



Reward Deficiency In Relation To Internet Addiction and Learning Burnout Among Undergraduate Students In South India

¹Bavithra Arumugam

¹Student Counsellor

¹Department of Office of Student Affairs

¹Sri Eshwar College of Engineering, Coimbatore, India

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ABSTRACT

This research examines the association between RDS, internet addiction, and learning burnout in South Indian undergraduate students, a population where high levels of social pressure and academic strain are magnified. Reward deficiency syndrome (RDS) is typified by the brain's diminished capacity to derive pleasure from naturally rewarding activities. College students are more and more likely to have learning burnout, which is a condition of ongoing stress and tiredness connected to academic endeavors, and internet addiction, which is characterized as excessive or poorly regulated obsessions with internet use. The psychological scales used in the study are Maslach Burnout Inventory – Student Survey by Schaufeli and Martinez, Internet Addiction Scale by Dr. Kimberly Young and Reward Deficiency Syndrome Scale by Eszter Kotyuk et.al. Using convenient sampling and correlational approach, the study with a sample size of 200 undergraduate students discovered a strong correlation between reward deficit and learning burnout as well as online addiction. The majority of the samples showed moderate to high levels of learning burnout and online addiction, suggesting that RDS plays a significant role in impacting these issues. To improve students' academic performance and overall well-being, our findings highlight the necessity of focused therapies that target the underlying psychological reasons causing these problems.

KEYWORDS: Reward deficiency, Internet addiction, Learning Burnout, Undergraduate students, Correlational Study

I. INTRODUCTION

Background and Rationale

The advent of digital technology and the internet has brought about a significant transformation in the realm of education by

providing unprecedented access to information and resources. However, this revolution has also brought about a number of hardships, especially for college students who are at an important phase in their development as learners and individuals. These issues include learning burnout and internet addiction, a pair of criteria that have received an extensive amount of press lately because of the adverse impact they have on individuals' psychological health and learning outcomes.

Internet Addiction

College students in South India, where educational pursuits are highly esteemed, are using internet platforms more and more for social networking, academic research, and recreational activities. But there are also serious issues that have been raised by this digital integration, especially in relation to internet addiction, which is typified by obsessive and excessive internet use that interferes with regular tasks and obligations. According to recent research, Reddy and Surendran's (2020) survey found that about 45 percent of urban South Indian college students exhibited symptoms that could be related to problematic internet use. The number highlights the widespread prevalence of internet addiction in the area and its possible effects on social interactions, mental health, and academic achievement. Furthermore, online utilization routines of undergraduates from South India indicate a dependence on digital platforms for social engagement, relaxation, and academic reasons alike. According to a study by Kumar and Kumar (2019), a sizable percentage of students used the internet for over six hours per day, mostly for social networking, online gaming, and streaming videos. Issues have been expressed concerning the impact of such heavy internet use on students' overall wellness, time management skills, and cognitive abilities. Developing focused therapies and support systems requires an understanding of these usage patterns



and the prevalence of internet addiction among South Indian college students. This introduction provides a thorough knowledge of the difficulties presented by digital technology in higher education. Additionally, it sets the existing context for examining the current state of internet addiction.

Learning Burnout

The competitive instruction module that heavily emphasizes academic accomplishment and success typifies the Indian educational landscape. This curriculum, which is engrained in the national culture, creates an atmosphere in which the students are motivated by demanding academic standards and the prospect of future benefits. The presence and effects of this educational paradigm on pupils throughout India are highlighted by a recent study as a significant majority of students reported feeling a great deal of pressure to perform well academically, which they attributed to social norms and ambitions for academic achievement, according to a study by Mishra and Mohanty (2022) that was carried out throughout several states in India. The pursuit of prominent scholastic and employment possibilities, intense learning plans, and parental demands are just a few ways in which these pressures can appear. About 60% of college students reported having burnout symptoms, such as exhaustion, a lack of enthusiasm in their studies, and a sense of disappointment with their academic aspirations, according to a study by Rajesh and Rao (2021). These results demonstrate how common burnout is in the student area. The elevated prevalence of burnout among college students highlights the necessity of preventative actions and networks of support that deal with the underlying causes of burnout and encourage a well-rounded strategy for both personal and academic success.

Reward Deficiency Syndrome (RDS)

RDS individuals have a decreased sensitivity to natural rewards, which might result in a recurrent desire for things or activities that release dopamine quickly. The rationale behind RDS came from studies on addictive behaviors, in which people are more likely to engage in compulsive activities, substance misuse, or gambling to make up for decreased dopamine activity in their brains. It is thought that this condition is influenced by both genetic and environmental factors, with genetic predispositions interacting to increase vulnerability with environmental factors including stress, trauma, or early life events. College students who experience this syndrome may have significant behavioral, educational, and social effects. This maladaptive

coping mechanism can spiral into addiction and exacerbate stress, ultimately contributing to learning burnout. Comprehending the number and effect of RDS among undergraduate learners is essential for formulating all-encompassing approaches that improve academic achievement and student welfare.

Need for the study

Considering that reward deficiency syndrome (RDS), internet addiction, and learning burnout all have a combined negative impact on mental health and academic performance, it is imperative to comprehend how these issues affect Indian college students concurrently. While these topics have been the subject of separate studies in the past, a thorough research that combined all three variables into one study would provide a full understanding of how they interact within the particular setting of Indian higher education. This study intends to explore the complex interactions between RDS, internet addiction, and learning burnout by concentrating on college students as the sample group. By doing so, it hopes to shed light on potential risk factors and protective factors that affect students' academic outcomes and well-being. The present research study has significance for creating focused therapeutical intervention plans that address the unique requirements of college students, creating a favorable learning environment, and boosting overall student achievement.

II. REVIEW OF LITERATURE

Mannikko et al (2024) stated that the purpose of this study was to determine the relationship between problematic internet use and particular health-risk behaviors among college students and academic exhaustion. According to the findings, there is a substantial and positive correlation between academic burnout and excessive usage of the internet, online shopping, and reported loneliness. The results imply that identifying problematic behavior in students and providing assistance to those in need are probably the best ways to improve academic well-being among college students.

Hui Wang. (2024) stated with his findings that in China, college students' levels of self-esteem consistently decrease during their academic paths, but Problematic Social Media Usage levels gradually rise.

Chen et al (2023) stated by his research findings that Academic adaptability was found to have a significant and positive correlation with self-esteem and significant and negative correlation with learning burnout. Additionally, academic



adaptability was found to have a partially mediated effect on learning burnout, with self-efficacy mediating the latter half of the mediation process between academic adaptability, self-esteem, and learning burnout.

File, D., Bóthe, B., File, B., & Demetrovics, Z. (2022). Examining the dissociation between "wanting" and "liking" in relation to usage frequency, intensity, and subjective severity in relation to ten behaviors (gambling, overeating, gaming, pornography use, sex, social media use, Internet use, TV series watching, shopping, and work) and four substances (alcohol, nicotine, cannabis, and other drugs) was the goal of this study. Problem uses and behaviors were positively correlated with reward deficit, while wellbeing was adversely correlated with both impulsivity and problem uses and behaviors. Lastly, compared to men, women displayed higher degrees of "wanting." These results highlight the possible roles that incentive sensitization may play in potentially harmful substance use and behavior.

Tomaszek K, Muchacka-Cymerman (2019) researched the relationship between school burnout and Internet addiction. The result was mediated by gender, which also significantly predicted Internet addiction. The pressure from parents for high school success led to academic burnout, which was linked to internet addiction. Furthermore, in a male group, there is a higher predictive power for Internet addiction and associated signs based on school burnout and school-related traits.

Yunyun Zhang., Xingna Qin., Ping Ren. (2018) stated in his research that the findings showed that academic engagement and dissatisfaction at the individual level acted as a mediating factor in the detrimental impact of Internet addiction on teenagers' eventual academic attainment. Additionally, from the standpoint of individual motivation and the classroom setting, it offers a useful and productive perspective on the prevention and intervention of the detrimental impacts of Internet addiction in future teaching practice.

III. METHODOLOGY

AIM

To understand the relationship between Reward Deficiency Syndrome, Internet Addiction and Learning Burnout among undergraduate students in South India.

OBJECTIVES

- To examine the relationship between Reward Deficiency Syndrome and Internet Addiction among undergraduate students in South India.
- To examine the relationship between Reward Deficiency Syndrome and Learning Burnout among undergraduate students in South India.

HYPOTHESIS

- There is no relationship between Reward Deficiency Syndrome and Internet Addiction among undergraduate students in South India.
- There is no relationship between Reward Deficiency Syndrome and Learning Burnout among undergraduate students in South India.

RESEARCH DESIGN & SAMPLING METHOD

This research employs a correlational research design with a convenience sampling method with a sample size of 200 undergraduate students including both males and females in and around South India.

TOOLS FOR DATA COLLECTION

Sociodemographic sheet: This sheet includes the personal details of the sample i.e., initial, age, gender, nationality, state, year of study, habitat, and socio-economic status.

Maslach Burnout Inventory – Student Survey:

This inventory was developed by Schaufeli & Martinez in the year 2002. This scale consists of 15 items with three dimensions i.e., Emotional Exhaustion, Cynicism, and Academic Efficacy. It is a 7 Likert scale with a range of 0 (Never) to 6 (Always). The reliability of the scale is of Emotional Exhaustion (0.80), Cynicism (0.80), and Academic Efficacy (0.70).

Internet Addiction Test:

This test was developed by Dr. Kimberly Young in the year 1998. This scale consists of 20 items with 5 Likert scale ranging from 1 (Rarely) to 5 (Always). The reliability of the scale ranges from 0.85 to 0.93.

Reward Deficiency Syndrome Questionnaire:

This questionnaire was developed by Eszter Kotyuk et al in the year 2022. It has 29 statements with 4 responses like 1 (Strongly Disagree) to 4 (Strongly Agree). The reliability of the questionnaire is 0.80.

STATISTICS USED

This research employs Descriptive statistics (Frequency, percentage analysis) and Cronbach's alpha (statistical analysis with the help of SPSS).

PROCEDURE

For the present study, the questionnaires were typed into Google Forms and sent to the samples who were between the age limit of 18-25 years. After obtaining the informant's consent and socio-demographic



details, the samples (N=200) which included both males (n=98) and females (n=102) were administered with the main questionnaires. The questionnaire was separated into 3 parts -[PART I – Maslach Burnout Inventory – Student Survey, PART II – Internet Addiction Test, and PART III – Reward Deficiency Syndrome Questionnaire. Read each statement carefully and choose the response that best suits you the most. There is no right or wrong answers. So please do not omit any items. There is no time limit but try to complete it as soon as possible. Please be honest in answering and your results will be kept confidential.]”

IV. RESULTS AND DISCUSSION

Table 4.1 shows the frequency and percentage for the variables of this study among undergraduate students.

(N=200)

VARIABLES	CATEGORY	FREQUENCY	PERCENTAGE
Reward Deficiency	High	121	60.5
	Moderate	38	19
	Low	41	20.5
Internet Addiction	High	98	49
	Moderate	67	33.5
	Low	35	17.5
Learning Burnout	High	103	51.5
	Moderate	52	26
	Low	45	22.5

Table 4.1 suggests 60.5% students report having a significant degree of reward deficiency. This suggests that a sizable segment of the student body may experience problems associated with the brain's reward system, which may have an impact on drive and pleasure. A significant portion of 33.5% is classified as having a moderate level of online dependency, while almost half (49%) are classified as having a high level. This implies that internet consumption is a widespread worry, with many students possibly facing unfavorable effects from excessive use. A significant proportion of students (51.5%) display severe signs of educational burnout, suggesting that a considerable number of them are under a great deal of pressure and tiredness due to their academic obligations. Given how common these problems are, undergraduate students may benefit from programs that manage their internet use, enhance their mental health, and lessen their level of burnout.

Table 4.2 shows the correlation value for the variables of this study among undergraduate students.

(N=200)

VARIABLES	INTERNET ADDICTION	LEARNING BURNOUT
REWARD DEFICIENCY	0.747**	0.802**

** Correlation is significant at the 0.01 level (2-tailed)

Table 4.2 shows Among undergraduate students, reward deficit and internet addiction had a significant positive connection ($r = 0.747$). This suggests that increased degrees of reward deficit are linked to increased degrees of internet addiction. Students who have problems with the brain's reward system might use the internet excessively more often, maybe as a coping mechanism to get what they want. The association between reward deficit and learning fatigue is much more positive ($r = 0.802$). This implies that there is a substantial correlation between higher degrees of reward deficit and larger levels of learning burnout. It may be harder for students who lack rewards to remain motivated and involved in their studies, which can result in increased stress and burnout.

Discussion

The result data shows that a substantial degree of reward deficit indicates that a significant segment of the student population is facing challenges that may have an impact on their motivation, drive, and general well-being. It could be difficult for some students to stay interested in and enthusiastic about everyday activities, such as academic assignments. Significant incentive insufficiency can make it difficult for students to stay motivated and involved in their studies, which can result in subpar academic achievement and decreased involvement in extracurricular activities. Anxiety and sadness are two mental health conditions that can be exacerbated by the incapacity to feel pleasure and fulfillment. This emphasizes how important it is for educational institutions to provide mental health support services.

Additionally, the result data also shows that there are high level of internet dependency. The hallmark of online dependency is frequent and obsessive internet use, which can interfere with day-to-day activities. Procrastination, a reduction in study time, and subpar academic achievement might result from it. Online activities may take precedence over academic obligations for students. Overuse of the internet can also have a negative social impact on students, decreasing in-person contacts and possibly increasing social isolation. Educational



establishments ought to create strategies and programs that assist students in controlling how much time they spend online. It can be helpful to attend workshops on time management, digital literacy, and safe internet usage.

Overinflated expectations and intense academic pressure can lead to burnout, which makes it harder for students to handle the amount of coursework. Multiple medical conditions, such as chronic fatigue, sleep disorders, anxiety, and depression, can be brought on by burnout. Additionally, it may impair immunity, increasing students vulnerability to disease. It might make students more likely to discontinue from classes or even college, which will harm their chances for the future. Extreme burnout might make students more likely to discontinue from classes or even college, which will harm their chances for the future.

V. CONCLUSION

According to the study, most students (60.5%) have a high degree of reward deficit. Emphasizing the increasing incidence of overuse of the internet and its possible harmful implications, almost half of the students (49%) have a high level of online addiction, while 33.5% have a moderate level of internet addiction. More than half of the students (51.5%) display a significant degree of learning burnout. Internet addiction and reward deficit have a substantial positive link ($r=0.747$), which suggests that students who have greater levels of reward deficiency are more likely to engage in excessive internet use as a coping mechanism. Furthermore, there is an even stronger positive link ($r=0.802$) between learning burnout and reward deficiency, suggesting that students who have higher levels of reward insufficiency are more likely to feel burnout and stress related to their studies. These results demonstrate the relationship between reward deficiency, internet addiction, and learning burnout, indicating that treatments aimed at addressing reward deficiency may be able to lessen undergraduate students' internet addiction as well as their learning burnout.

VI. IMPLICATION

In order to reduce internet addiction and learning burnout, these findings have important implications for the future of mental health interventions in educational settings. Specifically, these interventions should target reward deficit. To improve generalizability, more sample sizes, a wider geographic scope, and a more diverse population should be included in future studies. It is crucial to conduct a qualitative investigation to determine the

causes of these problems and their grounds for early diagnosis. To manage the repercussions and enhance students' mental health, an interventional model might be created, offering a more focused and successful way to assist students in both their personal and academic life.

REFERENCES

- [1]. Blum, K., Cull, J. G., Braverman, E. R., & Comings, D. E. (1996). Reward deficiency syndrome. *American Scientist*, 84(2), 132-145.
- [2]. Chen, C., Shen, Y., Zhu, Y., Xiao, F., Zhang, J., & Ni, J. (2023). The effect of academic adaptability on learning burnout among college students: the mediating effect of self-esteem and the moderating effect of self-efficacy. *Psychology Research and Behavior Management*, 1615-1629.
- [3]. File, D., Bóthe, B., File, B., & Demetrovics, Z. (2022). The role of impulsivity and reward deficiency in "liking" and "wanting" of potentially problematic behaviors and substance uses. *Frontiers in psychiatry*, 13, 820836.
- [4]. Griffiths, M. (2000). Internet addiction – Time to be taken seriously? *Addiction Research*, 8(5), 413-418.
- [5]. Hui Wang. (2024) Relationship Between Self-Esteem and Problematic Social Media Use Amongst Chinese College Students: A Longitudinal Study. *Psychology Research and Behavior Management* 17, pages 679-689.
- [6]. Jelenchick, L. A., Becker, T., & Moreno, M. A. (2012). Assessing the psychometric properties of the Internet Addiction Test (IAT) in US college students. *Psychiatry Research*, 196(2-3), 296-301.
- [7]. Kumar, A., & Kumar, P. (2019). Internet addiction and its correlates among college students in South India. *International Journal of Psychological Studies*, 11(2), 18-29. doi:10.5539/ijps.v11n2p18.
- [8]. Männikkö, Niko & Palomäki, Jussi & Parikka, Suvi & Määttänen, Ilmari & Castrén, Sari. (2024). Establishing Academic Burnout's Relationship with Problematic Internet Use and Specific Health-Risk Behaviours: A Cross-sectional Study of Finnish Higher Education Students. *International Journal of Mental Health and Addiction*. 10.1007/s11469-024-01290-4.
- [9]. Mishra, S., & Mohanty, A. K. (2022). Academic pressure and motivation: A study



- among students in India. *Indian Journal of Psychology*, 64(1), 78-89.
doi:10.1177/00195564211005788.
- [10]. Rajesh, S., & Rao, A. (2021). Prevalence and correlates of burnout among college students in South India. *Indian Journal of Psychiatry*, 63(3), 245-250.
doi:10.4103/psychiatry.IndianJPsychiatry_914_20.
- [11]. Reddy, P. P., & Surendran, D. (2020). Problematic internet use among college students in urban South India. *Indian Journal of Psychological Medicine*, 42(3), 267-272.
doi:10.4103/IJPSYM.IJPSYM_306_19.
- [12]. Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Bakker, A. B. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464-481.
- [13]. Tomaszek, Katarzyna, and Agnieszka Muchacka-Cymerman. (2019). "Sex Differences in the Relationship between Student School Burnout and Problematic Internet Use among Adolescents" *International Journal of Environmental Research and Public Health* 16, no. 21: 4107.
<https://doi.org/10.3390/ijerph16214107>
- [14]. Volkow, N. D., Wang, G. J., Fowler, J. S., & Tomasi, D. (2007). Addiction circuitry in the human brain. *Annual Review of Pharmacology and Toxicology*, 47, 29-53.
- [15]. Widyanto, L., & McMurrin, M. (2004). The psychometric properties of the Internet Addiction Test. *CyberPsychology & Behavior*, 7(4), 443-450.
- [16]. Young, K. S. (1998). Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1(3), 237-244.
doi:10.1089/cpb.1998.1.237.
- [17]. Yunyun Zhang., Xingna Qin., Ping Ren. (2018). Adolescents' academic engagement mediates the association between Internet addiction and academic achievement: The moderating effect of classroom achievement norm, *Computers in Human Behavior*, Volume 89, Pages 299-307, ISSN 0747-5632.