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ORIGINAL ARTICLE

PARENTAL KNOWLEDGE AND PRACTICES TOWARDS PRIMARY EYE CARE SERVICES AMONG CHILDREN IN THE ASHANTI REGION OF GHANA

Akpakli EM, Munsamy AJ, Rampersad N.

¹Discipline of Optometry, School of Health Science, University of KwaZulu-Natal, Private Bag X54001, Durban, 4000 South Africa.

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Abstract

Background: Children often can't recognize or communicate vision problems, so parents must be vigilant in identifying risks, noticing subtle signs, and reporting concerns. This study assesses parental knowledge and practices regarding primary eye care for children in the Ashanti Region of Ghana.

Methods: A cross-sectional survey was conducted between October 2023 and May 2024 among parents of children under 18 years in the Ashanti region. A Stratified random sampling method was used to recruit 454 consenting participants. Data was collected using a pretested, semi-structured questionnaire to assess children's eye care-seeking behaviors, children's eye examination history, and sources of information regarding pediatric eye health. Descriptive statistics and inferential analysis were performed using SPSS version 28. Ethical approval for the study was obtained.

Results: A total of 454 parents participated, with the majority being females (60%), between the ages of 31 and 40years, and having at least a junior secondary education. The overall parental knowledge of child eye health was rated as good in 51.0% of participants. The majority (60.8%) of parents had never taken their children for eye consultations and 78.5% expressed no concerns about their children wearing spectacles. School teachers and radio programs were the most preferred sources of information about children's eye care.

Conclusion: The level of knowledge and practices regarding pediatric eye health among parents in the Ashanti Region is moderate, with a notable gap in seeking timely interventions. Targeted community-based programs should be organized to emphasize the importance of early detection and routine pediatric eye examination.

Correspondence to:

Akpakli EM
bethmanasco@yahoo.com

INTRODUCTION

Children with early onset vision problems can experience delayed motor, language, emotional, social and cognitive development, with lifelong consequences. School-age children with vision impairment can also experience lower levels of educational achievement.¹ Childhood blindness is an important public health concern due to the high number of children with blindness and the number of years that the surviving child has to live with blindness (blind years lived).² The primary causes of childhood vision problems vary significantly and are influenced by various factors, such as socioeconomic status and access to eye care services.³ In a study conducted among school children in the Ashanti Region, refractive error was the cause of reduced vision in 71.7% of 152 eyes, amblyopia in 9.9%, retinal disorders in 5.9%, and corneal opacity in 4.6%.⁴ However, almost 80% of the causes of vision impairment are avoidable with early diagnosis and treatment.⁵ Children are less likely to express symptoms of poor vision, therefore relying on their parents' ability to recognize the risks, signs and unreported symptoms for early detection of eye problems.⁶ Parental knowledge and attitudes towards children's eye care are crucial for early detection and management of ocular conditions.⁶ In Ghana, although eye health services are available, accessibility and utilization remain challenging, particularly in rural areas.⁷ Earlier in 2018, a study in Ghana found that many people at the community level often faced various barriers, such as transportation, poor road network, and financial constraints, and therefore had inadequate access to eye health professionals.⁸ These challenges are further complicated by a lack of awareness of the causes of eye diseases, many of which may be curable or preventable.⁹ Another study in Ghana found that, in the absence of eye care expertise,

people often turn to traditional healers or chemical sellers for help due to the availability and proximity of these services to the community.¹⁰ These healers and chemical sellers invariably lack the appropriate training. Although studies in Ghana have reported low awareness of the causes of eye diseases and frequent reliance on alternative treatment, little is known about the knowledge and attitudes of parents regarding childhood eye health. Hence, this study aims to assess and provide baseline data for parental knowledge and practices towards primary eye care services among children in the Ashanti Region of Ghana. The results of this study may inform the planning and monitoring of sustainable eye health programs and may also help the government implement preventive measures for vision problems in children.

METHODS

Design and Sample

A cross-sectional descriptive study was conducted to assess the knowledge and practices regarding primary eye care services among children in the Ashanti Region, Ghana. The study was conducted from October 2023 to May 2024. The region has 43 districts and municipalities. Parents/guardians who provided consent and whose children were 18 years or younger were invited to participate in the study. A stratified random sampling technique was considered, where each district/municipality was considered a stratum. Thereafter, parents were selected from each of the districts/strata by simple random sampling to ensure representation of all subgroups in the final sample. Accordingly, the sample size formula that was adopted for this study is

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

Table 1. Demographic Characteristics of Study Participants

Characteristics	Frequency (n)	Percentage (%)
Gender(n=454)		
Female	272	59.9
Male	182	40.1
Age (n=458 yrs)		
21-30	56	12.2
31-40	178	38.9
41-50	148	32.3
51-60	64	14.0
>60	12	2.6
Educational Level(n=452)		
No education	17	3.8
Primary	55	12.2
JHS	145	32.1
SHS	98	21.7
Graduate	113	25.0
Postgraduate	24	5.3
Monthly Income (n=439)		
< 2.000gh	225	51.3
2001 GH-3,500gh	154	35.1
3501gh-5000gh	37	8.4
>5000gh	23	5.2

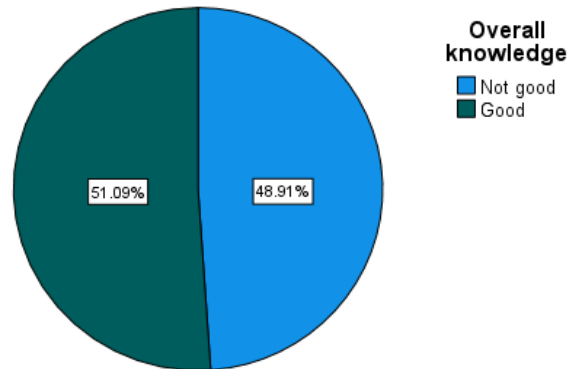


Figure 1. The distribution of the overall parental level of knowledge about eye care in children

Table 2. Parental Knowledge of Pediatric Eye Care

Attitude and Knowledge*	Frequency (n)	Percentage (%)
Eye checkup for children (n=451)		
Yes	177	39.2
No	274	60.8
Parental concern about child wearing glasses (n=428)		
Yes	92	21.5
No	336	78.5
Parental concern about child undergoing eye surgery (n=384)		
Yes	201	47.7
No	183	52.3
Place where child was taking for eye care (n=177)		
Private hospital	64	36.2
Public hospital	110	67.1
Traditional healer	3	1.7
Parent's opinion on child wearing glasses (n=350)		
Yes	253	72.3
No	97	27.7
Parent's knowledge about child eye diseases (n=451)		
Yes	129	28.6
No	322	71.4
Treatment given after seeking paediatric consultation		
Eyedrops	98	57.0
Eyedrops and glasses	44	25.6
Glasses	28	16.3
Referred	2	1.2

*Parental Attitudes and Knowledge Regarding Child Eye Health in the Ashanti Region Of Ghana

A 95% confidence level ($Z = 1.96$), 5% margin of error ($d = 0.05$), and an expected prevalence (P) of 0.5 for parental knowledge and practices of eye health in children were applied. The target population (N) was 2,875,141¹¹. The sample size after calculation was 385. To account for a 10% non-response rate, the minimum sample size was adjusted to 423. As there were 43 districts, 10 parents were randomly selected from each district.

DATA COLLECTION

Parents/guardians completed a semi-structured questionnaire (Appendix A). Two research assistants were hired to administer and assist with completing the questionnaire. The research assistants were optometry interns with prior research experience at the Department of Optometry, Kwame Nkrumah University of Science and Technology. Demographic information, such as age, gender, and educational level, was requested. Afterward, parents were asked about their knowledge of pediatric eye care, diseases, and practices related to eye care.

Additionally, the factors that influenced the utilization of eye care services for their children were also evaluated. A pilot study was conducted on 43 parents/guardians to identify issues with clarity or the sequence flow of questions. All questions in the questionnaire were clear, unambiguous, and aligned with the study aim. Principal Component Analysis (PCA) was used during the pilot study to conduct factor analysis to group and streamline the questionnaire variables. Subsequently, the final questionnaire constituted factors that could significantly influence health-seeking behaviors. All questions were presented in a manner that was suitable to the local conditions of the sample. To enhance clarity and minimize bias or misinterpretation, participants were encouraged to provide explanations for all open-ended questions.

DATA ANALYSIS

Data collected for this study were entered into Microsoft Excel and analyzed using the Statistical Package for the Social Sciences (SPSS), version 28. Both descriptive and inferential statistical methods were employed to examine the data.

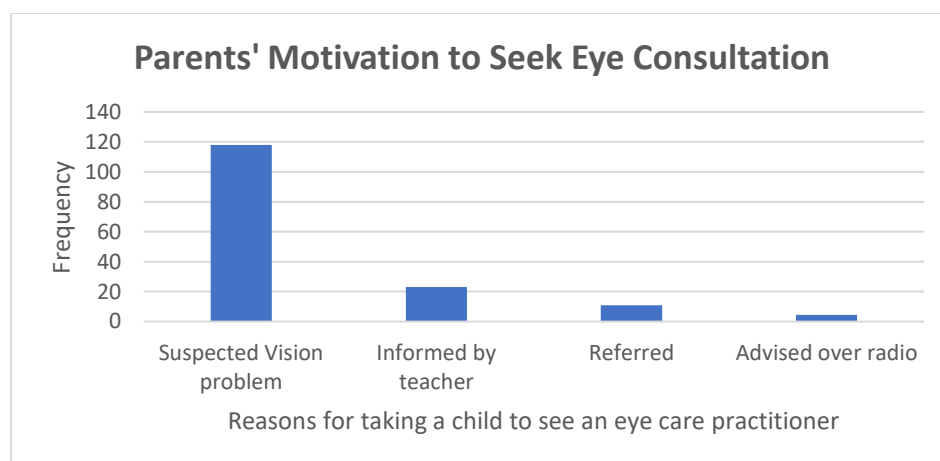


Figure 2: Parents' Motivation to Seek Pediatric Eye Consultation (n=155)

Descriptive statistics, including frequencies and percentages, were calculated to summarize the distribution of responses to the survey questions. The 95% confidence intervals (CIs) for the positive responses were also computed to assess the precision of the estimates. For the analysis of overall knowledge, respondents were categorized using a 50.0% cutoff point. Respondents who obtained a knowledge score of 50.0% or higher were categorized as having “good knowledge”. Those who scored below 50.0% were also grouped as having “not good knowledge”. To explore the relationship between socio-demographic variables and overall parental knowledge and practices, chi-square tests were performed. Adjusted odds ratios (AOR) with 95% confidence intervals (CI) were reported, and a significance level of $p < 0.05$ was considered statistically meaningful.

ETHICAL CONSIDERATIONS

Approvals for the study were obtained from the Humanities Social Sciences Research Ethics Committee (HSSREC), University of KwaZulu-Natal (HSSREC/00004574/2022) and the Committee on Human Research and Publication Ethics (CHRPE), Kwame Nkrumah University of Science and Technology (KNUST) (CHRPE/AP/771/22).

CONSENT TO PARTICIPATE

Participation in the study was voluntary and consent was provided before participating in the study. No monetary or other inducements were given to the participants. All data captured were kept confidential and no subject was identified by name.

RESULTS

Table 1 shows the demographic data of the study sample. Four hundred and fifty-four (454) parents, comprising 182 (40.0%) males and 272 (60.0%) females, completed the survey. One hundred and seventy-eight (38.9%) of the participants were between the ages of 31 and 40 years, 148 (32.3%) were between 41 and 50 years, with the least (12.6%) being more than 60 years. One hundred and thirteen (25.0%) reported having acquired a tertiary level qualification (98; 21.7%) stated having attained a Senior High School (SHS) level (145; 31.1%) reported they went up to JHS, and 17 (3.8%) indicated that they had never attended school. The majority (225, 51.3%) of the respondents reported earning less than 2000 GHS monthly, with the income of the other parents as shown in Figure 1.0.

Parental Attitudes and Pediatric Eye Care

Table 2 presents the participants' attitudes toward pediatric eye care.

Table 3: Factors Associated with Parental Knowledge about Pediatric Eye Care

Factors	Knowledge		P-Value
	Not good (%)	Good (%)	
Gender			
Male	49.5	50.5	0.909
Female	48.9	51.1	
Age			
21-30	48.2	51.8	0.632
31-40	50.6	49.4	
41-50	51.4	48.6	
51-60	40.6	59.4	
>60	41.7	58.3	
Educational level			
No education	47.1	52.9	<0.001*
Primary	70.9	29.1	
JHS	56.6	43.4	
SHS	51.0	49.0	
Graduate	31.0	69.0	
Postgraduate	33.3	66.7	
Monthly Income			
<2,000gh	64.0	36.0	<0.001*
2,001gh-3,500gh	34.4	65.6	
3,501gh-5,000gh	37.8	62.2	
>5,000gh	30.4	69.6	
Place where child was taken for eye care			
Private hospital	23.4	76.6	0.148
Public hospital	20.0	80.0	
Traditional healer	66.7	33.3	
Reasons for taking child for eye consultation			
Advised over radio	33.3	66.7	0.670
Doctor/nurse referred me	9.1	90.7	
Informed by teacher	21.7	78.3	
Suspected vision problem	24.6	75.4	
Treatment given after seeking pediatric eye consultation			
Eyedrops			0.048
Eyedrops & glasses	29.6	70.4	
Glasses	11.4	88.6	
Referred	14.3	85.7	
	50.0	50.0	
Well informed about child eye health			
Yes		75.3	
No	24.7	46.0	
	54.0		<0.001*
Distance of health facilities			
<1km	41.3	58.7	0.021*
1km-5km	51.5	48.5	
6km-10km	34.1	65.9	

*Significant at $p < 0.05$

The majority (60.8%) of participants had never taken their children for an eye consultation. Most (78.5%) of the parents stated that they will allow their children to wear spectacles prescribed by an

eye care professional. On the other hand, more than half (52.0%) of the parents indicated that they might not allow their children to undergo eye surgery. When asked about the type of facility the

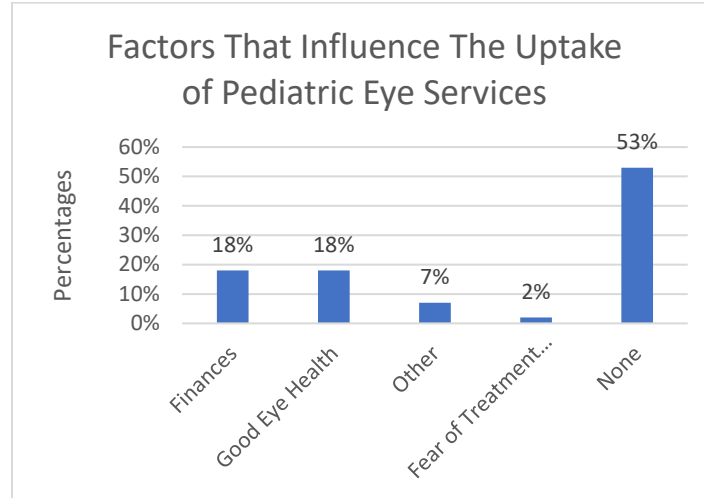


Figure 4. Percentage Distribution of Factors Influencing The Uptake of Pediatric Eye Care Services In The Ashanti Region of Ghana (n=348)

visited for eye care, most parents (67.1%) reported visiting a public hospital, whilst a small proportion (1.7%) opted for herbal medicine from a traditional healer. Overall, a minority (28.6%) of the parents reported having adequate knowledge of eye diseases in children. Further, among the respondents, 57.0% mentioned that their children were given eye drops, 25.6% received both eye drops and glasses, while 16.3% of parents stated that only glasses were given when they went for eye consultation. Figure 1 shows that 51.0% of the parents/guardians had a good level of knowledge regarding pediatric eye care. The primary motivation (118, 76.1%) for seeking pediatric consultation with an eye care professional was concern about a vision problem. Twenty-three (14.8%) and 3.1% parents also mentioned that they were informed about the need for pediatric eye consultation by a teacher and through the radio, respectively. Table 3 reveals a highly significant association between parental knowledge, educational level, monthly income, and being well-informed about eye health in children ($p < 0.001$), as well as the level of parental knowledge.

Knowledge of treatment provided during pediatric consultations ($p=0.048$) and the distance to the eye clinic ($p = 0.021$) were also significantly correlated with knowledge of pediatric eye care. Most participants (181; 52.9%) reported having no reason not to take their children for an eye exam. This was followed by those who faced financial challenges and believed their children had good eye health (64; 19.0%). Fear of treatment results and limited access to care were the least common reasons (6; 1.8%), as shown in Figure 4. Based on the multivariate logistic regression results, several factors were found to be significantly associated with good knowledge. Participants who reported good overall practices were about three times more likely to have good knowledge compared to those who did not ($OR=3.03$, $p=0.001$). Gender also showed a significant effect, with males being less likely to have good knowledge than females ($OR=0.46$, $p=0.029$). Education played an important role, as individuals with graduate-level education were more than three times more likely to have good knowledge compared to those with no formal education ($OR=3.40$, $p=0.010$).

Table 4: Multivariate Outputs for The Overall Knowledge

Demographic factor		Odds ratio	P>z	[95% conf. interval]	
Overall Practices	Yes vs No	3.03	0.001*	1.54	5.98
Gender	Male vs Female	0.46	0.029*	0.23	0.92
Age	31-40 vs <30 [#]	1.16	0.763	0.44	3.04
	41-50 vs <30	0.98	0.972	0.34	2.87
	51-60 vs <30	1.10	0.894	0.28	4.23
	>60 vs <30	2.43	0.488	0.20	29.95
	Primary vs No educ	0.12	0.051	0.01	1.01
Education	Graduate vs No educ	3.40	0.010*	1.34	8.59
	JHS vs No educ	0.51	0.150	0.20	1.28
	Postgraduate vs No educ	2.22	0.279	0.52	9.41
Income	2,000gh-3,500gh vs <2000	2.30	0.050	1.00	5.30
	3,500gh-5,000gh vs <2000	2.00	0.279	0.57	7.06
	>5,000gh vs <2000	3.72	0.054	0.98	14.16
Availability of health care facility that provide eye care services for children					
	Yes vs No	0.56	0.273	0.20	1.57
Type of health care facility	Hospital vs Health centre	1.30	0.624	0.45	3.75
	Polyclinic vs Health centre	0.91	0.885	0.26	3.18
Distance of health care facility	1-5km vs < 1km	1.81	0.184	0.76	4.33
	6-10km vs <1km	3.25	0.021*	1.19	8.85

*Statistically significant, #reference group

Distance to a healthcare facility was also significant; those living 6–10 km away from a health facility had more than three times higher odds of having good knowledge compared to those living within 1 km (OR=3.25, $p=0.021$). Based on the multivariate logistic regression results in Table 2, three factors were found to be significantly associated with overall practice. Individuals with primary education were significantly less likely to have good practices compared to those with postgraduate education (OR=0.27, $p=0.025$). Income showed a strong positive association, where participants earning 2,000–3,500gh were over four times more likely to have good practices compared to those earning less than 2,000gh (OR=4.19, $p<0.001$), and those earning more than 5,000 GH had more than eight times higher odds of good practices (OR=8.40, $p=0.001$). In contrast, distance to a health facility also influenced practices, as individuals living 1–5 km away were significantly less likely to have good practices compared to those within 1 km (OR=0.39,

$p=0.009$). These findings highlight the importance of education, income level, and accessibility of health facilities in shaping overall practice.

DISCUSSION

The study found that a large proportion (60.8%) of parents had never taken their children for eye consultation. This suggests a low awareness of the consequences of delayed treatment of eye disorders among children, a finding consistent with studies from Swaziland, where 60.1% of parents reported never taking their children for an eye examination.¹² The results indicate that parental health-seeking behavior is largely reactive, with consultations sought mainly when symptoms appear. This aligns with previous research that described pediatric eye care utilization as being primarily symptom-driven rather than preventive.¹³ Teachers were identified as key influencers, with 14.8% of parents seeking pediatric eye care after being informed by teachers. This finding is comparable to a study in India, where 53% of parent

Table 5. Multivariate Outputs For The Overall Practice

Demographic factor		Odds ratio	P>z	[95% interval]	conf.
Gender	Male vs Female	0.91	0.772	0.50	1.67
Age	31-40 vs <30	1.11	0.817	0.45	2.78
	41-50 vs <30	1.21	0.709	0.45	3.28
	51-60 vs <30	1.10	0.871	0.34	3.59
	>60 vs <30	2.08	0.566	0.17	25.10
Education	No educ vs PostGr	2.11	0.479	0.27	16.58
	Primary vs PostGr	0.27	0.025	0.05	0.95
	Graduate vs Post Gr	0.52	0.294	0.15	1.76
	JHS vs PostGr	0.38	0.150	0.10	1.42
	SHS vs PostGr	0.54	0.365	0.14	2.05
Income	2,000gh-3,500gh vs <2000	4.19	0.000*	2.03	8.64
	3,500gh-5,000gh vs <2000	2.33	0.167	0.70	7.77
	>5,000gh vs <2000	8.40	0.001*	2.47	28.57
Availability of health care facility that provide eye care services for children					
	Yes vs No	2.29	0.103	0.85	6.21
	Hospital vs Health centre	0.66	0.399	0.25	1.73
Type of health care facility	Polyclinic vs Health centre	0.75	0.612	0.24	2.29
	1-5km vs < 1km	0.39	0.009*	0.20	0.79
Distance of health care facility	6-10km vs <1km	0.66	0.315	0.29	1.49

*Statistically significant

reported increased awareness of eye problems after teacher involvement.¹⁴ Teachers, therefore, play a critical role in the early identification of vision-related learning difficulties in children. A small proportion of parents (3.1%) mentioned that they received their motivation to take their children to seek eye care through a radio program, highlighting the use of the media to raise awareness about the importance of regular pediatric eye examination. Similar evidence from Swaziland has shown that social and mainstream media increased parental awareness of eye health issues.¹² Most parents did not object to their children wearing corrective lenses when prescribed by an eye care professional, which was encouraging and supported by an increasing acceptance of paediatric spectacle use in

some Ghanaian communities.¹⁵ The willingness of parents to allow their children to wear corrective lenses reflects the success of advocacy and awareness campaigns on refractive error and its management.¹⁵ However, half skilled professionals and access to referral systems.⁸ Nevertheless, it is troubling that some parents continue to seek the services of traditional healers for pediatric eye care despite its harmful effects. Prior studies in Ghana⁸ and Nigeria¹⁷ reported that approximately 6% and 8% of community members preferred traditional approaches, some of which have resulted in vision problems. Approximately half (51%) of our study population demonstrated a good level of knowledge about pediatric eye care, indicating moderate awareness of pediatric eye health. This level is

substantially higher than that found in South India (21.8%).¹⁸ These findings align with research in Saudi Arabia showing that parents with greater knowledge of pediatric eye conditions were more likely to adhere to recommended examination schedules and accept corrective measures.¹⁹ Proximity to health facilities also influenced knowledge and practices, with individuals living closer to them reporting greater utilization of services. This finding underscores the importance of accessibility in shaping awareness and health-seeking behavior. Barriers to accessing pediatric eye care were evident. Over half of parents (53%) perceived no need for routine eye examinations, indicating misconceptions that eye diseases are only symptomatic. This observation mirrors findings in Nigeria.²⁰ Financial constraints were another major barrier, consistent with studies in South Africa, Nigeria, and other African countries.²¹⁻²³ Accessibility also emerged as a significant barrier, with long travel distances and poor road infrastructure limiting the use of services. Similar findings have been reported in Swaziland and Malawi, where distance reduced the acceptance of pediatric eye services.^{11, 2}

CONCLUSION

This study highlights significant gaps in parental knowledge and practices regarding primary eye care services among children in the Ashanti Region of Ghana. Reliance on symptom-driven care, limited knowledge regarding pediatric eye health and financial barriers remain challenges to service utilization. Education and income have been found to positively influence parental knowledge, underscoring the role of socioeconomic factors in shaping health-seeking behavior. Addressing these knowledge gaps and systemic barriers is crucial for improving equity in healthcare, which could ultimately lead to a reduction in preventable vision impairment.

IMPLICATIONS FOR POLICY AND FUTURE RESEARCH

It is recommended that vision screening be integrated into the school health program to ensure early detection and prompt intervention.

Additionally, guidelines and training manuals can be developed for teachers and primary health workers to help them identify childhood vision problems. To improve accessibility to pediatric eye services in all communities, the capacity of primary health facilities should be enhanced. It is also recommended that policies be reviewed to ensure complete coverage of child eye services, thereby addressing the issue of affordability. For a more accurate representation of Ghana's childhood population, future studies could be conducted on a larger scale. It is recommended that experimental studies be conducted in future studies to determine causal relationships between variables.

STRENGTHS

Prior to data collection, the instrument and procedures were piloted, which ensured the validity and reliability of the study. The study captures direct insights from parents who are the primary decision makers in eye health-seeking behaviors for children.

LIMITATIONS

The findings of this study are specific to the Ashanti Region of Ghana and may not be generalized to the entire country. This survey also relied on self-reported data, which may not fully capture actual knowledge or practices. Additionally, while the study identified associations between variables, it does not establish any causal relationships. Further, the cross-sectional design of this study limits the ability to track variables over time and observe potential changes.

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COMPETING INTEREST

The authors declare that they have no competing interests that may have inappropriately influenced them in writing this article.

AUTHORS' CONTRIBUTION

EMA contributed towards conceptualization, study design, data collection, resources, interpretation of data, manuscript writing, project administration and critical review of the manuscript. AJM and NR contributed to the study design, interpretation of data, manuscript writing, and critical review of the manuscript.

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APPENDIX A

Parental Questionnaire

Parental knowledge, practices and factors influencing the utilization of primary eye care services among children in the Ashanti Region of Ghana

S/N	Demographic Data	Mark X			
1.	Gender	Male			
		Female			
2.	Age	21-30yrs	31—40yrs	41-50yrs	
		51-60yrs	60> yrs		
3.	Occupation				
4.	Education Level	Postgraduate	Graduate		
		SHS	JHS	Primary	Others

Practices about Child Eye Health

5. Since your child/children was/were born, have you ever taken them for an eye test?

- a. Yes
- b. No

6. If yes, was this before the commencement of the first year of schooling?

- a. Yes
- b. No

7. Where did you take your children when they complained of eye problems?

- a. Public Clinic
- b. Public hospital
- c. Private Optometrist
- d. Private Ophthalmologist
- e. General practitioner
- f. Traditional healer

8. If not, what were the reasons?

- a. Did not know my child has to be tested
- b. Did not see the need
- c. Child was seeing well
- d. Financial constraints
- e. No eye care facilities available
- f. Only old people experience eye problems

9. How old was/were the child/the children when you took them for eye testing?

- a. 6 months
- b. 3 years
- c. 6 years
- d. 10 years and older

10. What made you decide to take your child/children to see an eye care practitioner?

- a. Informed by teacher
- b. Advised over radio
- c. Advised in newspaper
- d. Suspected vision problem
- e. Child born with vision problem
- f. Doctor referred me
- g. Nurse referred me
- h. Other, specify_____

11. If you observed something that prompted you to take your child to an eye care practitioner, what was it?

- a. Child plays with toys at close range
- b. Rubbing eyes repeatedly
- c. Tilting the head to one side
- d. Excessive clumsiness
- e. Headache
- f. Nausea or dizziness
- g. Squinting of eyes
- h. Others: specify_____

12. What was provided to your child after presentation to the eye professional?

- a. Eye drops
- b. Glasses
- c. Referred the child
- d. No Action taken

13. Do you have a child who had to drop out of school because of not seeing well?

- a. Yes
- b. No

14. In your immediate family, are there any children who were born blind or visually impaired?

- a. Yes
- b. No
- c. Unsure

15. What do you think are the causes of poor vision in children?

- a. Excessive Reading
- b. Playing Computer games
- c. Watching too much TV
- d. Eye diseases
- e. Headache
- f. Other (please specify): _____

16. Do you know of any eye diseases that affect children?

- a. Yes
- b. No

17. If yes, which of the following eye diseases do you know or have heard of?

- a. Congenital cataract
- b. Trachoma
- c. Allergic Conjunctivitis
- d. Vitamin A deficiency
- e. Refractive error (Short-sightedness and farsightedness)
- f. None of the mentioned diseases

18. What/who is your source of information regarding eye health?

- a. Nurse
- b. Doctor
- c. Neighbors
- d. Friends
- e. Radio
- f. Newspaper
- g. TV
- h. Other (please explain): _____

19. Have eye health professionals ever visited your area?

- a. Yes
- b. No
- c. Unsure

20. Do you feel you are well-informed about eye health problems in children?

- a. Yes
- b. No
- c. Unsure

21. What sources of information do you think can be used to reach out to other parents regarding vision problems among children?

- a. Billboards
- b. Text messages
- c. social media
- d. Radio
- e. Newspaper
- f. TV
- g. Traditional Healers
- h. Other (please explain): _____

22. Do you think children should wear glasses?

- a. Yes
- b. No
- c. Unsure

23. Will you have a problem if your child/children had to wear glasses?

- a. Yes
- b. No
- c. Unsure

24. Would you allow your child to undergo eye surgery?

- a. Yes
- b. No
- c. Unsure

25. If not, why?

- a. Fear of outcome
- b. Damage the eye more
- c. Cost of the actual operation
- d. Knowledge of services
- e. Cultural and social barriers
- f. Accessibility to services

Factors Influencing Utilization of Eye Care

26. Does the area where you live have a health care facility?

- a. Yes
- b. No
- c. Unsure

27. What kind of healthcare facility is nearer to you?

- a. Hospital
- b. Polyclinic
- c. Health centre
- d. Others: specify

28. Does your nearest health facility offer eye care services?

- a. Yes
- b. No
- c. Unsure

28. How far is the health facility from where you live?

- a. <5km
- b. 5km-10km

- c. 10km-15km
- d. >15km

29. Has any of your children complained of eye problems recently?

- a. Yes
- b. No

30. What are the factors that you would consider before taking your child to the health facility for eye care?

31. What factors would prevent you from taking your child to the eye clinic?

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