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Dr. Pardeep Kumar Sharma
Associate Professor, Ram Lal Anand College, University of Delhi, New Delhi, India

Sachin Patel
Research Scholar, Indira Gandhi Institute of Physical Education and Sports Sciences (IGIPESS), University of Delhi, B-Block Vikas Puri, New Delhi, India

Akash Yadav
Research Scholar, Indira Gandhi Institute of Physical Education and Sports Sciences (IGIPESS), University of Delhi, B-Block Vikas Puri, New Delhi, India

Corresponding Author:
Dr. Pardeep Kumar Sharma
Associate Professor, Ram Lal Anand College, University of Delhi, New Delhi, India

Screen time against physical activity in children under 5 yrs

Dr. Pardeep Kumar Sharma, Sachin Patel and Akash Yadav

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Abstract
This study was conducted to analyze screen time and physical activity among children of age ranging three to five years, total subjects (n=50), boys (23) and girls (27) of Playschools in Delhi were randomly selected. SCRIIN and Google Fit mobile apps were used to gather data regarding mobile screen time and physical activity. In which the average Mobile screen time was 3.43 hours and average physical activity time was 1.69 hours and for physical health status last three months attendance of playschool average absent was 12.86 days. We found, subjects using more screen time and doing less physical activities were more absent in playschool that show they were more prone to physical and psychological disorders.

Keywords: Screen time, SCRIIN, physical and health education, google fit

1. Introduction
The total time an individual spend on all the screens is considered as the screen time, majorly it is consists of mobile/tablet screens, television screen, laptop screen, play stations and etc. [1].
Physical activity is considered as the vital part of lifestyle for healthy growth of a child as it helps in maintenance of healthy body weight, helps in prevention of hypertension and also improves mental health. [2].
However as per recent statements from parents and teachers it is seen that screen time is gradually increased and especially in mobile phones [3] which is one of the major concern for our country, because increased screen time will cause more sedentary lifestyle [4] that will cause decreased physical activities and increase the chances of physical and psychological disorders [5] that will leads to an unhealthy youth.
To find out the real data on mobile screen time and physical activity for children under 5yrs of age we have done this study with the hypothesis that children using more screen time and doing less physical activities are more prone to diseases.

2. Methods
Delhi playschool going Children (n=50) in which girls (n=27) and boys (n=23) were randomly selected as subjects. Age of the subjects ranged between three to Five years. Screen time, physical activity and physical health were selected as the variable for the study. SCRIIN and Google Fit mobile applications were used to measure screen time and last 3 months playschool

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[5] Roshanaei-Moghaddam, B., Katon, W. J., & Russo, J. (2009). The longitudinal effects of depression on physical activity. *General hospital psychiatry*, *31*(4), 306-315.

attendance was used for understanding the physical health of subjects. Both the mobile applications were installed for 10 days in mobile phones used by the children and parents was also guided to not use that mobile phone For statistical analysis of Mean, Standard Error, Median, Mode, Standard deviation, Sample Variance, Kurtosis, Skewness, Range, Minimum, Maximum and Frequency was applied using Microsoft office excel 2010.

3. Results

The Statistical analyzes of data revels the followings that have been shown in Tables:

Table 1: Statistics for Average Screen time (hrs.)

Mean	3.43
Standard Error	0.199494259
Median	3.5
Mode	4.5
Standard Deviation	1.41063743
Sample Variance	1.989897959
Kurtosis	-0.726461616
Skewness	-0.249024491
Range	5.5
Minimum	0.5
Maximum	6
Sum	171.5
Count	50

Table 1: Depicting statistics regarding average screen time among the subjects where average screen time was 3.43 hours, maximum was 6 hours and there was a standard deviation of 1.41 hours among the subjects.

Table 2: Statistics for Average Physical Activity (hrs.)

Mean	**1.69**
Standard Error	0.173140264
Median	1.5
Mode	0.5
Standard Deviation	1.224286548
Sample Variance	1.498877551
Kurtosis	-0.252449126
Skewness	0.902658509
Range	4
Minimum	0.5
Maximum	4.5
Sum	84.5
Count	50

Table 2: Depicting Statistics regarding average physical activity among the subjects where average physical activity time was 1.69 hours, maximum was 4.5 hours and there was a standard deviation of 1.22 hours among the subjects.

Table 3: Statistics for Number of absentees (Days)

Mean	**12.86**
Standard Error	1.036087617
Median	14
Mode	15
Standard Deviation	7.326245802
Sample Variance	53.67387755
Kurtosis	-1.049479449
Skewness	-0.243290581
Range	24
Minimum	0
Maximum	24
Sum	643
Count	50

Table 3: Depicting statistics for total number of absentees from playschool in last three months where average was 12.86 days, Maximum was 24 days and there was a standard deviation of 7.33 among the Subjects.

Table 4: Correlation

	Average mobile screen time	**Average physical activity**	**Absent from Playschool**
Average mobile screen time	1		
Average physical activity	-0.860687635	1	
Absent from Playschool	0.878773195	-0.841111487	1

Table 4: Depicting Correlation among Average screen time, average physical activity and Absent from the playschool, where there is a highly positive correlation among average mobile screen time and absent from school and there is highly negative correlation among average physical activity and absent from school.

4. Discussion

After analysis Physical activity shows highly negative correlation with absent from school so it shows physical activities helps in maintaining good health while the highly positive correlation among Screen time and absent from school shows increased screen time will lead to more hazards to health.

5. Conclusion

Under the limitations of present study following conclusions were drawn Children using more screen time and doing less physical activities are more prone to diseases.

6. References

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