



STUDY OF RELATIONSHIP BETWEEN PHYSICAL WELLBEING, PSYCHO-EMOTIONAL WELLBEING WITH SCREEN TIME OF SECONDARY SCHOOL STUDENTS DURING COVID-19 PANDEMIC

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ABSTRACT

The year 2020 mark the advent of an unprecedented event in the history of the world. The attack of COVID-19 has shaken the whole human community affecting social, economic, cultural, health, education and other domains of the society. The total world was pushed down to its knees and faced lockdown. Economy stopped, educational institutions closed, social interactions avoided and the world showed the signs of depression. Now it's the time to research upon the effect of COVID-19 on various aspects of the society at large.

Hence, the study aims to find the relationship of screen time with physical wellbeing and psycho-emotional wellbeing of secondary school students of Chandigarh during the COVID-19 pandemic period. The investigators constructed screen time scale, physical wellbeing scale and psycho-emotional wellbeing scale to collect and analyse the data. The study was done on the sample of 137 secondary level students studying in various schools of Chandigarh. The data was collected online through Google forms. Analysis was done by employing Pearson's correlation coefficient on the raw data. The results of the study indicated that (i) there is a significant inverse correlation between screen time and physical wellbeing of secondary level students. The coefficient of correlation value was found to be -0.215 which was significant at 0.05 levels. (ii) There is a significant inverse correlation between screen time and psycho-emotional wellbeing of secondary level students. The coefficient of correlation value was found to be -0.258 which was significant at 0.01 levels. It infers that as the screen time increases physical wellbeing and psycho-emotional wellbeing of students go down. The studies done by various other researchers also support this result. Hence the major educational implication for the future in education is that digital platforms in education should be used very carefully.

Key words: Screen time, Physical wellbeing, psycho-emotional wellbeing, COVID-19 pandemic.

INTRODUCTION

The corona virus hit the world at the end of the year 2019. Starting from China it spread like fire gripping the whole world in its claws. The virus was spreading so fast by human to human contact that one after the other, the countries had no option but to lock down completely to avoid the spread of the pandemic. All the activity, whether economic or social, came to a pause. In India, the lockdown started on March 25th 2020. All institutions and other major socially available services were shut down. Education was one of the worst hit sector. COVID-19 impacted the education of students all over the world very badly. According to UNESCO 1.5 billion learners in 165 countries were affected by COVID-19 school closures. The formal learning process, that is, schooling stopped completely. All this led to alternative modes of instruction and learning in different parts of the world. Responding to the situation schools shifted to digital platform. Online classes were started using digital platforms like Zoom and Googlemeet. Even social media platforms like WhatsApp were used to provide lessons to the students having limited access to internet. Indian government started e-vidya portal to promote e-learning (RSTV, 2020). As an immediate response to the situation Zambian govt also launched a Television education channel dedicated to airing educational content in the form of lessons in various subject areas. (Sintema, 2020).

But all these digital interventions led to a substantial increase in the screen time of students. Classes conducted by schools, extra coaching sessions, skill enhancing as well as leisure activities were shifted to online mode only. Hours in front of the screen whether TV, computer or mobile has not only exposed them to physical health problems but also psychological and emotional issues. They are left with little or no time for outdoor physical activities.

Researches indicate that the excessive time using screens is associated with health and well being adversely. For children and adolescents time outside and in contact with nature is associated with increased physical activities and enhanced mental and physical health (Martin, 2011).

RATIONALE OF THE STUDY

The schools and even govt. agencies are trying to continue teaching learning process using digital interventions. But these interventions are leading to drastic increase in screen time of school students which is further leading to health and emotional issues.

It is predicted by the medical fraternity that COVID-19 will continue in near future also. This means that slowly the unlocking would start in different countries. Also the schools may become functional again. But will they be able to go back to previous way of functioning or digital learning will become new normal, is yet to be seen.

Before any decisions are to be taken, government, schools and parents need to be aware of the impact of increased screentime in digital learning on physical and psycho emotional health of the children. This motivated the researchers to take up the present study.

REVIEW OF RELATED LITERATURE

Devoting lot of time on screen has affected the wellbeing of students a lot. Number of researchers tried to find the effect of screen time on health and wellbeing of students. The results of some of the research studies are outlined here.

Martin (2011) studied the impact of excessive screen use on child and adolescent health and wellbeing and found that children and adolescents who spend excessive time watching TV, playing electronic games and using computers are more likely to encounter Physical health disadvantages like obesity, higher cholesterol, decrease cardio vascular fitness, poor sleep patterns etc. It also found that such children are more likely to face issues like depression, anxiety, attention & concentration problems and higher amounts of aggressive behavior.

Joshi, Cole & Overton (2016) assessed the trends of sedentary behavior (screen time) of high school adolescents in U.S. They found that, between 2007 to 2015, there was a decrease in TV screen time but significant increase in other screen time, that is, computer, smart phones and tablets. This increase was consistent across race and gender. It emphasized that parents and educators must incorporate physical activity levels for students to avoid excessive screen time.

Andrew et.al. (2020) studied the children's experiences during home learning during lockdown period and found that primary and secondary students of UK are spending about 5 hours a day on average on home learning (it include online classes by schools). Children from well-off families have better access to online classes and are spending 30% more time on home learning than those from poorer families.

Stieger, Lewetz & Swami (2020) indicates that screen time has increased by about 30 hours per week during COVID-19. Increased screen interface with social interactions had led to negative impacts on Psychological well being.

Wai Wong et.al (2020) found in their study that the digital screen time used for learning by children increased the risk of incidence of Myopia because there was increased access and adoption of digital platforms by the children. The behavioral changes that arise from growing dependence on digital devices may persist even after COVID-19 pandemic. Many

other studies have already found an association between increase computer use and Myopia.

OBJECTIVES

The objectives of the present study are:

- To study the relationship between the mean scores of Screen Time and Physical Wellbeing of Secondary School Students.
- To study the relationship between the mean scores of Screen Time and Psycho-Emotional Wellbeing of Secondary School Students.

HYPOTHESES

The following hypotheses are based on the scores of secondary school level students of Chandigarh.

- There is no significant correlation between the mean scores of Screen Time and Physical Wellbeing of Secondary School Students.
- There is no significant correlation between the mean scores of Screen Time and Psycho-Emotional Wellbeing of Secondary School Students.

DELIMITATION OF THE STUDY

The study was delimited to Secondary level students of various schools of Chandigarh.

SAMPLE OF THE STUDY

The population of the study was all the secondary school level students studying in various schools of Chandigarh. The sample of 166 secondary level students of various Senior Secondary Schools was taken randomly through Google forms. The data of 29 sample students was discarded as they showed experimental mortality. Hence, the result of the study was based on the data of 137 sample students.

TOOLS USED FOR THE STUDY

The investigators prepared the following scales for secondary school level students to study the relationship among the said variables:

1. Physical wellbeing scale
2. Psycho-Emotional wellbeing scale
3. Screen Time scale

DESIGN OF THE STUDY

Descriptive survey method was used to undertake the study. The responses of 137 secondary school level students were taken through Physical wellbeing scale, Psycho-Emotional wellbeing scale and Screen Time scale.

PROCEDURE

The purpose of the study was to see the relationship between Screen Time scale and Physical wellbeing scale & Psycho-Emotional wellbeing scale of secondary level students of schools of Chandigarh. Investigators constructed and validated the three scales relating to Physical wellbeing scale, Psycho-Emotional wellbeing scale and Screen Time scale. The three scales were administered on the said sample. The raw data was tabulated and scores were calculated. The obtained scores were subjected to analysis by calculating Pearson's correlation coefficient through SPSS. Finally the results were obtained and discussed.

STATISTICAL TOOLS USED

Descriptive statistics was used to study the nature of the data and Pearson's correlation coefficient was used to analyze the data.

ANALYSIS OF DATA

The analysis of data was done by testing the hypotheses framed for each objective.

1. The hypothesis of the first objective, "To study the relationship between the mean scores of Screen Time and Physical Wellbeing of Secondary School Students," was tested by calculating coefficient of correlation value between mean scores of Screen Time and Physical Wellbeing of the sample used for the study.

Table 1: Coefficient of correlation between Mean Scores of Screen Time and Physical Wellbeing

S.No.	Variable	N	Mean	SD	SEM	Coefficient of Correlation 'r'	Level of significance
1.	Screen Time	137	33.30	4.744	0.405	-0.215	0.05
2.	Physical Wellbeing	137	32.48	7.745	0.662		

Table 1 shows the coefficient of correlation value between the mean scores of Screen Time and Physical Wellbeing scales of the sample taken. The analysis was done on the sample of 137 students with mean value of 33.30 for Screen Time scale and 32.48 for

Physical Wellbeing scale. The coefficient of correlation value has been found to be -0.215, which is significant at 0.05 levels.

Hence, the hypothesis, “There is no significant correlation between the mean scores of Screen Time and Physical Wellbeing of Secondary School Students” of the sample taken for the study,” may not be accepted. Instead, there is a significant negative correlation between the mean scores of Screen Time and Physical Wellbeing of Secondary School Students. This means that students who have high screen time viewing have lower physical well being and vice versa.

2. The hypothesis of the second objective, “To study the relationship between the mean scores of Screen Time and Psycho-Emotional Wellbeing of Secondary School Students,” was tested by calculating coefficient of correlation value between mean scores of Screen Time and Psycho-Emotional Wellbeing of the sample used for the study.

Table 2: Coefficient of correlation between Mean Scores of Screen Time and Psycho-Emotional Wellbeing

S.No.	Variable	N	Mean	SD	SEM	Coefficient of Correlation 'r'	Level of significance
1.	Screen Time	137	33.30	4.744	0.405	-0.258	.01
2.	Psycho-Emotional Wellbeing	137	38.63	10.794	0.922		

Table 2 shows the coefficient of correlation value between the mean scores of Screen Time and Psycho-Emotional Wellbeing of the sample taken. The analysis was done on the sample of 137 students with mean value of 33.30 for Screen Time and 38.63 for Psycho-Emotional Wellbeing. The coefficient of correlation value has been found to be -0.258, which is significant at 0.01 levels.

Hence, the hypothesis, “There is no significant correlation between the mean scores of Screen Time and Psycho-Emotional Wellbeing of Secondary School Students of the sample taken for the study, may not be accepted. Instead, there is a significant negative correlation between the mean scores of the Screen Time and Psycho-Emotional Wellbeing.

This means that students with higher screen time viewing have lower Psycho-Emotional Wellbeing and vice versa.

DISCUSSION

Significant negative correlation between screen time & physical wellbeing and screen time & psycho-emotional wellbeing are suggestive of the negative impact of closure of schools due to lockdown during pandemic. Similar results were found by Xiang, Zhang, Kuwahara (2020) in their study, 'impact of COVID-19 on children & adolescents lifestyle behavior larger than expectation'. The study showed that the reduced physical activity and prolonged sedentary behavior due to increased screen time negatively impacts children and adolescents physical and mental health and in turn such worsened conditions would further reduce physical activity level and prolonged sedentary behavior.

Martin (2011) also suggested the negative effect of screen time through electronic gadgets on Physical health in the form of obesity, higher cholesterol, decrease cardio vascular fitness, poor sleep patterns etc.

Stieger, Lewetz & Swami (2020) also showed that increased screen interface with social interactions had led to negative impacts on Psychological wellbeing. Wai Wong et al (2020) found the relationship between digital screen time and myopia.

EDUCATIONAL IMPLICATIONS:

The implications of these results are long lasting. On one hand parents and schools should become aware of severity and negative impact of increased screen time on physical wellbeing and psycho-emotional wellbeing during the period for which schools are closed. So they should try to take appropriate measures like encouraging the children to increase physical activity or incorporate those activities in their routine which promote learning as well as physical activeness. On the other hand, after the schools reopen, the government and school management policies should strike balance between off-line and on-line mode of education. So, blended learning may seem to be a better option than completely continuing with digital mode.

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