

## MODERN DAY GADGETS & THEIR IMPACT ON HEALTH & ACADEMIC PERFORMANCE OF THE YOUTH

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### ABSTRACT

*“Youth is the future of every nation” is a popular saying and holds true for every country. When a country has an educated and knowledgeable workforce enabled with the latest technology, then the country is bound to lead the world in overall progress and development.*

*Modern day gadgets such as Tablets, smartphones, Ipads, laptops, etc. are electronic devices which can be easily carried from one place to another. These are being used by the younger generation of today for brighter prospects but they end up falling to its harmful effects. Though, there are significant advantages arising from these “Tech devices” like easy accessibility to information, instant connectivity, enhancement in knowledge, etc. but addiction to these devices are proving to be a menace rather than a boon. Over the last decade, research into addictive technological behavior has substantially increased. Reports have shown that internet, apart, from its benefit for the educational development of young people, is also associated with some negative effects on their psychological wellbeing.*

*The study aims to study the repercussions of excess use of modern gadgets on both health and academic performance of the younger generation. It has been observed that the youth is experiencing its serious consequences such as increased levels of anxiety and depression, insomnia, lack of appetite, dissatisfaction with body image, cyber-bullying, and FOMO (Fear of missing out). Its ill effects can also be seen on their academic performance (poor scores or failing in exams etc). The youth, it seems, has forgotten that modern-day gadgets should improve their life and not become their life.*

**KEYWORDS:** Youth, Modern Day Gadgets, Insomnia, FOMO

### INTRODUCTION

“All that glitters is not gold” is an age-old saying and time and again has been proved right. Electronic gadgets have become an integral part of our daily lives. Computer use has reached beyond work and is now a major source of recreation for many youngsters. Due to its widespread network, it has become a major source of information and entertainment for a large number of people. One feels very proud and privileged to own the latest tech devices such as smartphones loaded with the latest apps, Ipads, play-stations, etc. but the truth still remains that they are taking a toll not just on health but also on the academic performance of students.

The indiscrete and excessive use of it has affected their eyesight and the youngsters often complain of vision problems. This addiction is taking a heavy toll on their studies too. Subconsciously, they remain focused on whether they

have missed out on something, if not using these devices. The students, in particular, are not able to concentrate on their studies, they are not able to retain what they read (memory loss), which, in turn, is reflecting on their results/ academic performance.

The youth needs to be educated on the balanced use of these devices so that neither their health nor their studies get adversely affected. Addiction of any kind is bad for an individual. The society, especially, the medicos, have been grappling with drug addiction for a long time but the growing concern now, is the vociferous use of tech-devices like Facebook, Twitter, You-tube, Instagram, Blogs, LinkedIn, etc.

The “Gadget addiction”, in particular, among the youth is a matter of serious concern for everyone. We find children as young as 2years old glued to smartphones all the time, watching cartoon shows on YouTube, infact young parents hand over their gadgets so that the child could eat or give them some rest time. One can well imagine the gravity of the situation when the worried parents bring their teenage children to health centers complaining of disorders like anxiety, headache, insomnia, lack of appetite in some or excessive eating disorders, weight gain, depression, and mental disorders.

Gadgets are electronic devices which can be easily carried from one place to another. Examples of electronic gadgets are Tablets, smartphones, laptops, etc. Excessive use of these devices leads to addiction which is craving, not being able to stop oneself from using, social & psychological disorders. It is very important to study the association between modern-day gadgets and their effect on the health of youth.

Youth is the future of a country and if they are not in control of any situation, there is no hope for society at large. It is, therefore, of utmost importance that a careful analysis is brought about through the addiction of tech-devices and its effect on the health of youngsters.

## **REVIEW OF LITERATURE**

### **Positive Effects of the use of Modern Day Gadgets on Health of the Youth**

Tsitsika and Janikian in their study in 2013 have explained how people of different age groups remain interconnected across the globe through the use of social networking sites such as Twitter, Facebook, LinkedIn, Youtube, blogs, etc. According to their findings of 32.7% of the world’s population has access to these social networking sites which is helping them share their experiences with family and friends. Sellan and Harper (2002) have explained in their study, that it is easy and immediate access to health-related inventions through the internet for medical experts. This definitely highlights the positive effect of the use of tech-devices. Ophir, Nass, and Wagher (2009) have highlighted an interesting fact about the use of digital devices. According to their findings, individuals can master multi-tasking and the use of digital devices enhances the performance of cognitive. In his study, Samson (2010), has explained the positive effect of laptops and tech-devices on students, who are motivated by their instructors, and thus they remain connected to course learning objectives.

### **Negative Impact of the use of Modern Day Gadgets on Health of the Youth**

A very significant aspect was highlighted by Erickson(2012) regarding the continuous use of modern day gadgets. According to him, communication among the youth has been severely affected. The youth prefers using tech devices vis-à-vis communication with their friends & relatives. Walsch(2012) in his study has clearly stated that the ill effects of the use of tech devices should have been known before so that students could be advised to use them cautiously and minimally.

Young (1998) has also explained how the mental health of people is getting affected through the use of social media. Cabral (2011) has stated that the youth of the present day is addicted psychologically also to social media which is reflecting on their intolerance and anxiety disorders. According to Cotton(2001), online shopping and playing games via the internet are causing depression among youngsters.

### **Positive Impacts of use of Modern Day Gadgets on Academic Performance of the Youth**

The study conducted by Clegg and Bailey (2008) stated that the learning process through the modern day gadgets such as smartphones, tablets, laptop, etc. makes it more fun and helpful as it requires the student to engage in the activities and they provide the student with a more learning through the visuals environment which makes it easier to retain. Honey et al (2005) noted that more and more youth is taking advantage of the modern-day gadgets and is using them to do their assignments and improve their knowledge. This has a positive impact on the academic performance as theyouth can understand more and retain better by having a blend of both classroom learning and using modern day gadgets to extend the reach and broaden their experiences beyond the classroom.

There has been strong evidence that people who use smartphones and laptops to play games have a better grasping power and a better ability to read and visualize images which helps them in understanding the problems quickly and more accurately (Subrahmanyam et al, 2000).

### **Negative Impacts of use of Modern Day Gadgets on Academic Performance of the Youth**

According to the study conducted by Arnetz BB et al (2005), the students who use cellphones excessively put their sleep at risk and are more vulnerable to problems like mood swings and personality changes. This further leads to lack of concentration and poor academic performance. It has also been found in the studies of Wolfson and Carskadon(1998) that students who got 'D' and 'F' grades in their tests were getting less sleep due to being addicted to modern day gadgets as compared to the students who got 'A' or 'B' as they got the right amount of sleep. Similarly, Strasburger et al (2010) noted that modern-day gadgets are majorly consuming the time of the youth and changing their behavior patterns as they are more exposed to the outer world where they can be influenced by violent videos, various harmful activities etc. Hitlin (2005) stated that grade fluctuations were seen in the performances of the students, who opted to spend time over smartphones and texting rather than doing their homework.

Based on the studies conducted on the use of gadgets and their impact on academic performance and health, the following objectives have been framed:

- To determine the extent of the use of modern-day gadgets by the youth.
- To study the impact of modern gadgets on the academic performance of the youth.
- To ascertain the influence of modern gadgets on the health of youth.

### **Hypothesis of the Study**

H1: There is no significant relationship between gender & the use of modern day gadgets.

H2: There is no significant impact of the use of modern gadgets on the academic performance of the youth.

H3: There is no significant impact of the use of modern-day gadgets on the health of the youth.

## RESEARCH METHODOLOGY

The study aims to assess the impact of the use of modern-day gadgets on the academic and health performance of the youth. A descriptive study was used to collect information.

### Demographic Information

- Gender- Male and Female.
- Age- 15-19years, 20-25years, 26-29years.
- Occupation- Student, service, business, profession, homemaker.

### Study Subjects

The subjects were selected as per the following exclusion criteria:

- Individuals less than 15 years of age.
- Individuals above 29years of age.

**Inclusion:** All the individuals with none of the above criteria.

### Definitions

- Youth: Youth is defined as those aged 15 to 29years in the National Youth Policy.
- Gadgets: According to the Cambridge English Dictionary, the gadget has been defined as, "a small-machine or piece of electronic equipment that has a particular purpose".
- Health: As defined by the World Health Organization (WHO), health is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."
- Academic performance is the extent to which a student, teacher or institution has achieved their short or long-term educational goals. Cumulative [GPA](#) and completion of educational benchmarks such as secondary school diplomas and bachelor's degrees represent academic achievement.

### Sampling Procedure

The sample comprises of the survey from respondents in the age group 15-29years. Convenience sampling was chosen and 170 respondents completed the survey. 10 interviews were not considered due to incomplete information given by the respondents. Therefore the response rate was 94.4%.

### Questionnaire Design

The data collected for the study is based on both primary and secondary data. The survey was done in order to understand the effect of modern-day gadgets on the academic and health performance of the youth. The questionnaire was divided into 4 parts. Part 1 included demographic information, part 2 dealt with the use of modern-day gadgets by youth. Part 3 and 4 included questions pertaining to academic and health performance of the youth.

**Statistical Tools Applied**

The individual data collected was compiled and analyzed using SPSS. In order to arrive at desired results, statistical tools such as mean, frequency, and standard deviation were used. The impact of modern-day gadgets on academic and health performance of the youth was measured using regression analysis. The significance value was taken at 5%. A 5 point Likert scale was used ranging from strongly disagree to strongly agree. 3 was taken as the midpoint for such questions. A value above 3 indicated that the respondents have a disagreement with the statement and vice-versa. Cronbach alpha was tested in order to determine the reliability of data collection.

**Data Analysis and Interpretation**

**Table 1: Cronbach’s Alpha**

Reliability Statistics	
Cronbach's Alpha	N of Items
.838	24

(Source: SPSS)

The Cronbach’s alpha came out to be 0.838. Since the value is above 0.07, we can say that the data is reliable.

**H1: Relationship between Gender and Usage of Modern Day Gadgets**

T-test was used to find if there is a relationship between Gender and Usage of Modern Day Gadgets or not.

**Table 2: Group Statistics**

Gen_R	N	Mean	Std. Deviation	Std. Error Mean
use_r 1	82	1.43	.498	.055
2	88	1.42	.496	.053

(Source: SPSS)

**Table 3: Independent Samples Test**

		Levene's Test for Equality of Variances		T-Test for Equality of Means						
		F	Sig.	T	DF	Sig. (2-Tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
user	Equal variances assumed	.028	.868	.084	168	.934	.006	.076	-.144	.157
	Equal variances not assumed			.084	167.098	.934	.006	.076	-.144	.157

(Source: SPSS)

The significance value calculated according to the T-test is 0.868. The significance level taken for the study was 0.05. Since the value is above 0.05; therefore we accept the null hypotheses implying that there is no significant relationship between gender and the use of modern-day gadgets.

## H2: Impact of Modern Day Gadgets on Academic Performance of the Youth

Regression Analysis was used to analyze the impact of modern-day gadgets on the academic performance of the youth.

### Model Summary

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643 <sup>a</sup>	.561	.557	.618

a. Predictors: (Constant); Usage of Modern day gadgets (use\_r)

(Source: SPSS)

The Model summary of Regression analysis shows that there is an overall 64.3% correlation amongst independent and dependent variables and value of adjusted R square is 0.557, and R square is 0.561, therefore, the overall model is significant because 56.1% variation independent variable is being explained by the independent variables and these are the good predictors of dependent variable.

### ANOVA Analysis

**Table 5: ANOVA**

Model		sum of squares	Df	Mean Square	F	Sig.
1	Regression	67.814	1	67.814	174.561	.000 <sup>a</sup>
	Residual	53.611	168	.480		
	Total	121.425	169			

a. Dependent Variable: Academic performance (impact\_academics)

b. Predictors: (Constant); Usage of Modern day gadgets (use\_r)

Source: SPSS)

The ANOVA table shows that there is a significant impact of independent variables on the dependent variable because of  $F=174.561$  &  $P<0.05$ . The sig. value is .000, which is less than .05, indicating the significance of the independent variable in the Usage of Modern day gadgets and Academic performance relationship. The overall impact of taken predictors is very significant over the dependent variable. It is also concluded that the overall model fit is very good for the dependent variable, and this is also known as a test for goodness of fit.

### Coefficients Analysis

**Table 6: Coefficients**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.561	0.412		2.519	.041
	use_r	.842	.055	.643	13.511	.000

a. Dependent Variable: Academic Performance (impact\_academics)

(Source: SPSS)

The results of the coefficient analysis table showed that usage of Modern day gadgets has a significant impact on Academic performance because ( $t>2$  &  $p<0.05$ ). The t-value for the Usage is greater than 2 indicating the significance of the model. It is finally concluded the usage of Modern day Gadgets has a significant impact on Academic performance.

Therefore null hypothesis  $H_0$  is rejected. This means that there is a significant impact of Usage of Modern day gadgets on Academic performance of the youth.

### H3: Impact of modern Day Gadgets on Health of the Youth

#### Model Summary

**Table 7: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error Of The Estimate
1	.718 <sup>a</sup>	.662	.519	.618

a. Predictors: (Constant): Usage of Modern day gadgets (use\_r)

(Source: SPSS)

The Model summary of Regression analysis shows that there is an overall 71.8% correlation amongst independent and dependent variables and value of adjusted R square is 0.519, and R square is 0.662, therefore, the overall model is significant because 66.2% variation in dependent variable is being explained by the independent variables and these are the good predictors of dependent variable.

#### ANOVA Analysis

**Table 8: ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	61.231	1	61.231	164.311	.003a
	Residual	52.514	168	.411		
	Total	113.745	169			

a. Dependent Variable: Health (impact\_health)

b. Predictors: (Constant): Usage of Modern day gadgets (use\_r)

(Source: SPSS)

The ANOVA table shows that there is a significant impact of independent variables on the dependent variable because of  $F=164.311$  &  $P<0.05$ . The sig. value is .003, which is less than .05, indicating the significance of the independent variable in the Usage of Modern day gadgets and Health relationship. The overall impact of taken predictors is very significant over dependent variable. It is also concluded that the overall model fit is very good for the dependent variable, and this is also known as a test for goodness of fit.

#### Coefficients Analysis

**Table 9: Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.661	0.229		2.741	.062
	use_r	.723	.054	.718	11.713	.003

a. Dependent Variable: Health (impact\_health)

(Source: SPSS)

The results of the coefficient analysis table showed that usage of Modern day gadgets has a significant impact on the Health because ( $t>2$  &  $p<0.05$ ). The t-value for the Usage is greater than 2 indicating the significance of the model. It is finally concluded the usage of Modern day Gadgets has a significant impact on Health.

Therefore null hypothesis  $H_0$  is rejected. This means that there is a significant impact of Usage of Modern day gadgets on Health of the youth.

## CONCLUSIONS AND RECOMMENDATIONS

Technology while being a boon can prove to be a curse if not used in the right spirit. There are significant advantages arising from the use of modern-day gadgets such as laptop, smartphone, smartwatch,ipad, etc.; there is a plethora of information available on the net and can be easily accessed by people. Also, there is instant connectivity with the world and “world has turned into a global village” thanks to modern gadgets.

However, there is a flipside to it as along with the pluses that it offers the minuses cannot be ignored. The youth along with the children are paying a heavy price through the use of modern technology. According to medical practitioners, modern technology has taken a heavy toll on the health of the users. Medical problems like insomnia, anxiety disorders, lack of appetite, obesity, blood pressure, vision problems, and diabetes are on the rise in the youth due to the constant and excessive use of the gadgets. The study was conducted on the youth to analyze the impact of modern-day gadgets on their academic performance and their health. No direct link between gender and the use of modern-day gadgets was discovered. It can be stated that both males and females are equally addicted to the modern gadgets. It was observed that there was a significant relationship between modern gadgets and their impact on the academic performance of the youth. Similarly, it was experienced that the health of the youth was impacted by the use of these modern gadgets.

Efforts need to be made at various levels such as government, educational institutions, NGO's etc to combat the ill effects of these modern gadgets. People in particular young children and youth need to be made aware of the negative effects of modern technology so that neither their academic performance nor their health suffers. This can be done through organizing symposiums, workshops, street plays, advertisements, etc. where the users are made to realize the gravity of the situation and they put a stop before it becomes too late.

Youth is the future of the country and their energy needs to be channelized in a positive direction so that not just the society but the country can benefit and flourish. In the end, it can be concluded that the gadgets should be used discretely to obtain relevant and vital information. It should be ensured that the youth does not get addicted and become slaves of modern gadgets.

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