

Pediatricians' Knowledge, Attitudes and Practices Regarding Childhood Eye Diseases

Pediyatri Uzmanlarının Çocukluk Çağı Göz Hastalıklarına İlişkin Bilgi, Tutum ve Uygulamaları

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Abstract

Objective: Pediatricians' knowledge, attitudes, and practices regarding the etiology of eye diseases play a critical role in the early diagnosis of these conditions and in referring patients to ophthalmologists when necessary. The aim of this study is to evaluate pediatricians' knowledge, attitudes, and behaviors related to childhood ocular disorders.

Method: In our study, we used a descriptive cross-sectional study design to assess the knowledge, attitudes, and practices of pediatricians in our country regarding childhood ocular disorders. The survey was conducted online via Google forms and distributed to participants through WhatsApp and e-mail. The questionnaire consisted of two sections: One addressing demographic information and the other evaluating pediatricians' knowledge, attitudes, and practices related to childhood ocular diseases.

Results: A total of 110 pediatricians participated in our study. Of the participants, 84.5% reported performing eye examinations in children, but only 16.7% conducted routine eye exams during every child visit. All participants reported assessing the light reflex during eye exams. Nearly all participants were able to identify the risk factors for retinopathy of prematurity. The majority of pediatricians (99.1%) stated they would immediately refer a child with suspected glaucoma to an ophthalmologist. Regarding leukocoria, most participants identified retinoblastoma (89.8%) and cataracts (85.2%) as the primary causes of this condition. Almost all pediatricians (98.2%) indicated they would immediately refer a child with suspected leukocoria to an ophthalmologist. Only 63.2% of participants acknowledged that refractive errors could contribute to strabismus. A large proportion of pediatricians (82.6%), concerned about

Öz

Amaç: Pediyatri uzmanlarının göz hastalıklarının etiyolojisi hakkında sahip oldukları bilgi, tutum ve uygulamalar, bu hastalıkların erken teşhisi ve gerektiğinde hastaların göz hekimine yönlendirilmesi açısından kritik bir rol oynamaktadır. Bu çalışmanın amacı, bu hekimlerin çocukluk dönemi göz hastalıklarına ilişkin bilgi, tutum ve davranışlarını değerlendirmektir.

Yöntem: Çalışmamızda, ülkemizdeki pediyatri uzmanlarının çocukluk dönemi oküler hastalıklarına ilişkin bilgi, tutum ve uygulamalarını değerlendiren tanımlayıcı bir kesitsel çalışma tasarımı kullanılmıştır. Anket, Google forms üzerinden çevrimiçi olarak gerçekleştirilmiş ve katılımcılara WhatsApp ile e-posta yoluyla dağıtılmıştır. Anket, demografik bilgiler ve pediyatri uzmanlarının çocukluk dönemi göz hastalıklarına yönelik bilgi, tutum ve uygulamalarını içeren iki bölümden oluşmaktadır.

Bulgular: Çalışmamıza toplamda 110 pediyatri uzmanı katılmıştır. Katılımcıların %84,5'i çocuklarda göz muayenesi yaptıklarını belirtirken, yalnızca %16,7'si her çocuk ziyareti sırasında rutin göz muayenesi gerçekleştirdiğini ifade etmiştir. Tüm katılımcılar, göz muayenesi sırasında ışık refleksini değerlendirdiklerini bildirmiştir. Prematüre retinopatisi ile ilgili risk faktörlerini tanımlama konusunda katılımcıların neredeyse tamamı başarılı olmuştur. Şüpheli glokom tespit edilen bir çocuğu hemen bir göz doktoruna yönlendireceğini belirten pediyatri uzman oranı %99,1'dir. Lökokori konusunda, katılımcıların çoğunluğu retinoblastoma (%89,8) ve kataraktı (%85,2) bu durumun başlıca nedenleri olarak tanımlamıştır. Şüpheli lökokori tespit edilen bir çocuğu hemen bir göz doktoruna yönlendireceklerini belirten pediyatri uzman oranı %98,2'dir. Katılımcıların yalnızca %63,2'si, kırılma kusurlarının şaşılığa katkıda bulunabileceğini kabul etmiştir. Ambliyopi (%88,1) ve merkezi nedenler



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Abstract

amblyopia (88.1%) and central causes (77.1%), stated they would promptly refer children with strabismus to an ophthalmologist.

Conclusion: Although pediatricians' overall knowledge and attitudes are satisfactory, there are significant gaps in the understanding of certain eye diseases. It is crucial to enhance pediatricians' knowledge of eye disorders through comprehensive ophthalmology training and workshops during residency. Furthermore, pediatricians should be encouraged to perform detailed eye exams, and collaboration between ophthalmology and pediatrics should be strengthened.

Keywords: Childhood blindness, eye disorders, knowledge, leukocoria, pediatrics, red eye disease

Öz

(%77,1) konusunda endişeli olan pediatri uzmanlarının büyük bir kısmı, şaşılık tespit edilen çocukları hemen bir göz doktoruna yönlendireceklerini ifade etmiştir (%82,6).

Sonuç: Pediatri uzmanlarının genel bilgi ve tutumları tatmin edici olmakla birlikte, bazı göz hastalıklarının anlaşılmasında belirgin eksiklikler mevcuttur. Pediatri uzmanlarının göz hastalıklarına dair bilgi seviyelerinin, uzmanlık eğitimi sırasında kapsamlı oftalmoloji eğitimleri ve atölye çalışmaları ile güçlendirilmesi önemlidir. Ayrıca, pediatri uzmanlarının ayrıntılı göz muayenesi yapma konusunda teşvik edilmesi ve oftalmoloji ile pediatri arasındaki iş birliğinin güçlendirilmesi gerekmektedir.

Anahtar kelimeler: Bilgi, çocukluk çağı körlüğü, göz hastalıkları, kırmızı göz hastalığı, lökokori, pediatri

Introduction

Early disease detection and treatment as well as avoiding permanent vision issues, depend on a thorough assessment of eye conditions in children (1,2). The World Health Organization reports that at least 2.2 billion individuals globally have blindness or visual impairment, with 1 billion cases being preventable (3). Visual impairments adversely impact all aspects of children's development, including physical, cognitive, social and emotional growth (4-6).

The examination of the visual system begins in the newborn period, and all routine check-ups for the baby include an eye health screening (7). The American Academy of Pediatrics recommends that pediatricians evaluate the eye health of babies in routine check-ups beginning at birth: External examination of the eyes and adnexa, vision examination, red reflex test, pupil examination, and eye movements should all be evaluated based on the developmental stage (8). Again, the guidelines underline that visual acuity should be measured beginning at the age of three (9). This would allow for the detection and treatment of illnesses such as congenital cataracts, congenital glaucoma, retinoblastoma, and strabismus, which can cause severe vision loss in early childhood (10).

The pediatrician's knowledge, attitude and practice regarding the causes of eye problems are critical in detecting them early and referring patients to an ophthalmologist when necessary. Several studies have found gaps in doctors' knowledge, attitudes, and practices regarding childhood eye disorders (11,12). A research published last year in Turkey found that the majority of pediatricians want to improve their knowledge and practice in the diagnosis and treatment of visual issues (7). Our study aimed to assess pediatricians' knowledge, attitudes and behaviors towards childhood ocular disorders.

Materials and Methods

In our study, we used a descriptive cross-sectional study design to evaluate the knowledge, attitudes, and practices of pediatricians in our country regarding childhood ocular diseases. The study design and questionnaire were prepared based on a preliminary study on reality (2). A pre-test was performed to assess the survey's functionality, understandability, and ability to be completed within a suitable time frame. This pre-test was administered to a group of ten participants who were not part of the study's target population, and were therefore eliminated. The open online survey was created with Google forms software, and it was sent to the participants' mobile telephones via WhatsApp and mail links. The survey covered all pediatricians, including assistant physicians, specialists, and academic staff, from all parts of our country. Random sampling was used to distribute the survey. This study was approved by the University of Health Sciences Turkey, Kartal Dr. Lütfi Kırdar City Hospital Ethics Committee with the decision numbered 010.99/20 on February 28, 2024. The study was conducted in accordance with the Declaration of Helsinki.

The study questionnaire had 38 questions divided into two sections. The first section questioned the demographic characteristics of the participants: Age, gender, region, duration of work in pediatrics, whether they received training in ophthalmology, etc. The second section included knowledge, attitudes, and practices of pediatricians regarding important childhood eye pathologies such as visual acuity issues, painful red eye, neonatal conjunctivitis, leukocoria, strabismus, congenital glaucoma, and retinopathy of prematurity (ROP), etc. The study was conducted on a voluntary basis, and a total of 110 participants who signed an informed consent form completed the survey. Participants were assured that data

confidentiality would be maintained and the research team collected, analyzed, and securely stored the data.

Statistical Analysis

The data were compiled and organized using the Microsoft Excel database. Descriptive data were presented in terms of percentages and frequencies %, (n) and Jamovi version 2.3.18 statistical software was employed for statistical analyses. In addition to descriptive statistics, further calculations were performed to understand the distribution of variables and detailed data cleaning procedures were conducted to ensure data reliability and validity. Moreover, qualitative data obtained during and after the survey administration were conceptualized to address the research questions, systematically coded and organized under specific categories.

Results

This study included 110 pediatricians (75 females, 35 males). In all participants, a total of 18.3% (n=20) were working in state hospitals, 54.1% (n=59) in education and research hospitals, 13.8% (n=15) in university hospitals, 10.1% (n=11) in private hospitals and 3.7% (n=4) in private clinics. The average clinical experience of the pediatricians in this study was 12.06±6.12 years. Among them, 22.2% (n=24) had 0-5 years of experience, 22.2% (n=24) had 5-10 years of experience, 24.1% (n=26) had 10-15 years of experience, 13.9% (n=15) had 15-20 years of experience,

and 17.6% (n=19) had more than 20 years of clinical experience. To gain insights into the participants' attitudes towards routine eye examinations, we administered a set of eight questions.

The majority of respondents (84.5%) reported that they conduct routine eye exams; however, only a small number reported having participated in a rotation at an ophthalmology clinic (9.1%) or having attended an ophthalmology conference (6.5%). The predominant reason cited for not performing eye examinations was insufficient knowledge. The majority also reported that they perform eye examinations for all newborns and during routine child visits (72.7% and 80.9%, respectively) (Table 1).

To assess the participants' knowledge regarding visual acuity, we posed five questions. The majority (85.5%) expressed awareness of the signs associated with diminished visual acuity, and most of them (81.7%) believed that it could be treated. A small number (40.0%) indicated that contact lenses could also be used in treatment. However, 60% of pediatricians were unfamiliar with the World Health Organization's definition of blindness. The majority of participants (97.3%) identified conjunctivitis as the cause of painful red eyes. Furthermore, most respondents (40%) indicated that they would initiate treatment and refer the patient to an ophthalmologist on the third day based on the response to treatment. The most commonly prescribed medication (90%) was an antibiotic (Table 2).

Table 1. Routine eye examination approaches of the pediatricians

Variable	% n
Participated in an ophthalmology congress	6.5% (n=7)
Had a rotation in an ophthalmology clinic?	9.1% (n=10)
Perform eye examination	84.5% (n=83)
Eye examination frequency	
In all examinations	16.7% (n=18)
Only after birth	17.6% (n=19)
If the parents, ask to do so	8.3% (n=9)
If I see an eye issue	57.4% (n=62)
Which examinations do you perform? (Multiple answers)	
Pupil light reflex	98.2% (n=118)
Ocular motility	37.2% (n=41)
Fundus examination	13.6% (n=15)
Visual acuity	20.9% (n=23)
The prominent reason not to perform eye examination?	
Not enough time	23.6% (n=26)
Not enough knowledge	41.8% (n=46)
No device	25.5% (n=28)
Children do not cooperate	6.3% (n=7)
Not my area	8.2% (n=9)
When should an ophthalmologist see the children? (Multiple answers)	
All newborns	72.7% (n=80)
Routine well-child visits	80.9% (n=89)
No need if there is no symptom	3.6% (n=4)
An eye examination should be performed before 3 years old	99.1% (n=109)

Table 2. Knowledge of pediatricians about visual acuity and painful red eye

Variable	% n
Dou you know the signs of impaired visual acuity?	85.5% (n=94)
Which are the signs of impaired acuity? (multiple answers)	
Impaired school success	86.4% (n=95)
Nystagmus	26.4% (n=29)
Too much blinking	82.7% (n=91)
Eye squinting/rubbing	82.7% (n=91)
Torticollis	73.6% (n=81)
Eye deviation	54.5% (n=60)
Could visual acuity be treated in children?	
Yes,	81.7% (n=89)
No	18.2% (n=20)
How could visual acuity be fixed? (multiple answers)	
Surgery	54.5% (n=60)
Eyeglasses	80.0% (n=88)
Contact lens	40.0% (n=44)
What is the WHO blindness definition?	
No idea	60% (n=66)
Visual acuity <3/60	20% (n=22)
Visual acuity between 3/60-6/60	14.5% (n=16)
No sense of light	5.4% (n=6)
The causes of painful red eye (multiple answers)	
Conjunctivitis	97.3% (n=107)
Corneal trauma/abrasion	90.9% (n=100)
Allergic	78.2% (n=86)
Uveitis	75.5% (n=82)
Glaucoma	30.9% (n=34)
Strabismus	1.8% (n=2)
How do you manage a patient with painful red eyes?	
Prescribe eye drops, follow-up for 3 days than refer to an ophthalmologist	40% (n=44)
Both prescribe eye drops and refer to an ophthalmologist	30% (n=33)
Refer to an emergency ophthalmologist	30% (n=33)
What do you prescribe for a painful red eye? (multiple answers)	
Antibiotic drops	90.0% (n=99)
Steroid drops	30% (n=33)
Anti-histaminic drops	50.9% (n=56)
Artificial eye drops	71.8% (n=79)

WHO: World Health Organization

In the section of the questionnaire presented in Table 3, questions focused on specific pediatric eye disorders, including neonatal conjunctivitis, leukocoria, congenital glaucoma, and ROP. A significant majority (98.2%) recognized the urgency of leukocoria, with retinoblastoma cited as the most common cause; however, approximately 41.8% of pediatricians incorrectly identified glaucoma as a potential cause.

Regarding strabismus, 8.2% of participants mistakenly identified large nasal roots and 14.5% misattributed congenital eyelid anomalies as false causes of strabismus. Furthermore, 39.1% of pediatricians indicated spontaneous resolution as a treatment option, despite its lack of relevance in the management of strabismus (Table 4).

Discussion

To protect children's healthy visual development, physicians must have a thorough understanding of childhood eye illnesses and be able to spot early indications of these diseases. However, it is well known that many pediatricians are either unaware of eye disorders or are unable to implement eye health care procedures. Because eye illnesses are usually asymptomatic in childhood, children have difficulty communicating their concerns, making early diagnosis and intervention difficult and potentially delaying access to required health treatments. This study will assess pediatricians' knowledge, attitudes, and behaviors in addressing childhood eye disorders.

In this study, 85.5% of the participants reported that they were aware of the symptoms that can arise when children's

Table 3. Knowledge of pediatricians about childhood eye diseases

Variable	% n
Which agent do you prefer in neonatal conjunctivitis?	
Erythromycin drops	14.0% (n=15)
Gentamicin drops	61.7% (n=66)
Any antibiotic drops	15.0% (n=16)
Chloramphenicol drops	1.9% (n=2)
Artificial eye drops	7.5% (n=8)
Which is one of the reasons that causes leukocoria? (multiple answers)	
Cataract	83.6% (n=92)
Glaucoma	41.8% (n=46)
Retinoblastoma	88.2% (n=97)
Severe retinal diseases	38.2% (n=42)
Toxocariasis	23.6% (n=26)
How do you manage a patient with leukocoria?	
I urgently refer to an ophthalmologist	85.5% (n=94)
Order a cranial imaging	12.7% (n=14)
I follow-up, refer to an ophthalmologist if it doesn't get better	1.8 % (n=2)
When do you refer a patient with leukocoria to an ophthalmologist?	
Urgently	98.2% (n=108)
No idea	1.8% (n=2)
Which are one of the signs of congenital glaucoma? (multiple answers)	
Corneal haze	63.6% (n=70)
Wide cornea	46.4% (n=51)
Leukocoria	46.4% (n= 51)
Tearful eyes	20.0% (n=22)
Red painful eye	36.4% (n=40)
How do you manage a child with congenital glaucoma?	
Urgently refer to an ophthalmologist	99.1% (n=106)
Prescribe eye drops	0.9% (n=1)
Which are one of the risk factors for retinopathy of prematurity? (multiple answers)	
Gestational week at birth <32 weeks	92.7% (n=102)
Birth weight <1500 grams	93.6% (n=103)
Concomitant comorbidities	69.1% (n=76)
Prolonged mechanical ventilation	88.2% (n=97)
When do you refer a patient to an ophthalmologist for prematurity retinopathy?	
Postnatal 4-6 weeks or at post conceptual 32 nd week	89.6% (n=95)
Immediate after birth	5.7% (n=6)
After discharging from intensive care unit	4.7% (n=5)

visual acuity declines. However, only 63.2% of the physicians stated that refractive defects play a role in strabismus. In the study by Ababneh et al. (2), 70.8% of the participants classified refractive errors as one of the primary causes of strabismus. The participants in our study performed below expectations. Early identification of refractive problems is crucial for avoiding consequences like amblyopia and strabismus.

According to the guidelines, children's visual acuity should be examined as early as age three (9,13). The American Association for Pediatric Ophthalmology and Strabismus recommends that children have at least one vision screening before beginning kindergarten (14). In our study, all physicians, except one, answered "yes" to the question "Should an eye examination be performed at least once before the toddler phase? (before age 3)". The majority of participants (84.5%) indicated that they examined children's eyes, but only 16.7% claimed that they

did so at every assessment. 57.4% of physicians said they only performed eye exams when they observed an issue. During eye examinations, all physicians in our study tested the light reflex, 38% evaluated ocular mobility, and 21.3% assessed visual acuity. Insufficient training, a lack of proper equipment, and time constraints are the most common causes for not completing eye tests. In a study conducted by Ababneh et al. (2) in Northern Jordan, 66.7% of participants inspected their children's eyes, but just 10.4% did so at each health visit. Another study conducted in Ghana discovered that 87.8% of physicians examined children's eyes at all, with 59.3% doing so only when the family reported an eye problem, and 26.4% at every routine examination (15). In a study of 262 physicians in Turkey, over half of the participants reported that they only perform eye exams when they see an eye problem, whereas 27.9% undertake standard eye exams at every child visit. According to this survey, the pupillary response test was the most commonly

Table 4. Knowledge of pediatricians about strabismus in children

Variable	% n
Which could be a finding in a patient with strabismus? (multiple answers)	
Eye deviation	95.4% (n=105)
Abnormal face position while focusing an object	77.3% (n=85)
Abnormal head position while focusing an object	73.6% (n=81)
Large nasal root	8.2% (n=9)
Congenital eyelid malformation (epicanthic folds)	14.5% (n=16)
What should be suggested in a patient with strabismus? (multiple answers)	
Amblyopia	87.3% (n=96)
Vision impairment	65.4% (n=72)
Concomitant neurologic disorder	73.6% (n=81)
Impairment in eye structures (cornea, retina, lens)	60.9% (n=67)
No idea	4.5% (n=5)
How do you manage a child with strabismus?	
Urgently refer to an ophthalmologist	82.6% (n=90)
Order a cranial imaging	11% (n=12)
I follow-up, refer to an ophthalmologist if it doesn't get better	6.4% (n=7)
Which could be used for strabismus treatment? (multiple answers)	
Eyeglasses	84.5% (n=93)
Surgery	77.3% (n=85)
Spontaneous resolution	39.1% (n=43)
No idea	8.2% (n=9)

used test. Furthermore, it was mentioned that factors such as the large number of patients, lack of time, and absence of visual acuity tables in Turkey are among the main reasons why physicians do not perform routine eye examinations (7). Our study, similar to other studies, found that the majority of participants were not familiar with the World Health Organization's definition of blindness (6,7).

In our study, physicians indicated corneal traumatic abrasion (91.8%), uveitis (82%), and glaucoma (30.9%) as the most common causes of painful red eyes. Although conjunctivitis is typically a mild illness, 97.3% of participants incorrectly answered that it can cause painful red eye. These findings are comparable to those of previous investigations (2,12). Furthermore, 40% of physicians chose to initiate treatment and follow-up for three days, while 30% said they would choose to initiate treatment, and the remaining 30% would refer the patient to an ophthalmologist right away. In Hersi et al.'s (12) study, 51.5% of physicians immediately referred the patient to an ophthalmologist, 12.8% preferred to start therapy with eye drops and refer immediately, and 28.4% preferred to refer if there was no improvement within three days (2). In our survey, 92.5% of physicians chose antibiotic drops as their preferred treatment, 73.8% preferred artificial tears, and 52.3% chose antihistamine drops. These findings imply that pediatricians' expertise in red eye may influence their treatment techniques (16). Studies have emphasized that physicians with higher knowledge levels consider eye examination part of their responsibilities in red eye cases, whereas lack of knowledge is associated with increased antibiotic prescriptions (16,17). In cases of

neonatal conjunctivitis, physicians' approaches include 13.8% referring the patient to an ophthalmologist right away, 36.7% referring the patient to an ophthalmologist if no improvement is detected, and 48.6% giving therapy with eye drops. Gentamicin (61.7%), unidentified antibiotics (15%), erythromycin (14%), artificial tears (7.5%), and chloramphenicol (1.9%) were the most frequently used eye drops in this case.

In our study, 89.8% of physicians cited retinoblastoma, and 85.2% cited cataract as potential causes of leukocoria. The majority of participants were aware that leukocoria could be life- or vision-threatening, and 98.2% said they would immediately refer patients with leukocoria to an ophthalmologist. However, 42.6% of individuals wrongly indicated glaucoma as a cause of leukocoria. In the Silva et al. (18) study, 54% (n=49) of participants were unaware that retinoblastoma, ROP, and exudative retinal illness may produce leukocoria. In another Brazilian study conducted by Manica et al. (19), only 37% of participants correctly recognized retinoblastoma. Yilmaz Tuğan et al. (7) found that 94.8% of pediatricians thought leukocoria was caused by retinoblastoma, 84.3% thought it was caused by cataracts, and 97.2% said they would immediately refer patients with leukocoria to an ophthalmologist.

In our study, the majority of physicians identified real strabismus symptoms as squinting (95.5%), aberrant facial position (80%), and abnormal head position (73.6%). Some doctors were unable to differentiate bogus strabismus symptoms, such as nasal root width (8.2%), and epicanthal

fold (14.5%). Participants responded that they would immediately refer their children to an ophthalmologist (82.6%) because they were concerned that strabismus could lead to amblyopia (88.1%) or originate from a central source (77.1%). In accordance with these findings, Hersi et al. (12) found that strabismus can cause amblyopia (83.1%) and can arise from a central source (51.4%). Furthermore, 79.1% of physicians preferred to refer to an ophthalmologist promptly in this instance. Again, in the study performed by Hersi et al. (12), pseudosquint, which is often mistaken for strabismus, was evaluated as strabismus by the physician at a rate of 5%; whereas in the study conducted by Ababneh et al. (2), this rate was stated as 4.2%.

ROP is a disorder that arises in preterm infants as a result of inadequate vascular development of the embryonic retina, which can cause blindness or severe visual loss. Infants weighing 1500 grams or who are ≤ 32 weeks of gestation should undergo a ROP assessment within the first month of life, at the latest (20). 99.1% of physicians in our study identified a history of birth before 32 weeks of gestation, 94.5% a birth weight less than 1500 grams, and 89% a prolonged duration of artificial ventilation as risk factors for ROP. Ababneh et al. (2) found that 98% of participants recognized risk factors in a similar fashion. A study conducted in India reported that 42.2% of pediatricians had limited knowledge about ROP, while another study in Saudi Arabia found that nearly half of the physicians had limited knowledge about this condition (21,22). In one study by Akkawi et al. (23), only 41.4% of participants knew when to report a child with ROP, whereas in another, 36.5% did (12). In our survey, 89.6% of doctors agreed that a child should be referred to an ophthalmologist for ROP monitoring between 4-6 weeks after birth or at 32 weeks gestational age. In our study, the rate of recognizing congenital glaucoma symptoms was low, which is consistent with other studies. While symptoms such as cloudy cornea (65.4%), large cornea (47.7%), and watery eyes (32.7%) were partially known to the medical community, most physicians (99.1%) stated that they quickly referred children with congenital glaucoma to an ophthalmologist (2,12).

The recommended periodic intervals for vision screening in school-aged children vary among professional organizations. According to the Bright Futures guidelines, annual vision screening is recommended for children aged 3 to 6 years. Additionally, screenings are advised at ages 8, 10, 12, 15, and 18, while risk-based assessments are recommended for other age groups (24). These periodic

screenings play a crucial role in the early detection of visual impairments, contributing to improved academic performance and overall quality of life in school-aged children.

In our country, the National Vision Screening Program primarily includes vision screenings for newborns, 1-year-olds, 3-year-olds, and first-grade students (25). However, there is no routine national vision screening program for children aged 8 and above. Undiagnosed vision problems in early childhood can lead to a decline in academic performance, delays in motor skill development, and difficulties in social adaptation in later years. Therefore, implementing routine vision screenings at regular intervals for school-aged children would enhance early diagnosis and treatment processes, ultimately contributing to their healthy development.

Study Limitations

The limitations of our study include the lack of sufficient similar research with which to compare our findings, as well as the risk of false-positive results due to the use of closed-ended questions. Additionally, the limited number of pediatricians participating in the survey is another constraint.

Conclusion

In conclusion, it was found that the participating physicians' knowledge and attitudes about pediatric ophthalmology were generally adequate, but they had limited understanding of some disorders. It is critical to expand efforts to improve pediatricians' knowledge of ophthalmology. Workshops and more extensive ophthalmology teaching during residency training should help to support these initiatives. Furthermore, pediatricians should be encouraged to conduct comprehensive eye exams, and collaboration between the ophthalmology and pediatrics fields should be promoted.

Ethics

Ethics Committee Approval: This study was approved by the University of Health Sciences Turkey, Kartal Dr. Lütfi Kırdar City Hospital Ethics Committee with the decision numbered 010.99/20 on February 28, 2024. The study was conducted in accordance with the Declaration of Helsinki.

Informed Consent: The study was conducted on a voluntary basis, and a total of 110 participants who signed an informed consent form completed the survey.

Footnotes

Authorship Contributions

Concept: U.K., M.T.K., F.Ç., F.Ö., B.Y., Y.A., Design: U.K., M.T.K., F.Ç., F.Ö., B.Y., Y.A., Data Collection or Processing: U.K., M.T.K., F.Ç., F.Ö., D.G., Y.A., Analysis or Interpretation: M.T.K., F.M., D.G., B.Y., Y.A., Literature Search: U.K., M.T.K., F.Ç., F.Ö., D.G., B.Y., Y.A., Writing: U.K., M.T.K., D.G., Y.A.

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