A Study on Online Usage and Online Games its Effects on Children's Behavior and Health During the Covid-19 Pandemic in India

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ABSTRACT

In this modern-day or contemporary world, the internet is an important medium of communication. the internet has spread broadly and has been utilized for various purposes by children. In the past few years, we have seen a dramatic increase in the number of reported cases of various forms of online behavior and online gaming-related offenses perpetrated within India. The main purpose of this research was to explore children's internet usage patterns and online behavior, especially on social media and gaming. Most children are addicted to online gaming, but at the same time, they are facing a lot of health issues and psychological effects. This research is based on quantitative methodology simple random sampling was used and a survey method was carried out of (N=300) sampling from school children aged 14 to 17 years only. The questionnaire focused on the usage of social media and online gaming. This paper attempts to explore the usage of the internet and gaming in the everyday lives of children in India. Results of this paper most of the children playing online games and accessing the internet for long hours. There is health affect in depression, obesity, and eyesight among children. The finding showed that most of the children played online games without parental guidance.

Key words: *Children, Internet, social media, Online Games.*

INTRODUCTION

Internet especially is social media the most common activity of today`s children and adolescents. Sandhya Keelery (2020), said that with over 460 million internet users, India is the second-largest online market, ranked only behind China. By 2021, there will be about 635.8 million internet users in India. Despite the large base of internet users in India, the research shows that about one-half of social network users play games on social media sites at least occasionally, and 15 percent of the time, users spend on Facebook is spent playing games. There is increasing evidence that the amount of time children are spending on technological devices and social media at home and in school has raised concerns on the impact of these activities on their development (Goh et al. 2015).

While users throughout all sectors of the population are using the Internet; teenagers, in particular, are by far the most active members and are therefore more susceptible to internet Addiction (Ha *et al.*, 2007). A teenager is in a phase of the life-cycle where people exhibit various and complex developmental activities. These include major improvements in the

realms of emotional, psychological, social, physical, biological, and society-relatedness (Barnett, Monti, and Wood, 2001). It is the most unstable, unorganized, and dynamic process (Rao and Madan, 2013) where various personalities, emotional and social interactions, educational and work professions, and entertainment venues are sought and witnessed (Siyez, 2014). Further, the accessibility of the internet on smartphones and laptops/computers means it is very convenient for children to surf the internet.

As per the IAMAI report, (2021), the numbers of active internet users, with over 460 million internet users, India is the second-largest online market, ranked only behind China. By 2021, there will be about 635.8 million internet users in India. Some people use the Internet to study, to browse for information, for social interaction, and also for business activities. As per the study released in 2014, the number of internet users around the world is about 3 billion, approximately. Of which 1.4 billion users come from Asia. (Kayastha, Gurung and Chawal, 2018).

Browsing online is among the most common activity of today`s children and adolescents. Research shows that about one-half of social network users play games on social media sites at least occasionally, and 15% percent of the time users spend on Facebook is spent playing games. The number of time children are spending on technological devices and social media at home and in school has raised concerns about the impact of these activities on their development (Goh et al. 2015).

Most of the parents say that they buy home computers and get Internet access to provide their children with educational resources (Turow 1999); DeBell and Chapman (2003); Greenfield and Yan 2006; Livingstone and Haddon 2008; Henderson 2011). In addition, research shows that the use of social media among children has increased extensively (Rosen et al. 2014; Willett 2015). Wilson et al. (2005) say that children's susceptibility to media influence can vary according to their gender and age, and they conclude with guidelines to help parents enhance the positive effects of the media while minimizing the risks associated with certain types of content. In Abu Dhabi, El Khouli (2013) stressed the necessity of participation of the family in the monitoring of the negative's aspects of social networking.

REVIEW OF LITERATURE

Children & Online Games

Mobile Gaming Apps, Report (2019) said that mobile gaming continues to grow at a fast and furious pace, set to reach a 60% market share in gaming consumer spend in (2019). Most of the studies examined the possible effect of such sites on children. Gone are those days when events happen, and it stays a while before people begin to hear about it. But now, through social media, events, and news are known within splits second after they are shared. It offers youth a channel for entertainment, communication, and meeting friends and those you have not seen for a long time.

Online gaming addiction is one of the types of Internet addiction that encapsulates the maladaptive psychological dependency on online games. To capture it, many researchers have adopted the criteria of Internet addiction (Young, 1998b, 2010). How is online game addiction

formed, while not all reasons are clear, the evidence so far suggests that it has to do with at least two families of factors: internal psychological and socio-environmental (Shi, 2008). According to research, problematic gaming is linked to psychosocial issues such as lack of sleep, low school well-being, concentration issues, impaired life skills, and poor self-control (Mannikko et al. 2020).

Similarly, Paytm First Games, an Indian mobile-based online gaming platform, reported an almost 200% increase in the user base during the pandemic, with 75,000 new users (Ahaskar 2020). Also, excessive online gaming is associated with physical inactivity, obesity, musculoskeletal problems (pain in hands, wrist, neck, and back), and visual problems (Ayenigbara 2018; Zirek et al. 2020). At present, there is much uncertainty as to what will happen regarding the COVID-19 pandemic, due to the ever-changing characteristics of the virus (Lippi et al. 2020).

This current study must be considered as an initial exploration of the complex dynamics of are we talking about children playing online games and usage of the internet in India. It will provide a current, comprehensive, and accurate account of social networking practices as well as the parental involvement and know-how of their children's engagement in such activities. The constant hold of video games on youngsters has become practically dangerous given its constant reinforcements of unlimited violence, gratuitous sex. According to the University of New Mexico (2019), recent studies suggest that 6% to 15% percent of all gamers exhibit signs that could be characterized as addiction.

Objectives

To identify impact of the internet usage and online gaming in children during the lockdown. Identify the effect of online gaming on children`s mental health. To analyze the psychological effect of online gaming on the user (children). To evaluate the precautionary measures taken by children and parents to avoid online gaming. The study is based on the uses and gratifications theory to understand how children are using the internet during pandemic.

Purpose of the Study

This study aims to examine children's digital presence and their behavior while playing digital games during covid-19 pandemic in India. The trend in the modern world is to influence the usage of technology among children. This boom in technology has also increased the amount of online usage and gaming. Digital criminals use it for negative purposes like online abuse, cyberstalking, etc. It is very difficult to monitor and track strangers online who affect children. Therefore, the problem must be studied in-depth to understand its consequences, and the solutions to deal with it.

Hypotheses

 H1: There is a significant difference in the perceived influence of games among and internet usage across different age groups.

 H2: There is a significant difference in the perceived influence on the game and psychological factors across gender differences.

H3: There is no significant difference in the perceived safety measures based on influence on games section status.

METHODOLOGY

This study has used the quantitative methodology. The survey method of data was collected from various place, through personal visits and online questionnaire distribution, the samples were taken in Chennai city from various schools. Were selected using simple random sampling. The total number of respondents out of 310 samples were collected, (N=300) samples were selected. In the sample, there were male 145, respondents, and females 155, respondents. The measuring the scale on a 5-point Likert scale ranging from "strongly disagree' to 'strongly agree." A total of seven statements were rated for this variable. The study applied the regression model in a linear technique using SPSS-version 24, which represents a well, the data was then analyzed using the statistical software SPSS. A regression-linear test was conducted to test the first hypothesis.

Data Analysis

SPSS software was used to analyze the data. For variables like internet usage, the impact of online gaming, the pattern of usage, safety measure percentage, and standard deviation of summated scales were calculated. Construct validity was tested using factor analysis with factors extracted using the suitability of data was tested using the regression linear model test. Convergent validity was tested using reliability (Cronbach's alpha) and factor loading for all the factors from school children was used to analyze the questions for face validity. Regression analysis was used to test hypotheses. For all scale variables, the Likert scaling method was used with the regular interval from strongly disagreed upon (1) to strongly agreed (5). A 3-point Likert scale was used for internet usage and gaming.

RESULTS

Table 1. Case Processing Summary

	N	Percentage
Male	145	47 %
Female	155	53 %
Total	**300**	**100%**

According to (table-1) in case processing summary of the sample of the respondents of children from the male (N=145) 47% and female (N=165) 53% valid 100. % the total 300 respondents in school children.
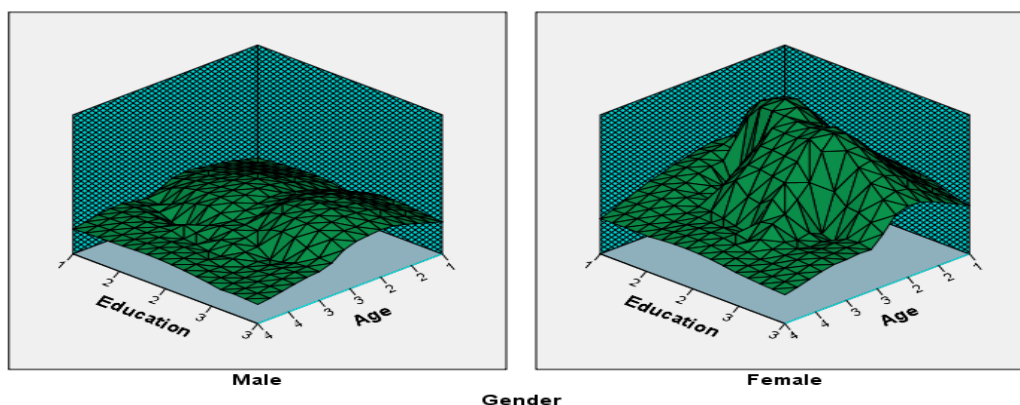
Figure1: Gender and Accessing of Internet

Internet Usage of children

According to figure1, the dominant gender (N=145) was male, females constituted 36.7 percent of the population (N=165) and 63.3 percent of the total population. The total was (300). The internet is used by 100.0 % percent of respondents for various preparations for children. 14-year-old, (25) the internet was used by 8.3 percent of those polled.15 years of old at the time (176). The bulk of the respondents (58.7%) used the internet. 16-year-olds made up 20.0 percent of the youngsters who responded. Remain 17-years-old (39) in total, 13.0% of respondents accessed the internet using electronic devices, for a total of (300) 100%. Figure 2 shows that access to the internet through the devices adopted by the respondents. Nearly 30.0% of the respondents use smartphones, 27.7% of them use laptops, 20.0 % of them use computers or PCs, and the remaining 11.7% of them use tablets, which fall under 10.7% of other categories. It is obvious that most students use smartphones, and as a result, they tend to use the internet frequently through their smartphones. (78) 26.0% of them access the internet in the evenings when it is free.33 % of the respondents used 1-2 social media sites online and 11% of the respondents were accessing 5-6 groups among the students, reminding us that 6% of the respondents above 7 groups, and the majority of the children have more groups on social media sites.

Regression Model Description of Curve Fit,

The dependent variables were 1 internet usage, equations of the model were 1 Linear and 2 cubics. The dependent variable was influenced on games constant included. The variable whose values label observations in plots was unspecified. Tolerance for entering terms in equations was 0.0001.
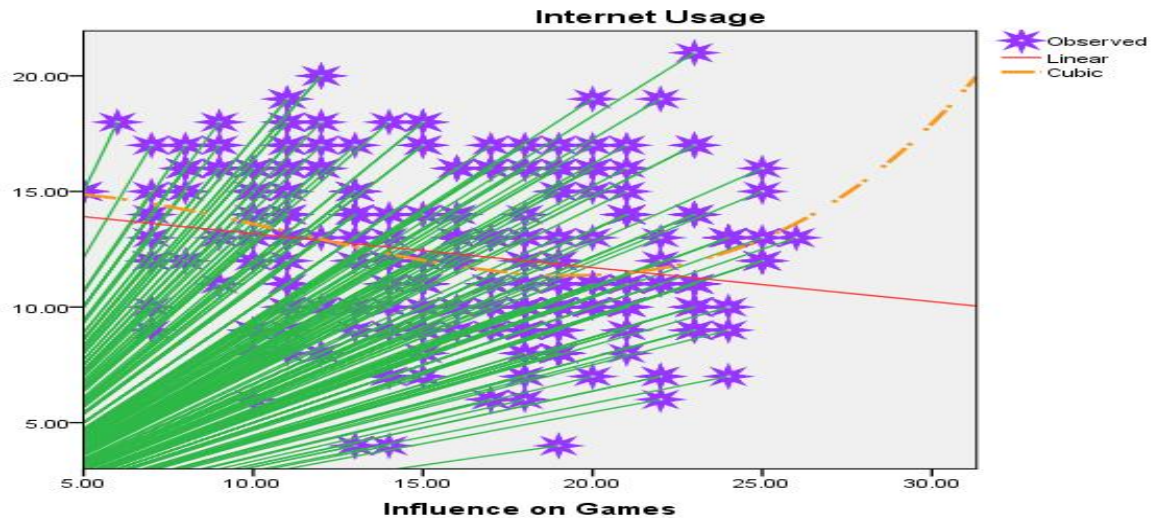
Figure2: Model of Linear in Influence on games and Internet usage

Internet Usage pattern of online gaming

According to figure 3, (N=117) Of the respondents 39.3% of them were using Facebook, 19.3% were using WhatsApp social sites, and 18.7% were accessing YouTube19.3% who were using Instagram and 4.3% who were using Tumblr.37 % of the respondents play online games, 32% of the respondents watch online videos on social media sites, and 17% of the children use sharing videos and pictures, reminding 12% of the respondents charting with friends on social media platforms. Only 85% of the respondents play online games in the evening; 56 of the children play in the morning, and 47% of the children play in the afternoon.31.0% of those polled said they played after midnight.23 of the other respondents play during class time through online games. The majority of the children were playing online games in the evening. (75) 25 % of the respondents are playing online games for free fire, most of them children. 22.7% of the children are playing racing games, while 20.7% are playing car games. The majority of respondents (10.7%) are playing shooting games, while the remaining 8% are playing online games the children were playing online games for Free fire games.
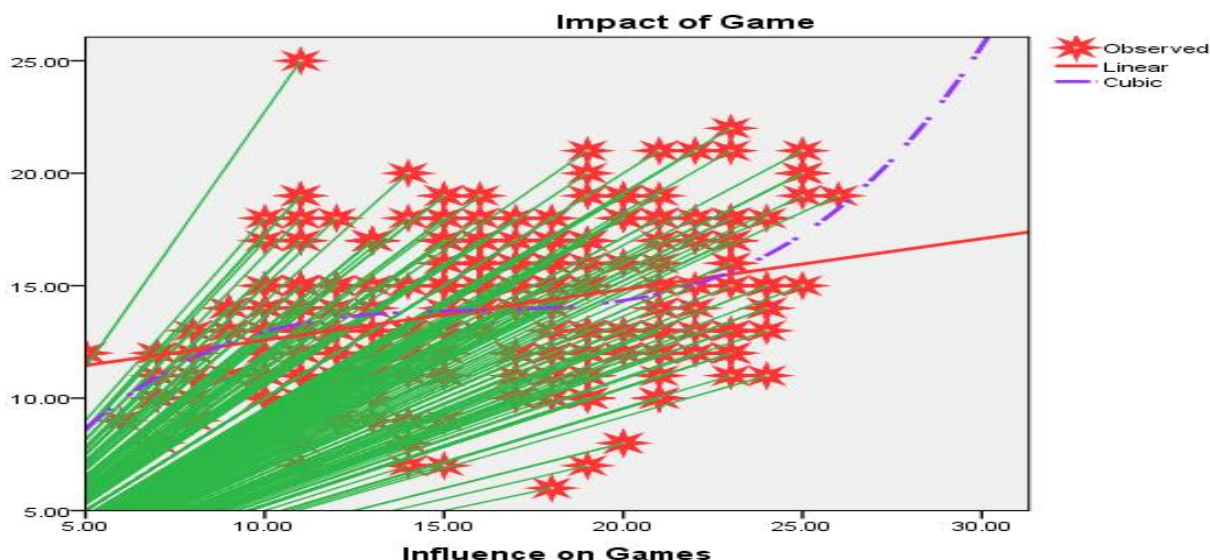
Figure: 3 Model of Cubic in Influence on games and Impact of game

Psychological effect in Children

According to figure 4, 5.7% of respondents say that they skipped our food most of the time, 18% say they skip some of the time, and 29.7% say they rarely skip food. The remaining 13.3% of those polled never skip meals.33.3% of the children they were always skipping were playing online games during the food times. Social media platforms for the respondent and their interaction, as well as being at ease with social media access while using their time, (90)30% of the respondents are using the internet for their own time. (77) 25.7 % of the respondents use social media and the internet for anger times. Only 18.7% of children use the internet when they are depressed.18% of the respondents used normal times. 7% of children use it when they are in a good mood.
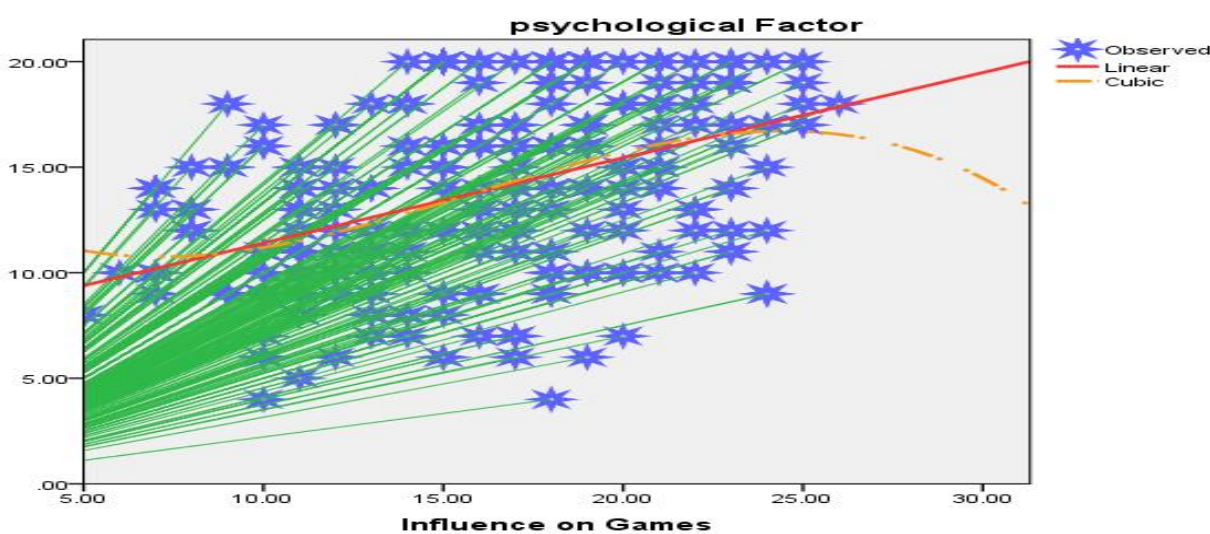

Figure:4 Model of linear in Influence on games and Psychological Factor

According to shows Table:2, 35.3 % of the respondents who played online games had blurry vision when online playing online games. 13.3% of the having children had sleeplessness during game times, 13% of the children had headaches, and 29.3 % of the respondents had body pain. 13.7 % of the respondents experienced irritation of the eyes/ eye pain when playing online games. (85)28.3% of the respondent does not put on glasses, (75) 25% of the respondents having in only power glasses (29) 9.7% of the children are having in reading glasses. (52)17.3% of the respondents with contact lenses had in-body pain playing online games.

Safety Measurement and Influence on Games

According to figure 5, the first point on the observed in linear model from safety measure of the Children can see what you're doing on the internet children privacy. (93) 31.0 percent of teenagers agree, disagree, or strongly disagree with the privacy settings on their smartphones, computers, and other tablet devices, while 29.7% strongly disagree.15.7 percent disagree that no password should be set and that devices should be kept safe. 31.3% of respondents strongly agree that privacy settings on the internet or social media should be set so that only close friends can see what they write.24.3 percent of children agree or disagree with not setting privacy settings on the internet, while 19 percent disagree with posting on social media sites

		N	%
	Most of time	17	5.7%
	Some of the time	54	18.0%
	Seldom	89	29.7%
	Never	40	13.3%
	Always	100	33.3%
	Total	**300**	**100.0%**
While using of internet from mood?	Happy	23	7.7%
	Normal	54	18.0%
	Angry	77	25.7%
	Sad	56	18.7%
	Alone	90	30.0%
	Total	**300**	**100.0%**
experienced the below mention Symptoms	Headache	25	8.3%
	Irritation in Eyes/ eye pain	41	13.7%
	Body pain	88	29.3%
	Sleepless	40	13.3%
	Blurry vision	106	35.3%
	Total	**300**	**100.0%**

Children wear Glasses	Reading Glasses	29	9.7%
	Power Glasses	59	19.7%
	LongSight/Short Sight	75	25.0%
	Contact Lenses	52	17.3%
	Never	85	28.3%
	Total	**300**	**100.0%**

Table2: Measurement of Health Issues on playing online games

Reminding ourselves that 11% of people on social media strongly disagree. One-third of those polled use multiple passwords for social media and online accounts. 30% percent of respondents agreed or disagreed with the use of various types of passwords on internet accounts. 12.3% of those polled use different passwords for different online accounts. 9% percent of respondents said that they strongly opposed the practice of not changing passwords on social media sites.
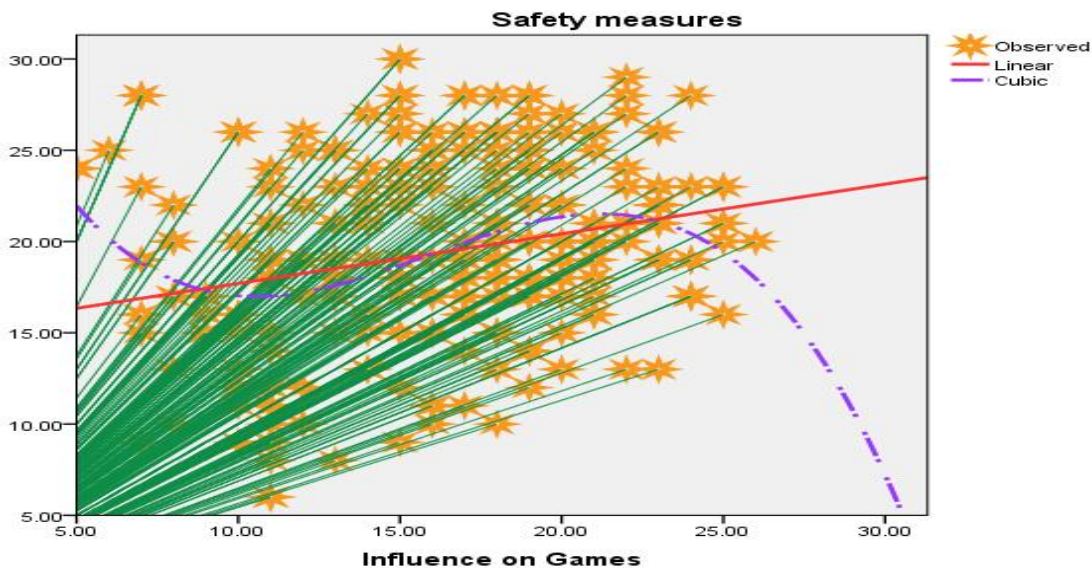

Figure: 5 Safety Measures in Social media Web site

Ho1: There is a significant difference in the perceived influence of games among and internet usage across different age groups.

H1: The linear regression model was calculated to check the level in which variables such as the Influence on games, internet usage, Psychological, Safety Measurement Factor, and influences on gaming information predicted usage patterns on the internet. The influence of games predicts internet usage strongly with an R^2 value of 045 and an at-value of -3.740. These variables statically significantly predicated Cubic Regression was run to predict Influence on games, for variable quality, there is no significant association with a t-value of 3.142 and a low R^2 value (0.77). Internet usage positively predicts the influence on games among the students. Hypothesis 1 was the Null hypothesis (See Table2).

H2: The linear regression model was calculated to check the level in which variables such as the Influence on games, the impact of games, factors, and influences on information predicted usage patterns on the internet. The influence of games predicts internet usage strongly

with an R2 value of 045 and an at-value of -3.740. These variables statically significantly predicated Cubic Regression was run to predict Influence on games, for variable quality, there is no significant association with a t-value of 3.142 and a low R2 value (0.77). Internet usage positively predicts the influence on games among the students. Hypothesis 2 was the Null hypothesis. (See Table:2)

Table2, Regression Analysis of Internet Usage, usage pattern of online games, psychological factor, Safety Measure Information

		Mean	Sd	Stand Coefficient	T	F	R2	Df	Sig.
H1-Internet Usage	**Linear**	143.820	.74020	-212	3.740	13.990	.045	299	.000
	Cubic	82.330		2.010	3.142	8.232	0.77	299	.002
H2-Impact of games	**Linear**	338.598	.49281	.330	6.036	36.434	.109	298	.000
	Cubic	140.140		4.340	3.179	15.434	.135	296	.002
H3-Psychological Factor	**Linear**	1084.810	.62928	-.002	9.696	78.768	209	299	.956
	Cubic	370.943		.008	2.687	26.937	.214	299	.000
H4- Safety Measure	**Linear**	492.687	61699	-.270	-4.650	21.625	.068	299	.000
	Cubic	26.45071		-5.982	5.693	12.044	.109	299	.000

Table3: Regression Analysis of internet usage and safety Measurement

H3: The linear regression model was calculated to check the level in which variables such as the Influence on games, psychological factors, and influences on gaming in predicted usage pattern the internet. The influence of games predicts internet usage strongly with an R2 value of .209 and an at-value of 9.696. These variables statically significantly predicated Cubic Regression model predicts Influence on games, for variable quality, there is no significant association with a t-value of 2.687 and R2 value (.214). Internet usage positively predicts the influence on games among the students. Hypothesis 3 was the Null hypothesis.

H4: The linear regression was calculated to check the level in which variables such as the Influence on games, safety measuring, and gaming information predicted usage patterns on the internet. The influence of games predicts safety measurement strongly with an R2 value of 068 and t-value of -4.650. These variables statically significantly predicated Cubic Regression was run to predict Influence on games, for variable quality, there is no significant association with a t-value of 5.693 and a low R2 value (.109). Internet usage positively predicts the influence on games among the students. Hypothesis 4 was the Null hypothesis.

DISCUSSION

This study analyzed the use of the internet, online behavior, and online games' effects among children. Children that lockdown period every child uses for their smartphone. Remaining updated as well as freely expressing their views and opinions is playing a major role both in influencing and communicating with the common mass. Mobilization of the people for any social cause or movement is dependent on several factors, one of which is the media ("Digital Review of Asia Pacific 2009-2010," 2019).

The term 'communication' has its own sociological, cultural, psychological, and bio-cultural orientations. In the words of Denis McQuail (2005), "social media is used as a tool for communication as well as gathering information in this Internet age." The majority of female children 53% only use the internet from time to time because they are at home. The digitized public of the 21st century is more inclined towards social media like Facebook, Twitter, YouTube, etc. The advent of the Internet has been mooted as the most revolutionary technological innovation that has changed the face of communication. Most children have more social media accounts during lockdown times.

According to the University of New Mexico, recent studies indicate that 6 to 15% of all gamers exhibit symptoms of addiction. It can be seen from statistics that girls use e-mail and chat more online than boys do (Larsson, (2005). Children access the internet in many ways and on different devices. The majority of children use smartphones for internet access. However, most of the students use the internet only for half an hour per day, because of their parents, who screen them away from electronic gadgets.

Children differ in their online activities or Internet use, which influences parents' self-reports (Caivano et al., 2020; Dedkova & Smahel, 2020). Although children's age differences might be another reason for the inconsistent findings (Dedkova & Smahel, 2020), there was no evidence/report of measurement invariance for the age groups. We can conclude from this that social media should have good information technology for children who use the internet. So, the majority of children use social media sites and the internet during the evenings, spending 4-6 hours per day. The majority of children have accounts in Facebook 39.0% in lockdown time research on the internet, and they have some online Engagement, with technology for a maximum of hours affects an individual's behavior, mood, and ways of thinking (Davidson & Gottschalk, 2011; Guitton, 2013). Quayle et al,(2014).

Online gaming effect in Health Issues

Many of the male children are accessed online gaming applications during the lockdown period. 43% of children downloaded the online games apps, exclusively for online gaming. Most of the children only played online games in the evening. It is interesting to note that children follow the same patterns as their parents when it comes to online gaming, "said Ritesh Chopra, (2020), Director, Norton Life Lock, India. Interestingly, recent studies found that women were more likely to spend time gaming online as compared to men. 86% of female respondents considered online games to be the best pastime, as compared to 86% of males. 61 percent of female respondents were willing to skip meals, sleep, and other activities for online games, as compared to 45% of their male counterparts.

Dr. Sanjay Patil, (2020) ophthalmologist and chairman of the Hospital Board of India, said that there is a 30 percent increase in children visiting him with complaints like an excessive strain on their eyes or tiredness. "Patients have complained about dryness or itching in their eyes, or tired eyes too. Screen exposure time, which was earlier close to about 30 minutes to two hours, has now been extended to about seven to eight hours. Doctors have warned that this could lead to children getting spectacles due to constant exposure, while kids have already started complaining about refractive errors, redness, dryness, itchiness, and sore eyes.

Most of the parents suggest that many buy home computers and subscribe to get Internet access to provide their children with educational resources (Turow 1999; DeBell and Chapman 2003; Greenfield and Yan 2006; Livingstone and Haddon 2008; Henderson 2011). In addition, research points out that the use of social media among children has increased extensively (Rosen et al. 2014; Willett 2015). Wilson et al. (2005) show that children's susceptibility to media influence can vary according to their gender and age, and they conclude with guidelines to help parents enhance the positive effects of the media while minimizing the risks associated with certain types of content. In Abu Dhabi, El Khouli (2013) stressed the necessity of participation of the family in the monitoring of these negative aspects of social networking for families. In its recent report, the Global Mideast Insight (2016) cited that social media in the Emirates has been used in communication, connecting with friends, family, or similarly inclined individuals, as a news source, and even to organize large events. For some small to medium business owners, it is their entire advertising platform.

The current study must be considered as an initial exploration of the complex dynamics of India. It will provide a current, comprehensive, and accurate account of social networking practices as well as the parental involvement and know-how of their children's engagement in such activities. The video games' constant hold over their audience especially among youngsters has Mexico (2019). Recent studies suggest that 6 to 15 percent of all gamers exhibit signs that could be characterized as addiction. These psychosocial consequences can result in emotional distress, anxiety, depression, substance use disorders, and behavioral addictions (Pfefferbaum and North 2020).

CONCLUSION

The present study provides an overview regarding the internet usage of online gaming among children, with effects on educational purposes. The use of electronic devices by children is influenced by a variety of factors such as family environment or atmosphere. Parents must carefully monitor their students' internet or online activities and communicate openly with them if they discover anything else irrelevant or if some of the information appears to be incorrect. So, this paper finds out that most children are engaged or addicted to online games, and parents are not aware of the internet or online games.

Parents should remember that communicating online does not prepare children for real interpersonal relationships. Spending time with children and periodically participating with them in the online experience allows parents to monitor and supervise their activity. It is also an opportunity to learn together through the internet. But the lack of social media and online games awareness regarding children can act as a barrier in influencing the usage of social media platforms in children's educational settings.

The importance of finding the video games' constant hold over their audience, especially among children. Since the risk of children playing online games is high in the virtual world, parents must be careful when it comes to the online activity of their school children. This research reveals that the research it is important to educate school children in the fields of internet safety and online gaming, awareness. The online games can expose children to dangers as well as recreation addiction, and any type of addiction is dangerous. During this pandemic, the general population, particularly vulnerable groups, requires the highest level of mental health care. To help overcome the mental health issues caused by the COVID-19 pandemic, early identification of the vulnerable population should begin as soon as possible.

Limitation and Recommendation

This study was limited to secondary and higher secondary school children in Chennai, India, Actual internet usage and the impact of gaming and safety measures were checked.

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