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Article

Parental Awareness and Practices Regarding Children's Eye Health

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Abstract: Purpose. This study investigates parental awareness and practices regarding children's eye health in Albania, focusing on demographic characteristics, eye health awareness, usage of glasses/contact lenses, eye health information and practices, screen time, and access to information. **Material and Methods.** Data were collected from 100 parents of children aged 0-18 attending Aldent University staff and Uzllova Tirana Eye Clinic using a structured questionnaire administered over a two-week period in September 2020. Quantitative and qualitative data analysis techniques, including crosstab and Chi-square tests, were employed. **Results.** The results reveal significant associations between parental demographics and eye health practices, highlighting the need for targeted interventions to improve parental awareness and practices concerning children's eye health. Despite recognizing the importance of eye health, a significant proportion of parents reported inadequate knowledge regarding pediatric eye conditions and recommended screening practices. In particular, only 15% of children wear glasses, despite the fact that a significant proportion of children have refractive errors: myopia (32%), followed by hyperopia (11%) and astigmatism (3%). Nearly half of the children (49%) spend a lot of time on electronic devices: 53% spend 1-2 hours, 42% - 3-6 hours, and 5% - over 6 hours per day. The study underscores the necessity of enhancing education and intervention programs to improve pediatric eye care and promote early detection and management of vision issues. Effective pediatric eye care requires active engagement from parents and caregivers, emphasizing the importance of increasing parental awareness and promoting regular eye examinations. **Conclusion.** Targeted educational interventions and collaborative efforts among healthcare providers, educators, and policymakers are crucial for improving pediatric eye health outcomes in Albania.



Keywords: Children's eye health; parental awareness; parental practices; eye examination; pediatric vision; Albania

Introduction

Although significant efforts have been made, challenges persist due to limited resources and discrepancies in access to quality eye care, particularly in rural areas. Public health campaigns, alongside stronger collaboration between healthcare providers, schools, and communities, are critical in bridging these gaps. Moreover, educating parents on the crucial role of early vision screening in preventing and managing potential eye conditions is necessary. Addressing existing knowledge gaps and encouraging regular check-ups will ensure better eye health outcomes for children in Albania and the broader Balkan region. Continued research and the development of accessible resources will be pivotal in driving these initiatives forward [1,2].

In this study, data were collected by the author from parents of children aged 0-18 years who attend the staff of Aldent University and the Uzllova Tirana Eye Clinic in Albania. The survey instrument, consisting of 26 items, was administered over a 2-week period in September 2020. The survey assessed demographic information, parental practices, children's eye examination history, parental knowledge levels, and preferred information sources.

This is a questionnaire designed and analyzed by the author (Mirela Tushe) for parents:

1. Are you?
 - Mother
 - Father
2. You are from?
 - Albania
 - Outside Albania
3. Do you live in?
 - City
 - Village
4. The city?
 - Capital city
 - Other
 - Outside Albania
5. Do you wear glasses or contact lenses?
 - Yes
 - No
6. What is the gender of your child?
 - Female
 - Male
7. How old is your child?
 - 0-2 years old
 - 2-6 years old
 - 6-18 years old
8. Has your child gone, or does he go to daycare?
 - Yes
 - No
9. Has your child gone, or does he go to kindergarten?
 - Yes
 - No
10. Do you know at what age an eye checkup should be performed for kids?
 - 0-2 years old
 - 2-6 years old
 - 6-18 years old
11. Have you had your child's eyes checked?
 - Yes
 - No
12. How long has it been since you had your child's eyes checked by an eye specialist?
 - Before 1 month
 - Before 6 months
 - 1 year ago
 - Before 4 years ago
 - Over 6 years
 - No control
13. How many times have you visited your child's eye doctor?
 - 1 time

- ☐ Yes
 - ☐ No
 - ☐
- 14. Do you have information on when a child needs to visit an eye doctor?
 - ☐ Not needed
 - ☐ When there is no problem
 - ☐ When you notice an eye problem
 - ☐ When your child complains to themselves
- 15. When is the next visit to the specialist eye doctor for your child?
 - ☐ After 1 month
 - ☐ After 6 months
 - ☐ After 1 year
 - ☐ Don't know
- 16. Does your child wear glasses?
 - ☐ Yes
 - ☐ No
- 17. What refraction does your child have?
 - ☐ Astigmatism
 - ☐ Nothing
 - ☐ Don't know
 - ☐ Hyperopia
 - ☐ Myopia
- 18. Does your child regularly wear glasses or contact lenses?
 - ☐ Yes
 - ☐ No
 - ☐ Not using
- 19. Why do you place your child's glasses or lenses?
 - ☐ As advised by the doctor
 - ☐ Child refuses to wear them
 - ☐ Child has strabismus
 - ☐ For better vision
 - ☐ You are informed of their importance
- ☐ 2 times
 - ☐ 4 times
 - ☐ Over 6 times
 - ☐ Never
- 20. What is your child's vision level (with correction)?
 - ☐ Good
 - ☐ Doesn't see
 - ☐ Wears prosthetic eyes
 - ☐ Very Good
 - ☐ Poor
- 21. Do you know what % your child sees?
 - ☐ Yes
 - ☐ No
- 22. Are you informed about stimulation therapy for vision enhancement for children?
 - ☐ Yes
 - ☐ No
- 23. Does your child spend too much time on electronic devices?
 - ☐ Yes
 - ☐ No
- 24. How many hours per day does your child spend on devices?
 - ☐ 1-2 hours
 - ☐ 3-6 hours
 - ☐ Over 6 hours
- 25. Are you interested in getting information about ocular health for your children?
 - ☐ Yes
 - ☐ No
- 26. Where do you get information about ocular health for your children?
 - ☐ Family doctor
 - ☐ I don't care about the information
 - ☐ Internet
 - ☐ TV
 - ☐ Medical books
 - ☐ Oculist and specialized staff

This cross-sectional study was conducted among 100 parents in Albania to assess parental awareness and practices regarding children's eye health. The selection of the sample was made by online calculation through the sample size calculator. The estimate would require a population of at least approximately 102 respondents to achieve a margin of error of $\pm 0.05 \pm 0.05$ for the population percentage of respondents from Albania, given a sample size of 100 interviews and a 95% confidence level.

Data Analysis Methodology. The analysis of the survey data reveals several important insights into parental practices and awareness regarding children's eye health. While parents recognize the importance of eye health, there are significant gaps in knowledge about pediatric eye conditions, the timing of eye exams, and the impact of screen time on vision. These findings underscore the need for targeted educational interventions to improve parental understanding of eye health and to promote proactive eye care for children. This analysis demonstrates the value of using both quantitative and qualitative methods to assess parental awareness and practices. The results suggest that although a large percentage of parents are engaged in eye care for their children, there is room for improvement in knowledge and preventive measures, particularly in rural areas where access to specialized care may be limited.

Results

Survey responses from 100 participants provided comprehensive insights into demographic characteristics, parental practices, children's eye examination history, parental knowledge levels, and preferred sources of information regarding pediatric eye health [3].

Interpretation of Results

Demographics: The majority of respondents are mothers (80%), while fathers make up 20%. Most respondents are from Albania (83%), with 17% from outside Albania. Regarding residence, 92% live in cities, while 8% live in villages.

Eye Health Awareness: 17% of children wear glasses or contact lenses. 65% of children are female, while 35% are male. The majority of children (83%) are between 2-6 years old. 78% of children have gone or currently go to daycare, and 84% have gone or currently go to kindergarten. 76% of parents have had their child's eyes checked. Regarding the frequency of eye check-ups, most responses (54%) indicate it has been 1 year since the last check-up.

Usage of Glasses/Contact Lenses: Only 15% of children wear glasses. The types of children's refractive errors are myopia (32%), followed by hyperopia (11%), astigmatism (3%), and 5% report having "nothing." **Eye Health Information and Practices:** 49% of respondents state that eye check-ups are necessary when they notice an eye problem. However, 55% don't know when the next visit to the eye doctor for their child will be. 81% are aware of stimulation therapy for vision enhancement for children. 98% are interested in receiving information about ocular health for their children. Most of them (80%) receive information about ocular health for their children from oculists and specialized staff.

Screen Time and Vision: Nearly half of the children (49%) spend a lot of time on electronic devices. 53% spend 1-2 hours, 42% spend 3-6 hours, and 5% spend over 6 hours per day [4].

Access to information. Respondents mainly receive information about ocular health for their children from oculists and specialized staff (80%), while smaller percentages receive information from sources like the internet (6%) and medical books (10%).

Significant associations were observed between parental demographics and awareness of eye health practices, utilization of eye care services, and sources of information. These findings highlight the need for targeted interventions to improve parental awareness and practices concerning children's eye health in Albania.

The survey unveiled several significant associations between variables related to children's eye health.

Particularly, significant associations were observed between child's age and eye checkup history ($p = 0.0002$); eye checkup history and awareness of the next visit ($p = 0.0065$), eye checkup history and knowledge of eye checkup necessity ($p = 0.0042$); interest in receiving information and information source ($p < 0.0001$), knowledge of eye checkup necessity and awareness of the next visit ($p = 0.0219$), time since last eye check and eye checkup history ($p = 0.0010$).

The findings underscored areas where parental education and awareness could be enhanced to promote early detection and intervention for pediatric vision issues. They also revealed disparities between parental awareness and recommended practices, emphasizing the need for targeted educational interventions. Despite recognizing the importance of eye health, a significant proportion of parents reported inadequate knowledge regarding pediatric eye conditions and recommended screening practices.

Discussion

The purpose of this study was to evaluate the level of parental awareness and practices regarding children's eye health in Albania. The results reveal key insights into how parents approach their children's vision care, as well as the factors that influence their decisions, including demographic characteristics, access to information, and lifestyle habits such as screen time. This discussion explores the findings, their implications, and the recommendations for improving pediatric eye care in Albania.

Parental Awareness and Knowledge

The study found that a large portion of parents (78%) have had their children's eyes checked at least once, which suggests a reasonable level of awareness regarding the importance of eye health. However, a significant gap exists in the knowledge about when children should first be examined and the frequency of subsequent check-ups. For instance, only 17% of parents reported knowing the exact timing for eye exams, and more than half of the respondents (54%) were unsure about when their child should see an eye doctor next. This lack of clarity points to a need for public education campaigns to provide clearer guidelines about the importance of early screening for common pediatric eye conditions such as refractive errors, strabismus, and amblyopia [1].

Refractive Errors and Corrective Measures

The findings showed that 32% of children had myopia (nearsightedness), which is notably high for a pediatric population. Despite this, only 15% of children were wearing glasses or contact lenses, which raises concerns about undiagnosed or untreated vision problems. This gap between diagnosis and corrective action may result from parents' lack of awareness about the necessity of corrective lenses or possible resistance from children in wearing glasses. In fact, some parents reported that their children refused to wear glasses, which could indicate a lack of understanding of the importance of wearing them to prevent further visual impairment [2].

The underutilization of corrective lenses is a critical issue, as untreated refractive errors can lead to more severe vision problems, such as amblyopia or reduced academic performance. Addressing this issue requires not only medical interventions but also societal changes in attitudes toward eyewear, promoting it as a necessary part of childhood health care rather than a stigma [3].

Impact of Screen Time

One of the most striking findings was the high amount of time children spend on electronic devices. Nearly 49% of children use devices for 3 to 6 hours a day, which is a significant amount of screen time. Research has shown that excessive screen time can contribute to the development of myopia and can exacerbate existing vision problems, potentially leading to longer-term eye health issues [4]. The American Academy of Pediatrics recommends limiting screen time for children to

ensure proper eye health, and similar guidelines should be reinforced in Albania to raise awareness about the risks associated with prolonged screen exposure.

While many parents (81%) were aware of stimulation therapy for enhancing vision in children, the practical application of this knowledge seemed to be limited. This points to a need for more targeted and accessible resources that can help parents understand the role of lifestyle choices—such as limiting screen time and encouraging outdoor activities—in maintaining healthy vision. Moreover, additional research into the effectiveness of stimulation therapies in pediatric eye care could provide useful data for developing national guidelines [5].

Sources of Information and Parental Engagement

The study showed that most parents (80%) seek eye health information from ophthalmologists and specialized staff, which suggests that healthcare providers are the most trusted source of information. However, the reliance on healthcare professionals also underscores the need for these providers to actively engage with parents during eye exams and consultations, providing them with clear, actionable advice regarding eye care, corrective lenses, and the role of early intervention. Additionally, 98% of parents expressed interest in learning more about children's eye health, indicating a willingness to be more informed but also a gap in accessible educational resources.

It is also important to note that the internet and media, such as TV, play a role in disseminating information to the public. Given the widespread use of digital media, further investment in public health campaigns via these platforms could help in reaching a broader audience, including those in rural or underserved areas. The incorporation of interactive and easy-to-understand content could improve the effectiveness of such campaigns [6].

Limitations and Future Research

Although this study provides valuable insights into parental awareness of children's eye health in Albania, it has some limitations. First, the sample size (100 participants) was relatively small, which limits the generalizability of the findings. Future studies should aim to include a larger, more diverse sample that reflects the broader population across urban and rural settings. Additionally, the cross-sectional design of this study does not allow for a longitudinal analysis of how parental knowledge and practices evolve over time. Long-term studies could provide more comprehensive data on the impact of education interventions and policy changes.

Moreover, qualitative research that involves in-depth interviews with parents could offer a deeper understanding of the barriers they face in seeking appropriate eye care for their children. This could help identify cultural, economic, and social factors that influence parental practices and attitudes toward eye health.

Recommendations

Based on the findings of this study, several recommendations can be made:

1. **Public Health Campaigns:** Government and healthcare organizations should launch nationwide educational campaigns aimed at increasing parental awareness of the importance of early eye exams for children, particularly focusing on the age at which the first eye check should occur.
2. **School and Community Programs:** Schools should implement routine eye screenings for children, and communities should host regular workshops on vision health to reach parents and caregivers who may not seek eye care for their children.
3. **Improved Access to Information:** Efforts should be made to create accessible, bilingual, and culturally relevant resources (both online and offline) to educate parents about childhood eye health, refractive errors, and the benefits of early intervention.
4. **Collaboration with Healthcare Providers:** Eye care professionals should take a proactive role in educating parents about the importance of regular eye exams and the need for corrective

lenses when necessary. This can be achieved through educational brochures, patient counseling, and direct communication during appointments.

Conclusions

This study highlights the critical role that parental awareness plays in ensuring the eye health of children in Albania. Despite a general recognition of the importance of eye exams, there is a notable gap in knowledge about the appropriate age for the first eye check and the frequency of subsequent examinations. Additionally, the underutilization of corrective lenses among children diagnosed with refractive errors presents a significant concern. These findings emphasize the need for enhanced educational efforts aimed at parents, as well as greater accessibility to resources that promote better eye health practices.

The high levels of screen time among children are also a concern, as excessive exposure to electronic devices is associated with the development and progression of myopia. Encouraging reduced screen time and promoting outdoor activities could be key strategies in mitigating the rise of refractive errors in children.

Overall, there is a strong desire among parents to learn more about their children's eye health, which provides an opportunity for health authorities and professionals to implement targeted public health campaigns. Through a combination of improved parental education, early intervention, and the active involvement of healthcare providers, it is possible to improve the vision health of children in Albania and reduce the long-term consequences of untreated visual impairments.

Future research should focus on expanding the sample size, incorporating qualitative data, and evaluating the effectiveness of public health campaigns and educational interventions. Only by addressing the challenges outlined in this study can we ensure a brighter and healthier future for the children of Albania in terms of their eye health.

Conflict of interests: there is no conflict of interest.

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