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A Descriptive Study to Assess the Usage of Electronic Media and Its Impact on Physical Activity and Wellbeing among School Children in Bagalkot

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Abstract **Original Research Article**

Introduction: Electronic media usage is common among children, and it can impact their social, emotional, and physical health. Children use electronic devices for variety of purpose, including social media online videos and games. ***Methodology***: Descriptive research design was used for the study and it was conducted on 60 children by using non-probability sampling technique on selected school. Data was collected using, demographic data structured questionnaire of electronic media, physical activity questionnaire scale, WHO-5child wellbeing index scale. ***Result*:** Result of this study related to impact of electronic media on physical activity and wellbeing among school children shows that out of 60 children 80% children have low physical activity, 17% children have moderate physical activity, and 3% children have high physical activity. According to children wellbeing 2%children were having worse wellbeing, 28% children were having better wellbeing, and 70% children were having good wellbeing. ***Conclusion*:** The study concluded that the use of mobile phones by young generation has increase resulting physical, social and psychological impact. The role of Nursing personals and family to regulate the use of electronic media and guide the children for proper usage of mobile.

Keywords: Electronic media usage, Physical activity, Child wellbeing, School children, Mobile phone impact.

INTRODUCTION

Electronic Media can impact children's social and physical development. Overreliance on digital interactions might hinder the development of child. Excessive use of social media and online platforms may lead to severe consequences including physical activities of children.

One of the notable changes in our social environment in the 21st century has been the saturation of our culture and daily lives by the mass media. Unfortunately, the sequences of one particular common element of the electronic mass media have a particularly detrimental effect on children's wellbeing.

Television and other types of screen media are not appropriate activities for very young children and that older children should be carefully monitored, and kept within safe time limits, when viewing or playing on any such media. On the other hand, social media is a form of electronic communication where users create online communities to share information, ideas, personal messages, and other contents.

MATERIALS AND METHODS

Research approach: A descriptive non-experimental approach is used in this research study.

Data collection: Data collection is gathering information relevant to the research problem. Data regarding the usage of electronic media and its impact on physical activity and wellbeing among children was collected from school children residing in Bagalkot. Prior permission was obtained from the head teachers of each school of Bagalkot and consent from all the children for their participation in the present study. Then researcher

collected the database on their availability i.e. after 4 pm every day.

Research Design: The research design adopted for the present study was a Descriptive research design.

Duration of Study: 1year

Research Variable

Socio demographic variables: It includes socio-demographic characteristic of school going children such as age, type gender of family, family monthly income, number of siblings, ordinal position in the family, height, weight, BMI.

Sample Size: In the present study, Researcher has selected **60 children** residing in school Vijayanagar Old Bagalkot and Vidyagiri Bagalkot district.

Sampling Technique: Non-probability sampling technique.

Inclusion Criteria

- Who are able to read and write English.
- Who are available at the time of data collection.
- Who are willing to participate in the study.

Exclusion Criteria

- Those children who are sick at the time of data collection.
- Those children who are not co-operative.

Tool/Instrument

- The tools used in the present study are sociodemographic data, structured questionnaire of electronic media usage, physical activity questionnaire scale, WHO-5child wellbeing index scale.

PART-I: Demographic data of children-it includes 9 variables age, gender, type of family, family monthly income, number of siblings, ordinal position in the family, height, weight, BMI.

Part-II structured questionnaire: This structured questionnaire is for asses' electronic device usage in children. It consist of 10 items with 4 points ranging from lower to higher. Higher score indicates higher the usage of electronic devices.

Part-III physical activity questionnaire: This scale is to assess the level of physical activity in a normal week. This scale consists of 7 items with 5 points lower to higher. higher score indicates higher level of physical activity in a week.

Part-IV: WHO-5child wellbeing index scale for measure child wellbeing.

The WHO -5child wellbeing index consists of 5 statements describing positive states of being. For each statement, the child is asked how often they felt that way during the past two weeks.

Statistical Analysis:

The information was analyzed using SPSS 18. Data were entered into an MS Excel spreadsheet and then transferred into SPSS. Data were organized and explained using descriptive and inferential analyses to determine the association between variables.

Ethical Consideration

- Ethical approval was obtained from the B.V.V.S Sajjalashree Institute of Nursing Sciences ethics committee, Bagalkot, Karnataka.
- Permission from selected school headmaster
- Consent obtained from the study participants

RESULT

Section I: Frequency and percentage distribution of socio demographic variable of school going children

Majority of Percentage wise distribution of children according to their age reveals that out of 60 children twelve age groups 5%, thirteen age group26%, and fourteen age group 68%. Gender reveals out of 60 children female children43% and male children 57%. nuclear family 62%, joint family35%, extended family 3%,1 sibling 40%, 2 sibling 38%, 3 or more sibling20% and under none2%. Weight 20-30kg7%,30-35kg40%, 35-40kg27%,40-45kg8% more than 45kg 0%. BM normal weight98%, overweigh, 2%, under weight 0%.

Section II: Assessment of electronic media usage among children

- percentage distribution of children according to their usage of electronic media reveal that out of 60 children, 5% television, 11.6% computer,73.3% mobile and 10% play station. Most used electronic device, 10% television, 8.3% computer, 73.3% mobile and 8% play station. Children having computer /television in their bedroom, 83.3% answered as yes &16.6% answered as no. Sleep hours, 58.3% less than 7hours, 13.3%sleep 7-8hours, 28.3% sleep more than 8hours.Electronic devices at school, 83.3% answered as yes &16.6 answered as No. Purpose of using electronic devices, 36.6 academic purpose, 36.6% social networking, 26.6% games. Electronic media helps studies or game, 48.3% children answered as yes &1.6% answered as no, 40% children in studies &10% in games.

Section III: Assessment of physical activity of school children

Level of physical activity	Range of score	Scoring	Percentage
Low physical activity	<15	48	80%
Moderate physical activity	15-20	10	17%
High physical activity	>20	2	3%
TOTAL		60	100%

Percentage wise distribution of children according to their level of physical activity reveals that out of 60 children, 80% children have low physical activity, 17% children have moderate physical activity, and 3% children have high physical activity.

Section IV: Assessment of wellbeing of school children

Level of wellbeing	Range of score	Scoring	Percentage
Worse wellbeing	5-10	1	1%
Better wellbeing	10-15	17	28%
Good wellbeing	15-20	42	70%
TOTAL		60	100%

Percentage wise distribution of children according to their level of wellbeing reveals that out of 60 children, 0.01% children were having worse wellbeing, 28% children were having better wellbeing, and 71% children were having good wellbeing.

Section V: association between socio demographic data with physical activity and wellbeing among school children

The calculated chi square values for the socio-demographic variables like Age [1.5597] gender of children [0.0048], family income per month [0.003], Type of family [0.7756], number of siblings [6.833], your ordinal position in the family [0.018], height [0.8052], weight [0.0538], BMI [0.0209]. The chi square table value is 3.84

Hence the chi square calculated values are lesser than the chi square table value. This indicates that there was no significant association found between the above said selected socio–demographic variables with research study P<0.05

The calculated chi square values for the socio-demographic variables like children's Number of siblings [6.833].

Hence the chi square calculated values are higher than the chi square table value. This indicates that there was significant association found between the above said selected socio–demographic variables with research study P<0.05

The calculated chi square values for the socio-demographic variables like Age [1.0179] gender of children [0.0078], family income per month [4.8], Type of family [0.0705], number of siblings [3.3949], your ordinal position in the family [0.954], height [1.4907], weight [0.0667], BMI [0.0124]. The chi square table value is 3.84.

Hence the chi square calculated values are lesser than the chi square table value. This indicates that there was no significant association found between the above said selected socio–demographic variables and electronic media usage with physical activity**<0.05.**

Section VI: association between electronic media usage with physical and wellbeing among school children

The calculated chi square value for the electronic media usage .the electronic devices use among children [0.2297], the most used electronic devices [0.008],time spend on favorite electronic device [0.0536], hours spend on television [0.033], hours spend on computer [0.0013], computer/television on bed room[0.0543], hour of sleep [0.1177], electronic device at school [0.21] purpose of using favorite electronic media[2.45],electronic device helps in studies or game [0.6007] The chi square table value is 3.84.

Hence the chi square calculated values are lesser than the chi square table value. This indicates that there was no significant association found between the above said selected electronic media usage with research study P<0.05.

The calculated chi square value for the electronic media usage .the electronic devices use among children [1.33], the most used electronic devices [0.882], time spend on favorite electronic device [0.48], hours spend on television [0.8316], hours spend on computer [6.40], computer / television on bed room [1.33], hour of sleep [0.73], electronic device at school [1.61] purpose of using favorite electronic media [11.229], electronic device helps in studies or game [6.66] The chi square table value is 3.84. the calculated chi square values for the electronic media variables like hours spend on computer is [6.40], purpose of electronic media usage [11.225], electronic media helps in studies or games [6.66].

Hence the chi-square calculated values are higher than the chi-square table value. This indicates that there was significant association found between the above said selected variables with electronic media usage and socio demographic variables with wellbeing of school children.

Section VII: Impact of electronic media usage on physical activity and wellbeing of school children

Impact of Electronic media usage	Mean	Correlation coefficient (r)	P value
Electronic media usage on Physical activity	13.38	0.2653	0.3147

It is obtained by substituting the values of X and values Y in spearman's Rho correlation coefficient formula. The calculated value of r is -0.2653 suggesting a negative correlation between media usage and physical activity of school children. The p value at 5% level of significant is p<0.314 it suggests that significant negative correlation between media usage and physical activity.

Impact of Electronic media usage	Mean	Correlation coefficient (r)	P value
Electronic media usage on wellbeing	17.08	0.1322	0.3147

It is obtained by substituting the values of X and values Y in spearman's Rho correlation coefficient formula. The calculated value of r is -0.1322 suggesting a negative correlation between media usage and wellbeing of school children. The p value at 5% level of significant is p<0.314 it suggests that significant negative correlation between media usage and wellbeing of school children.

DISCUSSION

The present was designed to assess the impact of electronic media usage on physical activity and wellbeing among school children in Bagalkot. In our study it shows that 80% children have low physical activity, 17% children have moderate physical activity, 3% children have high physical activity. According to children wellbeing 0.01%children were having worse wellbeing, 28% children were having better wellbeing, and 70% children were having good wellbeing. This study shows a significant association between the socio demographic data and electronic media usage on physical activity and wellbeing of children p<0.05. Number of siblings [6.833], hours spend on computer is [6.40], purpose of electronic media usage [11.225], electronic media helps in studies or games [6.66]. Spearman's Rho correlation calculation is used. There is a negative correlation between the electronic media usage and physical activity r value is (0.2653). The negative correlation between the electronic media usage and wellbeing r value is (0.0175). The p -value is (0.3147) Hence the result is not significant at p<0.05.

A similar study was conducted in the department of Pediatrics' OPD at tertiary care teaching institute. A total of 450 children age 15 yrs. were enrolled in the study. Results: the children were using mobiles for 1-3 hours followed by 130 (28.8%) children those who used mobile for more than 4 hours. Physical morbidity like decreased physical activity, laziness, psychological impact in 189 (45.8%), 143 (34.7%) children respectively.

A similar study conducted to asses exposure to audio-visual media devices among 10-year-old children was 92.5%; 27 (7.5%) children had no screen exposure; 62.5% had a daily screen time more than two hours, whereas 57 (17.4%) had screen time less than 1 hour. Children from nuclear families (67.3%) and those born with first order of birth were found to be more media-indulgent. Most popular audio-visual media device was the Smartphone, which was used by 162 (45.6%) children, followed by television (22.8%), laptop (19.7%), tablet (11.3%), and desktop (8.4%). There was a significant correlation (p<0.05) between screen time and different age groups, as well as between age group and types of shows watched. Screen time of more than one hour per day was independently associated with male gender and children.

A cohort study was conducted in Finland to investigate the frequency of electronic media (e-media) usage by school children and the risks of high-dose e-media use on young children's psychosocial well-being. In this study Children aged 13 years (n=699) were participated. The results show that 95% of the preschool children exceeded the daily recommended use of e-media set by health professionals.

CONCLUSION

The study findings show that shows that 80% children have low physical activity, 17% children have moderate physical activity, and 3% children have high physical activity. According to children wellbeing 0.01%children were having worse wellbeing, 28% children were having better wellbeing, and 70% children were having good wellbeing. Significant association between the socio demographic data and electronic media usage on physical activity and wellbeing of children p< 0.05. There is a negative correlation between the electronic media usage and physical activity r value is (0.2653). The negative correlation between the electronic media usage and wellbeing r value is (0.0175). The p -value is (0.3147) Hence the result is not significant a p<0.05. The study concluded that the use of

mobile phones by young generation has increase resulting physical, social and psychological impact. The role of Nursing personals and family to regulate the use of electronic media and guide the children for proper usage of mobile.

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