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Alternative care seeking Behaviour among public hospital eye patients during strike

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Abstract

Objectives: To determine the pattern, determinants and effects of alternative care seeking behavior among public hospital eye patients during strike.

Methodology: This was part of an institution-based descriptive study in which adult patients whose eye care had ever been disrupted by hospital workers' strike were randomly selected and interviewed. Using a pretested structured interviewer-administered questionnaire relevant data were obtained including patients' demographics, information on various aspects of eye care service disruption, affectation of ocular condition, seeking of alternative care, type of care used, level of affectation of patients' satisfaction and trust, and financial burden. A Microsoft Excel sheet was created and data analysed with IBM SPSS version 25. Frequencies and descriptive statistics were done, and a P-value less than 0.05 was considered significant.

Result: There were 150 participants enrolled with a male/female ratio of 1.50. Their mean age was 48.97 ± 18.18 years. 38.7% of the respondents reported seeking for alternative care as follows: 43.1% used private eye clinic services; 32.8% resorted to self-medication while 24.1% had used traditional/ethnic eye medications (TEM). Participants' level of education and employment/occupation status were significantly associated with choice of alternative eye care sought. The higher the educational attainment and employment status the more the preference for private eye clinic. Those without or with little formal education most frequently used TEM. The use of TEM was significantly associated with the most frequent worsening of eye condition.

Conclusion: During strike one-third of public eye hospital patients will seek alternative care in private eye clinics, self-medication and TEM. These choices are related to their education and income, and carry the risk of worsening their eye.

Keywords: Strike; Care-Seeking; Public Hospital; Eye; Patients

1. Introduction

Health is a fundamental human right recognized globally. According to the World Health Organisation "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being". [1] As noble as it may seem this singular objective has been hindered by a myriad of complex challenges. Notable and very recurring among these crises hitting the global health sector is workers' strike. Strikes are considered a fundamental right and therefore an essential weapon in the armory of organized labor in democratic societies. [2, 3] Some proponents say to

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deny any group of workers, including “essential workers” the right to strike is akin to enslavement. [4] Section 40 of the 1999 Constitution of the Federal Republic of Nigeria (as amended) does not expressly mention a "right to strike."[5] While the war between the patients’ right to good health and the workers’ right to strike wages on serious disruptions and negative consequences are heavily impacted on the patients’ wellbeing. When health professionals strike, irrespective of the category, it often leads to the total or partial closure of public clinics, cancellation of elective surgeries, and a severe reduction in emergency services. [1. 6] These disruptions additionally destabilize major public health promotion programs: immunization programs, TB and HIV prevention, treatment and control initiatives, and epidemic disease (Ebola, Lassa-fever, COVID-19) control programs. [7, 8, 9] Studies have shown in many cases a sharp rise in overall population morbidity and mortality. [7, 10] Although it is believed that patients with certain health conditions are relatively not severely affected due to delayed treatment during workers strike by virtue of the disease pathophysiology, however, this is not so for many ocular conditions.

The field of ophthalmology is a highly specialized area dealing with many eye conditions which are sensitive to delays and disruptions in diagnosis, treatment and monitoring. Typically, during strikes, glaucoma patients’ eye pressure monitoring and refilling of eye medications are jeopardized, while delicate post-operative care for cataract patients may be truncated leading to poor visual outcomes. Similarly, the management of diabetic retinopathy and macular degeneration require consistent prolonged scheduled appointments to prevent irreversible visual loss. As a thin demarcation may be all that exist between a normal vision and irreversible visual impairment or blindness patients with ocular problems tend to live with much anxiety and depression. [11, 12, 13] This is not mentioning the effect on their life satisfaction and socio-economic burden to the society. [14] Amongst US nationals, 47.4% reported loss of sight as the worst health affliction in an individual, while 87.5% believed that for a person to be said to be in overall good health, good vision must be present. [15] The fear of getting blind or being visually impaired coupled with other factors will likely drive the public hospital eye patients to seek for alternative care in the event of an inevitable workers’ strike. This is more so in a Low-income –country where contingency plans may be absent. Available option pathways include using private eye clinics; self- medication with drugs purchased from pharmacy and patent medicine stores; use of traditional eye medications (TEM), and spectacle acquisition from open-market eye-glass dealers. Whatever the driving factors, some eye patients may choose to do nothing and rather wait for resolution of strike. The choice of pathway may likely be determined by patients’ socioeconomic and demographic factors. The significance of these choices lies in the fact that they may become predictors to their visual outcomes during strike.

The decision to seek for alternative care in a private facility may result in both positive and regrettable visual outcomes, depending heavily on surgical precision, access to advanced diagnostics, and financial barriers. [16] It is reported that the utilization of optimal operating techniques in some private eye facilities resulted in up to 94.5% of patients achieving good vision between 6/6 and 6/18 within 4 to 8weeks post cataract surgery. [16] Severe visual impairment corrected using targeted prescription lenses was reported to drop from 36% to average 3.6% via precision optical matching in private eye clinics. [17] Private eye facilities are often more structurally efficient. On the average patients experience a shorter waiting time leading to better satisfaction and they perform a higher volume of targeted surgical procedures annually compared to public institutions. [18] Conversely, the downsides of using private eye clinics can pose significant risks to vision if structural quality standards are missed or if financial constraints interrupt care. [19, 20] Cost acts as a major deterrent to care in private clinics. A study reported that due to significant social and financial burden about 56% of patients experience late-stage detection of destructive ocular conditions attributed to delayed care-seeking behaviors. [20] Ophthalmic procedures performed in private hospitals occasionally carried a significantly higher risk of post-operative infection than those performed in public tertiary centers. [19]

During public hospital shutdowns, the lack of professional alternatives may make traditional healers the immediate, affordable choice for managing acute ocular symptoms like redness, pain, and itching. This is highly probable for the low-income rural dwellers. The greatest dangers lie in the use of TEM for managing corneal ulcers and penetrating ocular injuries often resulting in loss of vision. [21, 22] In addition, the traditional couching of managing cataract has been shown to directly correlate with poor visual outcome. [22]

Self-medication as a way out of the problem of inaccessible public healthcare during strike may involve the inappropriate extended reuse of medications prescribed by eye care-givers for certain conditions. For example, a short course of steroid eye drop for severe acute allergic conjunctivitis may pose serious danger when patients reuse over a prolonged period.

Justification of the Study

Majority of Nigeria's ophthalmic resource are domiciled in the public health sector whose disruption by strike abruptly severs access to care for a vast majority of the population. [23] Upon this, a greater number live below the poverty line (63%) and can hardly afford daily meal [24] Therefore, it is imperative to study the pattern of alternative care seeking behavior and the determinants of the choices made in the event of strike as these may impact on their eye health.

No study, to the best of the authors' knowledge, has specifically explored the pattern or determinants of alternative care seeking behavior among public hospital eye patients during strike in Nigeria.

The objectives of this study are, therefore, to determine the pattern, determinants and effects of alternative care seeking behavior among public hospital eye patients during strike.

2. Methodology

2.1. Study Design and Setting

This is part of the work titled "Impact of Hospital Workers Industrial Action on Eye Care Service Delivery: The Patients Perspective". It is a cross-sectional descriptive study conducted at the Guinness Eye Centre, Onitsha, Anambra State, South east Nigeria. The hospital is a tertiary eye facility serving all the five states in the South east geo-political zone in Nigeria. It holds clinics for anterior segment, vitreo-retina, glaucoma, paediatrics, and oculo-plastics, among other subspecialties services. The participants were regular patients diagnosed of eye pathologies and recruited consecutively at the routine out-patient clinics.

2.2. Sample Size determination

A sample size of participants with eye pathologies was determined using the formula

$N = z^2pq/d^2$. A minimum sample size of approximately 140 participants was obtained.

{Where, N = Minimum sample size; Z = Standard normal deviate, usually set at 1.96 corresponding to 95% confidence interval; p = Assumed prevalence taken from the estimated prevalence of visual impairment which is 10.1%; q = 1.0 − p (1.0 − 0.101) = 0.899; d = Precision level acceptable = 5% (0.05)}

2.3. Eligibility criteria

2.3.1. Inclusion criteria

- Adults' patients (≥18 years) on follow-up for at least 3years
- Patients whose follow-up must have been interrupted at least once by strike action
- Patients who granted written informed consent

2.3.2. Exclusion criteria

- Patients who were critically ill or who were unable to complete the interview due to severe cognitive/communication impairment.
- Patients who chose not to provide consent

2.4. Data Collection and Analysis

Informed verbal consent was obtained from each respondent. Oral informed consent was considered since the data was collected by using an interview administered structured questionnaire and also there was no invasive examination procedure on the patients for the sake of this research. Patient information was obtained and confidentiality maintained. Data collected was cleaned and validated for use. Simple frequency tables were produced and associations between categorical variables determined using Chi square test at a significance level of $P < 0.05$. Age, Gender, educational qualification, and occupation were re-coded for the Chi-square analysis.

3. Results

There were 150 participants enrolled into the study with a male/female ratio of 1.50. While the age category 31 – 50 years constituted the highest proportion of respondents (42%) the overall mean age was 48.97 ± 18.18 years. Table 1 shows the frequency of the age groups.

Table 1 The Frequency of the Age groups

Age Groups	Frequency	Per cent
21-30	8	5.3%
31-40	27	18.0%
41-50	36	24.0%
51-60	20	13.3%
61-70	24	16.0%
71-80	14	9.3%
81-90	5	3.3%
Under 20	15	10.0%
91 and Older	1	0.7%
Total	150	100.0%

Majority of the participants were either self-employed or employees (80.7%) while the unemployed group (19.3%) included retirees (Figure 1).

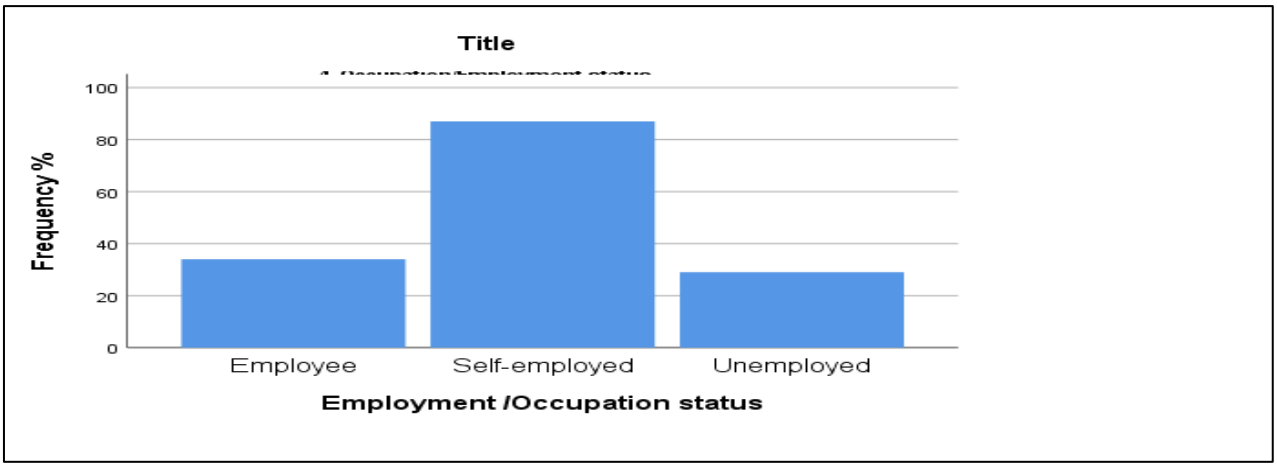

Figure 1 Ocupation/Employment status of Participants

Those with elementary or no formal education constituted 32% while nearly equal proportion attained secondary (35.3%) or tertiary formal education (32.7%) (Figure 2).

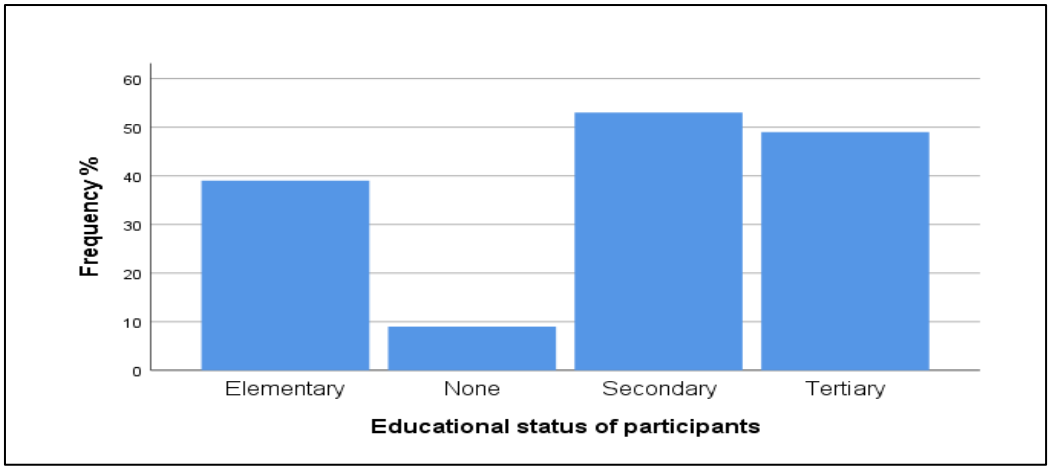

Figure 2 Educational status of Participants

Table 2 shows that 38.7% of the respondents reported seeking for alternative care.

Table 2 Frequency of Alternative Care

	Frequency	Percent
No	92	61.3
Yes	58	38.7
Total	150	100.0

Within this group Table 3 shows the frequencies of the pathways of alternative care chosen by these 58 respondents.

Table 3 Frequency Distribution of Alternative care

Type of Alternative Care	Frequency	Percent %
Private Eye Clinic	25	43.1
Self-Medication	19	32.8
TEM	14	24.1
Total	58	100.0

Table 4 is a cross-tabulation of preferences of alternative care with their educational attainments. The cells for those who had elementary or no formal education were collapsed into one.

Table 4 Participants Education status vs Alternative care preference

		Alternative care			
		Private clinic	Self-medication	TEM	Total
Education	Tertiary	18	5	1	24
	Secondary	4	9	3	16
	Elementary/None	3	5	10	18
	Total	25	19	14	58

TEM= Traditional Eye Medication

The Pearson Chi-Square statistic value is 25.19 with a p-value of 0.00005 ($p<0.05$). This shows there is a statistically significant relationship between educational levels and alternative care preferences. Similarly, Table 5 shows a cross-tabulation of occupational/employment status of respondents with their chosen alternative care pathway.

Table 5 Participants Employment status vs Alternative care preference

	Private clinic	**Self-Medication**	**TEM**	**Total**
Self-Employed	17	4	0	21
Employee	2	8	1	11
Unemployed	6	7	13	26
Total	25	19	14	58

Chi-Square = 31.13, p = 0.000003 ($p<0.05$)

Chi square test analysis shows there is a highly statistically significant association between employment status and the chosen type of alternative care. However, since 3 cells were less than 5 a Fisher-Freeman-Halton Exact Test for more mathematical rigor also declared strong relationship between the 2 variables ($p=0.00002$). 39.7% of respondents among those who sought for alternative eye care reported worsening of their eye condition; more than half (52.2%) of whom used TEM while 4.3% were from private eye clinic professionals. Table 6 shows that there is a highly statistically significant association between the healthcare choice and whether or not a patient's eye condition worsened.

Table 6 Frequency of Eye worsening vs Alternative care preference

	Private Clinic	**Self-Medication**	**TEM**	**Total**
Worsened eye condition	1	10	12	23
No worsened eye condition	24	9	2	35
Total	25	19	14	58

Chi-square statistic = 24.16, p = 0.000006 ($p<0.05$)

4. Discussion

This study has found that when public eye hospital workers stop work the patients do not stop needing care, they look for alternatives the choice and determinants of which are exposed herein. Out of the total 150 patients interviewed it was found that greater than one-third (38.7%) sought for alternative care. Top on the list of alternative care pathways sought by patients in this study was found to be private eye clinics (43.1%), followed by involvement in self-medication (32.8%) prescribed by either oneself, pharmacist or patent medicine dealer, and the use of services of herbalists by way of their TEMs or procedures such as couching (24.1%).

It may not be far-fetched to attribute this preference pattern to the fact that the study location was in an urban metropolitan city with ample number of easily accessible private eye clinics, and the predominance of the most productive age groups in the study sample (age groups from 31-60years constituted 55.3%) who additionally were mostly employed (55.2%) thereby most likely able to afford the exorbitant fees of private eye clinics. [20] Similar finding was documented by Atuanya et al in Benin, Nigeria, in which they found private eye clinics as the leading destination for eye care among the staff of University of Benin. [25] However, this study finding is contrary to what Charles et al found in Cross River State, Southern Nigeria. [21] They found that the use of TEM ranked high as a result of high cost of orthodox eye care. However, the study differs in the sense that it did not assess use of TEM as an alternative care approach. Furthermore, the lower ranking of the use of TEM and self-medication may not be surprising as the patients had stayed within the public health care system for at least 3years as an eligibility criterion for enrolment in this study. Therefore, there is a tendency to continue with a similar care which cannot be found among unorthodox care-givers but possible within the private eye care system. [16, 17, 18] Additionally, it is generally assumed that the more educated an individual the more likely to be exposed and enlightened about the inherent dangers of unhealthy practices. In the same vein, this study had about 70% of participants with at least secondary education hence the less likelihood of finding usage of self-medication and TEM.

This study revealed a strong statistically significant relationship between level of education and the choice of an alternative care pathway ($p < 0.001$). Tertiary graduates were much more inclined towards using private eye clinics while participants with no formal education or elementary education used TEM far more frequently than chance distribution will suggest. This agrees well with the findings in the "Eye Health-Seeking Behaviour of Traders in Rural Nigeria" study done in the same region as the index study. [26] Specifically, the authors found that rural traders with lower educational attainment frequently fell victim to or chose unregulated, itinerant optical vendors over orthodox eye clinics. Similarly, Megbelayan and Abraham in Uyo, Nigeria discovered that educated patients can successfully differentiate between the cadres of eye care, ensuring they navigate to the correct level of specialized care. [27] Some studies reported contrary findings. Ezinne et al in their study to determine utilization of eye care services in an underserved rural community in Enugu State discovered that for a geographically inaccessible or highly expensive eye care facility education ceases to be a determinant of utilization. Herein, both the educated and uneducated individuals seek for other alternative remedies. [28] Again, Ebeigbe and Ovenseri-Ogbomo reported that in a rigid culturally-controlled setting structural gender dynamics heavily dictate the actual choice to visit a hospital irrespective of educational attainment. [29]

In low-income economies where government-funded incentives are lacking individuals often pay out-of-pocket for health services. This study found that employment status or the occupation of participants which determines their income level is strongly related to which eye care remedy they sought for. Self-employed individuals, often more economically advantaged, tilted heavily toward private eye clinics and completely avoided TEM. On the other hand, use of TEM was the frequently preferred destination for the unemployed. Although, this study did not attempt to define the specific level of income of the participants it however tallies with other studies. [20, 25, 28] A large systematic review of 18 distinct articles on eye care utilization in Nigeria concluded that, specifically disposable income, determined whether a patient accesses specialized hospital facilities or resorts to informal care options due to financial strain. [30] A study by Bekele M et al evaluated eye care service uptake and discovered that even among health workers, income was a powerful driver. Individuals with a higher monthly household income were 3.59 times more likely to maintain an adequate level of formal eye care utilization compared to their lower-earning peers. [31] It is imperative to acknowledge that sometimes financial strength or income do not determine the alternative care seeking behaviours of eye patients. This was shown by Onyiaorah AA et al who discovered that the physical manifestation of pain and symptom type was the overriding factor that dictated the timing or choice of formal or informal care irrespective of the socioeconomic metrics. They opined that patients experiencing acute eye pain sought orthodox interventions rapidly, whereas those suffering from painless visual loss delayed care or defaulted to vendors, completely independent of their baseline economic standing. [26] In support of this standing, research by Olusanya BA et al found that older age, absolute geographic distance to the facility, and the presence of active, debilitating eye symptoms were the only statistically significant predictors of utilization of formal eye care. According to them when local facility access was poor financial standing fell away as a determining choice factor. [32]

There is an accompanying consequence to every choice made in seeking for alternative eye care: positive, negative or neutral. A statistically significant association was found between the healthcare choice and whether or not a patient's eye condition worsened during the strike. This significance is majorly determined by the users of private eye clinic and TEM. Patients using private eye clinics reported a drastically lower rate of worsening eye condition than statistically expected. Conversely, patients using TEM had a much higher rate of worsening eye condition.

Recommendation

Governments and health workers should endeavour to prevent strike occurring in the first place using every legitimate means. Hospital managements and policy-makers should develop contingency plans for "minimum service levels" for eye clinics which are activated during strikes to prevent irreversible vision loss resulting from patients' informal choices. During non-strike periods eye care workers must educate patients on safe choices and measures to take in the event of strike. Importantly, alternative means of resolving disputes without strikes must be developed jointly by all stakeholders.

Limitations

The fact that only one hospital was used and the small sample size of respondents are the major limitations to generalizing the findings of this study. The duration of strike experienced by individual participants could have influenced the choices taken. Some of the responses of the patients are prone to recall bias as the study was not done during a strike.

5. Conclusion

Over one-third of regular patients attending public eye facilities sought for alternative eye care. Majority preferred the utilization of private eye clinics while others would indulge in self-medication more than using any form of TEM. These choices were heavily determined by level of educational attainment and employment/occupational status. Worsening of eye condition was associated with these choices to varying degrees with the use of TEM most implicated. Future research should involve many hospitals and investigate the long-term clinical impact of these alternative cares on patients' vision years after strike.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The study was approved by the Nnamdi Azikiwe University Teaching Hospital Ethics Committee.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

Author Contribution

CCU and AIA conceptualized and designed the study. All authors were involved in the writing and revision of the manuscript. The authors read, approved to the final manuscript and agree to be accountable for all aspects of the work.

References

[1] World Health Organization. Constitution of the World Health Organization. Available at: http://www.who.int/governance/eb/who_constitution_en.pdf. Accessed May 23, 2026.

[2] Osakede KO, Ijimakinwa SA. The effect of public sector health care workers strike: Nigeria experience. Rev Public Adm Manag. 2014;3: 154-61

[3] Okene OV. The Status of the Right to Strike in Nigeria: A Perspective from International and Comparative Law No. 15. RADIC 2007:54.

[4] Rennie S. An Epidemic of Health Care Worker Strikes. Lagos: Global Consult; 2009.

[5] Nigeria. Constitution of the Federal Republic of Nigeria, 1999 (as amended). Abuja: Federal Government Press; 1999.

[6] Oleribe OO, Ezieme IP, Oladipo O, Akinola EP, Udofia D, Taylor-Robinson SD. Industrial action by healthcare workers in Nigeria in 2013-2015: An inquiry into causes, consequences and control-a cross-sectional descriptive study. Hum Resour Health. 2016;14: 46.

[7] Manguele ALJ, Sidat M, Ferrinho P, Cabral AJR, Craveiro I. Strikes of physicians and other health care workers in sub-Saharan African countries: a systematic review. Front Public Health. 2024 May 30; 12

[8] Daniel OJ, Adejumo OA, Soyinka FO, Oritogun KS, Jaiyesimi EO, Ladi-Akinyemi TW. The effect of health sector industrial actions on TB and TB/HIV case finding in Ogun State, Nigeria: Is Public-Private Mix a viable solution?

[9] Scanlon ML, Maldonado LY, Ikemeri JE, Jumah A, Anusu G, Bone JN et al. A retrospective study of the impact of health worker strikes on maternal and child health care utilization in western Kenya. BMC Health Serv Res. 2021;21 (1):898.

[10] Mohiddin A, Langat E, Orwa J, Naanyu V, Temmerman M. Exploring the impact of health worker strikes on maternal and child health in a Kenyan county. BMC Health Serv Res. 2022;22(1)

[11] Okosa MC, Uwakwe R, Apakama AI, Onwuegbuna AA, Uzozie AA, Amobi MC et al. Psychological Effects of Eye Diseases: A Tertiary Eye Center Study. Journal of Psychiatry and Psychiatric 2021: 128-139

[12] Asfaw M, Kassew T, Tadele S, Fentahun S, Andualem F. Depression and associated factors among patients with common eye diseases at the University of Gondar Comprehensive and Specialized Hospital Northwest Ethiopia. Discov Ment Health. 2025;25:5(1):186.

[13] Capobianco M, Zeppieri M, Nicolosi SG, Faro GD, Salanitro D, Khouyyi M, D'Esposito F, Gagliano C. When eye disease affects the mind: Psychological burden and functioning in autoimmune ophthalmology. World J Clin Cases. 2026 Feb 6;14(4)

[14] Apakama AI, Onwuegbuna AA, Nwafor CE, Uzozie CC, Isu FN, Onyekwe AE. Comparative Analysis of Life Satisfaction of Patients before and after Diagnosis of Eye Pathologies. Ophthalmol. Res. Int. J. 2024;19 (3):28-36

[15] Scott AW, Bressler NM, Ffolkes S, et al. Public Attitudes About Eye and Vision Health. JAMA Ophthalmol 134 (2016): 1111-1118.

[16] Ejimadu, ChibuikeSydney & Pedro-Egbe, Chinyere. (2014). Audit of visual outcome of cataract surgeries in a private eye hospital in Port Harcourt, Nigeria. Nigerian Journal of Ophthalmology. 22. 7. 10.4103/0189-9171.142745.

[17] Malu, K & Ojabo, Cecilia. (2014). Refractive errors in patients attending a private hospital in Jos, Nigeria. Nigerian journal of clinical practice. 17. 106-11. 10.4103/1119-3077.122863.

[18] Pager, Chet & Mccluskey, Peter. (2004). Public versus private patient priorities and satisfaction in cataract surgery. Clinical & experimental ophthalmology. 32. 482-7. 10.1111/j.1442-9071.2004.00868.x.

[19] Maduakolam, Alwell & Ekpenyong, Bernadine & Areghan, Desmond & Wanok, Godfrey. (2026). Factors that influence eye care utilization in Nigeria: a systematic review. BMC Public Health. 26. 10.1186/s12889-026-26630-y.

[20] Almazroa A, Almatar H, Alduhayan R, Albalawi M, Alghamdi M, Alhoshan S, Alamri S, Alkanhal N, Alsiwat YJ, Alrabiah S, Aldrgham M, AlSaleh AA, Alsanad HA, Alsomaie B. The Patients' Perspective for the Impact of Late Detection of Ocular Diseases on Quality of Life: A Cross-Sectional Study. Clin Optom (Auckl). 2023;15:191-204.

[21] Charles K, Agbasimere S, Ndep AO, Ekpenyong BN, Chukwu OC. "Prevalence and Practice of Traditional Eye Medication (TEM) in Cross River State, Nigeria". Journal of the Nigerian Optometric Association. 2025:27(2); 17-33.

[22] Oyediji FJ, Ramyil AV. Traditional Eye Practices: Economics and Visual Status of Users in North Central Nigeria. Niger J Clin Pract. 2024;27(4):455-459.

[23] Federal Ministry of Health (Nigeria). National Eye Health Strategic Development Plan (2024-2028) [Internet]. Abuja: Federal Ministry of Health; 2023 [cited 2026 May 24]. Available from: https://osnnigeria.org/wp-content/uploads/2023/11/NATIONAL-EYE-HEALTH-STRATEGIC-DEVELOPMENT-PLAN-2024-2028.pdf

[24] World Bank. Nigeria Development Update (April 2026): Nigeria's Tomorrow Must Start Today: The Case for Early Childhood Development [Internet]. Washington (DC): World Bank Group; 2026 Apr [cited 2026 May 24]. Available from: https://documents.worldbank.org/

[25] Atuanya GN, Oke OM, Bale BI, Mutali M. Eye Care-Seeking Behavior Among Staff of the University of Benin, Benin City, Nigeria. Cureus [Internet]. 2025 May 1 [cited 2026 May 25]; 17(5):e83286. Available from: https://www.cureus.com/articles/357310.

[26] Onyiaorah AA, Kizor-Akaraiwe N, Nwosu SNN. Eye Health-seeking Behaviour of Traders in Rural Nigeria. J West Afr Coll Surg. 2022; 12(2):7-11.

[27] Megbelayin EO, Abraham EG. Socio-demographic Determinants of Eye Health Literacy among Nigerian Medical Enrollees. Journal of Medicine and Medical Research 2016: 4(1); 1-6.

[28] Ezinne NE, Ekemiri KK, Chukwuma I, Ojukwu CS, Mashige KP, Ilechie AA, Moyo G. Utilization of eye care services in an underserved community in Enugu State, Nigeria. Nones Nig J Clin Pract. 2023;26(1):81-89.

[29] Ebeigbe JA, Ovenseri-Ogbomo GO. Barriers To Utilization Of Eye Care Services In Rural Communities In Edo State, Nigeria. Borno Medical Journal 2014; 11(2): 98-104.

[30] Maduakolam AI, Ekpenyong BN, Areghan D, Wanok G. Factors that influence eye care utilization in Nigeria: a systematic review. BMC Public Health [Internet]. 2026 Feb 12 [cited 2026 May 26];26(1):918. Available from: https://link.springer.com/article/10.1186/s12889-026-26630-y DOI: 10.1186/s12889-026-26630-y

[31] Bekele M, Munaw B, Alamineh L, Temeselew Tegegn M, Shumye AF. Prevalence of eye care service utilisation and associated factors among healthcare professionals in Gondar city, northwest Ethiopia, 2024: community-based cross-sectional study. BMJ Open [Internet]. 2026 May 6 [cited 2026 May 26];15(11):e101000

[32] Olusanya BA, Ashaye AO, Owoaje ET, Baiyeroju AM, Ajayi BG. Determinants of Utilization of Eye Care Services in a Rural Adult Population of a Developing Country. Middle East Afr J Ophthalmol. 2016;23(1):96-103