

The Effect of Strabismus (Vision) in Children

Naif.Z.Alsulami¹, Wael.M.Alsayed², Mohammed.A.Hazazi²,
Khalid.S.Alhazmi², Mousa.R.Alessa², Rabee.O.Algothami²,
Matuq.S.Mohammed², Ahmad.E.Aezaldeen², Nabeel.A.Alsharahili³,
Yasser.H.Abo thaqilah⁴

Optometry technician at Ibn Sina Long Care Hospital¹

Optometry technician at King Abdulaziz Hospital in Mecca²

Optometry technician at Hadaa PHC³

Optometry technician at King Abdulaziz Hospital in Jeddah⁴

Abstracts

The goal of the current study: What is the meaning of strabismus, what are the causes of strabismus in children, what are the types of strabismus, and how to treat vision correction in children? The questionnaire was created electronically via Google Drive and then distributed via mobile phone on the social networking program (WhatsApp). Using e-mail for all participants to respond to the questionnaire. 600 questionnaires were distributed, and 590 questionnaires were obtained via e-mail. (The target group is residents of the Holy City of Mecca, aged 25-55 years). It is concluded, that vision correction in children is through the large difference between the eyes and not wearing glasses, at a rate of 66.7%, and yes and no, at a rate of 33.3%.

1. Introduction

Strabismus (1) (in English: Squint, whose scientific name is strabismus) is a visual defect in the eyes in an unbalanced state, where each eye turns in a different direction, and you may be able to see one eye in no particular direction, while the other eye is deviated inward, outward, up, or down. This imbalance can be noticed in the position of clear eyes, or it appears sometimes and occurs at other times. This imbalance may be transmitted between the eyes (2)(3)(4). One study reported that 85% of good patients “reported having problems with school, work and sports due to strabismus.” The same study reported that 70% stated that conversion had a negative impact on their self-image. Causes of strabismus: Congenital strabismus: This type appears immediately after birth or during the first six months of birth. Farsightedness or shortsightedness. If any object comes too close to the eyes, the eyes lose the ability to focus and one of them deviates away. This is considered normal, but it is abnormal in the case of Strabismus is the deviation of the eye and its loss of its ability to focus if the visible object is far enough from the eyes, and this is due to the unbalanced movement of the eyes together. The effect of strabismus on the sense of sight. Permanent strabismus results in double vision in a child with strabismus. This condition poses a

sensory difficulty for the brain, so it neutralizes or ignores one of the two images presented by the eyes, so the strabismic person loses the ability to see with both eyes, which means impeding his ability to estimate the depth of objects. How far or close it is to it, and unless the issue is remedied and treatment of the condition begins, the brain's abandonment of the images captured by one eye may become a permanent matter, especially if the strabismus occurred immediately after birth. Types of strabismus: Permanent strabismus: this is a strabismus that appears at all times. Intermittent strabismus: this sometimes appears and sometimes disappears. It is noteworthy that intermittent strabismus in infants (before the age of 4-6 months) is considered a normal physiological phenomenon. Mutual strabismus: Here the strabismus moves from one eye to the other, and indicates equal visual strength in both eyes. Hidden strabismus: this is what appears on a medical examination or in a state of fatigue. Types of strabismus in children Esotropia, Congenital esotropia. This type of strabismus occurs at birth, and does not heal until six months have passed. This squint is usually prominent and clear. Often, strabismus disappears, meaning that the child develops it intermittently, sometimes in the right eye and sometimes in the left eye. Therefore, children do not suffer from amblyopia as a result of it. Also, parents report that strabismus gets worse when the child is tired or sick. Sometimes, genetic factors play a role in this type of strabismus, as strabismus affects some siblings, or children born to parents who suffer from strabismus. In general, strabismus is treated through surgery. However, there are cases in which strabismus can be treated through the use of glasses, or even a combination of the two (surgery and use of glasses). It is characterized by one eye turning inward. As for treatment, the primary goal of treating people who suffer from strabismus is for the field of vision to be natural, clear and comfortable at all distances and directions of sight. In advanced cases of strabismus, treatment is carried out using glasses or prisms, vision treatments or surgery, depending on the cause of this disorder. Surgery does not change vision but rather aligns the eyes by shortening, lengthening or changing one or more of the extraocular muscles of the eye. Glasses change a person's reaction to focusing. Prisms change the way light and images strike the eye, improving eye position (5).

2. Material and Methods:

The study started in (the holy city of Mecca in Saudi Arabia), began writing the research and then recording the questionnaire in January 2024, and the study ended with data collection in June 2024. The researcher used the descriptive analytical approach that uses a quantitative or qualitative description of the social phenomenon (the effect of strabismus (vision) in children). This kind of study is characterized by analysis, reason, objectivity, and reality, as it is concerned with individuals and societies, as it studies the variables and their effects on the health of the individual, society, and consumer, the spread of diseases and their relationship to demographic variables such as age, gender, nationality, and marital status. Status, occupation (6), And use the Excel 2010 Office suite histogram to arrange the results using: frequency tables Percentages (7). A questionnaire is a remarkable and helpful tool for collecting a huge amount of data, however, researchers were not able to personally interview participants on the online survey, only answered the questionnaire electronically, it is consisted of ten questions, all were closed.

3. Results and discussion:

Approval was reached for participation in the research questionnaire (the effect of strabismus (vision) in children), as the participation rate reached 100%, while the ages of the participants were as follows: from 25-34 years, 36.4%, 35-44 years, 54.5%, from 44-55 , 9.1% years old, and all participants in the questionnaire were 100% Saudis, and as for their gender, they were all 100% male. As for their professions, they are as follows: student 0%, offender 18.2%, government employee 72.8%, private sector employee 9.1%, housewife 0%, self-employed 0%. As for their educational aspect, they are as follows: they cannot read or write and hold a doctorate degree 0%, elementary school. Secondary and diploma certificate 18.2%, intermediate 0%, university 45.5%. When moving to the questionnaire questions, the participants' responses were as follows: The first question: Is the appropriate age for vision correction between the ages of 16-20 years? Yes, 75% and no, 25%. The second question is about vision correction through the large difference between the eyes and not wearing glasses? Yes 66.7% and no 33.3%. The third question: Are there eye exercises that should be performed on children to narrow the difference between the eyes by the treating physician? Yes 90.9% and no 9.1%. The fourth question: In some cases, the doctor recommends that they wear contact lenses instead of glasses because it often causes double vision? Yes 58.3% and no 41.7%. The fifth question: do lenses cause problems for children because they do not understand how to take care of lenses? Yes 100%. The sixth question: Are you in favor of using lasers to correct vision in children? Yes 33.3% and No 66.7%. The seventh question: do medications have an effective role in correcting vision in children? Yes 16.7% and no 83.3%. The eighth question: is strabismus in children easily corrected? Yes, 25% and no, 75%. The ninth question: are there specific procedures that the treating physician performs before performing vision correction for children? Yes 83.3% and no 16.7%. The tenth question: Is it necessary to perform some exercises for the child's eyes to know the success of the operation to correct his vision? Yes 91.7% and no 8.3%. From the opinions of the participants in the questionnaire, we find that correcting vision in children is through the large difference between the eyes and not wearing glasses, with a rate of 66.7%, yes and no, with 33.3%. (figure No.1)(figure.no.2).

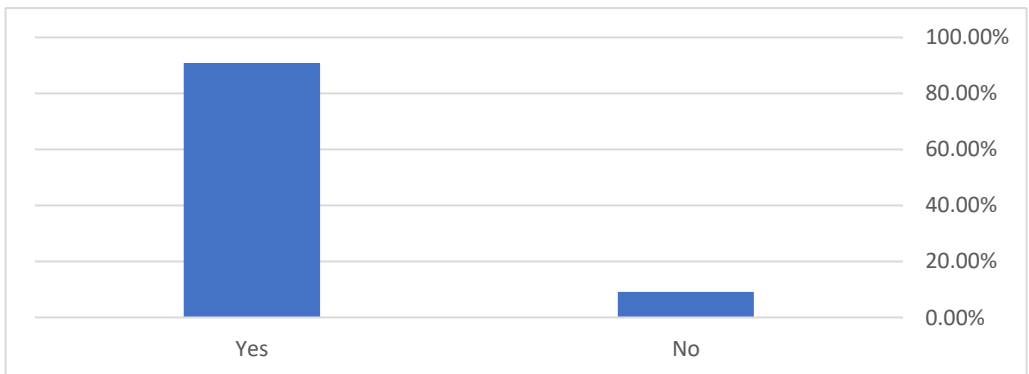


Figure No.1: The effect of strabismus (vision) in children according to participants

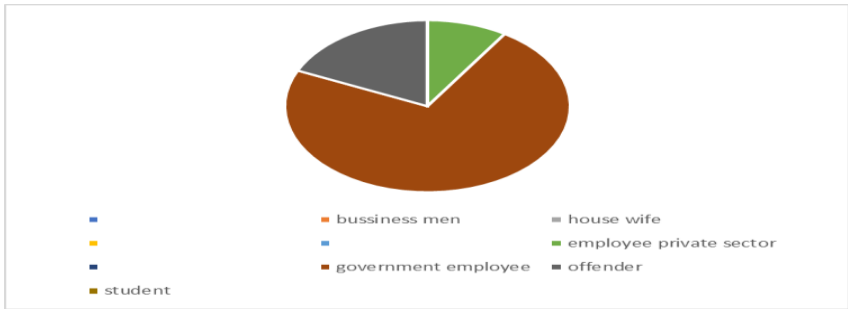


Figure.No.2: the type of professions of male and female participants in the questionnaire

4. Conclusion:

The appropriate age for vision correction is between 16-20 years old? Yes 75%, vision correction through the large difference between the eyes and not wearing glasses? Yes 66.7%, there are eye exercises that must be performed for children to reduce the difference between the eyes by the treating physician 90.9%, in some cases the doctor advises wearing contact lenses instead of glasses because they often cause double vision 58.3%, Lenses cause problems for children because they do not understand how to care for them 100%. Support for the use of lasers to correct vision in children: 33.3%: Medicines have an effective role in correcting vision in children: 16.7%; Strabismus in children is easily corrected: 25%. There are specific procedures that the treating physician takes before performing vision correction surgery on children. 83.3%. It is necessary to perform some exercises for the child’s eyes to know the extent of the success of the vision correction process. 91.7%, according to the opinions of participants in the questionnaire. to correct vision in children, you must consult an ophthalmologist who specializes in this field, and follow a treatment plan in order to treat the children, knowing that strabismus is sometimes hereditary from childhood.

Acknowledgment:

To start with, I would like to Praise God and thank and the researchers who make the project come to light.

WORKS CITED

Muhammad Marashi (2003). Marashi Medical Dictionary (in large Arabic and English). Beirut: Lebanon Library Publishers. s. 17. ISBN: 978-9953-33-054-9. Oklc:4771449526. Personal number: Q98547939.
Information about about on youtube.com". youtube.com. Archived from the original on September 3, 2019.
Information about About at ncim-stage.nci.nih.gov". ncim-stage.nci.nih.gov. Archived from Metathesaurus&code=C0029831 original on 2019-09-03. {{web citation}}: Check value | path= (help)

Information about About at ncim-stage.nci.nih.gov". ncim-stage.nci.nih.gov. Archived from Metathesaurus&code=C0029831 original on 2019-09-03. `{{web citation}}`: Check value | path= (help)

<https://ar.wikipedia.org/wiki/%d9%84>

Alserahy, Hassan Awad, et al (2008), The thinking and scientific research, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition

Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon- Amman