



GADGET'S MASTER OVER THE ROMP (PARENTAL TENETS ON USAGE OF GADGETS BY CHILDREN AND ITS INFLUENCE ON ACTIVITY RELATED TRAUMA)

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ABSTRACT A survey to evaluate knowledge and perception of parents over child's gadget usage and its influence over dental trauma. A paper-based closed-ended questionnaire was circulated among 107 parents of 5-11-year-old children. The questionnaire was made available to those parents who had reported to the dept of pedodontics, ragas dental college, Chennai with acceptance to participate in the study with subsequent fulfillment of inclusion criteria. The questions were majorly involving the influence of gadgets on dental trauma, screen time, percentage of different types of gadget exposure, need for educational and motivational programs on the benefits of minimal gadget usage. The results of the 25 item questionnaire showed that the influence of gadgets was said to be peaking more and it is considered to be a highly influential factor on trauma whose incidence reduced as the time of usage and the devices frequently used per day was recorded in this survey (52.3 % of children used gadgets 3-4 hours daily and 48.5 % children use smartphones). The survey concluded that the usage of gadgets played an important role in the incidence of traumatic injuries. In contrast, even though it decreased the rate of trauma every pediatric dentist should take into consideration that children are living in a gadget-driven environment that could have a deleterious effect on a healthy body and mind.

KEYWORDS : gadgets , trauma, questionnaire, smartphones

INTRODUCTION

In India, as time aged, electronic devices were productively used for communication and entertainment purposes and their prime use was associated only with adults. Children's prior entertainment if dated back to the 19th century would be only outdoor games as they had many of them from their age to accompany (joint family system). In ancient Indian architecture, the children of the house were provided with adequate space to move around and involve in physical activities on recreational grounds. As culture developed and urbanization came into place, the population from the rural areas moved to urban cities and accommodated in houses that were built as multiple chambers and got concentrated as nuclear families. In the present era, both children and grown-ups use, phones, Xbox, iPod, tablet, and stereo system for various purposes like playing games, watching videos, listening to songs, chatting with their friends, browsing different websites. Screen time, strain to the eyes, obesity and physical illness due to lessened activity become the harness for the gadget using individuals. But keeping the children away from these gizmos is a difficult task, minimising the time can reduce the impact on their extracurricular activities. Even, children are at the age of using nursing bottle knows to handle the gadgets among which toddlers (29%) adapt to it and 70 % of the children master it as they enter kindergarten.

According to the American Academic of Pediatrics, a child's average screen time is 7 hours per day¹ and increased use of it resulted in distraction from education, problems in schooling, difficulty in sleeping and eating as well as malicious behavior².

Physical activity in preschool-aged children at times might result in dental trauma. They usually report minor enamel cracks to major challenges like an avulsed tooth. These traumatic injuries to the child's dentition present a special challenge to the triage of people i.e. the dentist, parent, and the children themselves. Therefore assessment of the influence of gadgets on the little human's physical activity is necessary. Since parents are the ones who make sure that the child is active and healthy, the study aimed to understand the knowledge, perception of parents over the child's gadget usage and its influence over dental trauma.

METHODOLOGY

This study was comprised of a set of questionnaires which was circulated among 107 parents/caregivers of children aged 5-11 years attending the outpatient department (OPD) of dept of pedodontics, Ragas dental college and hospital, Chennai. Before filling the questionnaire, the purpose of the study was explained to the parents/caregivers and Informed consent was obtained from both. The questionnaire consisted of demographic details, information on the

usage of electronic devices, and dental trauma. This study was mainly focused on parents of school-going children as they will be exposed to the community in the future.

INCLUSION:

- Children/ parents willing to participate
- Parents aged 20- 60 were included
- School going children

EXCLUSION:

- Working Parents who are not spending adequate time with children
- Those who do not possess any source of electronic devices at home
- Parents whose children are staying away from either in hostels or relatives' houses
- Parents whose children require Special health care needs.

After evaluating the criteria mentioned above They were given the questionnaire, consisting of multiple-choice questions which include information on the usage of electronic devices among children and its influence over dental trauma. They were informed that all the responses were for research purposes only and will be maintained confidentially. All the responses/data were tabulated and statistics were done.

RESULT

A total of 107 parents of children aged 5-11 years participated in this study. Out of the 25 item-questionnaire which was formulated and circulated among the parents, few important questions were illustrated in graph format and the answer for each question was documented (in percentage as illustrated in figures 1,2,3&4) as follows :

FOR QUESTION 1 :

- a) 70.09 % of parents said their child like to play
- b) 29.9 % do not like to play

FOR QUESTION 2 :

- a) 14.9 % of parents think it's healthy to replace indoor games in place of outdoor games
- b) 85.04 % told it's not healthy to replace

FOR QUESTION 3 :

- a) 78.5 % of parents said they use electronic devices
- b) 21.4 % do not use those devices

FOR QUESTION 4 :

- a) 44.1 % of parents said their child has access to recent apps
b) 58.8 % said, they don't have access

FOR QUESTION 5 :

- a) 29.9 % of parents said their children learn new information on social networks
b) 70.09 % of parents said their children don't learn anything new

FOR QUESTION 6 :

- a) 71.9 % of parents said their children were addicted to gadgets
b) 28.03 % were not addicted

FOR QUESTION 7 :

- a) 14.9 % of parents said that these electronic devices were safe for their child
b) 85.04 % said it was unsafe

FOR QUESTION 8 :

- a) 72.89 % of parents confiscated their child from using gadgets to discipline him/her
b) 26.26 % said they don't confiscate

FOR QUESTION 9 :

- a) 69.1 % of parents said that they were aware of dental trauma
b) 30.8 % were unaware of it

FOR QUESTION 10 :

- a) 58.8 % of parents said their child had undergone dental trauma in the past
b) 41.4 % did not undergo any

FOR QUESTION 11 :

- a) 72.8 % of parents said usage of gadgets reduced dental trauma
b) 27.1 % said there was no relationship

FOR QUESTION 12 :

- a) 67.2 % of parents said that their interaction with the family/peers and the outside environment has reduced after the introduction of gadgets
b) 32.7 % of parents said there was no difference

FOR QUESTION 13 :

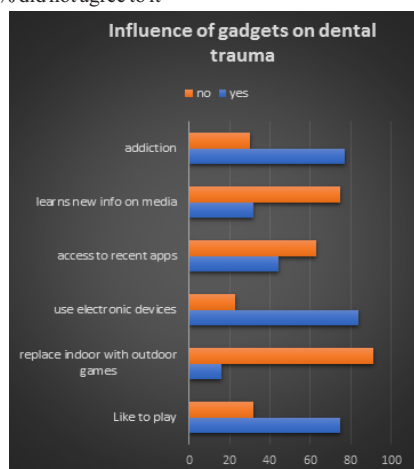
- a) 14.01 % of parents said their child uses these devices for less than 1 hour daily
b) 52.3 % of parents said their child uses gadgets for nearly 3 – 4 hours daily
c) 32.7 % said for more than 5 hours daily they use

FOR QUESTION 14 :

- a) 19.6 % of parents said their child watches television
b) 4.6 % of parents said their child uses gaming
c) 11.2 % said they use iPad/tablets
d) 48.5 % children use smartphones
e) 8.4 % of them use laptops

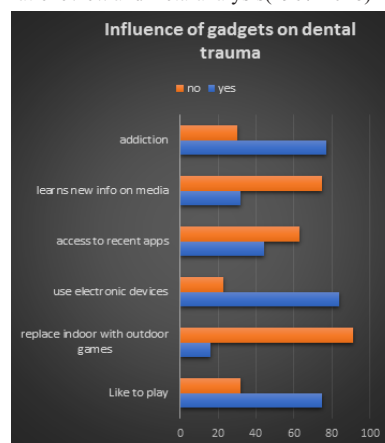
FOR QUESTION 15 :

- a) 75.7 % of parents agreed that their children will engage in outdoor play if they were given motivational/educational speech
b) 24.2 % did not agree to it

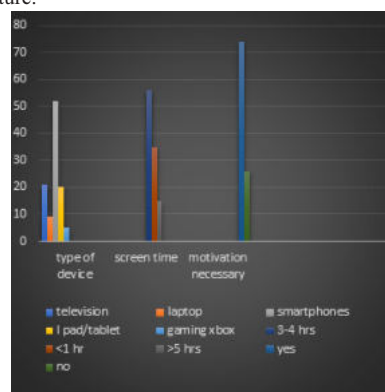
**Fig.1: Influence Of Gadgets On Dental Truuma****DISCUSSION:**

Parents play a pivotal role in growing healthy and smart children and they are the immediate action warriors who are going to indulge in providing first aid to them. Traumatic dental injuries are common among school-going children due to physical activities and learning newer cultural activities like martial arts. But as the age passed technology engulfed the time frame and children are gimmicked by the fantasy of the gadgets. Findings of Elizabeth et al, depicted 75% children (television) 32% (DVD/ video). In contrast to it, Vanderwater³ showed that only a few people were exposed to DVD/ Video i.e. only 5.3 % as other newly handy gadgets revolutionized that includes IPAD/tablets (32%), laptops (10%), smartphones (85%). Parents who tried to confiscate the gadgets to indulge them with families resulted to be in vain as in our study, 72.89 % parents confiscated their child from using gadgets to discipline him/her yet 26.26 % did not. This was supported by the study conducted by Samantha John et al⁴, parents withdrew smartphones but they seemed to be upset and sleep-deprived.

Prevalence of Traumatic dental injuries among Indian population children were about 15% (<6 years) and 12%(>6 years), as mentioned in the systematic review and meta-analysis (1967-2018)

**Fig.2:influence Of Gadgets On Dental Trauma**

by Nitesh Tewari⁵. Recently a study conducted by Kalaskar⁶ among adolescents in India reported prevalence from 4–35%. This showed that there was a reduction in the incidence in the rate of trauma and this may be due to the increase in parental awareness on safety measures from the sports-related injuries or precautions they take to prevent or due to reduced physical activity. To resolute the suspicion of whether gadgets were the reason for the reduced physical activity, this study was performed to delineate and throw light on the screen time of gadgets and enable us to understand whether gadgets are the real reason for the reduction in trauma. Further analysis should be performed on a large scale population to have a better ideology. On the added advantage, the questionnaire also asked for the opinion of parents for creating awareness and provide knowledge via counseling and conducting programs on the use of gadgets which eventually make the children indulge in outdoor activities with the provision of precautionary measures thereby presenting them with better and brighter future.

**Fig.3: A) Type Of Device B)screen Time C)will Motivation Bring About Change In Children To Indulge More In Outdoor Activity**

CONCLUSION

Change is the law of nature. Everything that revolves along with the world has to have some change. Therefore it is necessary to understand that separating children from gadgets is not a piece of cake. Even though it is good to hear that there is reduced dental trauma as they have been submerged in gadget-driven entertainment, when the overall well being is affected, it must be kept at vigilance. Parents should encourage the children and spend time with their wards to bring a positive mental attitude and fellowship with their peers. This would also help in their academics and to enjoy life in reality with fun activities leading to commendable body and mind.

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