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A COMPARATIVE STUDY TO ASSESS THE POSITIVE AND NEGATIVE EFFECT OF INTERNET ADDICTION AMONG ADOLESCENTS AT SELECTED COLLEGE PUDUCHERRY.

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Abstract:

Introduction: The internet plays a significant role in adolescents' daily lives, offering both educational benefits and potential risks such as addiction. **Aim of the study:** This study aimed to assess the positive and negative effects of internet addiction among adolescents at a selected college in Puducherry. **Methodology:** A quantitative, descriptive research design was employed with 60 adolescents aged 19–21 years, selected using a convenient sampling technique. Data were collected using a structured tool comprising demographic variables and a modified Scale of Positive and Negative Experience. **Results:** The findings revealed that 53.3% of participants experienced moderate positive effects, while 60% reported moderate negative effects. A statistically significant association was found between family income and positive effects ($p < 0.05$), whereas no demographic variables were significantly associated with negative effects. The results suggest that while internet use can enhance communication and learning, excessive usage poses risks including emotional distress, disrupted sleep, and reduced academic performance. **Conclusion:** The study highlights the importance of digital awareness, parental guidance, and institutional support to foster balanced internet usage among adolescents.

Keywords: Internet addiction, Adolescents, Effects

INTRODUCTION

Adolescence is a critical stage of human development marked by rapid physical, emotional, and cognitive growth. During this phase, individuals are naturally curious, seek identity, and crave social connection. With the increasing presence of digital technology, the internet has become deeply embedded in the daily lives of adolescents, offering platforms for learning, entertainment, and communication. However, alongside its many advantages, the uncontrolled or excessive use of the internet has led to a serious concern—commonly referred to as internet addiction.

The internet, recognized globally as one of the most influential technological platforms, serves as a hub for knowledge, commerce, education, and social interaction. In India, internet usage has grown significantly, with over 665 million users reported in 2019, making it the second-largest user base in the world. This widespread use has transformed human lifestyles, making online access an inseparable part of modern life.

Internet addiction is increasingly being classified as a behavioral disorder, similar to impulse control disorders. It is characterized by an excessive or poorly controlled preoccupation with internet use, often leading to distress and functional impairment.

Adolescents, who are still developing emotional regulation and decision-making skills, are especially vulnerable. Warning signs of internet addiction include excessive time spent online, failed attempts to reduce usage, mood changes when offline, neglect of responsibilities, and using the internet to escape emotional difficulties. Overuse can also result in physical issues such as sleep disturbances, eye strain, headaches, and back pain.

The consequences of internet addiction extend to academic failure, social isolation, psychological stress, and a decline in self-esteem. Research consistently shows strong links between internet addiction and mental health challenges such as anxiety, depression, and feelings of loneliness. Personality traits like shyness and lack of confidence are also associated with this condition.

Despite its risks, the internet remains a powerful educational and social tool. The challenge lies in striking a healthy balance maximizing its benefits while preventing its misuse. Encouraging digital literacy, responsible usage, parental involvement, and school-based awareness programs is essential to promote adolescent well-being in the digital era.

NEED FOR THE STUDY

The internet connects billions worldwide, with Northern Europe having the highest usage rates. Asia leads in internet users, with China, India, and the U.S. at the forefront. A 2022 global study by Shi-Qiu Meng et al. found 26.99% smartphone addiction, 17.42% social media addiction, and 14.22% internet addiction, especially in the Eastern Mediterranean and low-income countries. In Qatar, 29.64% of adolescents were addicted, influenced by family and school. In India, internet addiction among college students ranged from 19.9% to 40.7%. A 2022 study in Jammu found 78.7% prevalence, linked to depression and anxiety. In Puducherry,

42% had mild addiction, with 63% reporting poor sleep. These findings highlight the significant health impact of internet addiction, particularly among adolescents.

Cardiotocography is a widely used, non-invasive technique for monitoring fetal heart rate and uterine contractions, particularly in the third trimester of pregnancy. It helps assess fetal well-being by detecting any early signs of distress, especially those related to oxygen deprivation. The FHR is regulated by the autonomic nervous system, and variations can indicate potential complications. CTG allows for continuous electronic fetal monitoring, enabling healthcare providers to make timely interventions that could prevent intrapartum fetal death or long-term neurological damage. Despite its promise, the effectiveness of CTG depends largely on proper interpretation and skilled clinical application, especially by nurses and midwives.

Perinatal mortality remains a significant global health concern, with over a million intrapartum stillbirths and nearly as many neonatal deaths annually mostly in low- and middle-income countries. Inadequate access to skilled care, delayed interventions, and limited use of diagnostic tools like CTG contribute to these outcomes. Studies show that improper use and interpretation of CTG, particularly by undertrained staff, can result in missed signs of fetal distress. Conversely, competent use of CTG has been linked to reduced rates of seizures and improved perinatal outcomes. Given the critical role nurses and midwives play in labor monitoring, equipping them with the knowledge and skills to use CTG effectively is essential to improving maternal and neonatal health outcomes, especially in resource-limited settings.

AIM OF THE STUDY:

This study aimed to assess the positive and negative effects of internet addiction among adolescents at a selected college in Puducherry.

METHODOLOGY:

A quantitative research approach with a descriptive research design was adopted for the study, conducted at a selected college in Puducherry. The population consisted of adolescents aged 13 to 19 years who use the internet daily. A total of 60 adolescents were selected through convenient sampling based on inclusion criteria, excluding those who use the internet solely for educational purposes. Data were collected using a structured tool comprising two sections: Section A captured demographic details such as age, gender, parental education, internet usage patterns, and supervision; Section B utilized a modified Scale of Positive and Negative Experience to assess the effects of internet addiction. Scoring was categorized into low, moderate, and high for both positive and negative impacts. Prior to data collection, formal permission from the institution and ethical clearance from SMVMCH were obtained. Informed consent was secured from participants, and confidentiality was assured. Data were analyzed using descriptive statistics (mean, standard deviation, frequency, percentage) and inferential statistics (chi-square test) to determine associations between internet addiction effects and selected demographic variables.

RESULT:**Table 1: Demographic variables of adolescents. N = 60**

S.No	Demographic variables	Frequency	Percentage
1	Age in years		
	a) 10-12years	0	0%
	b) 13-15 years	0	0%
	c) 16-18 years	0	0%
	d) 19-21 years	60	100%
2.	Gender		
	a) Male	22	36.7%
	b) Female	38	63.3%
3.	Education qualification		
	a) Diploma in nursing	0	0%
	b) Degree in nursing	60	100%
	c) Post basic nursing	0	0%
4.	Family income		
	a) Below Rs. 1000	3	5%
	b) Rs. 1001-15000	12	20%
	c) Rs. 15001 – 20000	27	45%
	d) More than 20,000	18	30%
5	Place of living		
	a) Urban	41	68.3%
	b) Rural	19	31.7%
6.	Religion		
	a) Hindu	56	93.3%
	b) Muslim	3	5%
	c) Christian	1	1.7%
	d) Others	0	0%
7.	Parent education level		
	a) High School	0	0%
	b) Bachelor degree	16	26.7%
	c) Postgraduate	9	15%
	d) Diploma	13	21.7%
	e) Illiterate	22	36.7%

8.	Frequency of Internet use		
	a) Less than 1 hour per day	5	8.3%
	b) 1-2 hours per day	20	33.3%
	c) 3-4 hours per day	21	35%
	d) 5 or more hours per day	14	23.3%
9.	Type of device used for Internet access		
	a) Smartphone	56	93.3%
	b) Tablet	3	5%
	c) Desktop	0	0%
	d) Laptop	1	1.7%
10.	Location of Internet use		
	Fig. 1. Home	57	95%
	Fig. 2. Library	2	3.3%
	Fig. 3. College	1	1.7%
	Fig. 4. Friend house	0	0%
11.	Purpose of Internet use		
	a) Social media	0	0%
	b) Education	60	100%
	c) Entertainment	0	0%
	d) Shopping	0	0%
12.	Parent supervision of Internet use		
	a) Always supervised	20	33.3%
	b) Sometimes supervised	19	31.7%
	c) Rarely supervised	17	28.3%
	d) Never supervised	0	6.7%

The table 1 reveal that all adolescents were aged between 19 and 21, with a majority being female (63.3%). All participants held a nursing degree. Most belonged to families with a monthly income between ₹15,001–₹20,000 (45%), while 30% earned above ₹20,000. Urban residents formed the majority (68.3%), and most were Hindu (93.3%). Regarding parental education, 36.7% were illiterate, 26.7% held Bachelor's degrees, 21.7% had diplomas, and 15% were postgraduates. Internet usage patterns showed 35% spent 3–4 hours online daily, and 93.3% accessed the internet via smartphones, mostly from home (95%). Although all used the

internet for educational purposes, parental supervision varied—33.3% were always supervised, 31.7% sometimes, 28.3% rarely, and 6.7% never.

Table 2: Level of positive effects of internet addiction among adolescents. N = 60

S.NO	LEVEL OF POSITIVE EFFECTS	FREQUENCY (n)	PERCENTAGE %
1.	High positive effect	21	35%
2.	Low positive effect	7	11.7%
3.	Moderate positive effect	32	53.3%

The above table reveals the level of positive effects of internet addiction among adolescents. The finding revealed that, 32 (53.3%) of them had moderate positive effect, 21 (35%) of them had high positive effect and 7 (11.7%) had low positive effect.

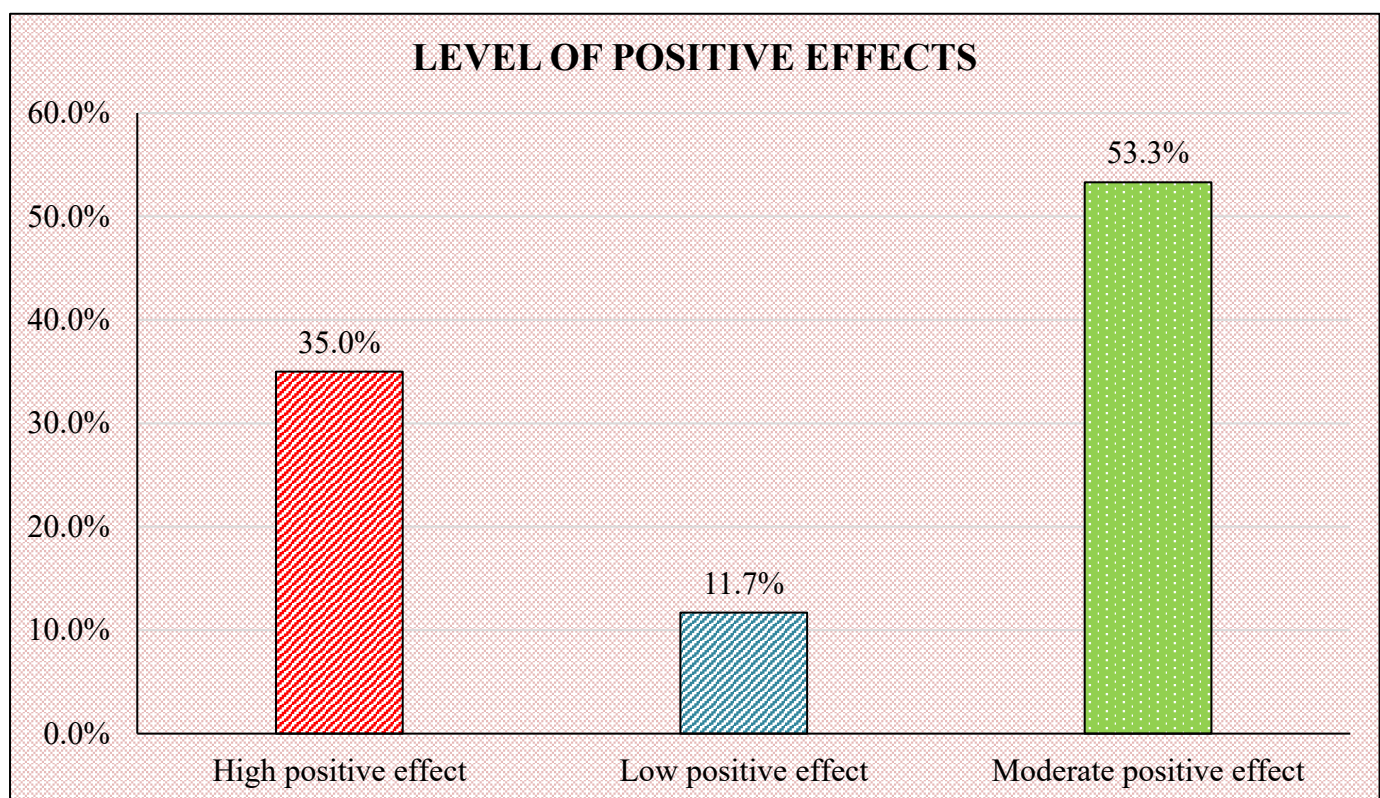


Figure 1: Level of positive effects of internet addiction among adolescents

Table 3: Level of negative effects of internet addiction among adolescents.**N = 60**

S.NO	LEVEL OF NEGATIVE EFFECTS	FREQUENCY (n)	PERCENTAGE %
1.	High Negative effect	13	21.7%
2.	Low Negative effect	11	18.3%
3.	Moderate Negative effect	36	60%

The above table reveals the level of negative effects of internet addiction among adolescents. The finding revealed that, 36 (60%) of them had moderate negative effect, 13 (21.7%) of them had high negative effect and 11 (18.3%) had low negative effect.

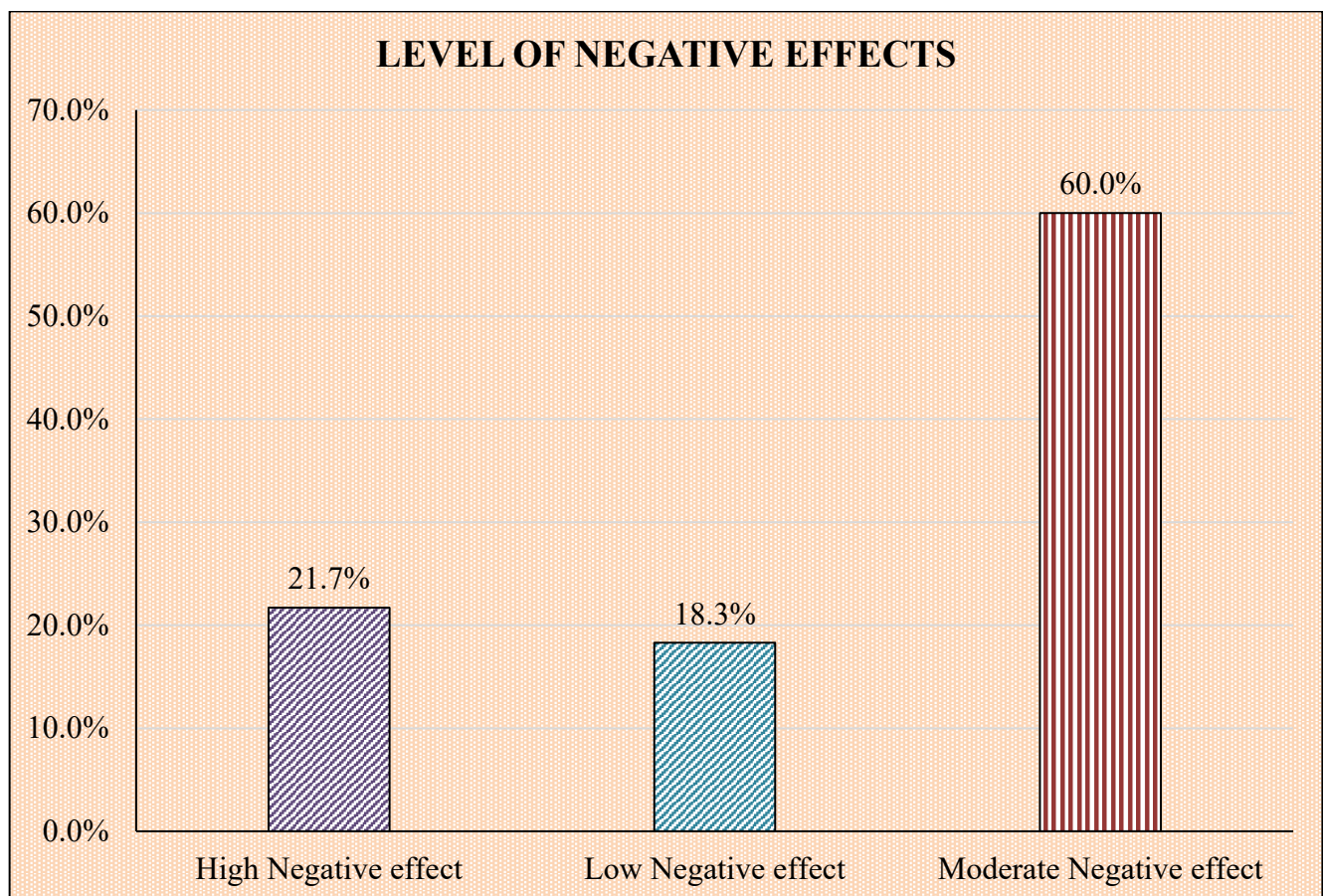
**Figure 2: Level of negative effects of internet addiction among adolescents**

Table 3: Association of the level of positive effects of internet addiction among adolescents with selected demographic variables **N = 60**

S.No	Demographic variables	Level of positive effects						X ² value
		High positive effect		Low positive effect		Moderate positive effect		
1	Age in years	N	%	N	%	N	%	X ² = 5.177 P= 0.521 (NS)
	a) 10-12years	0	0	0	0	0	0	
	b) 13-15 years	0	0	0	0	0	0	
	c) 16-18 years	0	0	0	0	0	0	
	d) 19-21 years	21	35.0	7	11.7	32	53.3	
2.	Gender							X = 866 P= 0.648 (NS)
	a) Male	9	15.0	3	5.0	10	16.7	
	b) Female	12	20.0	4	6.7	22	36.7	
3.	Education qualification							K
	a) Diploma in nursing	0	0.0	0	0.0	0	0.0	
	b) Degree in nursing	21	35.0	7	11.7	32	53.3	
	c) Post basic nursing	0	0.0	0	0.0	0	0.0	
4.	Family income							X ² = 16.522 p = 0.011 (S)*
	a) Below Rs. 1000	2	3.3	1	1.7	0	0.0	
	b) Rs. 1001-15000	5	8.3	4	6.7	3	5.0	
	c) Rs. 15001 – 20000	11	18.3	1	1.7	15	25.0	
	d) More than 20,000	3	5.0	1	1.7	14	23.3	
5	Place of living							X ² = 3.918 p = 0.141 (NS)
	a) Urban	11	18.3	5	8.3	25	41.7	
	b) Rural	10	16.7	2	3.3	7	11.7	
6.	Religion							X ² =1.394 p = 0.845 (NS)
	a) Hindu	20	33.3	7	11.7	29	48.3	
	b) Muslim	1	1.7	0	0.0	2	3.3	
	c) Christian	0	0.0	0	0.0	1	1.7	
	d) Others	0	0.0	0	0.0	0	0.0	
7.	Parent education level							X ² = 3.418
	a) High School	0	0.0	0	0.0	0	0.0	

	b) Bachelor degree	5	8.3	3	5.0	8	13.3	p = 0.755 (NS)
	c) Postgraduate	2	3.3	1	1.7	6	10.0	
	d) Diploma	4	6.7	2	3.3	7	11.7	
	e) Illiterate	10	16.7	1	1.7	11	18.3	
8.	Frequency of Internet use							$X^2 = 7.803$ p = 0.253 (NS)
	a) Less than 1 hour per day	3	5.0	1	1.7	1	1.7	
	b) 1-2 hours per day	7	11.7	2	3.3	11	18.3	
	c) 3-4 hours per day	8	13.3	4	6.7	9	15.0	
	d) 5 or more hours per day	3	5.0	0	0.0	11	18.3	
9.	Type of device used for Internet access							$X^2 = 1.394$ p = 0.845 (NS)
	a) Smartphone	20	33.3	7	11.7	29	48.3	
	b) Tablet	1	1.7	0	0.0	2	3.3	
	c) Desktop	0	0.0	0	0.0	1	1.7	
	d) Laptop	0	0.0	0	0.0	0	0.0	
10.	Location of Internet use							$X^2 = 2.763$ p = 0.598 (NS)
	a) Home	21	35.0	7	11.7	29	48.3	
	b) Library	0	0.0	0	0.0	2	3.3	
	c) College	0	0.0	0	0.0	1	1.7	
	d) Friend house	0	0.0	0	0.0	0	0.0	
11.	Parent supervision of Internet use							$X^2 = 10.690$ p = 0.098 (NS)
	a) Always supervised	5	8.3	5	8.3	10	16.7	
	b) Sometimes supervised	5	8.3	1	1.7	13	21.7	
	c) Rarely supervised	9	15.0	0	0.0	8	13.3	
	d) Never supervised	2	3.3	1	1.7	1	1.7	
12.	Purpose of Internet use							K
	a) Social media	0	0.0	0	0.0	0	0.0	
	b) Education	21	35	7	11.7	32	53.3	
	c) Entertainment	0	0.0	0	0.0	0	0.0	
	d) Shopping	0	0.0	0	0.0	0	0.0	

*p<0.05 - Significant; p<0.01 - Highly Significant; K -constant

The above table shows that there is significance association of level of positive effects of internet addiction among adolescents with family income where $p < 0.05$. There is no significance association with Age in years, Gender, Education qualification, Place of living, Religion, Parent education level, Frequency of Internet use, Type of device used for Internet access, Location of Internet use, Parent supervision of Internet use and Purpose of Internet use.

Table 4: Association of the level of negative effects of internet addiction among adolescents with selected demographic variables **N = 60**

S.No	Demographic variables	Level of Negative effects						X ² value
		High Negative effect		Low Negative effect		Moderate Negative effect		
1	Age in years	N	%	N	%	N	%	K
	a) 10-12years	0	0	0	0	0	0	
	b) 13-15 years	0	0	0	0	0	0	
	c) 16-18 years	0	0	0	0	0	0	
	d) 19-21 years	13	21.7	11	18.3	36	60.0	
2.	Gender							X = 0.927 P= 0.629 (NS)
	a) Male	6	10.0	3	5.0	13	21.7	
	b) Female	7	11.7	8	13.3	23	38.3	
3.	Education qualification							K
	a) Diploma in nursing	0	0.0	0	0.0	0	0.0	
	b) Degree in nursing	13	21.7	11	18.3	36	60.0	
	c) Post basic nursing	0	0.0	0	0.0	0	0.0	
4.	Family income							X ² = 8.595 p = 0.198 (NS)
	a) Below Rs. 1000	2	3.3	0	0.0	1	1.7	
	b) Rs. 1001-15000	2	3.3	4	6.7	6	10.0	
	c) Rs. 15001 – 20000	6	10.0	6	10.0	15	25.0	
	d) More than 20,000	3	5.0	1	1.7	14	23.3	
5	Place of living							X ² = 3.356
	a) Urban	10	16.7	5	8.3	26	43.3	

	b) Rural	3	5.0	6	10.0	10	16.7	p = 0.187 (NS)
6.	Religion	0	0.0	0	0.0	0	0.0	X ² = 1.492 p = 0.828 (NS)
	a) Hindu	12	20.0	11	18.3	33	55.0	
	b) Muslim	1	1.7	0	0.0	2	3.3	
	c) Christian	0	0.0	0	0.0	1	1.7	
	d) Others	0	0.0	0	0.0	0	0.0	
7.	Parent education level							X ² = 5.285 p = 0.508 (NS)
	a) High School	0	0.0	0	0.0	0	0.0	
	b) Bachelor degree	2	3.3	4	6.7	10	16.7	
	c) Postgraduate	4	6.7	0	0.0	5	8.3	
	d) Diploma	3	5.0	3	5.0	7	11.7	
	e) Illiterate	4	6.7	4	6.7	14	23.3	
8.	Frequency of Internet use							X ² = 5.326 p = 0.503 (NS)
	a) Less than 1 hour per day	2	3.3	1	1.7	2	3.3	
	b) 1-2 hours per day	6	10.0	2	3.3	12	20.0	
	c) 3-4 hours per day	2	3.3	6	10.0	13	21.7	
	d) 5 or more hours per day	3	5.0	2	3.3	9	15.0	
9.	Type of device used for Internet access							X ² = 7.811 p = 0.099 (NS)
	TABLE I. Smartphone	10	16.7	11	18.3	35	58.3	
	TABLE II. Tablet	2	3.3	0	0.0	1	1.7	
	TABLE III. Desktop	0	0.0	0	0.0	0	0.0	
	TABLE IV. Laptop	1	1.7	0	0.0	0	0.0	
10.	Location of Internet use							X ² = 1.848 p = 0.764 (NS)
	a) Home	12	20.0	11	18.3	34	56.7	
	b) Library	1	1.7	0	0.0	1	1.7	
	c) College	0	0.0	0	0.0	1	1.7	
	d) Friend house	0	0.0	0	0.0	0	0.0	

11.	Parent supervision of Internet use							
	a) Always supervised	3	5.0	4	6.7	13	21.7	$X^2 = 3.730$ $p = 0.713$ (NS)
	b) Sometimes supervised	4	6.7	4	6.7	11	18.3	
	c) Rarely supervised	6	10.0	2	3.3	9	15.0	
	d) Never supervised	0	0.0	1	1.7	3	5.0	
12.	Purpose of Internet use							K
	a) Social media	0	0.0	0	0.0	0	0.0	
	b) Education	13	21.7	11	18.3	36	60	
	c) Entertainment	0	0.0	0	0.0	0	0.0	
	d) Shopping	0	0.0	0	0.0	0	0.0	

*** $p < 0.05$ - Significant; $p < 0.01$ - Highly Significant ; K -constant**

The above table shows that there is no significance association with Age in years, Gender, family income, Education qualification, Place of living, Religion, Parent education level, Frequency of Internet use, Type of device used for Internet access, Location of Internet use, Parent supervision of Internet use and Purpose of Internet use with the level of negative effects of internet addiction among adolescents.

DISCUSSION:

The study aimed to assess the positive and negative effects of internet addiction among adolescents and to determine their association with selected demographic variables. The findings revealed that 53.3% of adolescents experienced a moderate positive effect, 35% had a high positive effect, and 11.7% had a low positive effect due to internet usage. In terms of negative effects, 60% of the adolescents reported moderate negative effects, 21.7% had high negative effects, and 18.3% experienced low negative effects.

Statistical analysis showed a significant association between family income and the level of positive effects of internet addiction ($p < 0.05$). However, no significant association was found between positive effects and other demographic variables such as age, gender, education qualification, place of residence, religion, parental education, frequency and purpose of internet use, device type, internet access location, and parental supervision.

Similarly, for negative effects, there was no statistically significant association with any of the demographic variables considered in the study. This indicates that while income level may influence the perceived positive impact of internet use, the negative consequences appear to be consistent across various demographic groups.

CONCLUSION:

The study found that adolescents experience both positive and negative effects from internet use, with most showing moderate levels of each. Family income was significantly linked to positive effects, while no demographic factors were associated with negative effects. The findings underscore the importance of balanced internet use and the need for guidance to ensure adolescents benefit without harm.

RECOMMENDATION:

- Promote digital awareness through educational programs on responsible internet use.
- Encourage active parental guidance to monitor and support healthy online habits.
- Provide counselling services in institutions for early detection and management of internet addiction.

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