A Study of Internet Addiction and Psychological well-being among College Students

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Abstract—This study was conducted to investigate the difference of Internet Addiction and Psychological well-being among College Students. 2×2×2 Factorial design was used. A total 240 samples of college students were taken from Bhavnagar city and its surrounding rural areas. Their Samples were taken along with the data collection with the help of "Internet Addiction Scale" and "Psychological well-being Scale". The Internet Addiction Scale created by Jung (1998) was translated into Gujarati by Pandya (2015). Psychological Well-Being Scale (PWBS) developed by Dr. Bhogle & Prakash (1995) was translated into Gujarati by Suvera (2001). The collected data was statistically analysed with the help of 'F' ANOVA. The Sample was taken by a Stratified random method. The result shows that there is a significant effect of Internet Addiction among Boys and Girls College Students. (F=25.83). There is a significant effect of Internet Addiction among Arts and Commerce college students. (F=25557.52). There is a significant effect of Internet Addiction among Urban and Rural College Students. (F=211.15) There is a significant Interaction effect on Internet Addiction among Students Gender, Stream and their Residential Area. (F=78.75) There is a significant effect of psychological well-being among Boys and Girls College Students. (F=80.48). There is a significant effect of psychological well-being among Arts and Commerce college students. (F=1994.18). There is a significant effect of psychological well-being among Urban and Rural College Students. (F=2401.98). There is a significant Interaction effect on psychological well-being among Students Gender, Stream and their Residential Area. (F=138.73). Findings show that all hypotheses are rejected. Results revealed a significant difference between Internet Addiction and Psychological well-being, indicating that excessive internet use is associated with poor emotional health, decreased life satisfaction and reduced social interaction. The study highlights the need for awareness programs, digital discipline and psychological counselling for students.

Index Terms—Internet Addiction, Psychological well-being, College Students, Girls-Boys, Urban-Rural, Arts-Commerce.

I. INTRODUCTION

The 21st century has witnessed an unprecedented growth in digital technology, with the internet becoming an inseparable part of everyday life. For college students, the internet serves as a powerful tool for education, communication, social networking, entertainment, online learning, and academic research. The increasing accessibility through smartphones, high-speed data, and affordable technology has made internet usage an essential component of their lifestyle. While the internet has enhanced learning opportunities and global connectivity, it has simultaneously created a significant risk for excessive or uncontrolled use, commonly referred to as Internet Addiction.

Meaning of Internet Addiction
Young (1998): Internet Addiction is "an impulse-control disorder that involves the excessive use of the internet, leading to impairment in academic, social, and occupational functioning."

Davis (2001): Internet Addiction is "a maladaptive pattern of internet use associated with psychological, social, or academic difficulties."

"Internet Addiction is a behavioural disorder involving excessive and uncontrolled use of the internet, leading to emotional, social, and academic problems."

Meaning of Psychological well being
Ryff (1989): Psychological well-being is "a multidimensional concept involving self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth."

Diener (2000): Psychological well-being refers to "a combination of positive emotions, life satisfaction, and good mental functioning."

"Psychological Well-being refers to an individual's emotional health, positive functioning, life satisfaction, and overall mental balance."

Internet Addiction in Modern Student Life
Internet Addiction (IA) is characterized by compulsive, excessive, or poorly controlled internet use that interferes with daily responsibilities and social functioning. Young adults—especially college students—are more vulnerable because they are in a transitional phase, managing academic pressure, social relationships, autonomy from parents, and identity formation. They often use the internet for online classes, assignments, gaming, social media, OTT platforms, and instant communication, which may gradually elevate into dependency. Studies report that many college students spend 6–10 hours daily online, often leading to disturbed sleep patterns, academic decline, emotional imbalance, and reduced face-to-face interactions. The constant need for online presence, validation through likes and comments, and FOMO (Fear of Missing Out) further increases psychological stress and addictive behaviour.

Psychological Well-being in the Context of Internet Use
Psychological well-being is a core concept in positive psychology, involving an individual's emotional health, life satisfaction, self-acceptance, sense of purpose, personal growth, autonomy, and quality of social relationships. The transition into higher education is a sensitive developmental stage when students' mental and emotional stability plays a crucial role in academic and personal success. Excessive internet use has been found to disturb emotional balance by increasing stress, loneliness, anxiety, irritability, and decreased motivation. When students become emotionally dependent on digital engagement, real-life interactions reduce, which may lead to lower self-esteem, poor social support, and dissatisfaction with life. Thus, psychological well-being and internet use are deeply interconnected.

Why Study This Relationship?
College students today are digital natives, meaning they have grown up with technology. This constant connectivity has both positive and negative consequences. Understanding how internet addiction impacts psychological well-being is essential because:

1. High internet usage is becoming a behavioural concern similar to substance addiction.
2. Mental health issues are increasingly prevalent among young adults due to digital overload
3. Academic institutions lack awareness programs addressing digital hygiene and online time management.
4. Psychological well-being is closely tied to academic performance and social adjustment, so identifying factors affecting it is important.
5. Research on this topic in the Indian context, especially among college students, is still limited.

The Emerging Need for Digital Well-being
With the rise of online education, social media influence, and virtual relationships, students face increased psychological vulnerability. They may experience:

- Sleep disturbances
- Emotional exhaustion
- Reduced concentration
- Social isolation
- Increased anxiety and depression
- Poor academic engagement

These consequences highlight the urgent need to examine the association between internet addiction and psychological well-being.

II. REVIEW OF LITERATURE

➢ Young (1998) was among the first researchers to conceptualize Internet Addiction as a behavioral disorder and developed the Internet Addiction Test (IAT) to measure its severity. The study

reported that excessive internet use leads to psychological problems such as anxiety, depression, loneliness, and impaired social functioning.

➢ Ryff (1989) proposed a multidimensional model of Psychological Well-Being, including autonomy, environmental mastery, personal growth, positive relations, purpose in life, and self-acceptance. Subsequent researchers have used this model extensively to assess mental health in young adults and students.

➢ Kuss and Griffiths (2011) conducted a comprehensive review on internet addiction and found that excessive online activities, especially social networking and gaming, were associated with increased stress, emotional instability, and reduced psychological well-being. Their findings emphasized that uncontrolled internet use negatively affects daily functioning and emotional balance.

➢ A study by Chakraborty and Basu (2019) on Indian college students found a significant negative correlation between internet addiction and psychological well-being. Students with high levels of internet addiction reported greater emotional distress, lower life satisfaction, and poor interpersonal relationships.

➢ Sharma and Gupta (2021) examined the relationship between internet addiction and mental health among university students and concluded that excessive internet use was linked with depression, academic stress, sleep disturbances, and reduced psychological adjustment.

➢ Panda and Jain (2022) studied digital behavior patterns in college students and observed that students who spent more than six hours per day online showed lower scores on psychological well-being, particularly in self-control and positive social relationships.

III. OBJECTIVE

1. To find out the effect of Internet Addiction among Boys and Girls College Students.
2. To find out the effect of Internet Addiction among Arts and Commerce college students.
3. To find out the effect of Internet Addiction among Urban and Rural College Students.
4. To find out the Interaction effect on Internet Addiction among Students Gender, Stream and their Residential Area.
5. To find out the effect of psychological well-being among Boys and Girls College Students.
6. To find out the effect of psychological well-being among Arts and Commerce college students.
7. To find out the effect of psychological well-being among Urban and Rural College Students.
8. To find out the Interaction effect of psychological well-being among Students Gender, Stream and their Residential Area.

Hypotheses: -
1. There is no significant effect of Internet Addiction among Boys and Girls College Students.
2. There is no significant effect of Internet Addiction among Arts and Commerce college students.
3. There is no significant effect of Internet Addiction among Urban and Rural College Students.
4. There is no significant Interaction effect on Internet Addiction among Students Gender, Stream and their Residential Area.
5. There is no significant effect of psychological well-being among Boys and Girls College Students.
6. There is no significant effect of psychological well-being among Arts and Commerce college students.
7. There is no significant effect of psychological well-being among Urban and Rural College Students.
8. There is no significant Interaction effect on psychological well-being among Students Gender, Stream and their Residential Area.

IV. RESEARCH METHODOLOGY

Sample Selection: -
The Sample was taken by the Stratified Random method. A total of 240 samples of College Students were taken from various colleges of Bhavnagar District. Among them 120 from Boys students (30 Arts, 30 Commerce,30 Urban, 30 Rural). and 120 from Girls Students (30 Arts, 30 Commerce, 30 Urban, 30 Rural)

Research Design: -

The experiment design for this study was 2×2×2 Factorial design. There were three Independent variables and two Dependent variables. The First Independent variable was Gender. That was varied at two levels, i.e., Boys and Girls Students. The second Independent variable was Stream. That was also varied at two levels, i.e., Arts and commerce. The third Independent variable was Residential Area. That was varied at two levels, i.e., Urban and Rural.

The dependent variables were Internet Addiction and Psychological well-being.

Table-1 A Table of Sample Distribution

C Area	A [Gender]				Grand Total
	A1-Boys		A2-Girls		
	B [Stream]				
	B1 (Arts)	B2 (Commerce)	B1 (Arts)	B2 (Commerce)	
C1 Urban	30	30	30	30	120
C2 Rural	30	30	30	30	120
Total	60	60	60	60	240

Variable: -
Independent Variables:
- A. Gender
    A1. Boys
    A2. Girls
- B. Stream
    B1. Arts
    B2. Commerce
- C. Residential Area
    C1. Urban
    C2. Rural
Dependent Variables:
- A. Internet Addiction
- B. Psychological well being

Tools: -
1.Personal Data sheet:
The personal information schedule was prepared by the investigation to collect information about the respondent such as Name, Age, Gender, Stream and Residential Area.

2. Internet Addiction Inventory:
The Internet Addiction Scale created by Jung(1998) was translated into Gujarati by Pandya(2015).A total of 20 statements have been given in this test. In which five options have been given against each statement: 'Never', 'Rarely, Sometimes', 'Often', 'Always'. In which one has to be answered by ticking the correct option. The scores for these statements were 1,2,3,4,5 in this way. A minimum score of 20 and a maximum score of 100 can be obtained. If the score is 20 to 37 on this scale, internet usage is considered normal. If the score is 40 to 69, some difficulties are experienced due to spending too much time on the internet. If a score of 70 to 100 is found, then very complex problems arise due to sitting on the Internet in one's life.

The maximum score that can be obtained in this scale is 100 and the minimum score that can be obtained is 20. The internal reliability score of the Yugini Internet Addiction Scale is found to be 0.93.

The validity score of this scale is also found to be satisfactory. The reliability score of the Gujarati translation of this scale with the original English scale found on 50 samples by test-retest is found to be 0.83 and the validity score has been found to be satisfactory.

3. Psychological well-being Inventory:
In the present research, the Psychological Well-Being Scale (PWBS) developed by Dr. Bhogle & Prakash (1995) was translated into Gujarati by Suvera (2001). Through it, the psychological well-being of the students included in the sample was measured. The details of which are classified into 12 components.

These twelve (12) components and the details included in them are shown in order as follows.

Components of Psychological Well-Being
1.Social Support 2. Satisfaction 3. Meaninglessness 4. Physical Complaints 5. Self-Esteem 6. Vital Feeling 7. Permanent Activity 8. Life Satisfaction 9. Self-Control 10. Stress 11. Goodness 12. General Effectiveness Here, different coefficients of all the above twelve (12) components of psychological well-being are found. But here only the entire coefficient has been used. There are 26 statements in this scale. Two options 'Yes' and 'No' have been given against each of these statements. There are both legislative and negative types of statements in this scale. In this scale, the statements in the order 1, 5, 6, 7, 8, 11,12, 14, 15, 16, 19, 20, 22, 23, 24 are legislative, while the statements in this order 2,3, 4, 10, 13, 17, 18, 21, 25 and 26 are negative. If the 'yes' sign is above the 'yes' sign in the legislative form, then the coefficient '1' is given. Similarly, if the 'no' sign is above the 'yes' sign, then the coefficient '0' is given. Similarly, if the 'yes' sign is above the 'no' sign in the negative statement, then the coefficient '0' is given and if it is above the 'no' sign, then the coefficient '1' is given. The maximum score in this scale is 26 and the minimum score is '0'. The maximum score in this scale is '26' and the minimum score is '0'. The reliability score found with the original English test on 50 samples by test-retest of the Gujarati translation of this scale by Suvera (2001) is 0.91. The reliability score found with the test-retest of the Psychological Well-Being Scale is 0.76 and the internal consistency score is 0.81 and the validity score is also satisfactory. The higher the score in this scale, the higher the level of psychological well-being is interpreted.

Procedure: -
A very cooperative and healthy environment was created for collecting the data, the investigation approached individually to all participants. Internet Addiction Inventory and Psychological well-being Inventory was given to the college students. When participants fill up the Inventory, they are collected. The scoring was done according to the manual.

V. RESULT

In order to study the effect of Gender, Stream and Area on Internet Addiction ANOVA were calculated.

Table Summary of Analysis variance for Internet Addiction

Source Of Variation	Sum Of Square	df	Mean Sum Of Square	F	Level Of Sig.
A	23187.00	1	23187	25.83	0.05
B	23.43	1	23.43	25557.52	0.01
C	2835.94	1	2835.94	211.15	0.05
A × B	418.70	1	418.70	1430.17	0.01
A × C	6273.04	1	6273.04	95.46	0.05
B × C	637.00	1	637.00	940.05	0.01
A × B × C	7603.95	1	7603.95	78.75	0.05
WSS	138924544.2	232	598812.69	-	-
TSS	138965523.3	239	-	-	-

In order to study the effect of Gender, Stream and Area on Psychological well-being ANOVA were calculated.

Table Summary of Analysis variance for psychological well being

Source Of Variation	Sum Of Square	df	Mean Sum Of Square	F	Level Of Sig.
A	836.27	1	836.27	80.48	0.05
B	33.75	1	33.75	1994.18	0.01
C	28.02	1	28.02	2401.98	0.05
A × B	66.15	1	66.15	1017.44	0.01
A × C	380.02	1	380.02	177.11	0.05
B × C	29.4	1	29.4	2289.23	0.01
A × B × C	485.17	1	485.17	138.72	0.05
WSS	15614401.23	232	67303.45	-	-
TSS	15616260	239	-	-	-

VI. DISCUSSION

The chief of the present research was to examine Internet Addiction and Psychological well-being among College Students.

The difference between the mean score in terms of Internet Addiction of Boys and Girls in terms of Gender is significant, So the hypothesis is rejected. The difference between the mean score of Internet Addiction of Arts and Commerce students in terms of Stream is significant, So the hypothesis is rejected. The difference between the mean score of Internet Addiction of Rural and Urban in terms of Students Residential Area is significant, So the hypothesis is rejected.

The difference between the mean score on Internet Addiction of Gender, Stream and Students Residential Area internal effect is significant, So the hypothesis is rejected.

The difference between the mean score in terms of psychological well-being of Boys and Girls in terms of Gender is significant, So the hypothesis is rejected. The difference between the mean score of psychological well-being of Arts and Commerce students in terms of Stream is significant, So the hypothesis is rejected. The difference between the mean score of psychological well-being of Rural and Urban in terms of Students Residential Area is significant, So the hypothesis is rejected. The difference between the mean score on psychological well-being of Gender, Stream and Students Residential Area internal effect is significant, So the hypothesis is rejected.

VII. RESEARCH FINDINGS

1.There is a significant effect of Internet Addiction among Boys and Girls College Students.
2.There is a significant effect of Internet Addiction among Arts and Commerce college students.
3.There is a significant effect of Internet Addiction among Urban and Rural College Students.
4.There is a significant Interaction effect on Internet Addiction among Students Gender, Stream and their Residential Area.
5.There is a significant effect of psychological well-being among Boys and Girls College Students.
6.There is a significant effect of psychological well-being among Arts and Commerce college students.
7.There is a significant effect of psychological well-being among Urban and Rural College Students.
8.There is a significant Interaction effect on psychological well-being among Students Gender, Stream and their Residential Area.

VIII. LIMITATION

In the present research only Bhavnagar city has been included. No other city has been selected. Any other student except the students of Arts and Commerce college have not been taken. Therefore, the result of this research cannot be made applicable to any other students or students of any other city. There may be limitations prevailing because of statistical analysis in research. It cannot be clarified that participants give only true or good responses or not. The research paper

is given final touch their computer, there linguistic or other mistakes arising become of its technical defect are found.

Implications for future research: -

Broader Sample Size & Diverse Population:
Future studies can involve a larger and more diverse sample of college students from multiple districts, universities, and academic streams to strengthen the generalizability of results.

Longitudinal Research Design:
Further research could track students over time to examine how internet addiction develops and how it gradually affects psychological well-being, rather than relying only on cross-sectional data.

Effectiveness of Intervention Programs:
Future researchers may conduct experimental studies to test whether counselling, digital detox plans, mindfulness exercises, or behavioural interventions help reduce addiction and improve well-being.

Role of Academic Pressure and Online Study Patterns:
More research is needed to explore how online education, academic workload, and exam seasons influence internet dependency and psychological health in students.

Platform-Specific Internet Addiction:
Studies can focus on the effects of addiction to specific applications—social media, online gaming, YouTube, OTT platforms, or online shopping—and how each impacts emotional health.

Mediating & Moderating Variables:
Future research can examine how variables like self-esteem, family support, coping style, emotional intelligence, or personality traits influence the link between internet addiction and well-being.

Qualitative Approach for Deeper Understanding:
In-depth interviews, case studies, or focus group discussions could provide richer insights into personal experiences of addicted students that quantitative scores cannot fully capture.

Gender-Based & Age-Based Comparative Analysis:
Future studies may compare internet addiction and well-being differences among males vs females, early adolescents vs adult learners, or hostellers vs day scholars.

Impact on Academic Performance & Lifestyle Factors:
Researchers may include variables like sleep habits, physical activity, social interaction, time-management skills, diet and routine to understand the broader consequences of excessive internet use.

Use of Technological and Biometric Measures:
Advanced research could use screen-time trackers, physiological stress indicators or neuro-psychological tools to measure addiction level and emotional well-being more accurately.

These implications can inform future research and help address the pressing issue of internet addiction among college students.

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