



Engaging Faith Based Leaders in the Fight against Glaucoma Related Blindness

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Purpose: To determine the role of faith leaders towards reducing glaucoma blindness in Africa.

Methodology: This was a descriptive, cross-sectional study conducted among faith-based leaders in Anambra state. A pretested self-administered, semi-structured questionnaire was distributed among consenting faith-leaders. Responses obtained include biodata of respondents and roles. Data obtained was analyzed using IBM SPSS 23. Statistical significance was set at $p < 0.05$.

Results: Out of 167 faith leaders who participated, 123 (73.7%) were males, giving a male to female ratio (M: F) of 2.8:1 and a mean age of 47.02 years \pm 13.84 SD. Majority of the participants 54.5% were of the catholic extraction while only 1.2% were Sabbatharians and 65% have a 500-capacity congregation. About two-thirds (65.4%) believed that glaucoma could cause blindness and 79.7% have undergone an eye check for glaucoma. Routine eye/health check was reported among 85.8% of respondents as the main indication for eye examination. About half (51.8%) of those yet to have their eyes examined have no special reason while about 80% believed routine eye check is the best way to prevent glaucoma blindness through routine eye checks, with over half (57.1%) willing to participate in prevention campaigns and 60.4% believed church to be the best avenue for this campaign.

Conclusion: The results showed that faith leaders who wield great influence in our environment are willing to participate in campaign against glaucoma blindness in their respective churches.

Keywords: Glaucoma; blindness; prevention; faith leaders.

1. INTRODUCTION

Glaucoma remains a major cause of blindness and the commonest cause of irreversible blindness globally [1]. About 57.5 million people worldwide are estimated to be affected by glaucoma and this is projected to increase to about 111.8 million in 2040 because of increasing population, with Africa and Asia having the highest burden [1]. About 3.6 million people aged 50 years and above are estimated to be blind from glaucoma worldwide [2]. As a cause of blindness, glaucoma is associated with reduced quality of life and enormous economic burden [3,4]. The burden of glaucoma blindness is disparately grave especially in sub-Saharan Africa (SSA) [5].

Glaucoma blindness is avoidable [6]. However this depends on awareness and adequate knowledge of glaucoma and treatment, early detection of glaucoma and timely intervention, availability and accessibility of glaucoma services, compliance to glaucoma treatment and adequate follow up [2]. Several risk factors have been associated with development of glaucoma blindness. These include black race, ethnicity, increasing age, family history of glaucoma, late presentation, poor access to glaucoma services

and treatment, socioeconomic factors. Others include certain congenital anomalies, childhood cataract surgery and ocular trauma [3,7-9].

Glaucoma blindness prevention in Africa, especially in SSA has peculiar challenges [5]. Though glaucoma is usually detected during routine eye examinations, over 90% of glaucoma cases in Africa are not discovered early when compared with developed countries [10-12]. Even when glaucoma is detected among African populations, a high proportion of affected individuals do not seek treatment as recommended [5,11]. Some of the predisposing factors include high illiteracy level, low awareness, cultural perceptions, lack of locally applicable guidelines for glaucoma care, paucity of glaucoma specialists and services. Also, high level of poverty in Africa makes affordability, compliance to treatment and follow up difficult [11-15].

Many strategies have been offered for preventing glaucoma blindness in Africa. Smith et al proposed a community based approach for early detection and timely intervention [4]. Improved screening and awareness among those at high risk of glaucoma in Africa, especially among those who are 40 years and above, those with

positive family history of glaucoma, and among high risk ethnic populations have been recommended [1,5,11,16].

Religious activities are important part of everyday life in modern day Africa and there has been tremendous increase in the number of worship centers and faith based organizations (FBO) across Africa, especially Christian and Muslim worship centers [17]. The Leaders of these worship centers and FBO otherwise known as "Faith Leaders" command a lot of influence among their followers. Faith leaders have been reported to have profound influence on other people's thoughts, emotions and behaviors [18].

Faith leaders are essential part of black African communities and have fabulous impact on health behavior of their parishioners and members of the community because they are widely respected [19]. The clout of faith leaders are exerted through scriptural influence, social influence and also serving as role models and these influence of faith leaders have been employed in regional and national politics [17]. Healthcare seeking behaviors and practices of people are influenced by religious beliefs [20]. There is a growing scientific evidence of favorable relationship that exists between religious involvement and many health indicators [21]. Therefore, health practices and social links are important routes by which religion can affect health decisions positively. While some religions or sects believe that some sicknesses and diseases are curses from God and hence may not be inclined to acceptance of medical care, others encourage seeking the help of physicians during illnesses believing that medical treatment is from God [20].

Developing mutually beneficial partnerships within the community at many levels is very important for the success of any health promotion interventions [22]. Churches, mosques and other FBO have been identified as rallying points for health promotion interventions. This is because they are effective community partners with huge influence and have great potential for widespread reach [23]. This prospect for efficient health promotion interventions is maximal when there is active participation and support of faith leaders. But their level of engagement is determined by their attitudes and perceptions regarding the purpose of the health intervention [23]. Therefore, faith leaders' beliefs and attitudes towards glaucoma and glaucoma blindness will be relevant in designing glaucoma

blindness prevention interventions in Africa. Hence, developing strategic partnerships between eye health professionals and faith leaders in Africa should be considered for successful interventions to influence glaucoma blindness prevention behaviors of a large segment of the African population.

Even in eye care, studies have shown that faith leaders could contribute positively to advocacies towards better eye care practices to prevent blindness [24]. Since glaucoma blindness intervention programs are multidimensional, engaging these faith leaders in the fight against glaucoma blindness prevention especially in Africa may bring about the needed paradigm shift in glaucoma blindness prevention in Africa [11]. Faith leaders could be deployed in creating awareness of glaucoma and glaucoma blindness through providing feedback for glaucoma blindness interventions. This will help to detect glaucoma early and avoid late presentation which leads to glaucoma blindness and associated psychological effects. But there is paucity of data to know the African faith leaders, attitudes and perceptions towards glaucoma and glaucoma blindness and how they can help to reduce the burden of glaucoma blindness in Africa.

The aim of this study is to access if faith leaders may play any significant role in helping to reduce the burden of glaucoma blindness in Africa.

2. MATERIALS AND METHODS

Study design: A descriptive, prospective cross-sectional study.

Study population: The study was conducted among faith leaders in Anambra State Nigeria.

Study site: Churches within Anambra state

Inclusion criteria: Consenting faith leaders who live and work within Anambra state, Nigeria.

Sample technique: Multi stage random sampling technique.

Study outcome Measures: Attitudes and perceptions of faith leaders towards glaucoma blindness.

Procedures involved: A self-administered pre-tested questionnaire was used to collect data. Information obtained includes

sociodemographics, denominations, duration of service as faith leader, number of congregants, awareness and family history of glaucoma, highest educational level attained. Data was analyzed using IBM SPSS version 23. Results were summarised in frequencies and proportions using tables and pie chart for descriptive statistics. Inferential statistics was performed using Chi square test and level of significance was set for p-value less than 0.05.

There was no risk associated with this study process.

The potential benefits for the individuals whose data were used in the study is for policy planning of glaucoma blindness prevention.

3. RESULTS

A total of 167 faith leaders participated in the study, 123 (73.7%) and 44 (26.3%) were males and females respectively with a male to female ratio (M: F) of 2.8:1. The age range was 21 to 88 years and mean as shown in Table 1. Majority (70.0%) were members of the clergy (priests +

Pastors), and 79.6% had at least tertiary level of education (tertiary and post graduate).

From Table 2, majority of the participants 54.5% were of the catholic extraction and only 1.2% were Sabbatharians. Over 65% have a 500-capacity congregation. Over a quarter (28.7%) hold 4 service a week while about a quarter hold 2 services (25.1%) and 3 services (25.7%) a week. Urban congregation constitute 77.8% of all participants.

From Table 3, about two-thirds (65.4%) believe that glaucoma could cause blindness and 79.7% have undergone an eye check for glaucoma. Routine eye/health check was the main indication eye examination. About half (51.8%) of those yet to have their eyes examined have no special reason. About 80% believe routine eye check is the best way to prevent glaucoma blindness is by routine eye checks, with over half (57.1%) willing to participate in prevention campaigns and 60.4% believe church to be the best avenue for this campaign.

Table 4 showed no significant association between any socio-demographic characteristic of participants.

Table 1. Sociodemographic characteristics

Variable	Frequency (n=167)	Percentage
Age		
Mean (\pm SD) = 47.02 \pm 13.84		
Age Group		
20-29yrs	17	10.2
30-39yrs	39	23.4
40-49yrs	39	23.4
50-59yrs	37	22.2
>60yrs	35	21.0
Gender		
Female	44	26.3
Male	123	73.7
Ethnicity		
Igbo	155	92.8
Yoruba	6	3.6
Others	6	3.6
Level of Education		
Primary	3	1.8
Secondary	31	18.6
Tertiary	73	43.7
Postgraduate	60	35.9

Table 2. Religious background (n=167)

Variable	Frequency	Percentage
Years of practice as a religious leader		
Mean (\pm SD) = 14.81 \pm 11.12		
Denomination		
Anglican	8	4.8
Catholic	91	54.5
Pentecostal	66	39.5
Sabbath	2	1.2
Population of Members		
Less than 100	22	13.2
More than 100 but less than 500	35	21.0
500 or more	110	65.9
Number of services per week		
Two	42	25.1
Three	43	25.7
Four	48	28.7
More than four	34	20.4
Location of Church		
Rural	12	7.2
Semi-urban	25	15.0
Urban	130	77.8

Table 3. Attitude towards glaucoma prevention programs

Variable	Frequency	Percentage
Could glaucoma cause blindness? (n=133)		
No	46	34.6
Yes	87	65.4
Have you ever been checked before? (n=133)		
No	27	20.3
Yes	106	79.7
If yes, give reason for the check (n=106)		
Early detection of eye disease	9	8.5
Family history of poor vision/blindness	6	5.6
Routine eye/health check	91	85.8
If you have not done eye check in the past, what was your reason? (n=27)		
I don't have eye problem	5	18.5
Not necessary	8	29.6
No reason	14	51.8
If given an opportunity, would you like to be involved in glaucoma blindness prevention campaign? (n=133)		
No	57	42.9
Yes	76	57.1
Choose the best platform for glaucoma health education (n=48)		
Churches	29	60.4
Community gathering	1	2.1
Mass media	16	33.3
Schools	2	4.2

Variable	Frequency	Percentage
Best way to prevent glaucoma blindness (n=133)		
Prayer	19	14.3
Routine eye check	106	79.7
Both	8	6.0
Do you have a blind relative?		
No	127	95.5
Yes	6	4.5
If yes, what is the cause of blindness? (n=6)		
Glaucoma	1	16.7
I don't know	5	83.3

Table 4. Distribution of socio-demographic characteristics and willingness to be involved in glaucoma blindness prevention campaigns amongst respondents (n=167)

Variable	Willingness to join glaucoma blindness prevention campaign		χ ²	P-value
	Willing	No Willing		
Age Group				
20-29yrs	6 (35.3)	11 (64.7)	4.793	0.309
30-39yrs	25 (64.1)	14 (35.9)		
40-49yrs	23 (59.0)	16 (41.0)		
50-59yrs	20 (54.1)	17 (45.9)		
>60yrs	17 (48.6)	18 (51.4)		
Gender				
Female	20 (45.5)	24 (54.5)	1.967	0.161
Male	71 (57.7)	52 (42.3)		
Ethnicity				
Igbo	83 (53.5)	72 (46.5)	2.026F	0.430
Yoruba	5 (83.3)	1 (16.7)		
Others	3 (50.0)	3 (50.0)		
Occupation				
Clergy (Pastor/priest)	62 (60.8)	40 (39.2)	7.538	0.057
Reverend Sister	6 (28.6)	15 (71.4)		
Evangelist	10 (55.6)	8 (44.4)		
Others	13 (50.0)	13 (50.0)		
Level of Education				
Primary	2 (66.7)	1 (33.3)	4.541	0.209
Secondary	12 (38.7)	19 (61.3)		
Tertiary	40 (54.8)	33 (45.2)		
Postgraduate	37 (61.7)	23 (38.3)		

4. DISCUSSION

Religious leaders are in the position to influence the belief system of a good proportion of populations. This includes their health belief system, health seeking behaviors and outcome of the members of their congregation [25]. In the same vein, it is expected that they will have influence on the eye health practices. The COVID-19 experience where a lot of

religious leaders preached against certain preventive measures and also some who encouraged their members to take the COVID-19 vaccine are testaments of the extent of influence religious leaders hold in the health belief system and behaviors of their congregants. There is a huge body of evidence on the role of faith-based leaders in various aspects of healthcare and eye care. These include their role in immunization, health seeking behaviour, use

of medications and accepting certain surgeries [26].

The results of this study show some positive attitudes of faith-based leaders towards the prevention of glaucoma related blindness and willingness to participate in glaucoma prevention. This is similar to the results of a study by Ibanga et al. [24] in 2021.

4.1 Attitudes and Perception towards Prevention of Glaucoma Blindness

Overall, the attitude of the faith-based leaders from this study was quite encouraging. With almost 80% of these faith-based leaders responding in the affirmative to having undergone eye screening in the past, and over 80% of these leaders doing this as part of a routine health/eye check. It is quite heartwarming because these leaders will serve as a poll of stakeholders with a huge potential to collaborate with core health workers and policy makers in the message of prevention of glaucoma blindness through early detection and treatment which was made possible through routine eye screening even in the absence of ocular symptoms. A religious leader who can undergo routine eye check can advise their congregants to do the same if they are aware of their positive influence on their members. This is even more efficacious when armed with the knowledge that glaucoma is the commonest cause of irreversible blindness which is yet preventable as shown in Table 3.

Also from this study, over 80% believed that the best way to prevent glaucoma blindness is by early detection and treatment through routine screening (Table 3). This alone is a strong weapon in the war against glaucoma blindness because it is expected to have a ripple effect on the members if stepped down to the their congregation especially for those who have large congregations. As shown in this study, over 90% of participants held the opinion that the church (60.4%) and mass media (33.3%) were the best platform to educate people about eye screening for early detection of glaucoma, early treatment, need for treatment adherence and compliance to the doctor's instructions and its role of preventing glaucoma related blindness. Evidence from this result makes it imperative that eye care workers explore ways of taking the glaucoma prevention advocacy faith-based leaders. This can be by training them as eye health educators, making them appreciate their place as partners in the prevention of blindness in their community and not just among their congregations alone. This is

in line with international best practices as even the World Health Organization recognize them as stakeholders in health care and have a document, which details the role of promoting shared values of health care workers and that of faith-based workers and health works as a strategy for improving health outcome [27].

4.2 Willingness to Join Glaucoma Blindness Prevention Campaign

The results from Table 3 show that over half (57.1%) of the participants were willing to participate in the campaigns and advocacy against glaucoma related blindness. This suggests that there is a fairly even distribution of those willing and those not willing to participate in campaigns despite their socio-demographic characteristics. This is also evident from the inferential test which did not show any significant association between their socio-demographic characteristics and their willingness to participate in advocacy campaigns. This suggests a gap in the role and attitude of the participants towards preventing glaucoma related blindness. This gap serves as objective evidence that supports the need for actions and educational intervention to bridge this gap in order to make more faith-based leaders to appreciate their roles in prevention of blindness as a whole, but glaucoma related blindness in this context.

4.3 Strengths and Limitations of the Study

Within the limits of the literature available to us, this appears to be the first study relating the roles of faith-based leaders and prevention of glaucoma related blindness. The study has shown areas of collaboration between eye care team, policy makers and faith-based leaders. It has also highlighted gaps which need improvement in the attitudes of faith-based leaders. However, the results should be interpreted with caution as it was only conducted among Christian leaders. The perception from leaders of other faiths may have yielded a different result considering a possible difference in socio-demographic characteristics. Total reliance on respondent responses could serve as a potential source of bias. Also, the sole quantitative nature of the study may have missed out on some important aspects of interest. Again, it was conducted in a single Nigerian state, which limits the generalizability of the findings to other parts of Africa. A mixed method made of a qualitative arm could have provided better

insights from the leaders. Albeit, these limitations do not negate the important lessons obtained from this study.

5. CONCLUSION AND RECOMMENDATIONS

This study aimed to determine the perception of roles and attitude of faith-based leaders towards prevention of blindness. The results show a fairly good perception of the roles and attitudes among the study participants. However, almost half who showed unwillingness to participate in advocacy campaigns suggest the need to take glaucoma blindness advocacy to this segment of our population.

We recommend planning of larger studies that will be more representative of the geopolitical zone or country in order to have stronger evidence for collaborating with faith-based leaders in the war against glaucoma blindness. Also, the methods need to be modified to include a qualitative arm that will provide better insight on the subject. Expanding participants to include leaders in other faiths will strengthen the evidence generated from future studies. Finally, it will be rewarding to develop validated educational content for faith-based leaders, test the best way to administer this educational intervention among different groups of faith-based leader.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

CONSENT

As per international standards or university standards, participants' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

Ethical approval was obtained from the Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Ethics Committee. The confidentiality of the collected data and anonymity of the study participants were ensured during analysis. The study was conducted according to the tenets of the Helsinki declaration on ethical principles for medical research involving human subjects. Participants were free to withdraw any time during the study.

COMPETING INTERESTS

Authors have declared that they have no known competing financial interests or non-financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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