



RESEARCH ARTICLE

EFFECT OF ELECTRONIC MEDIA ON PHYSICAL ACTIVITY AND PHYSICAL HEALTH

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ABSTRACT

Television, internet and video games are common forms of technology that are used for entertainment and because they all involve a screen they are sometimes referred to as "screen media." A lot of TV, internet and video games are designed to engage children and youth through fast paced images and increasingly violent content. The aim of the study is to assess the effect of Electronic Media on physical activity and physical health among school age children in selected schools at Nellore. A quantitative descriptive survey research design was adopted. A sample size of 30 school age children was selected using Non-probability convenience sampling technique. Structured questionnaire, modified standardized PDPAR tool, and structured checklist were used to assess the effect of Electronic Media on physical activity and physical health among school age children. The data was tabulated and analyzed using descriptive and inferential statistics. The study concludes that majority of school age children are sedentary to moderately active and are using electronic media at moderately high level. The effect of electronic media on physical health is moderate to severe.

INTRODUCTION

The childhood is considered as critical time for brain development. Television and other media can get in the way of exploring, playing, and interacting with parent and others, which encourages learning and healthy physical and social development. As child gets older, too much screen time can interfere with activities such as being physically active, reading, doing homework, playing with friends and spending time with family.

Need for the study

Children in 21st century rely on technology for the majority of their play, grossly limiting challenges to their creativity and imagination, as well as limiting necessary challenges to their bodies to achieve optimal sensory and motor development. Connor T M, Chen T A, Baranoswski J, Thompson D, Baranoswski T (2013) conducted a study on Physical activity and screen-media-related parenting practices. Children aged 9 to 12 years who received active or inactive videogames (n=83) were selected to promote Physical Activity. Associations were investigated using Spearman's partial correlations and linear regressions.

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Results showed that Increased availability of screen-media equipment in the child's bedroom was associated with more sedentary time (p=0.02) and less light Physical Activity (p=0.01) and Moderate Vigorous Physical activity (p=0.05). Andrew L, Jacob EB, Gabrrel JS, Michael R, and peter G (2013) conducted a study on relationship between cell phone uses, physical and sedentary activity and cardio respiratory fitness in a sample of US College students. Interview schedule was used to assess physical activity behavior and cell phone use. Results showed that cell phone use was significantly (p=0.047) and negatively ($\beta=-0.25$) related to cardio respiratory fitness. Cell phone use and traditional sedentary behavior, may disrupt physical activity. Hence the researcher felt there is a need to conduct study.

Statement of problem

"A study to assess Effect of Electronic Media on physical activity and physical health among school age children in selected schools at Nellore"

Objectives

- To assess the use of electronic media and level of physical activity in school age children
- To assess the effect of electronic media on physical health among school age children
- To assess correlation between use of electronic media, physical activity and physical health

- To associate the use of electronic media, level of physical activity and physical Health with their selected socio demographic variables of school age children.

MATERIALS AND METHODS

Research design: A Non experimental descriptive survey research design was adopted.

Setting: The study was conducted in selected schools of Nellore, Andhrapradesh.

Population: The population selected for this study was school age children.

Sample size: Thirty school age children were selected from selected schools of Nellore.

Sampling technique: convenient sampling technique was adopted.

Criteria for sample selection

Inclusive criteria

- Children between the age group of 8-12 years
- Children who are present to school at the time of study
- Children who are willing to participate

Exclusive criteria

- Children less than 8 years of age
- Children who are physically and mentally challenged

Description of the tool: The instrument contains socio-demographic data, Modified standardized PDPAR questionnaire and structured checklist on effect of Electronic Media on physical health among school age children.

The questionnaire consists of 2 sections:

- Section-I
- Section-II

Section-I: This consists of socio demographic data such as age of child, gender, education, type of family, number of siblings.

Section-II: It consists of part A and B.

Part-A: Structured questionnaire on level of electronic media use

Part-B: Modified standardized PDPAR questionnaire on level of physical activity

Part-C: Consists of 9 item checklist on effect of electronic media on physical health

Scoring key

Interpretation of use of electronic media

Duration of electronic media use	Inference
2 hrs /day	Recommended
2.5-3.5 hrs/day	Moderately high use
4.5-5.5 hrs/day	Severely high use
6 hrs or more	Extremely high use

Interpretation of intensity of physical activity

Intensity of physical activity	Inference
Vigorous Physical Activity, 1 block (30 min) per day	Very active
Moderately vigorous physical activity, 2 blocks per day	Active
Moderately vigorous physical activity, 1 block (30 minutes) per day	Moderately active
Moderately vigorous physical activity, no 30 min block per day	Sedentary

Interpretation of effect on physical health

Score	Inference
Zero	No effect
1 to 3	Mild effect
4 to 6	Moderate effect
7 to 9	Severe effect

Validity

The tool was validated by experts in the Child Health Nursing department and content validity is approved by experts.

Reliability

The reliability of the tool was established by using test retest method and the "r" value was obtained, "r" value is ± 1 .

Feasibility

The tool was tested for feasibility by conducting pilot study among school age children at selected schools of Nellore.

Pilot study

Pilot study was conducted in RCM GOVT School YelamavaryDinny, Chinthareddypalem Nellore. Samples were selected by using convenience sampling technique. Data was collected and interpreted. From pilot study it was found the study was feasible.

Data collection procedure

The data collection procedure was done for a period of 1 week after obtaining the permission from the head master M.P.P school, Thotapalli Gudur. Data collection was done on 30 samples using non probability convenience sampling technique. Students who fulfilled the inclusion criteria were selected. Structured questionnaire, modified standardized PDPAR and structured checklist were distributed to the school age children. Data was collected after orienting questionnaire to the school children.

Data Analysis

The data was analyzed in terms of objectives of the study using descriptive and inferential statistics

RESULTS

- With regard to the distribution of level of electronic media use majority of the sample engaging in watching TV for 2hours per day and playing mobile games for one hour per day. The electronic media use among

school age children is represented as 46.66% of children are using moderately high level and 13.34% of children are using recommended level of electronic media use.

- Among the sample 36.67% of children are in sedentary level of physical activity
- The effect of electronic media on physical health 33.3% are moderately affected by electronic media

use, 46.66% had moderately high use, 30% had severely high use, and 10% had extremely high use of electronic media. Table No.2 Shows the distribution of level of physical activity among school age children 36.67% are sedentary, 40% are moderately active, 13.33% are active, and 10% are very active. The second objective of the study is to assess the effect of electronic media on physical health among school age children.

Table 1. Frequency and percentage distribution of use of electronic media

S.no	Electronic use	Frequency	Percentage
1	Recommended use	4	13.34
2	Moderately high use	14	46.66
3	Severely high use	9	30
4	Extremely high use	3	10
	Total	30	100

Table 2. Frequency and percentage distribution of level of physical activity

S.No	Intensity	Frequency	Percentage
1	Sedentary	11	36.67
2	Moderately Active	12	40
3	Active	4	13.33
4	Very Active	3	10
	Total	30	100

Table 3. Frequency and percentage distribution of effect of electronic media on physical health

S.No	Effect	Frequency	Percentage
1	No effect	1	3.4
2	Mild	9	30
3	Moderate	10	33.3
4	Severe	10	33.3
	Total	30	100

Table 4. Distribution of mean and standard deviation of effect of electronic media on physical health and physical activity

Variable	Mean	Standard Deviation	Correlation Coefficient
Electronic Media	109.5	1.25	-0.688
Physical Activity	38	1.26317	
Electronic Media	109.5	1.25	0.81
Effect on Physical Health	151	2.639	
Physical Activity	38	1.26317	-0.73259
Effect on Physical Health	151	2.639	

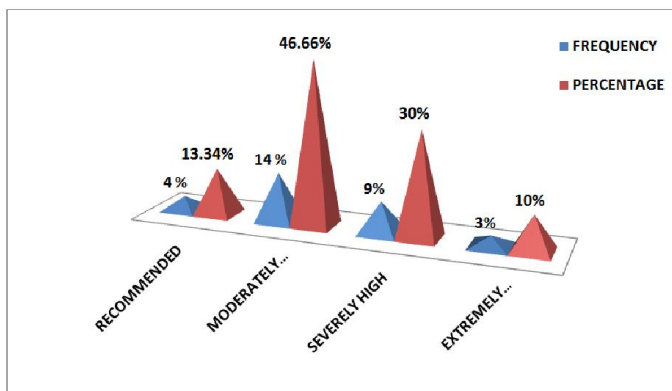


Fig.1. Frequency and percentage distribution of use of electronic media

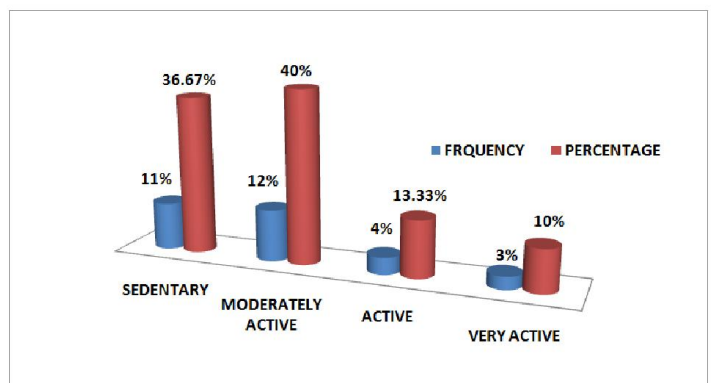


Fig. 2. Frequency and percentage distribution of level of physical activity

DISCUSSION

The first objective of the study is to assess the use of electronic media and level of physical activity in school age children. Table No.1 Shows the distribution of use electronic media among school age children 13.34% had recommended

Table No.3 reveals effect of electronic media on physical health 3.4% had no effect, 30% had mild effect, 33.3% had moderate effect, and remaining 33.3% had severe effect on their physical health. The third objective of the study is to assess correlation between use of electronic media, physical activity and physical health. TABLE.4: reveals there is a

negative correlation between electronic media and level of physical activity and between physical activity and effect on physical health. There is a positive correlation between electronic media and effect on physical health. The fourth objective of the study is to associate the use of electronic media, level of physical activity and physical Health with their selected socio demographic variables of school age children.

- There is no significant association between other demographic variables like gender, education, type of family, no. of siblings with the level of physical activity.
- There is no significant association between demographic variables like age, gender, education, type of family, no. of siblings with the use of physical activity.
- There is no significant association between demographic variables like age, gender, education, type of family, no. of siblings with the effect on physical health

Recommendations

It is recommended to conduct the study on

- effect of electronic media on sleep pattern
- effect of electronic media on nutritional status
- As comparative study between government and private school children
- Effect of electronic media on behavior of school age children

- Effect of electronic media on interpersonal relationship among parents and children

Conclusion

The study concludes that majority of school age children are sedentary to moderately active and are using electronic media at moderately high level. The effect of electronic media on physical health is moderate to severe.

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