

CENTRAL UNIVERSITY
SCHOOL OF ARCHITECTURE AND SCIENCES
DEPARTMENT OF NURSING



**KNOWLEDGE AND ATTITUDE OF GLAUCOMA AMONG WOMEN OF MAMPROBI
METHODIST CHURCH**

PRESENTED BY

DORIS OTUBEA AYEH	201802438
ELIZABETH MOKOA ACKAH	201800326

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DECLARATION

We hereby do declare that this long essay is the result of our own original research and supervised in accordance with the guidelines on supervision of long essays laid down by the Central University and that no part of it has been presented for another degree in this university or elsewhere.

NAME: **DORIS OTUBEA AYEH**

INDEX NUMBER: **201802438**

SIGNATURE:

DATE:

NAME: **ELIZABETH MOKOA ACKAH**

INDEX NUMBER: **201800326**

SIGNATURE:

DATE:

SUPERVISOR

I hereby declare that the preparation and presentation of this survey was supervised by me in accordance with the guidelines on project work laid down by the Central University.

NAME: **MR. EMMANUEL EDAH**

SIGNATURE:

DATE:

DEDICATION

To our families

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ABSTRACT

Favourable outcomes to glaucoma management have been identified to be related to adherence to glaucoma medications among patients. However, literature has pointed out Knowledge of women on Glaucoma.

A descriptive survey design was adopted and 120 women were sampled from the Mamprobi Methodist Church. A validated questionnaire instrument was administered to patients to collect data from respondents. Data was mainly analysed using IBM SPSS (v.23). Quantitative analysis was run by generating descriptive statistical tools such as frequency values and percentage scores. It was observed that patients had low knowledge on glaucoma. The knowledge score was 50.8%. Respondents lacked knowledge on the risk factors and symptoms of glaucoma

It was recommended that health officials intensify public education on glaucoma to maximize awareness among people. Government was also urged to subsidize the cost of glaucoma drugs to encourage higher adherence attitude among glaucoma patients.

CHAPTER ONE

BACKGROUND AND LITERATURE REVIEW

1.0 INTRODUCTION

This chapter entails background of the study, problem statement, purpose of the study, research objectives, research questions, significance of study, operational definition of terms and literature review.

1.1 BACKGROUND OF THE STUDY

Glaucoma, as described by the World Glaucoma Association (WGA) is a disease characterized by atrophy of the optic nerve and progressive loss of vision (cited in Quigley & Broman, 2006). It has become an important public health canker which is the most common cause of irreversible blindness in the world (Ogbonnaya, 2012). The Merck Manual of Diagnosis and Therapy (2006) also describes glaucoma as a group of eye disorders characterized by progressive optic nerve damage at least partly due to increased intraocular pressure (IOP). Glaucoma is classified broadly into primary and secondary glaucoma. Primary open-angle glaucoma is a syndrome of optic nerve damage associated with an open anterior chamber angle and an elevated or sometimes average intra-ocular pressure (IOP) (Merck Manual of Diagnosis and Therapy, 2006). Angle closure glaucoma (ACG) and open angle glaucoma (OAG) remain the most common types of glaucoma (Baker, 2009; Quigley & Broman, 2006). Angle closure glaucoma is known to be highly prevalent among East Asians whilst Africans and people of African descent record higher prevalence of open angle glaucoma (He, Foster, Johnson & Khaw, 2005).

Approximately, 15% of global blindness is due to glaucoma and around 600,000 people go blind annually (Chaitra, Laxman, Jayshree, Madhuri & Puneet, 2012). In 2010 for instance, 60.5

million people were victims of glaucoma globally (Tham, 2014). This is expected to rise to 76 million in 2020 and 111 million in 2040 (Tham, 2014; Quigley & Broman, 2006). It was also reported that 57.5 million people were affected in 2015 (Venediktos, Michelle, Foster, Derek, Christopher & Alicja, 2015). It clear that the incidence of glaucoma keeps to be on the rise and most people across the globe continue to be infected with this eye disorder.

Blindness due to glaucoma is highest in Africa. It accounts for 15% of the global blindness (4.20%). However, the situation has been identified to be worse is Sub Saharan Africa where poor awareness and knowledge further compound the situation (Yih-Chung, Xiang, Tien, Harry, Tin & Chin-Yu, 2014; Kyari, Abdull, Bastawrous, Gilbert & Faal, 2013; Quigley & Broman, 2006). Ogbonnaya (2012) records that more than half of glaucoma patients are already blind in at least one eye at present in Africa. In Nigeria for instance, glaucoma has been identified to be responsible for 16% of the blindness among the population aged 40 years and above (Nigerian Eye Survey Group, 2005-2007).

The picture has not been any different from the situation in Ghana. Literature available pointed to the fact that glaucoma continues to be prevalent among Ghanaian communities with low levels of knowledge and awareness. Three population based prevalence studies conducted in Ghana among various populations indicated a high glaucoma prevalence of 6.5 % in Tema (Budenz, Bandi, Barton, Nolan, Herndon & Whiteside-de Vos, 2012) 7.6 % among adults in the Volta region (Guzek, Anyomi, Fiadoyor & Nyonator, 2006) and 8.5 % in the Akuapim South district (Ntim-Amponsah, Amoaku, Ofosu-Amaah, Ewusi, Idirisuriya-Khair, Nyatepe-Coo & Adu-Darko, 2004). These and other studies have lamented on the increase of glaucoma incidence in Ghana and the sub region.

Nonetheless, some effort have been made in Africa in attempt to reduce the increasing prevalence rate of glaucoma. The global Vision 2020 of the World Health Organization for instance has placed glaucoma as a seventh eye disease priority (Cross, Shah, Bativaala & Spurgeopn, 2007; Foster & Resnikoff, 2005). The World Glaucoma Association (WGA) and the World Glaucoma Patient Association (WGPA) extended 'World Glaucoma Day' to 'World Glaucoma Week (WGW)' to help people understand the distressing effects of the disease (Quigley & Broman, 2006). In Africa, the WGA 1st Africa glaucoma summit held in Ghana in the year 2010 (Jin, Miller, Lin & Trope, 2014) and the Kampala, Uganda, resolution in 2012 (Christina, Alves, Eugenio, Anbar & Md, 2014) were all aimed at raising awareness to glaucoma and increasing effort to reduce its prevalence. However, much still need to be desired as the disease keeps to be on the rise with Africa recording much of the global prevalence rate (Ogbonnaya, 2012).

1.2 PROBLEM STATEMENT

Glaucoma remains a global predicament that is causing blindness among people of different social and religious classes. Sub Saharan Africa remains to have recorded higher rates of glaucoma cases (Jin et al., 2014; Christina et al., 2014; Ogbonnaya, 2012; Quigley & Broman, 2006). This eye disorder is however preventable only if detected early and managed appropriately. Early detection and prompt treatment are only achieved by timely eye examinations (Prabhu, Patil & Kangokar, 2013; Tenkir, Solomon & Deribew, 2010; Altangerel, Hema & Shetty, 2009; Landers, Franzco & Franzco, 2002). The high incidence of glaucoma in Africa has been attributed to factors such as low knowledge and awareness, misconceptions, negative attitudes and other economic factors. According to Ogbonnaya, Ogbonnaya, Okoye & Kizor-Akaraiwe (2016), awareness, knowledge, and beliefs regarding diseases, as well as socio-cultural and religious

practices, affect the treatment-seeking behavior of people and the uptake of medical services in Africa.

Kenneth, Seth, Ankrah and Emmanuel (2013) have identified poor public awareness and knowledge about glaucoma as a major gap towards the global campaign to eradicate the disease. In the developed world for instance, less than 50% of people with glaucoma are aware of it while almost 70% of cases are not detected and 39% of them present with advanced stage of the disease in at least one eye (Ng, Agarwal, Sidiki, McKay, Townend & Azuara-Blanco, 2010; Burr, Mowatt, Hernandez, Siddiqui, Cook & Lourenco, 2007). Reports by Achigbu, Chuka-Okosa and Achigbu (2015) and Bowman and Hay (2010) have it that the situation is worse in developing countries where few people are knowledgeable and aware about glaucoma.

Bowen (2011) laments the failure of the Ghanaian health system to provide enough motivation for people to seek regular ophthalmologic care. Rather, the Ghana Health Service prioritizes dealing with infectious diseases caused by unsanitary conditions neglecting glaucoma and other eye diseases (Ocansey, Kyei, Gyedu & Awuah, 2014; Guzek et al., 2006). Ghanaians are generally not in the habit of seeking medical care unless there is a foreseeable problem (De-Gaulle & Dako-Gyeke, 2016). To crown this failure, most people appear unaware of this disease making them seek medical attention at a stage where their condition might have deteriorated. Malu and Ojabo (2014) and Wittenborn and Rein (2011) have reiterated that raising public awareness and knowledge of glaucoma is a key means of addressing the overwhelming consequences of the disease. However, literature have pointed out the gap between people's knowledge to the disease, making the fight towards glaucoma eradication almost impossible.

To strengthen this campaign, it is needful that more knowledge assessment on glaucoma be conducted to help devise effective strategies in combating this eye disorder. It is on this background that the study seeks to examine knowledge of glaucoma among market women.

1.3 PURPOSE OF THE STUDY

The purpose of the study is to assess the level of knowledge and the attitudes of women at Mamprobi Methodist church on Glaucoma

1.4 RESEARCH OBJECTIVES

1.4.1 General Objective

The main objective of the study is to evaluate the knowledge and attitude of glaucoma among women at Mamprobi Methodist church.

1.4.2 Specific Objectives

Specifically, the study seeks to:

1. Find out the knowledge of women at Mamprobi Methodist church on glaucoma.
2. Determine the attitude of women at Mamprobi Methodist church to glaucoma screening.
3. Explore the relationship between educational level and knowledge about Glaucoma of women at Mamprobi Methodist church.

1.5 RESEARCH QUESTIONS

1. What is the knowledge level of women at Mamprobi Methodist church on glaucoma?
2. What attitudes do women at Mamprobi Methodist church hold to glaucoma?
3. What is the relationship between educational level and knowledge about Glaucoma of the women at Mamprobi Methodist church?

1.6 SIGNIFICANCE OF THE STUDY

The findings of this study will make immense contribution to both nursing practice and education. Public health nurses will be made aware of the knowledge and attitudes held by women at Mamprobi Methodist church to glaucoma. This information will help nurses to devise appropriate strategies to provide further education to women at Mamprobi Methodist church. Loop holes will be identified with respect to market women's knowledge to glaucoma. These deficits will help nurses to design appropriate educational support services to increase awareness to glaucoma women at Mamprobi Methodist church and the general Ghanaian populace. With this knowledge, policy makers and health managers will be able to identify needed support for public education on glaucoma. Information to be provided in this study will as well serve as literature for future surveys to be conducted. Recommendations to be made will highlights areas that need further studies to contribute to greater health education and reduction in glaucoma incidence in Africa and Ghana.

1.7 OPERATIONAL DEFINITION OF TERMS

Glaucoma: is a disease characterized by atrophy of the optic nerve and progressive loss of vision.

Blindness: the state of condition of being unable to see because of injury, disease or a congenital disease.

1.8 LITERATURE REVIEW

1.8.1 Epidemiology of Glaucoma

Glaucoma is the second leading cause of blindness worldwide if undetected or untreated (Quigley & Broman, 2006). Most people in many parts of the world such as North America and Europe are disproportionately affected by primary open angle glaucoma. It is also the most common in Africa (Onunkwor, 2010). The prevalence of glaucoma is about 1% in the population older than 50 years, and the rate increases with age, being particularly high in Blacks (Otabil, Tenkorang, Mac & Otabil, 2013). Africa is disproportionately affected by blindness due to glaucoma. It is documented to blind 1% of people in Africa. The prevalence is estimated to be on the increase and projected to affect 79.6 million people by the year 2020 (Gupta & Yulel, 2007). In 2010, Ghana was ranked the most affected country in Africa and second in the world (Melamed, Herndon & Shaarawy, 2010), with 8.5 per cent of persons above 40 years having the disease and 7.7 per cent of persons above 30 years also carrying the disease (Otabil et al., 2013). Being the most frequent cause of irreversible blindness worldwide, glaucoma has the second highest DALY score for sense organs second only to cataract (Harvard Health News, 2010; WHO, 2000).

1.8.2 Knowledge of Glaucoma

Several studies have been conducted to find out the knowledge levels of people on glaucoma. Studies conducted in developing countries presented varied knowledge levels as compared to those conducted in developed countries. Notable among studies conducted in developing countries (Sub-Saharan Africa) was that of De-Gaulle and Dako-Gyeke (2016).

De-Gaulle and Dako-Gyeke (2016) made an assessment into awareness, knowledge and perception of risk and eye screening behaviour among residents of Abokobi, Ghana. The cross-sectional study which employed quantitative data collection methods sampled 300 indigenes from

the peri-urban community, Abokobi, the district capital of Ga East municipality. The questionnaire instrument was used to collect data from these residents. De-Gaulle and Dako-Gyeke (2016) uncovered high awareness level of glaucoma among their respondents. Using simple descriptive statistics, majority of the respondents reported to have heard of glaucoma. 99.1% of the respondents had heard of the eye disease and agreed that the disease can result in blindness. However, a few of the respondents (28.0%) could affirm that blindness from glaucoma is irreversible. Most of the residents thought that blindness from glaucoma could be reversed. It was clear that, respondents were not much aware that blindness from glaucoma could not be reversed. However, respondents knew that glaucoma caused reduction of visual acuity and its contraction came without visible symptoms. De-Gaulle and Dako-Gyeke (2016) concluded that, though some of the residents exhibited knowledge of glaucoma, much intensified efforts needs to be staged to create more awareness on glaucoma among Ghanaians.

Nkum et al. (2015) in their study on awareness and knowledge of glaucoma reported that, amongst the participants, 74% were aware of glaucoma. There was no significant statistical difference in the various age groups, sex, ethnic group or religion and their awareness of glaucoma. There were statistically significant differences between those who had higher education and their awareness of glaucoma. Yet only 27% of these had accurate knowledge of glaucoma.

Another study (Edward, 2012) conducted on awareness of glaucoma among parents of children with the condition in a tier two city of South India showed that 65.1% parents were aware of the disease. It was observed that, most parents got their sources of information on the diseases from their health care providers and television programs while 34.9% were not aware of the disease. About 39.8% answered that glaucoma was preventable, while 28.9% responded that it was not preventable. In the same study 41% of parents had no idea as to which part of the eye is affected

while 45.8% did not know when glaucoma screening should be started. 51.8% however were aware that glaucoma is treatable with early diagnosis (Rewri and Karkka, 2014). The study also revealed that parents with higher educational status were more aware and had higher knowledge of glaucoma compared to those with lower educational status.

Living with an eye problem especially glaucoma is one of the most difficult things as it comes with its associated challenges. In an explorative study among persons living with glaucoma to examine their lived experiences and their coping strategies, Wu, et al. (2010) observed that Glaucoma patients' main concern was „learning to living with it“. By this major theme, the researchers identified four themes regarding how Glaucoma patients cope with their illness and these included; seeking support, coping with daily tasks, living with future uncertainty, and adapting to a decline in life quality. The uncertainties associated with living with glaucoma and the decline in quality of life could influence the emotional wellbeing of patients. These findings were also reported by previous studies that documented lasting poor psychological wellbeing (Jampel, 2001; Pache & Flammer, 2006).

A cross-sectional study conducted by Fasih, Hamirani, Jafri, Riaz and Shaikh (2010) assessed anxiety and depression in primary open angle glaucoma patients. The random sampling technique was used to select a total of 100 patients who had undergone thorough investigation and examination and diagnosed as patients of primary open angle glaucoma. The Hospital Anxiety and Depression Scale were administered to the patients and results from the analysis showed that 33% of the patients and 24% of patients reported Anxiety and depression. These percentages indicate that patients with Glaucoma experience a substantial amount of emotional distress which needs to be addressed in the delivery of healthcare.

Pappa et al (2006) in a study observed that the presence of depression among patients with glaucoma is associated with poor compliance. The researchers also noted that patients' adoption of immature defensive style further increased the risk for noncompliance with glaucoma treatment. This study examined impact of psychological distress and personality traits on compliance among patients with glaucoma as some previous studies have indicated the adverse consequences of comorbid mental health problems in physical conditions. A total of one hundred patients with primary open-angle glaucoma were selected as the sample and the participants were administered with questionnaires such General Health Questionnaire, Symptom Distress Checklist, Center for Epidemiological Studies Depression Scale, Defense Style Questionnaire, and Hostility and Direction of Hostility Questionnaire. The outcomes of this study highlight the importance of identifying comorbid mental health problems among patients with glaucoma which is consistent with some earlier studies.

In a related study among Chinese patients to determine the prevalence and risk factors of depression, Yan et al (2013) randomly sampled 784 inpatients from three tertiary general hospitals and evaluated. The results from their analysis revealed that there were 13.1% and 6.9% prevalence rates of any depressive disorder and major depressive disorder (MDD) respectively.

Another studies that evaluated knowledge and awareness towards glaucoma was that made by Kumah, Djeagbo, Abdul-Kabir, Abdul-Sadik, Ankamah-Lomotey and Nartey (2018). This descriptive cross-sectional study ascertained the level of awareness and knowledge of glaucoma among Ghanaian undergraduates. 300 students were sampled from the Kwame Nkrumah University of Science and Technology in Kumasi, Ghana. Quantitative data was provided through the use of a self-developed questionnaire instrument with statistical tools such as Chi-squared tests and simple descriptive statistics like frequencies and mean values. Kumah et al. (2018) uncovered

that, though awareness of glaucoma among undergraduate students were found to be high, their knowledge score was however very low. 83.33% of the respondents had heard of glaucoma and knew as well that it was a disease that affected the human eye. The mean score of knowledge on glaucoma for all the participants in the study was 41.54% with almost two-third (59%) of the participants having poor knowledge. A majority of 49.4% of the total participants indicated the media as their source of information and knowledge on glaucoma. Kumah et al. (2018) concluded that, undergraduate students, irrespective of their college of affiliation and programme of study lacked essential knowledge on glaucoma and hence, further education on the phenomenon needed to be given to such students.

Murdoch, Opoku and Mudorch (2015) likewise identified higher awareness of glaucoma yet, poor knowledge among residents of Kumasi, Ghana. The study which evaluated awareness of glaucoma and eye health services among faith-based communities in Kumasi, Ghana conveniently sampled communities of four churches and two mosques in Kumasi. A total of 484 respondents were sampled as they arrived to attend religious services. These respondents were engaged in interview sessions with quantitative results generated from the grading system on knowledge variables. Murdoch et al. (2015) identified that 269 respondents had heard of glaucoma. However, only 142 (29%) had disease-specific knowledge of symptoms or causes. Though respondents sampled for the study had heard of glaucoma, they could not exhibit much knowledge on pertinent issues related to glaucoma such as causes, risk factors and symptoms. These respondents lacked much knowledge about the disease and as such scored low grades on variables that measured their knowledge to glaucoma. TV and radio were the main reported sources of information. Education, religious community, English language, male sex and older age were all found to be significant indicators of awareness, with education shown to be a key confounding factor.

In Nigeria, Onunkwor (2010) assessed knowledge on glaucoma amongst patients attending an eye clinic in Abuja. The exploratory descriptive study sampled 145 patients who attended CBN staff eye clinic in Abuja. Onunkwor (2010) found a majority of the respondents had heard of glaucoma (n=108; 74.5%). This record was similar to reports given within the Ghanaian setting (De-Gaulle and Dako-Gyeke, 2016; Kumah et al., 2018; Murdoch et al., 2015). Onunkwor (2010) identified as well that, only 14.5% (n = 21) had knowledge about glaucoma. The knowledge levels of the respondents were found to be inadequate and insufficient. This low knowledge level was found to be independent to variables such as age, sex, ethnicity and educational level. These demographic variables determined the knowledge of respondents towards glaucoma. Irrespective of the varied knowledge held by respondents, Onunkwor (2010) however concludes that, knowledge on glaucoma has not been high among African and for that matter Nigerians demanding that, all interest groups and stakeholders be more proactive to give much education to people on the disease.

A slight different report was made by Alemu, Gudeta and Gebreselassie (2017) in Ethiopia. This study was aimed at measuring awareness and knowledge on glaucoma and associated factors among adults in Gondar Town, Northwest Ethiopia. The community based cross sectional study sampled 701 adults aged 35 years and above using a multistage sampling technique. Interviewer administered pretested structured questionnaire was used to collect data after verbal informed consent. Alemu et al. (2017) made an initial discovery that respondents were not really aware of glaucoma. The proportion of awareness was 35.1% (95% CI: 31.5%, 38.6%). Good knowledge was demonstrated in 49.6% (95% CI: 43.3%, 55%) of glaucoma aware participants. Alemu et al. (2017) reiterated that much needs to be done since most Ethiopians are not even aware of the existence of glaucoma. This reflected in the poor knowledge exhibited by the respondents. Though

the report was much higher than previous studies, Alemu et al. (2017) concluded that awareness and knowledge on glaucoma must be enhanced through public orientation and education via mass media. Also, it was recommended that eye check and screening must be incorporated as a routine medical process in older people.

In developing countries, very low levels of glaucoma awareness and knowledge have been reported and most of these studies have been conducted in India (Dandona, Dandona, John, McCarty & Rao, 2001; Krishnaiah, Kovai, Srinivas, Shamanna, Rao & Thomas, 2005; Sathyamangalam, Paul, Ronnie, Baskran, Hemamalini, Raj, Augustian, Prema & Vijaya, 2009). Population-based studies on awareness of glaucoma among people from rural areas and urban areas of India (Dandona et al., 2001) have shown that awareness is poor among rural communities. Many of the studies on glaucoma awareness carried out in developing countries did not show clear evidence of definitions of ‘awareness’ and ‘knowledge’ (Adegbehingbe & Bisiriyu, 2008; Dandona et al., 2001; Krishnaiah et al., 2005; Sathyamangalam et al., 2009). Awareness was defined as ‘having heard of glaucoma’, while knowledge was defined as ‘when the participant had some understanding of glaucoma’, for instance, ‘it is high pressure in the eye, it is a disease where the nerve of the eye becomes weak, or it is damage to the nerve of the eye due to high pressure’.

1.8.3 Attitude and Perception to Glaucoma

Making an attempt to evaluate attitude and perception of Africans towards glaucoma was studies undertaken by De-Gaulle and Dako-Gyeke (2016). This exploration was set in Abokobi, a peri-urban Ghanaian community. Out of the total 300 respondents, 49.7% perceived themselves to be at risk of developing glaucoma. It was identified that variables such as occupation, education and marital status of respondents were statistically significant with glaucoma perception of respondents. Respondents who had completed junior high school, traders and married ones

perceived themselves susceptible to developing glaucoma. With this record, De-Gaulle and Dako-Gyeke (2016) infer that people do not consider themselves as being at risk of contracting the disease, due to low knowledge and education on the disease. With respect to attitudes of respondents to glaucoma and eye screening services, only 20.7% (n= 62) had ever gone for an eye screening. These respondents reported screening for eye conditions such as glaucoma, refractive error, pain in eyes and even driver's license. Glaucoma was the least (n=13) eye condition screened for whereas screening for driver's license placed highest (n=18). Half of the respondents who had ever had an eye screening went voluntarily with just a few (n=13) being as a result of referrals. Most (n=45) of the respondents screened for their eyes in either a private hospitals or clinic, followed by government facilities (n=16) with outreaches being the least (n=1) place for eye screening. It was evident that, people had poor attitude towards glaucoma and as such did not embrace eye screening services.

Similarly, Kumah et al. (2018) found poor attitudes on glaucoma among undergraduate students of the Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. It was identified that, out of 300 sampled students, only a few had undergone an eye screening. Though majority of the respondents sampled by Kumah et al. (2018) appeared to be very much aware of glaucoma as a human eye disorder that caused total blindness, they had not availed themselves much to any eye screening services. One-third of them (n= 102; 33.9%) had undergone an eye screening or examination in the past one year. It was clear that, students do not consider undergoing an eye screening as an essential medical process. The education on glaucoma and other eye related diseases have not received much attention which has as well resulted in the poor attitudes of students towards screening services.

CHAPTER TWO

RESEARCH METHOD

2.0 INTRODUCTION TO THE CHAPTER

This chapter presents a description of the methodology through which data will be collected and treated. Issues to be highlighted in the chapter include research design, the research setting, the target population, methods for sampling participants, instrument for collecting data, the validity and reliability of the instrument and the ethical issues that will underpin the study. The anticipated limitations that will hamper the study will also be highlighted in the chapter.

2.1 RESEARCH DESIGN

Mouton (2001) describes a research design as a plan or a blueprint of how a researcher intends to conduct a study. Onunkwor (2010) asserts that the research design allows researchers full control over factors that could interfere with the validity of the research findings. The research design that will be used for the current study will be descriptive design using the quantitative approach. The quantitative approach is a formal and systematic process of describing variables and presenting them in quantifiable modules (Burns & Grove, 2005). In order to present the knowledge of market women to glaucoma, researcher adopted the quantitative approach to explore, describe and present knowledge levels of participants to the phenomenon under study. This approach was also significant due to the numerical approach adopted in presenting data that will be uncovered. Since researcher also intends to describe the existing knowledge levels of women without any intention of manipulations, the descriptive design was adopted. According to Araoye (2004), the descriptive design provides accurate account of characteristics of a particular

individual or event in real-life situations with no manipulations. Researcher intends to adopt the descriptive design in order to present a true description of women at Mamprobi Methodist church knowledge of glaucoma for proper documentation.

2.2 RESEARCH SETTING

Polit and Beck (2008) describe the physical location and conditions in which data collection takes place as the research study setting. In this study, Mamprobi was selected as the location from which data was collected and treated. The town lies on latitude 5°31'57.37" and longitude -0°13'44.32" in the capital city of Ghana, Accra. With a population of about 27, 826, the town is known for Mamprobi Polyclinic.

2.3 TARGET POPULATION

Population, according to Burns and Grove (2005) refers to a group of people who share common traits or attributes of interest to the researcher, from whom a sample were drawn and to whom the findings was generalized. These group of elements share attributes that are of interest to researcher and also meet the inclusion criteria set for the study. However, LoBiondo-Wood and Haber (2010) distinguishes between target population and accessible population. Whereas the former refers to the intended group of elements researchers intend to involve in a study, the latter refer to the actual elements which are readily available to be recruited into a study. In this study, the target population was the women at Mamprobi Methodist church. These women were recruited to participate in the study.

2.3.1 Inclusion Criteria

1. Women at Mamprobi Methodist church aged 18 years and above.
2. Women at Mamprobi Methodist church who are not having eye condition like Glaucoma

2.3.2 Exclusion Criteria

1. Women aged below 18 years.
2. Women not willing to participate in the study.

2.4 SAMPLING METHOD AND SAMPLE SIZE

For every research, a smaller group is selected among which variables are studied (Burns & Grove, 2005). This smaller group exhibits same characteristics as the population and as such, observations made on them can equally be generalized to the entire population (Somekh & Lewin, 2005). In order to have a true smaller group representation of the entire population, the simple random sampling technique will be used. Saks and Allsop (2007) describes the sampling procedure as the science of selecting entities that reflects an entire population. The simple random sampling technique, which is a type of non-probability sampling technique allows researchers to recruit samples without any predefined method of selection (Burns & Grove, 2005). This technique allowed researchers not to become biased in deciding who participate in the study. The women were given equal participation opportunity to share views with researcher, provided they meet inclusion criteria.

The sample size was 120. 120 women were randomly be sampled for the study.

2.5 DATA COLLECTION TOOL

The questionnaire was the main research instrument for the study. This instrument is a printed self-report form designed to elicit information that can be obtained through written responses of the subject (Burns & Grove, 2005). Researchers developed this instrument to reflect all objectives raised in the study. The instrument had three main sections. Section A will elicit for demographic information of respondents. Variables that were measured in this section include age, religion, marital status and family medical record of glaucoma/blindness. Section B was developed to measure the knowledge of respondents on glaucoma. These items were closed ended with true or false responses. Respondents were required to indicate their agreement to each variable as a measure to their knowledge on glaucoma. A total of 12 items was raised in this section. In Section C, items raised were to find out the attitudes of respondents to glaucoma. These items were on two point scale, with yes and no responses. Respondents were required to indicate their level of agreement to each variable as an indication to the attitude they have to glaucoma.

2.6 DATA COLLECTION PROCEDURE

Data needed for the study was collected in a period of 1 month. Researchers obtained clearance from the ethics committee of the Central University to give formal permission to collect needed data. At the research site, respondents will be shown a valid identification card of researcher to allow smooth collection of data. Respondents will be visited at their stalls and place of operation without posing any form of inconveniency to them. Each respondent will be briefed on the rationale of the study and those who agree to participate will be served with an instrument. Since not all market women may be able to read, researcher will provide assistance to those who may not be able to read. These respondents will have the instrument being read to them and

researcher will tick appropriately in correspondence to responses given by respondents. It is anticipated that each respondent will spend a maximum of 20 minutes to respond to an instrument. However, respondents who prefer to take the instrument away will be allowed to do so, and return it in two days. Researchers will keep record of such respondents and make appropriate follow ups to ensure a higher collection rate.

2.7 VALIDITY AND RELIABILITY OF INSTRUMENT

The validity of the data collection instrument refers to the extent that it measures what it is intended to measure. A valid instrument actually measures the concept it is supposed to measure accurately (Stommel & Wills, 2004). The validity of an instrument is a determination of the extent to which the instrument actually reflects the abstract construct being examined. Polit and Beck (2008) suggest that the validity of an instrument could be better ascertained by improving its content validity, construct validity and criterion-related validity. Validity of the study will be established by ensuring that the questionnaire covers all the objectives of the study. The instrument was assessed, vetted and approved by research supervisors and other experts to eliminate possible ambiguous variables. After validity has been established, a reliability test was conducted through a pilot study.

The reliability of a measurement tool denotes the consistency of measures obtained in the use of a particular instrument and is an indication of the extent of random error in the measurement instrument method (Burns & Grove, 2005). LoBiondo-Wood & Haber (2010) define reliability as the degree to which the research tool is able to generate/give similar responses over time and across situations.

2.7.1 Pretesting of Tool

In order to ensure reliability, the questionnaire was pretested to correct errors and ambiguity. A reliability test using Cronbach Alpha test was then be computed. For the pilot test, 10 women were sampled from the Mamprobi Methodist Church, Accra to respond to the instrument.

2.8 ETHICAL CONSIDERATIONS

Researchers' adhered to all ethical issues in research. Researchers sought permission from the Department of Nursing of the Central University to ensure that the right procedures are being adhered to. In collecting the data, respondents were afforded the volition to decide their involvement and the kind of information they wish to share with the researchers. Information provided will solely be regarded for research purposes.

2.9 LIMITATIONS OF THE STUDY

A major anticipated limitation in this study was the unreadiness of the women to participate in this study. Since the women will be busily involved in their societal meeting after church, having their full cooperation will be a challenge to researchers. However, researcher intends to identify women who would not have busy schedules after church. These individuals were approached and involved in the study.

CHAPTER THREE

STUDY FINDINGS AND DISCUSSIONS

3.0 INTRODUCTION TO THE CHAPTER

This chapter presents the findings of the study. The presentation is descriptive in nature and relies on the use of frequencies and percentages in the analyses.

3.1 APPROACH TO DATA ANALYSIS

One hundred and twenty (120) questionnaires were distributed to collect data on the assessment of evaluate the knowledge and attitude of glaucoma among women at Mamprobi Methodist church. All instruments were retrieved after distribution making a collection rate of 100%. The items were screened and cleared to ensure they were desirable for further coding and imputing. All items were coded and imputed using IBM SPSS (v.23). Descriptive statistical tools such as frequency values and percentage scores were generated in analyzing data collected. This section presents results of analysis run on data in two main sections; respondents' socio-demographic status and analysis of main data (evaluate the knowledge and attitude of glaucoma among women at Mamprobi Methodist church).

3.2 FINDINGS

3.2.1 Respondents' Socio-Demographic Status

Respondents were required initially to provide basic information about their personality. This was to enable researcher to have a broader perspective on individuals who were sampled into

the study. This information will also enable researcher to make inferences on views shared by respondents. Variables that were ascertained were age, educational level and duration of glaucoma if they had Glaucoma. Table 1 presents descriptive statistics of socio-demographic status of respondents.

Table 1 Socio-Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage
Age	Below 29 years	37	31%
	30-34 years	22	18
	35-39 years	49	41
	40-45 years	12	10
Educational Level	No Formal education	47	39
	Primary	14	12
	Secondary	23	19
	Tertiary	36	30
Marital status of respondents	Single	47	39
	Married	64	53
	Divorced	2	2
	Widowed	7	6

Source: Field survey; 2019 (n = 120)

Record provided in Table 1 brought to bare that all of the respondents sampled by researcher were females. The study used only the female members of the church as a sample hence accounting for the 100% of the female population.

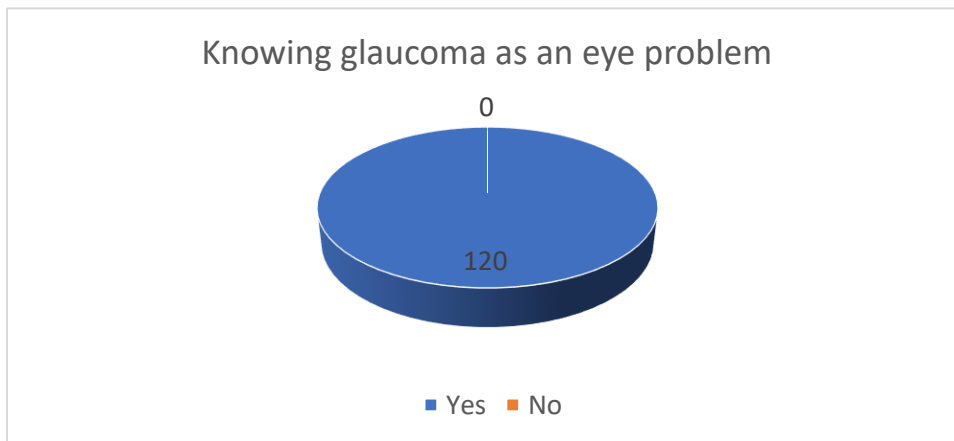
On the grounds of age, respondents who were sampled had varied age groups. Majority of them were between 35 and 39 years. This group were 49(41%). It was followed by 37(31%) respondents aged below 29 years. 22(18%) respondents were aged 30-34 years with 12(10%) also aged between 40 and 45 years. No respondent was found to be above 45 years. The age group of respondents also shows that they are matured enough to provide responses devoid of any external influences and distractions.

Respondents also shared with researcher their educational attainments. Most of them had no formal education. 47(39%) were observed to had had no formal education. 36(30%) were having tertiary educational qualification with 23(19%) also having attained secondary education. 14(12%) had primary education as their highest form of education. The record shows that most of the respondents had some form of formal education making it possible to easily comprehend questionnaires that were administered to them. Thus, the use of the questionnaire instrument was not misplaced.

Majority 64(53%) of the respondents were married, 47(39%) were single, 7(6%) were widowed whiles 2(2%) were divorced.

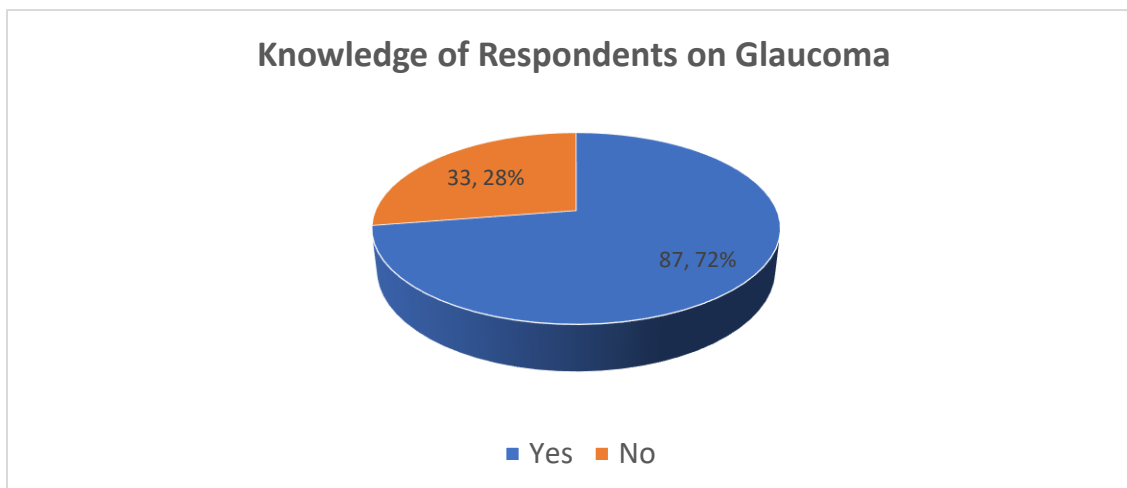
3.2.2 Knowledge About Glaucoma

Figure 1 Heard of glaucoma as an eye problem



All the respondents 120(100%) reported that they have heard of glaucoma as an eye problem.

Figure 2 Knowledge of Respondents on Glaucoma



Source, Field work, 2019

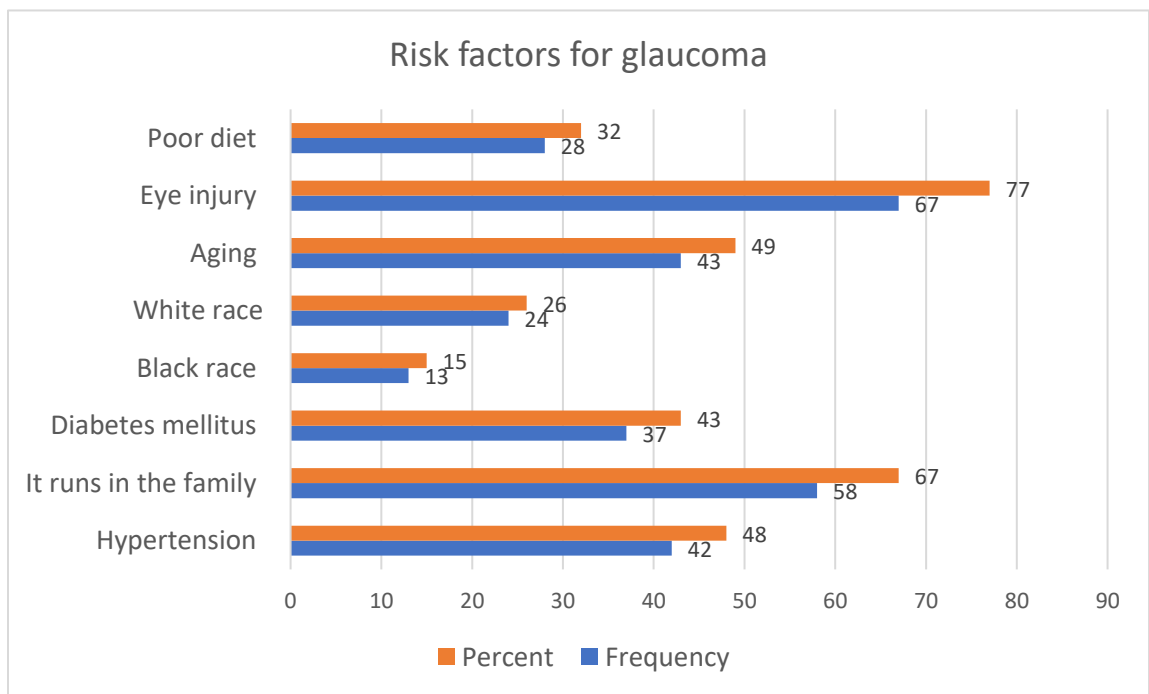
From the Figure 2 below, 87(72%) of the respondents know about glaucoma while 33(28%) have not heard of glaucoma. This indicated that majority of them have an idea of the condition.

Table 2 Description of Glaucoma

No	Description of Glaucoma	Frequency	Percent
1	Increased in pressure in the eye	51	57
2	Lens becoming white	18	21
3	Loss of part of vision	12	14
4	Plenty discharges from the eye	6	7
	TOTAL	87	100

Table 2 shows the description of glaucoma among the respondents. For the 87 who reported that they have heard of glaucoma, 51(57%) reported that it is increased in the pressure in the eye, 18(21%) reported that it occurs when the lens becomes white while 12(14%) reported that it occurs when there is loss of vision. This indicated that 57% of the respondents actually understand what glaucoma is.

Figure 3 Main risk factors for glaucoma



From the 87 respondents who heard of glaucoma, 67(77%) of them reported that it could be due to eye injury, 58(67%) reported that it runs in the family, 43(49%) reported aging, 42(48%) reported that it is due to hypertension. Thirty-seven (43%) reported that it may be due to diabetes mellitus, 28(32%) reported that it may be due to poor diet. This indicated that respondents were aware of the risk factors for glaucoma.

Table 3 Signs and symptoms of glaucoma

No.	Signs and Symptoms of glaucoma	Frequency	Percent
1	It shows no signs	23	26
2	Pain in the eye	54	62
3	Reduced or poor vision	47	54
4	Loss of visual field	49	56
5	Headache	32	37
6	Redness in the eye	58	67
7	Itchy eyes	35	40
8	Lens turning white	26	30
9	Blurred vision	44	51
10	Glaucoma is a family curse	19	22

Source, Field work, 2019

With regard to the signs and symptoms of glaucoma, 58(67%) of the respondents reported redness in the eye which happens to the most common symptom. 54(62%) of the respondents reported pain in the eye, 49(56%) reported loss of visual field, 47(54%) reported reduced or poor vision. 44(51%) of the respondents reported blurred vision. Other symptoms reported by the respondents were 35(40%), headache 32(37%) and 23(26%) reported that it shows no symptoms. Unfortunately, glaucoma shows no symptoms but not many of them knew it.

Table 4 Attitudes towards glaucoma

No	Attitude Variables	SA	A	D	SD
i	People should screen for glaucoma in the past 1 year	20(16.7%)	70(58.3%)	22(18.3%)	8(6.6%)
ii	Eye screening is not necessary	15(12.5%)	20(16.7%)	52(43.3%)	33(27.5%)
iii	Only people who are very old need to screen for glaucoma	24(20%)	30(25%)	28(23.3%)	46(38.3%)
iv	I am not at risk of glaucoma	45(37.5%)	34(28.3%)	36(30%)	5(4.2%)
v	Screening for eye is very expensive	31(25.8%)	20(16.7%)	38(31.6%)	31(25.8%)
vi	Screening for eye is a waste of time	24(20%)	20(16.7%)	52(43.3%)	24(20%)
vii	Eye screening must be done when you feel pain in the eye	33(27.5%)	21(17.5%)	40(33.3%)	26(21.6%)

Source: Field work, 2019

Table 4 shows the attitude of the respondents towards glaucoma. When the respondents were asked whether they agree or disagree with statements regarding the attitude towards glaucoma, various views were expressed. Twenty (16.7%) respondents strongly agreed to the statement that they have screened for glaucoma yearly whiles 70(58%) agreed. This implies that 90(75%) of the respondents at least agreed with the yearly screening. It also came out that 45(37.5%) of the respondents strongly agree with the statement that they are not at risk of getting glaucoma whiles 34(28.3%) also agreed. This indicated that 79(66%) of the respondent do not see themselves as at risk for getting the glaucoma. This calls for more education in this respect. Regarding screening, most of the respondents reported that only people who are old need to screen for glaucoma as 24(20%) strongly and 30(25%) agreed. This indicated that 55% at least disagreed that only the aged should be screened for glaucoma. With regard to seeing eye screening as expensive, 69(57%)

at least disagreed. 76(63%) also disagreed that eye screening is a waste of time while 44(37%) of the respondents at least agreed. Respondents were asked if eye screening must be done when you feel pain in the eye? 33(27.5%) strongly agreed and 21(17.5%) agreed. This implies that 66(55%) of the respondents at least disagreed that eye screening must be done when one feels pain in the eye. However, 52(43%) of the respondents disagreed with the statement that eye screening is not necessary while 33(28%) strongly disagreed.

3.3 DISCUSSION

This aimed at assessing the level of knowledge and the attitudes of women at Mamprobi Methodist church on Glaucoma. Since glaucoma can exist without showing any sign or symptoms, it is important to explore what people know about it. In the work of Onunkwor (2010), majority of their respondents have heard of glaucoma. This is consistent with this current study where all of the respondents have heard of glaucoma as an eye problem. A similar study by De-Gaulle and Dako-Gyeke (2016) also reported their respondents to have heard of glaucoma. In fact, 99.1% of the respondents had heard of the eye disease and agreed that the disease can result in blindness. In this study, 87(72%) of the respondents know about glaucoma indicating that majority of them have an idea of the condition. Edward (2012) also reported in a city of South India and showed that 65.1% parents were aware of the disease.

Concerning the description of glaucoma, majority of the respondents described it as an increased in the pressure in the eye. Few of them also reported it as when the lens becomes white and occurs when there is loss of vision. This indicated that of the respondents actually understands what glaucoma is. This is consistent with many of the studies on glaucoma awareness carried out in

developing countries did not show clear evidence of definitions of ‘awareness’ and ‘knowledge’ (Adegbehingbe & Bisiriyu, 2008; Krishnaiah et al., 2005; Sathyamangalam et al., 2009).

Otabil, Tenkorang, Mac and Otabil (2013) reported some of the risk factors and listed older than 50 years. This is because the rate increases with age and being particularly high in Blacks. Among the risk factors or causes of glaucoma, many respondents reported that it could be due to eye injury, that it runs in the family, aging, and hypertension. Diabetes mellitus was also reported as well as poor diet. This indicated that respondents were aware of the risk factors for glaucoma. This is consistent with the findings of Murdoch, Opoku and Mudorch (2015) who likewise identified higher awareness of glaucoma even though some few demonstrated poor knowledge among residents of Kumasi, Ghana.

With regard to the signs and symptoms of glaucoma, respondents also demonstrated good knowledge about glaucoma. They listed signs and symptoms such as redness in the eye which happens to be the most common symptom. Others are pain in the eye, loss of visual field, reduced or poor vision and blurred vision. Unfortunately, glaucoma shows no symptoms but not many of them knew it. This is consistent with Murdoch, Opoku and Mudorch (2015) who despite high knowledge among the respondents, others also demonstrated poor knowledge. Again, Kumah et al. (2018) also reported that irrespective of their college of affiliation and programme of study, students lacked essential knowledge on glaucoma and hence, further education on the phenomenon needed to be given to such students.

De-Gaulle and Dako-Gyeke (2016) reported that respondents perceived themselves to be at risk of developing glaucoma. When the respondents were asked whether they agree or disagree with statements regarding the attitude towards glaucoma, various views were expressed. Respondents

generally reported a positive attitude towards eye screening. The respondents do not see themselves as at risk for getting the glaucoma and thought only the aged are prone to getting the disease. This calls for more education in this respect.

3.4 CONCLUSION

This study has concerned itself with examining knowledge of women of Mamprobi Methodist on Glaucoma. The assumptions of the study were based on evidence identified in the literature pointing out the varied adherence rate as well as the inadequacies in the knowledge of people towards glaucoma. A church-based descriptive survey design was hence adopted to undertake the study. 120 women were sampled to participate in the study. A validated questionnaire instrument was used in collecting data to satisfy the various objectives raised in the study.

3.5 RECOMMENDATIONS

1. Intense education ought to be given to create much awareness on glaucoma among people especially the women.
2. Health facilities must introduce innovative interventions to help improve on compliance to glaucoma and regular eye checkups.
3. Government must subsidize the cost of glaucoma medication to make it affordable to patients.

4. Eye screening programs should be organized periodically that 0

3.5.1 Suggestions for Further Studies

1. Further studies should explore demographic variables that impede compliance of regular eye checks of the populace.
2. Further studies should adopt a comparative design in ascertaining knowledge of glaucoma of people from rural and urban settings.
3. Similar studies should be reduplicated with a wider population.

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APPENDIX A

QUESTIONNAIRE

Dear Respondents,

We are students of the Department of Nursing of the Central University conducting a study on “knowledge and attitude of glaucoma among women of Mamprobi Methodist Church”. This data will be used solely for academic purpose. Be assured you, all the information given will be treated with high level of confidentiality. Please do not write your names or anything that will be easily used to identify you on the questionnaire. Thank you for your willingness in the participation of the study. We would be most grateful if you would offer your assistance by responding to the questions raised in this instrument.

INSTRUCTIONS: Kindly indicate by ticking (✓) the appropriate option where applicable.

SECTION A: Demographic Data

1. Age

- | | | | |
|------------------|-----|-------------------|-----|
| a. 20 – 30 years | [] | b. 31-40 Years | [] |
| c. 41-50 Years | [] | d. Above 50 years | [] |

2. Educational Level

- | | | | |
|------------------------|-----|--------------------|-----|
| a. No formal education | [] | c. Secondary Level | [] |
| b. Basic Level | [] | d. Tertiary Level | [] |

4. Marital Status

- | | | | |
|------------|-----|-------------|-----|
| a. Single | [] | c. Divorced | [] |
| b. Married | [] | d. Widowed | [] |

SECTION B: Knowledge of Respondents on Glaucoma

7. Have you heard of glaucoma before?

- | | |
|------------|-----------|
| a. Yes [] | b. No [] |
|------------|-----------|

8. If yes, which of the following best describes glaucoma?

- i. Increased in pressure in the eye []
- ii. Lens becoming white []
- iii. Loss of part of vision []
- iv. Plenty discharges from the eye []

9. What are the main risk factors for glaucoma?

- i. Hypertension []
- ii. It runs in the family []
- iii. Diabetes mellitus []
- iv. Black race []
- v. White race []
- vi. Aging []
- vii. Eye injury []
- viii. Poor diet []

10. Which of the following are the signs and symptoms of glaucoma?

- i. It shows no signs []
- ii. Pain in the eye []
- iii. Reduced or poor vision []
- iv. Loss of visual field []
- v. Headache []
- vi. Redness in the eye []
- vii. Itchy eyes []
- viii. Lens turning white []
- ix. Blurred vision []
- x. Glaucoma is a family curse []

SECTION C: ATTITUDES TOWARDS GLAUCOMA

11. To what extent do you agree with the statements in the table below? SA = Strongly Agree, A= Agree, D= Disagree and SD = Strongly Disagree.

No	Attitude Variables	SA	A	D	SD
i	I have screened for glaucoma in the past 1 year	20(20%)			
ii	Eye screening is not necessary				
iii	Only people who are very old need to screen for glaucoma				
iv	I am not at risk of glaucoma				
v	Screening for eye is very expensive				
vi	Screening for eye is a waste of time				
vii	Eye screening must be done when you feel pain in the eye				

APPENDIX B

INTRODUCTORY LETTER