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"A Study to Assess the Knowledge Regarding Impact of Mobile Phone on Vision Among Parents of Under 10 Years Age Group Children in Selected Areas of Pune City"

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Abstract

Introduction: Mobile phones have become an essential part of everyone's day-to-day life especially in children. Prolonged electronics screen use can cause digital eye strain. It can be difficulty to rectify due to increasing smartphone reliance potentially leading to serious public health problems. **The Present Study Title: "**A study to assess the knowledge regarding impact of mobile phone on vision among parents of under 10 years age group children in selected areas of Pune city**" Material And Methods:** In the present study, researcher adopted non-experimental descriptive research design. It was carried out on 200 samples. The Non-probability purposive sampling method was used. Data was collected using demographic profile and a set of self-structured questionnaires. Data analysis was done mainly using descriptive and inferential statistics. **Result:** Result revealed that knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children in which Majority 47% where having were poor knowledge, 38.5% where having average knowledge and 14.5% where having good knowledge. **Conclusion**: The study was conducted to assess the knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children in selected areas of Pune city. The descriptive analysis was done to assess the knowledge which shows that majority 47% where having were poor knowledge, 38.5% where having average knowledge and 14.5% where having good knowledge.

Keywords: Assess, Knowledge, Impact of mobile vision

Introduction

There is no avoiding technology today. Children are exposed to smartphones at a young age, even if they may not have one until their teenage years. If not cell phones, children are exposed to screens via television, computers, and portable DVD players. What is more, pediatric screen exposure has been increasing over time and this trend is predicted to continue.[1]

New technologies always produce unintended uses. For smart phones, you can now add "babysitter" to the list. From infants on up, parents are allowing children to use smart phones more and more – often impacting their functional vision in a negative way.[2]

According to Gattegno, new research and statistics have suggested smartphones could be contributing to the epidemic levels of myopia, the shortsighted refractive error predicted to affect the vision of 50% of the global population by 2050. And other research has reported finding imbalances similar to those seen in people with mental illnesses in the brain chemistry of young smartphone users who spend a large amount of time staring at them.

Research on the effects of digital devices on children's eye health has revealed that unhealthy practices such as looking at the screens of their phones at a very close distance for long periods of time could lead to the development of dry eye symptoms like redness of the eyes or a stinging and burning sensation.[3]

During childhood, the lens of the eye is exceptionally clear. This allows the greatest amount of blue light to penetrate the retina. Therefore, it is paramount that parents take precautions in limiting the time their children spend on these devices.

Need for Study

The use of smartphones has been increasing rapidly since their introduction in the late 2000s. In 2019, the global smartphone penetration had reached approximately 41.5% of the global population. Notably, the number of smartphone users in China was around 700 million in 2018, accounting for half of the Chinese population. In addition, more than 80% of people in the United Kingdom owned or had ready access to a smartphone in 2019, representing a significant increase from 50% in 2012. Furthermore, more than 90% of young people between 16 and 34 years old in the United Kingdom owned a smartphone in 2019.[5]

Increase in technology development results in increase in the use of digital devices. About 75% of teenagers have smartphones and 25% teens are constantly connected to the internet. More than 75% of teens have their social media accounts on different social networking. The COVID-19 pandemic also contributed a lot to the growing use of digital devices. It had changed the whole education system. Pandemic had made children more dependent on digital devices.[6]

Increased concern about impaired vision due to smartphone overuse, existing Despite quantitative evidence about the relationships between excessive smartphone use and visual impairment remains equivocal. Therefore, it is essential to confirm and quantify whether excessive smartphone use may result in visual impairment, especially in children and young adults. The main aim of the present study is to assess the knowledge regarding impact of mobile phone on vision among parents of under 10 years age group children in selected areas of Pune city.

Aim of the Study

The main aim of the study was to assess the knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children.

Research Methodology

In the research study it was used Quantitative research approach method with non- experimental design as the research design. Sample of the study was the Parents of under 10 year age group children and the sample size was 200. The sampling technique used was non – probability purposive sampling technique. Reliability was done by taking 20 samples from the particular area by following all the criteria and r value obtained was r = 0.79 so the tool is reliable. Pilot study was done with 20 samples and it was successful and feasible to conduct the main study. Final data collection was done with 200 samples from the Parents of under 10 year age group children and the data was collected by using self- structured questionnaire.

Result

Section I: Demographic Profile

Section II: Analysis related to level of knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children.

Section III: Analysis related to item wise analysis of self-structured questionnaire regarding impact of mobile on vision among parents of under 10 year age group children.

Section- IV-Association of demographic variables.

Section I: Demographic Profile

- Describe the finding related to demographic variable Age Majority 48% of the parents had age between 24-34 years.In parents 69% parents were mother.

- Describe the finding related to demographic variable Educational Qualification 45.5% parents were having higher secondary
- Describe the finding related to demographic variable In Type of family mainly 68.5% parents were having nuclear family.
- Describe the finding related to demographic variable In How many children Mostly 40.5% parents having one child.
- Describe the finding related to demographic variable majorly 64% parents do not have information regarding impact of mobile phone on vision in children.

Section II: Analysis related to level of knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children.

n=200

Level of Knowledge	f	%	Mean	SD
Poor (1-7)	94	47	**8.74**	**3.48**
Average (8-13)	77	38.5		
Good (14-20)	29	14.5		

Section- III-Association of demographic variables

Findings related to the association of demographic variables with knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children. It depicts that the association between selected demographic variables & knowledge regarding impact of phones on vision demographic variables such as Age, Parent, Education, Type of Family, how many children do you have, Do you have any information of mobile phone on vision are not significantly associated with any demographic variable as p value is more than significant level of 0.05.

Discussion

The present study was undertakento assess the knowledge regarding impact of mobile phone on vision among parents of under 10 years age group children in selected areas of Pune city.

The study can be discussed with a similar study by James et al conducted Qualitative study on Parents' Attitudes Toward School Students Overuse of Smartphones and Its Detrimental Health Impacts:" researchers interviewed parents in Kuwait to explore their awareness and attitudes regarding smartphone overuse among their children. Almost all participants were aware of the potential addiction and health impacts associated with excessive smartphone use. While parents closely supervised their children's smartphone usage, controlling the duration remained challenging. Common side effects included eye problems, headaches, and anger. Strong social bonds within families played a significant role in managing smartphone use. The results showed that almost one-half of the participants (56/120, 46.7%) had noticed specific health complaints among their children due to Smartphone overuse , the majority of which were eye complaints (48/120, 40.0%), including eye dryness (16/120, 13.3%), blurry vision (15/120, 12.5%), and tired eyes (17/120, 14.2%). In addition, complaints related to the children's mental state had been noticed (44/120, 36.7%) The study highlights the need for solutions to address this issue.

In the knowledge analysis it resulted 47% of the adults were having Poor knowledge regarding impact of mobile phone on vision. 38.5% of the adults were having Average knowledge and 14.5% of the adults were having good knowledge regarding impact of mobile phone on vision among parents of under 10 year age group children.

Conclusion

The current research aimed to evaluate parental understanding of the effects of mobile phone use on vision among parents of children under 10 years old in selected areas of Pune city. The study did not identify any significant correlations between knowledge levels and various demographic factors related to the impact of mobile phone

usage on vision among these parents. Notably, 47% demonstrated poor knowledge, 38.5% displayed average knowledge, and 14.5% exhibited good knowledge regarding this topic. The average knowledge score was 8.74 ± 3.48.

These findings highlight a crucial need for increased health education efforts within the community, specifically focusing on raising awareness about the potential impacts of mobile phone usage on vision. Health care professionals should play a pivotal role in delivering this education, emphasizing the importance of mitigating risks associated with excessive mobile phone use, especially among young children. By enhancing awareness and understanding among parents, proactive measures can be taken to safeguard children's vision health in the face of increasing mobile technology exposure. This study underscores the urgency of prioritizing health education initiatives to address this emerging public health concern effectively.

Conflict of interest: The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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Dissemination of Findings

The findings may be communicated by journal publication and standardization, presentations, symposia, conferences, and health education

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