual impairment among older adults. These conditions often result from cellular degeneration, oxidative stress, and inflammation associated with aging. Recent research has focused on identifying biomarkers, genetic predispositions, and novel therapeutic targets for age-related visual disorders, with promising implications for personalized medicine and disease management (Kaarniranta et al., 2020; Yildirim et al., 2021).

Cataracts

Cataracts are a common age-related ocular condition characterized by the progressive clouding of the lens, resulting in blurred vision, glare sensitivity, and decreased contrast sensitivity. The formation of cataracts is primarily attributed to aging, oxidative stress, ultraviolet radiation exposure, and metabolic changes in the lens proteins. Cataracts can significantly impair visual function and quality of life, necessitating surgical intervention for lens extraction and intraocular lens implantation. Recent advancements in cataract surgery techniques, such as phacoemulsification and femtosecond laser-assisted cataract surgery, have improved surgical outcomes and reduced complications, offering enhanced visual rehabilitation for individuals with age-related cataracts (Lundström et al., 2020; Cetinkaya et al., 2021).

Age-Related Macular Degeneration (AMD)

Age-related macular degeneration (AMD) is a progressive retinal disorder that affects the macula, the central region of the retina responsible for detailed vision. AMD is a leading cause of severe vision loss and blindness among older adults, particularly those over 50 years of age. The pathogenesis of AMD involves genetic predisposition, aging-related changes in the retinal pigment epithelium (RPE), chronic inflammation, and oxidative stress. AMD can manifest as either dry (non-neovascular) or wet (neovascular) forms, with the latter associated with choroidal neovascularization and rapid vision decline. Early detection through regular eye examinations, lifestyle modifications, and targeted therapies, such as anti-vascular endothelial growth factor (anti-VEGF) injections and retinal laser therapy, are essential for preserving vision and preventing disease progression in individuals with AMD (Lim et al., 2021; Chew et al., 2022).

Age Related Glaucoma

Glaucoma is a group of progressive optic neuropathies characterized by optic nerve damage, visual field loss, and elevated intraocular pressure (IOP). It is more prevalent among older adults, particularly those over 60 years of age. Primary open-angle glaucoma (POAG) and angle-closure glaucoma (ACG) are the two main subtypes, with POAG being the most common form. Age-related changes in the trabecular meshwork, increased resistance to aqueous outflow, and vascular insufficiency contribute to the pathogenesis of glaucoma. Early diagnosis, vigilant monitoring of IOP, and timely intervention with topical medications, laser trabeculoplasty, or surgical procedures are essential for preserving vision and preventing irreversible optic nerve damage in individuals with glaucoma (Weinreb et al., 2014; Jonas et al., 2020).

2.5 Impact of Low Vision and Blindness on individuals

Low vision and blindness have profound physical, psychological, social, and economic implications for affected individuals, significantly influencing their daily functioning, quality of life, and overall well-being. Understanding the multifaceted impact of visual impairment is essential for developing comprehensive rehabilitation strategies and support systems to enhance the independence and participation of affected individuals in society.

2.5.1 Functional Limitations:

Visual impairment can impose significant functional limitations on individuals, affecting activities of daily living such as reading, writing, mobility, and navigation. Reduced visual acuity, contrast sensitivity, and peripheral vision can impair tasks requiring fine visual discrimination, such as reading small print, recognizing faces, and performing intricate manual tasks. Individuals with low vision or blindness may rely on assistive devices, adaptive techniques, and environmental

modifications to overcome functional challenges and maintain independence (Finger et al., 2021; Owsley et al., 2021).

Reading and Writing

One of the most notable functional limitations associated with low vision and blindness is difficulty with reading and writing tasks. Individuals with visual impairment may struggle to read printed text, including books, newspapers, and documents, due to reduced visual acuity or contrast sensitivity. Braille and other tactile reading systems can provide access to written materials for individuals with severe vision loss, but literacy rates among this population remain lower compared to sighted individuals (Chen et al., 2021; Naeem et al., 2021).

Mobility and Navigation

Low vision and blindness can also impair mobility and navigation abilities, making it challenging to move safely and independently in the environment. Individuals with visual impairment may encounter obstacles, hazards, and changes in elevation that pose risks of falls or accidents. Orientation and mobility training, along with the use of mobility aids such as white canes or guide dogs, can help individuals navigate their surroundings more effectively and increase their confidence in independent travel (Rosenberg et al., 2020; Kuyk et al., 2021).

Visual Information Processing

Visual impairment can affect the processing of visual information, leading to difficulties with tasks requiring visual attention, tracking, and discrimination. Individuals may have difficulty recognizing faces, interpreting facial expressions, or discerning spatial relationships. Adaptive strategies, such as auditory cues, tactile feedback, and environmental modifications, can help compensate for these limitations and improve functional performance in daily activities (Latham et al., 2020; Vargas-Martin & Peli, 2019)

Instrumental Activities of Daily Living (IADLs)

Instrumental activities of daily living (IADLs), such as meal preparation, household chores, and financial management, may also be affected by low vision and blindness. Individuals may struggle with tasks requiring visual precision, organization, or fine motor skills, such as cooking, cleaning, or managing medications. Assistive technologies, adaptive devices, and task modification strategies can facilitate independence and improve efficiency in IADL performance for individuals with visual impairment (Horowitz et al., 2019; Ren et al., 2021).

2.5.2 Psychological Impact

Visual impairment can have a profound psychological impact on individuals, leading to feelings of frustration, anxiety, depression, and social isolation. Loss of visual function may disrupt self-esteem, identity, and autonomy, resulting in decreased confidence and withdrawal from social activities. Coping with the emotional and psychological consequences of visual impairment requires resilience, adaptation, and access to supportive services, including counseling, peer support groups, and mental health interventions (Cimarolli et al., 2020; Crews & Jones, 2017).

Emotional Distress

Visual impairment often triggers a range of negative emotions, including frustration, sadness, anxiety, and grief. Individuals may experience frustration and anger over the loss of independence and autonomy associated with their vision loss. Feelings of sadness and grief may arise from the mourning of lost abilities, activities, and lifestyle changes. Anxiety and fear about the future, including concerns about safety, mobility, and social interactions, are common among individuals adjusting to vision loss (Horowitz et al., 2020; Silverstein et al., 2021).

Depression and Psychological Distress

The prevalence of depression and psychological distress is higher among individuals with visual impairment compared to the general population. Chronic stress, social isolation, and perceived stigma associated with visual impairment contribute to the development of depressive symptoms and anxiety disorders. Untreated depression can exacerbate functional limitations, impair rehabilitation outcomes, and diminish overall quality of life. Early detection and intervention with psychological counseling, cognitive-behavioral therapy, and psychosocial support are essential for addressing mental health concerns in individuals with visual impairment (Van der Aa et al., 2020; Casten et al., 2019).

Loss of Identity and Self-Esteem

Visual impairment can disrupt an individual's sense of identity and self-esteem, leading to feelings of inadequacy, self-doubt, and social withdrawal. Changes in appearance, role functioning, and social status may challenge one's self-concept and interpersonal relationships. Maintaining a positive self-image and sense of competence in the face of vision loss requires adaptation, acceptance, and support from family, peers, and healthcare providers. Rehabilitation programs that promote self-advocacy, resilience, and empowerment can foster a sense of mastery and purpose among individuals with visual impairment (Cimarolli et al., 2021; Brody et al., 2017).

Social Isolation and Loneliness

Visual impairment often leads to social isolation and feelings of loneliness due to difficulties with communication, transportation, and participation in social activities. Limited access to public spaces, transportation barriers, and negative attitudes from others may contribute to feelings of exclusion and disconnection from social networks. Engaging in peer support groups, community

activities, and recreational programs can mitigate social isolation and foster social connectedness among individuals with visual impairment (Court et al., 2020; Horowitz et al., 2018).

2.5.3 Social Participation

Visual impairment can pose barriers to social participation and community engagement, limiting opportunities for education, employment, recreation, and social interaction. Individuals with low vision or blindness may face stigma, discrimination, and accessibility challenges in accessing public spaces, transportation, and social services. Promoting social inclusion and accessibility through advocacy, policy initiatives, and community programs is essential for empowering individuals with visual impairment to actively participate in society and fulfill their potential (Whitson & Whitaker, 2018; World Health Organization, 2021). However, low vision and blindness can present significant barriers to social engagement and participation, impacting various aspects of individuals' lives.

Barriers to Social Participation

Visual impairment can pose numerous barriers to social participation, limiting individuals' ability to engage in community activities, maintain relationships, and access essential services. Environmental barriers, such as inaccessible public spaces, transportation challenges, and lack of accommodations, can hinder participation in social events, recreational activities, and cultural experiences. Communication barriers, including difficulty reading nonverbal cues, recognizing faces, and accessing information, can impair social interactions and limit social networks (Court et al., 2020; Crews & Jones, 2017).

Social Isolation and Loneliness

Individuals with visual impairment are at increased risk of social isolation and loneliness due to limited mobility, decreased opportunities for social interaction, and reduced social support

networks. The loss of visual cues and reliance on assistive devices may lead to feelings of detachment, alienation, and disconnection from others. Social isolation and loneliness have been linked to adverse health outcomes, including depression, anxiety, and cognitive decline, emphasizing the importance of addressing social connectedness among individuals with visual impairment (Cimarolli et al., 2020; van der Aa et al., 2021).

Community Engagement and Inclusion

Promoting community engagement and inclusion is essential for enhancing social participation among individuals with visual impairment. Creating accessible and inclusive environments, such as barrier-free public spaces, transportation services, and recreational facilities, can facilitate participation in social activities and events. Providing training in orientation and mobility, assistive technology, and social skills can empower individuals to navigate their surroundings independently and interact with others confidently (Rosenberg et al., 2020; Horowitz et al., 2020).

Peer Support and Networking

Peer support groups and networking opportunities play a vital role in promoting social participation and well-being among individuals with visual impairment. Connecting with peers who share similar experiences can provide emotional support, practical advice, and encouragement to overcome challenges associated with visual impairment. Peer mentors and role models can inspire and empower individuals to pursue their goals, engage in advocacy efforts, and foster a sense of belonging within the visually impaired community (Cimarolli et al., 2020; Hayes et al., 2019).

2.5.4 Economic Consequences of Visual Impairment

Visual impairment can have significant economic consequences for individuals and society, impacting employment opportunities, productivity, and financial independence. Reduced access

to education, vocational training, and job accommodations may limit the employment prospects of individuals with low vision or blindness, leading to unemployment, underemployment, and economic dependency. Addressing barriers to employment, promoting workplace accommodations, and fostering inclusive hiring practices are critical for promoting economic empowerment and financial security among individuals with visual impairment (Schiller et al., 2019; Williams et al., 2020).

Employment Challenges

Visual impairment often presents employment challenges, including barriers to finding and maintaining suitable employment. Individuals with visual impairment may face discrimination, limited job opportunities, and difficulties accessing vocational training and education. Moreover, job tasks that require good vision may be inaccessible or pose safety risks for individuals with visual impairment, leading to unemployment or underemployment (Schiller et al., 2019; Williams et al., 2020).

Income Disparities

Visual impairment is associated with income disparities, with affected individuals often earning lower wages and experiencing financial insecurity compared to their sighted counterparts. Limited access to higher-paying jobs, reduced work hours, and reliance on disability benefits contribute to income disparities among individuals with visual impairment. These disparities can exacerbate socio-economic inequalities and perpetuate cycles of poverty and dependency (Bültmann et al., 2020; Xie et al., 2021).

Healthcare Costs

Visual impairment imposes additional healthcare costs on individuals, including expenses related to vision care, assistive devices, and medical interventions. Accessing specialized eye care

services, purchasing visual aids, and undergoing vision rehabilitation may incur out-of-pocket expenses for individuals with visual impairment, particularly in settings with limited insurance coverage or healthcare subsidies. High healthcare costs can strain financial resources and create barriers to accessing essential vision-related services and treatments (Rein et al., 2019; Finger et al., 2021).

Dependency and Financial Burden

Visual impairment can lead to dependency on family members, caregivers, or social support systems for assistance with daily living tasks, transportation, and financial management. Individuals with visual impairment may experience reduced financial independence and autonomy, relying on others for financial support or decision-making. The financial burden of caregiving and support services may further strain family resources and impact the overall economic well-being of households (Haffer et al., 2020; Ntsoane et al., 2021).

CHAPTER THREE

3.0 Materials and Methods

This chapter discusses the method used for this study. It is discussed under the following; Research Design, Research Location, Study Population, Sampling Technique/Sample Size Determination, Materials, Inclusion/Exclusion Criteria, Description of Procedure, Data Analysis, Ethical Approval, Limitations And Methods

3.1 Research Design

Descriptive research survey design was used in building up this project work.This type of study seeks to provide a nominal/descriptive detail of the research variables from the target respondents.

3.2 Research Location

The study was conducted within the University of Benin,Ugbowo campus.

3.3 Study population

The population was drawn from students, junior staff, administrative staff, academic staff, technologists and business owners within the University of Benin, Ugbowo campus.

3.4 Sampling Technique/ Sample Size Determination

The sample size for this study was calculated using Fischer's formula

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

Where,

n = sample size

Z = z-score corresponding to the desired confidence level (1.96 for a 95% confidence level).

P = estimated population proportion

E = Precision desired (5%, d = 0.05)

Therefore,

$= 1.96 \times 0.5(1-0.5)$

0.05

$= 3.8416 \times 0.5(0.5)$

0.0025

$= 365.57$

Sample size = 366

Minimum sample size is approximately 366

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

0.1 x 366 = 36.6

Final sample size =366 +36.6

Sample size = 402

Rounded up to the nearest whole number, the sample size required for a 95% confidence level, a margin of error of E= 0.05, and an estimated population portion of p=0.5 would be approximately 403.

3.5 Materials

The materials used for this study were:

1. A pretested questionnaire
2. Recording sheet and pen

3.6 Inclusion Criteria

- People either studying or working in the University of Benin, Ugbowo campus.
- People either studying or working in the University of Benin community who are willing to participate in the study.

3.7 Exclusion Criteria

- People studying or working outside the University of Benin, Ugbowo Campus.
- People studying or working in the University of Benin who do not give consent to participate in this study.

3.8 Description of Procedure

This study utilized a structured questionnaire that has been adapted from similar research conducted in Spain (Lupón et al., 2019), with minor adjustments. The questionnaire comprises two sections: the first section gathers socio-demographic information such as age, gender, educational status, and occupation, while the second section presents a list of 25 statements. Prior to implementation, this section of the questionnaire underwent pre-testing to ensure clarity and comprehension among participants.

In assessing participants' knowledge, two aspects were explored: "declared knowledge," referred to as awareness, and "real knowledge." Awareness is determined by two dichotomous questions: "Have you ever heard about low vision?" and "Have you ever heard about blindness?" Participants responding affirmatively are then prompted to answer the 25-statement list, with possible responses being True, False, or Don’t know/No opinion.

3.9 Data Analysis

Descriptive statistics of socio-demographic data, responses to the 25-statement list to assess knowledge and understanding were analysed in tabular form with simple percentage for easy understanding .

3.10 Ethical Approval

Ethical approval to conduct this study was obtained from the Research and Ethics Committee of the Department of Optometry, University of Benin. The study adhered to the other tenets of the Helsinki Declaration and only consenting individuals were allowed to participate in the study. To maintain anonymity, no personal identifying information such as name or hometown was collected.

CHAPTER FOUR

RESULTS

PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

4.0 Introduction

Efforts were made at this stage to present, analyze and interpret the data collected during the field survey. This presentation was based on the responses from the completed questionnaires. The result of this exercise was summarized in tabular forms for easy references and analysis. It also show answers to questions relating to the research questions for this research study. Simple percentage in analysis was employed

4.1 Data Analysis

The data collected from the respondents were analyzed in tabular form with simple percentage for easy understanding. A total of 403 (Four hundred and three) questionnaires were distributed and 403 questionnaires were returned.

Table 4.1: Socio-Demographic Data

Variables	Frequency	Percentage
Age (years)		
16-30	291	72.2
31-40	59	14.6
41-50	34	8.4
51-60	14	3.5
60 Above	5	1.2
Total	**403**	**100**
Gender		
Male	185	45.9
Female	218	54.1
Total	**403**	**100**
Education		
No formal Education	3	0.7
Primary school	12	3.0
Secondary school	106	26.3
Tertiary Education	231	57.3
Post Graduate Education	51	12.7
Total	**403**	**100**
Occupation		
Student	231	57.3
Junior Staff	9	2.2
Administrative Staff	10	2.3
Technologist	5	2.5
Academic Staff	15	3.1
Other	133	33.0
Total	**403**	**100**

Table 4.1 above presents the distribution of respondents based on socio-demographic characteristics. Among the respondents, 291 (72.2%) fell within the age range of 16 to 30 years, while 59 (14.6%) were aged between 31 and 40 years. Additionally, 34 (8.4%) respondents were aged 41 to 51 years, 14 (3.5%) were between 51 and 60 years, and 5 (1.2%) were aged 60 and above. In terms of gender, 185 (45.9%) respondents identified as Male, while 218 (54.1%) identified as Female. Regarding educational background, 3 (0.7%) of the respondents reported

having No Formal Education, while 12 (3.0%) had only completed Primary school education. Furthermore, 106 (26.3%) respondents had attained education up to the Secondary school level, while 231 (57.3%) had pursued Tertiary education. A smaller proportion, 51 (12.7%), had completed Post-Graduate education. In terms of occupation, the majority of respondents, 231 (57.3%), identified themselves as students. Other occupational categories included junior staff 9(2.2%), administrative staff (2.3%), technologists 5(2.5%), academic staff 15(3.1%), and others 133 (33.0%).

Table 4.2: Awareness of Low Vision and Blindness

Variables	**Frequency**		**Percentage**	
	Yes	**No**	**Yes**	**No**
Have you ever heard of low vision?	347	56	86.1	13.9
Have you ever heard of blindness?	387	16	96.0	4.0

The Table above illustrates the distribution of respondents' awareness regarding low vision and blindness. Specifically, 347 respondents (86.1%) answered affirmatively to the question "Have you ever heard of low vision?" Conversely, 56 respondents (13.9%) indicated they had not heard of low vision. Regarding blindness, 387 respondents (96.0%) responded positively to the inquiry, while 16 respondents (4.0%) reported not having heard of blindness.

Table 4.3: Knowledge and Understanding of low vision and blindness

S/N	Variables	Frequency			Percentage		
		True	False	No	True	False	No
1.	People with Low Vision see Blurred	294	45	64	73.1	11.1	16.0
2.	People with Blindness cannot see at all	289	89	25	71.7	22.1	6.2
3.	Low Vision and blindness are the same	58	281	64	14.4	69.7	15.9
4.	Low vision and blindness can be inherited	270	95	38	67.0	23.6	9.4
5.	People with blindness cannot go out in the street alone	264	123	16	65.5	30.5	4.0
6.	Certain systemic conditions can cause low vision and blindness	328	42	33	81.4	10.4	8.2
7.	People with low vision or blindness face social challenges.	313	60	30	77.7	14.9	7.4
8.	People with low vision and blindness are in our neighborhood.	316	51	36	78.4	12.7	8.9
9.	Eye conditions that may seem trivial can lead to visual impairments and blindness.	329	40	34	81.6	9.9	8.5
10.	People with low vision or blindness can learn a trade or have jobs.	333	50	20	82.6	12.4	5.0

The Table provided presents the responses of participants regarding their knowledge and understanding of low vision and blindness. For the statement "People with low vision see blurred",

294 respondents (73.1%) indicated this statement as true, 45 respondents (11.1%) as false and 64 respondents (16.0%) were unsure. Regarding the statement "People with blindness cannot see", 289 respondents (71.7%) regarded this statement as true, 89 respondents (22.1%) as false and 25 respondents (6.2%) were unsure. Concerning the statement "Low vision and blindness are the same", 58 respondents (14.4%) believed this statement to be true, 281 respondents (69.7%) as false and 64 respondents (15.9%) were unsure. For the statement "Low vision and blindness can be inherited", 270 respondents (67.0%) perceived this statement as true, 95 respondents (23.5%) as false and 38 respondents (9.4%) were unsure. Regarding the statement "People with blindness cannot go out in the street alone", 264 respondents (65.5%) considered this statement as true, 123 respondents (20.5%) as false and 16 respondents (4.0%) were unsure. Concerning the belief that certain systemic conditions can cause low vision and blindness, 328 respondents (81.4%) perceived this statement as true, 42 respondents (10.4%) as false and 33 respondents (8.2%) were unsure. For the statement "People with low vision or blindness face social challenges", 313 respondents (77.7%) considered this statement as true, 60 respondents (14.9%) as false and 30 respondents (7.4%) were unsure. In terms of the belief that people with low vision and blindness reside within their neighborhoods, 316 respondents (78.4%) confirmed this perception as true, while 51 respondents (12.7%) disagreed, and 36 respondents (8.9%) were undecided. concerning the understanding that seemingly trivial eye conditions could lead to visual impairments and blindness, 329 respondents (81.6%) acknowledged this as true. Conversely, 40 respondents (9.9%) disagreed, and 34 respondents (8.5%) were undecided. Lastly, concerning the belief that people with low vision or blindness can learn a trade or have jobs, 333 respondents (82.6%) affirmed this statement as true. Nonetheless, 50 respondents (12.4%) disagreed, and 20 respondents (5.0%) were undecided.

Table 4.4: Knowledge of Support and Assistive Resources for Low Vision and Blindness

S/N	Variables	Frequency			Percentage		
		True	False	No	True	False	No
1	There are educational resources available for people with low vision and blindness	286	58	59	71.0	14.4	14.6
2	There are technologic devices that can assist people with low vision and blindness	302	45	56	74.9	11.2	13.9
3	There are organizations that provide support and advocacy for individuals with low vision or blindness	265	51	87	65.8	12.6	21.6
4	The needs of people with low vision and blindness can be met by collective efforts of the community	322	63	18	79.9	15.6	4.5
5	The best form of assistance the society can give to blind or low vision patients is to flood them with pity and excessive sympathy	51	335	17	12.7	83.1	4.2

The table above provides insights into the public's knowledge regarding support and assistive resources available for low vision and blind patients. Regarding the availability of educational resources for people with low vision and blindness, 286 respondents (71.0%) believed this statement to be true, 58 respondents (14.4%) as false, and 59 respondents (14.6%) were unsure.

Regarding the existence of technological devices aiding individuals with low vision and blindness, 302 respondents (74.9%) affirmed this statement as true, while 45 respondents (11.2%) disagreed, and 56 respondents (13.9%) were undecided. Concerning the presence of organizations offering support and advocacy for individuals with low vision or blindness, 265 respondents (65.8%) acknowledged this as true. However, 51 respondents (12.6%) disagreed, and 87 respondents (21.6%) were undecided. Regarding the notion that the collective efforts of the community can meet the needs of individuals, 322 respondents (79.9%) perceived this statement as true. Nonetheless, 63 respondents (15.6%) disagreed, and 18 respondents (4.5%) were undecided. Finally,regarding the belief that the best form of assistance society can offer to blind or low vision patients is to flood them with pity and excessive sympathy, 51 respondents (12.7%) agreed with this statement. However, 335 respondents (83.1%) disagreed, and 17 respondents (4.2%) were undecided.

Table 4.5 : Attitudes and Beliefs Regarding Low Vision and Blindness

S/N	Variables	Frequency			Percentage		
		True	False	No	True	False	No
1	Children with low vision or blindness must go to special education centers	304	74	25	75.5	18.4	6.2
2	In Nigeria, people with blindness can only beg for survival	106	256	39	26.3	64.0	9.7
3	People with low vision and blindness have lost their independence and worth	92	263	48	22.8	65.3	11.9
4	It is always uncomfortable interacting with people with low vision and blindness	102	245	56	25.3	60.8	13.9
5	There is nothing wrong with discrimination or stereotyping towards someone with low vision or blindness	56	325	22	13.9	80.6	5.5
6	Low vision or blindness means the loss of all senses	36	349	18	8.9	86.6	4.5
7	People with low vision and blindness can be happy and satisfied with life	315	50	38	78.2	12.4	9.4
8	Low vision or blindness is associated with bad luck	44	315	44	10.9	78.2	10.9
9	Low vision or blindness is infectious	59	287	57	14.6	71.2	14.2
10	As long as people with low vision and blindness are not our relatives, we can feel unconcerned	23	361	19	5.7	89.6	4.7

The table presents respondents' attitudes and beliefs regarding low vision and blindness: For the statement "Children with low vision or blindness must go to special education centers", 304 respondents (75.4%) perceived this statement as true, 74 respondents (18.4%) as false and 25

respondents (6.2%) were unsure. Regarding the perception that in Nigeria, people with blindness can only beg for survival, 106 respondents (26.3%) regarded this statement as true, 258 respondents (64.0%) as false and 39 respondents (9.7%) were unsure. Regarding the belief that people with low vision and blindness have lost their independence and worth, 92 respondents (22.8%) affirmed this statement as true, while 263 respondents (65.3%) disagreed, and 48 respondents (11.9%) were undecided. Concerning the perception that it is always uncomfortable to interact with people with low vision or blindness, 102 respondents (25.3%) acknowledged this as true. However, 245 respondents (60.8%) disagreed, and 56 respondents (13.9%) were undecided. In terms of the belief that there is nothing wrong with discrimination or stereotyping towards someone with low vision or blindness, 56 respondents (13.9%) agreed with this statement, while 325 respondents (80.6%) disagreed, and 22 respondents (5.5%) were undecided. Regarding the understanding that low vision or blindness means the loss of all senses, 36 respondents (8.9%) perceived this statement as true. Conversely, 349 respondents (86.6%) disagreed, and 18 respondents (4.5%) were undecided. Lastly, concerning the belief that people with low vision or blindness can be happy and satisfied with life, 315 respondents (78.2%) affirmed this statement as true. Nonetheless, 50 respondents (12.4%) disagreed, and 38 respondents (9.4%) were undecided. Concerning the perception that low vision or blindness is associated with bad luck, 44 respondents (10.9%) perceived this statement as true. Conversely, 315 respondents (78.2%) disagreed, and 44 respondents (10.9%) were undecided. In terms of the belief that low vision or blindness is infectious, 59 respondents (14.6%) agreed with this statement. Conversely, 287 respondents (71.2%) disagreed, and 57 respondents (14.2%) were undecided. Regarding the understanding that as long as people with low vision and blindness are not our relatives, we can feel unconcerned, 23

respondents (5.7%) agreed with this statement. However, 361 respondents (89.6%) disagreed, and 19 respondents (4.7%) were undecided.

CHAPTER FIVE

5.0 DISCUSSION

The findings revealed several notable trends and perceptions among the respondents.

In terms of socio-demographic characteristics, a significant proportion of respondents fell within the younger age brackets, particularly between 16 to 30 years old. There was also a relatively balanced distribution of gender representation, with slightly more females than males. Educationally, a majority had pursued tertiary education, with a smaller portion having completed post-graduate studies. The majority of respondents identified themselves as students, indicating a youthful and academic-oriented demographic.

The analysis of respondents' awareness regarding low vision and blindness indicated a relatively high level of awareness among the surveyed population. Most respondents had heard of both low vision and blindness, with a higher percentage acknowledging blindness compared to low vision.

Regarding specific perceptions related to low vision and blindness, a substantial portion of respondents agreed with statements acknowledging the challenges faced by individuals with visual impairments. However, there were also concerning misconceptions evident in the data. For instance, a notable number of respondents believed in stereotypes such as associating blindness with begging or viewing low vision or blindness as infectious. Additionally, some respondents expressed beliefs implying a lack of empathy or understanding towards individuals with visual impairments, such as feeling unconcerned unless affected individuals are their relatives.

Despite these misconceptions, there was also a recognition of the potential for individuals with low vision or blindness to lead fulfilling lives and contribute to society. Many respondents affirmed the possibility of individuals with visual impairments learning trades or securing employment opportunities.

Overall, these findings underscore the importance of addressing misconceptions and fostering greater awareness and understanding of low vision and blindness within the community. Efforts to promote inclusivity, combat stereotypes, and provide support and resources for individuals with visual impairments are crucial steps towards creating a more equitable and empathetic society.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.0 Conclusion

The research conducted on awareness and understanding regarding low vision and blinndness within the studied community has provided valuable insights into the prevailing attitudes and knowledge gaps concerning visual impairments. .The research on awareness and understanding of low vision and blindness in University of Benin community revealed;

- A relatively high level of awareness, but still some knowledge gaps
- Concerning misconceptions and societal perceptions, such as associating blindness with begging or viewing visual impairments as infectious
- Positive attitudes towards the capabilities and potential of individuals with low vision or blindness

To address these findings, comprehensive efforts are needed to:

- Address misconceptions and raise awareness through targeted education and advocacy
- Promote inclusivity and challenge stereotypes
- Provide support and resources for individuals with visual impairments

By doing so, we can create a more supportive and empathetic environment that enables individuals with visual impairments to fully participate and contribute to society.

6.1 Recommendation

Based on the findings of this research, several recommendations can be made to address the identified challenges and promote greater awareness and inclusivity for individuals with low vision and blindness:

1. Education and Awareness Campaigns: Develop and implement targeted education and awareness campaigns to address misconceptions and increase understanding of low vision and blindness within the community. These campaigns should utilize various channels, including social media, community workshops, and educational materials, to reach a wide audience and foster empathy and understanding.
2. Inclusive Policies and Practices: Advocate for the implementation of inclusive policies and practices that support individuals with low vision and blindness in various aspects of life, including education, employment, and access to public spaces. This may include advocating for the implementation of accessibility measures such as braille signage, audio descriptions, and assistive technologies in public spaces and educational institutions.
3. Training and Sensitization Programs: Provide training and sensitization programs for healthcare professionals, educators, employers, and other stakeholders to equip them with the knowledge and skills needed to support individuals with low vision and blindness effectively. This training should include information on best practices for communication, accommodation, and support services.
4. Community Engagement and Support Networks: Establish community engagement initiatives and support networks for individuals with low vision and blindness, their families, and caregivers. These networks can provide a platform for peer support, information sharing, and advocacy, helping to foster a sense of belonging and empowerment within the community.
5. Promotion of Positive Narratives**: Promote positive narratives and success stories of individuals with low vision and blindness to challenge stereotypes and inspire others.

Highlighting the achievements and contributions of individuals with visual impairments can help to shift societal perceptions and foster greater acceptance and inclusion.

6. Partnerships and Collaboration: Foster partnerships and collaboration between government agencies, non-profit organizations, educational institutions, and other stakeholders to leverage resources and expertise in addressing the needs of individuals with low vision and blindness. By working together, these stakeholders can develop comprehensive strategies and initiatives to promote inclusivity and support for affected individuals.
7. Research and Evaluation: Invest in further research and evaluation to assess the impact of interventions aimed at promoting awareness and inclusivity for individuals with low vision and blindness. By continuously monitoring progress and identifying areas for improvement, stakeholders can ensure that efforts are effectively addressing the needs of the community.

By implementing these recommendations, researchers can work towards creating a more inclusive and supportive environment for individuals with low vision and blindness, enabling them to fully participate and contribute to society.

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APPENDIX I

ASSESSMENT OF PUBLIC KNOWLEDGE AND UNDERSTANDING OF LOW VISION AND BLINDNESS IN THE UNIVERSITY OF BENIN COMMUNITY

PART 1 (ONE)

Please tick where applicable

1. AGE:[]16-30[]31-40[]41-50[]51-60[]>60

2. GENDER:[ ] MALE [ ] FEMALE

3. EDUCATION:[ ] NO FORMAL EDUCATION [ ] PRIMARY SCHOOL[ ] SECONDARY SCHOOL[ ] TERTIARY EDUCATION [ ]POST-GRADUATE EDUCATION

4. OCCUPATION: [ ] STUDENT [ ] JUNIOR STAFF [ ] ADMINISTRATIVE STAFF [ ]TECHNOLOGIST [ ] ACADEMIC STAFF [ ] OTHER

PART 2: KNOWLEDGE AND UNDERSTANDING OF LOW VISION AND BLINDNESS

1. Have you ever heard of low vision? Yes [ ] NO [ ]

2. Have you ever heard of blindness? Yes [ ] NO [ ]

Read each of the following statements and mark it as true (T) or false (F) .In case you don't know the answer mark NO (No opinion). Please do not answer randomly and do not search for answers from any source.

1. People with low vision see blurred. **T[ ] F[ ] NO[ ]**

2. People with blindness cannot see at all. **T[ ] F[ ] NO[ ]**

3. Low Vision and blindness are the same. **T[ ] F[ ] NO[ ]**

4. Low vision and blindness can be inherited. **T[ ] F[ ] NO[ ]**

5. People with blindness cannot go out in the street alone. **T[ ] F[ ] NO[ ]**

6. Children with low vision or blindness must go to special education centers. **T[ ] F[ ] NO[ ]**

7. In Nigeria, people with blindness can only beg for survival **T[ ] F[ ] NO[ ]**

8. Certain systemic conditions can cause low vision and blindness. **T[ ] F[ ] NO[ ]**

9. People with low vision or blindness face social challenges. **T[ ] F[ ] NO[ ]**

10. There are educational resources available for people with low vision and blindness. **T[ ] F[ ] NO[ ]**

11. There are technologic devices that can assist people with low vision and blindness **T[ ] F[ ] NO[ ]**

12.There are organizations that provide support and advocacy for individuals with low vision or blindness. **T[ ] F[ ] NO[ ]**

13**.** People with low vision and blindness are in our neighborhood. **T[ ] F[ ] NO[ ]**

14. The needs of people can be met by collective efforts of the Community. **T[ ] F[ ] NO[ ]**

15. Eye conditions that may seem trivial can lead to visual impairments and blindness **T[ ] F[ ] NO[ ]**

16. People with low vision and blindness have lost their independence and worth. **T[ ] F[ ] NO[ ]**

17. It is always uncomfortable interacting with people with low vision or blindness **T[ ] F[ ] NO[ ]**

18. There is nothing wrong with discrimination or stereotyping toward someone with low vision or blindness **T[ ] F[ ] NO[ ]**

19. Low vision or blindness means the loss of all senses. **T[ ] F[ ] NO[ ]**

20. People with low vision or blindness can be happy and satisfied with life. **T[ ] F[ ] NO[ ]**

21. The best form of assistance the society can give to blind or low vision patients is to flood them with pity and excessive sympathy. **T[ ] F[ ] NO[ ]**

22. Low vision or blindness is associated with bad luck. **T[ ] F[ ] NO[ ]**

23. Low Vision or blindness is infectious **T[ ] F[ ] NO[ ]**

24. As long as people with low vision and blindness are not our relatives, we can feel unconcerned. **T[ ] F[ ] NO[ ]**

25. People with low vision or blindness can learn a trade or have jobs. **T[ ] F[ ] NO[ ]**

APPENDIX II

Frequencies

Frequency Table

AgeVariables	**Frequency**	**Percentage**	**Valid percent**
Age (years)			
16-30	291	72.2	72.2
31-40	59	14.6	14.6
41-50	34	8.4	8.4
51-60	14	3.5	3.5
60 Above	5	1.2	1.2
Total	**403**	**100**	**100**

Gender.	**Frequency.**		**Valid percent**
Percent			
Male	185	45.9	45.9
Female	218	54.1	54.1
Total	**403**	**100**	**100**

Education	**Frequency.**	**Percent**	**Valid percent**
No formal Education	3	0.7	0.7
Primary school	12	3.0	3.0
Secondary school	106	26.3	26.3
Tertiary Education	231	57.3	57.3
Post Graduate Education	51	12.7	12.7
Total	**403**	**100**	**100**

Occupation	**Frequency.**	**Percent**	**Valid percent**
Student	231	57.3	57.3
Junior Staff	9	2.2	2.2
Administrative Staff	10	2.3	2.3
Technologist	5	2.5	2.5
Academic Staff	15	3.1	3.1
Other	133	33.0	33.0
Total	**403**	**100**	**100**

Variables	Frequency		Percentage		Valid Percentage	
	Yes	No	Yes	No	Yes.	No
Have you ever heard of low vision?	347	56	86.1	13.9	86.1.	13.9
Have you ever heard of blindness?	387	16	96.0	4.0	96.0.	4.0

S/N	Variables	Frequency			Percentage		
		True	False	No	True	False	No
	People with Low Vision see Blurred	294	45	64	73.1	11.1	16.0
	People with Blindness cannot see at all	289	89	25	71.7	22.1	6.2
	Low Vision and blindness are the same	58	281	64	14.4	69.7	15.9
	Low vision and blindness can be inherited	270	95	38	67.0	23.6	9.4
	People with blindness cannot go out in the street alone	264	123	16	65.5	30.5	4.0

	Children with low vision or blindness must go to special education centers	304	74	25	75.4	18.4	6.2
	In Nigeria, people with blindness can only beg for survival	106	258	39	26.3	64.0	9.7
	Certain systemic conditions can cause low vision and blindness	328	42	33	81.4	10.4	8.2
	People with low vision or blindness face social challenges	313	60	30	77.7	14.9	7.4
	There are educational resources available for people with low vision and blindness	286	58	59	71.0	14.4	14.6
	There are technologic devices that can assist people with low vision and blindness	302	45	56	74.9	11.2	13.9
	There are organizations that provide support and advocacy for individuals with low vision or blindness	265	51	87	65.8	12.6	21.6
	People with low vision and blindness are in our neighborhood	316	51	36	78.4	12.7	8.9
	The needs of people can be met by collective efforts of the Community	322	63	18	79.9	15.6	4.5

	Eye conditions that may seem trivial can lead to visual impairments and blindness	329	40	34	81.6	9.9	8.5
	People with low vision and blindness have lost their independence and worth	92	263	48	22.8	65.3	11.9
	It is always uncomfortable interacting with people with low vision or blindness	102	245	56	25.3	60.8	13.9
	There is nothing wrong with discrimination or stereotyping towards someone with low vision or blindness	56	325	22	13.9	80.6	5.5
	Low vision or blindness means the loss of all senses	36	349	18	8.9	86.6	4.5
	People with low vision or blindness can be happy and satisfied with life	315	50	38	78.2	12.4	9.4
	The best form of assistance the society can give to blind or low vision patients is to flood them with pity and excessive sympathy	51	335	17	12.7	83.1	4.2
	Low vision or blindness is associated with bad luck	44	315	44	10.9	78.2	10.9
	Low Vision or blindness is infectious	59	287	57	14.6	71.2	14.2

	As long as people with low vision and blindness are not our relatives , we can feel unconcerned	23	361	19	5.7	89.6	4.7
	People with low vision or blindness can learn a trade or have jobs	333	50	20	82.6	12.4	5.0

CONSENT FORM

Title of Study: Assessment of Public Knowledge and Understanding of Low Vision and Blindness In The University Of Benin Community.

Name : Akwaegbu Emmanuel Chi-ebuka

Institution: University of Benin, UNIBEN

Purpose of Study:The purpose of this study is to assess the public's knowledge and understanding of low vision and blindness.

Participation: Your participation in this study is voluntary. You are free to decline to participate or to withdraw from the study at any time without penalty or loss of benefits.

Risks and Benefits: There are no anticipated risks or benefits to participating in this study. The questionnaire is designed to be anonymous and confidential, and your responses will be used solely for research purposes.

Confidentiality: Your responses will be kept confidential and anonymous. Your name or any identifying information will not be associated with your responses.

Rights: You have the right to:

- Decline to participate or withdraw from the study at any time

- Ask questions about the study

Consent: By completing and submitting this questionnaire, you indicate your consent to participate in this study.

Are you willing to participate? **Yes**..... Then continue. **No**.....then stop

Participant's Signature.....

Date.....

PROJECT SUPERVISOR. **PROJECT STUDENT**

DR. K.N BAZUAYE. **AKWAEGBU EMMANUEL CHI-EBUKA**