

# The Impact of Internet Addiction on Sleep Quality and Mental Wellbeing: A Study on Higher Secondary Students

Anusree .A<sup>1</sup>, Kavyasree .K<sup>2</sup>

<sup>1</sup>Pursuing M.Sc. Psychology, Alva's College Moodbidire, Karnataka, India  
Email: [aanusree913anusree\[at\]gmail.com](mailto:aanusree913anusree[at]gmail.com)

<sup>2</sup>Assistant Prof. Department of Psychology, Alva's College Moodbidire, Karnataka, India  
Email: [kavyasreekkavya\[at\]gmail.com](mailto:kavyasreekkavya[at]gmail.com)

**Abstract:** *This study investigates the relationship between internet addiction, sleep quality and mental wellbeing among higher secondary students in the Calicut district of Kerala, India. A total of 200 participants were assessed using the internet addiction test, sleep quality scale and Warwick- Edinburgh mental wellbeing scale. The statistical analysis revealed a significant correlation between internet addiction and sleep quality and between sleep quality and mental wellbeing. However no significant relationship was found between internet addiction and mental wellbeing. The study also found a significant gender difference in sleep quality, but not in internet addiction or mental wellbeing. The findings suggest that while internet addiction does not directly influence mental wellbeing, it does affect sleep quality, which in turn impacts mental wellbeing.*

**Keywords:** Internet addiction, Sleep quality, Mental wellbeing, Higher secondary students, Gender differences

## 1. Introduction

Internet is a quick and accessible source of information for the entire world, and communication obstacles are being overcome by these wireless technologies. However, excessive Internet use can lead to user addiction. Worldwide, internet addiction affects people of all ages.(Abhinav., 2021). There are different issues followed by students due to internet addiction, several psychological issues like loneliness, hopelessness, Anxiety, depression lack of self-esteem and withdrawal from the direct societal interaction.(Rita., 2020).

An essential and restorative aspect of life is sleep. It is frequently ignored and dismissed as nothing more than a mental break. Sleep strengthens the immune system, improves memory and cognitive function, and improves mood. Lack of sleep affects cognition, short-term memory, learning ability, and behavioural self-control. In order to maintain good health and wellbeing throughout our lives, sleep is essential. (Sandhu, 2014).

A higher percentage of wellbeing indicates a positive state, whereas a lower percentage of wellbeing indicates a bad situation. A state of health and overall cognitive, emotional, and behavioural stability that enables someone to reach their full potential, work well, and contribute positively to their community. Evidence suggests that exercising can also enhance your mental health. Acquiring new talents can enhance your mental health by fostering your feeling of purpose, enhancing your sense of self-worth, and fostering connections with others. (Kalpna., 2022).

Transition from high school to higher-secondary education can be very challenging time. Higher secondary students comprises of students who has age between 15 to 18. They pursue different main streams in higher secondary. They are

mid- adolescents since many physiological, cognitive, and psychological processes sharply mature during the adolescent stage, as well as numerous other significant maturational sleep alterations and changes in many developmental functions, there is a corresponding risk for morbidity.(Jayaprabha., 2013).

The study could provide valuable insights into the relationship between internet addiction and mental wellbeing among this population. The findings from this study can be used for development of awareness programs aimed at reducing internet addiction and improving sleep quality and mental wellbeing among higher secondary students.

## 2. Literature Survey

Laftman, et. al conducted a study on “psychological school conditions and mental wellbeing among mid adolescents: findings from the 2017/18 Swedish HBSC study”. The research consisted of 1418 students (15-16years). Short Warwick- Edinburgh Mental Wellbeing Scale (SWEMWBS) was used to assess the mental wellbeing. The result shows that higher demands were associated with lower mental wellbeing. Conversely mental wellbeing increased with greater teacher support and classmate support revealed an inverse association between school demands and mental wellbeing (Sara Brodin laftman, 2023).

Ayran et.al done research on “Effect of internet addiction on sleep quality in university students”. The research consisted of 419 students in Erzincan Binali Yildirim University. The data required for the study were collected by using Young internet addiction questionnaire- short form and Pittsburgh sleep quality index. This research elucidated the result as variables has a positive and statistically significant correlation that means internet addiction disrupt sleep quality (Gulsan Ayran, 2019).

Volume 12 Issue 7, July 2023

[www.ijsr.net](http://www.ijsr.net)

Licensed Under Creative Commons Attribution CC BY

Trabelsi et. al conducted a study on “sleep quality and physical activity as predictors of mental wellbeing variance in older adults during COVID 19 lockdown: ELCB covid 19 international online survey”.the research consisted of 511 participants. The result shows that COVID 19 lockdown deteriorously affected physical activity and sleep patterns and the change in sleep quality and physical activity energy expenditure were significant predictors for the decrease in mental wellbeing (Khaled Trabelsi, 2018).

Sharma et. al studied on “Internet addiction and psychological wellbeing among college students: A cross – sectional study from central India”. The research consisted of 461 college students of Jabalpur city of Madhypradesh. The result of linear regression showed that internet addiction was a significant negative predictor of PWB (Arvind Sharma, 2018)

### 3. Problem Definition

To study internet addiction on sleep quality and mental wellbeing among higher secondary students.

### 4. Methodology

Internet Addiction (IA) Test by Dr Kimberly Young was used to measure the Internet addiction of the participants. It was published on 1998.Sleep quality scale by Yi et. al was used to measure the sleep quality (SA) of the participants. Warwick- Edinburgh mental wellbeing scale by Tennant et.al was used to measure the mental wellbeing (MWB) of the participants. The research design of quantitative correlational survey method is used here. The 200 participants (15-18 yrs old) were selected using convenience sampling method. Then the result were analysed using statistical software SPSS. The analysis of spearman’s correlational analysis, Mann Whitney U test and regression Analysis were done

### 5. Result and Discussion

The result of descriptive statistics is shown in (table .1)

**Table 1:** Mean and Standard deviation of scores on internet addiction, sleep quality and mental wellbeing

Variable	M	SD	n
IA	60.65	9.449	200
SQ	34.70	5.468	200
MWB	34.89	3.008	200

The mean and standard deviation of internet addiction is found to be 60.65 and 9.449 respectively. Which indicate that the selected sample has moderate level of internet addiction, In the study of Salam et al. (21), 48.6% of the students were normal internet users according to the YIAT Internet Addiction Scale; however, 49.5% and 1.9% of the students had moderate and severe internet addiction, respectively. Similarly, in the studies of Hasanzadeh et. al examining internet addiction in university students, it was found that university students had moderate internet addiction score( Hasanzadeh et. al,2014),then the mean and standard deviation of sleep quality as 34.70 and 5.468 respectively. Which indicate that the selected sample has

moderate level of sleep quality. The study conducted by Davis Rosna C in 2022 among adolescents found that Poor quality of sleep in 51% of the population and 49% of the students are getting good quality of sleep in the night(C,D. rosna ,2022). And the mean and standard deviation of mental wellbeing as 34.89 and 3.008. Which indicate that the selected sample has Average level of mental wellbeing. The study conducted by Bell et.al in 2019 shows that the adolescents has good mental wellbeing with mean score of 48.74.(Bell et al., 2019)

The result of inferential statistics is shown in (table 2.)

**Table 2:** Spearman correlation test of internet addiction, sleep quality and mental wellbeing among higher secondary students

Variable	n	M	SD	1	2	3
1.IA	200	60.65	9.449	-		
2.SQ	200	34.70	5.468	0.014	-	
3.MWB	200	34.89	3.008	0.224	0.049	-

$P^* < 0.05$

Significant value obtained by the analysis of spearman correlation for internet addiction with sleep quality s is 0.014, which indicate that there is significant relationship between internet addiction and sleep quality among higher secondary students. There is a negligible positive correlation between internet addiction and sleep quality (0.174). Also the study conducted by Celebioğlu et. al on adolescents in 2020 shows that there is a positive and statistically significant relationship between internet addiction and sleep quality in adolescents (Çelebioğlu et al., 2020). The significant value of internet addiction with mental wellbeing is shown as 0.224, which indicate that there is no significant relationship between internet addiction and mental wellbeing among higher secondary students. The Rho value obtained here indicating the relationship is 0.174. Also the study conducted by Sharma et. al on college students in 2018 shows that internet addiction was a significant negative predictor of PWB(Sharma & Sharma, 2018). The significant value of sleep quality with mental wellbeing is 0.049, which indicate that there is significant relationship between sleep quality and mental wellbeing among higher secondary students. There is a negligible positive correlation between sleep quality and mental wellbeing (0.139). Also the study conducted by Trabelsi et. al on older adults in 2021 shows that Covid 19 lockdown deteriorously affected physical activity and sleep patterns and the change in sleep quality and physical activity energy expenditure were significant predictors for the decrease in mental wellbeing(Trabelsi et al., 2021).

The P value obtained by analysing the significant gender difference in internet addiction using Mann Whitney U test is 0.187. Which indicate that there is no significant gender difference between internet addiction among higher secondary students. The study conducted by Bhagat and Geeta in 2012 shows that there is significant gender difference that is male adolescents scored higher than female.(Bagat, & Geetha. 2012) The p value of sleep quality is 0.057. Which indicate that there is significant gender difference between sleep quality among higher secondary students. The mean rank score among males was 92.72 and

female was 108.29. Which indicated females score more in sleep quality. The study by Wang et.al in 2020 shows that there is no significant gender difference in sleep quality among college students (Wang et al., 2020). And the P value of mental wellbeing is 0.975. Which indicate that there is no gender difference between mental wellbeing among higher secondary students. The study conducted by Bell et.al in 2019 shows that there is significant gender difference in mental wellbeing among adolescents (Bell et al., 2019).

The result of regression analysis of the study variables internet addiction, sleep quality and mental wellbeing show that internet addiction does not have an influence on sleep quality and mental wellbeing among higher secondary students.

## 6. Conclusion

The results revealed that there is significant relationship between internet addiction and sleep quality. Similarly with sleep quality and mental wellbeing. But there is no significant relationship between internet addiction and mental wellbeing. Moreover, while studying gender there is a significant difference in sleep quality, whereas there is no gender difference in internet addiction and mental wellbeing among higher secondary students. The regression results reveal that internet addiction does not have an influence on sleep quality and mental wellbeing among higher secondary students.

## 7. Future Scope

### 7.1 Limitation of the study

- The study was conducted in a limited period as this was part of the academic program which was time bounded.
- Limited samples were able to take due to vacation time.
- Samples were restricted to Calicut district.
- In this study only male and female sexual orientations were considered and others were excluded.
- No qualitative data was procured.
- The study was based on the self-report questionnaire so there might be response bias that cannot be ignored.
- In this study only one demographic variable is considered, others were excluded.

### 7.2 Suggestion for further study

The samples of present study restricted to Calicut district, thus father research could be done including the rest of the districts in Kerala. There was only limited variables used in the study, inclusion of other variable can be used in further exploration. The study can be conducted on various groups of samples particularly in parents and working women. Further research is also conceivable because the research findings have a blind spot. Across cultural study would help in understanding the problems on board and its effect across different nationalities so that authorities can amend rules universally as well and culture specifically.

## References

- [1] Ayran, G., Gundogdu, G., & Işık, N. A. (2019). Effect of internet addiction on sleep quality in university students. *Galician Medical Journal*, 26(4).
- [2] Baghat, & Geetha. (2012). A study of psychological correlates of internet addiction. <http://hel.handle.net/10603/83003>
- [3] Bell, S. L., Audrey, S., Gunnell, D., Cooper, A., & Campbell, R. (2019). The relationship between physical activity, mental wellbeing and symptoms of mental health disorder in adolescents: a cohort study. *International Journal of Behavioral Nutrition and Physical Activity*, 16, 1–12.
- [4] C, D. rosna. (2022). Association of internet use with sleep quality depression anxiety and stress among college students during Covid 19 pandemic.
- [5] Çelebioğlu, A., Aytakin Özdemir, A., Küçüköğlü, S., & Ayran, G. (2020). The effect of Internet addiction on sleep quality in adolescents. *Journal of Child and Adolescent Psychiatric Nursing*, 33(4), 221–228.
- [6] Gaur, Abhinav. (2021). Psychological Correlates of Internet Addiction in Youth. *Handle.net*. <http://hdl.handle.net/10603/438244>
- [7] Hasanzadeh, R., Mahmoodi, G., Bagheri-Nesami, M., & Heydari Fard, J. (2014). Internet addiction among students of Islamic Azad University. *Journal of Nursing and Midwifery Sciences*, 1(2), 46–50.
- [8] Jayaprabha, G. (2013). Effectiveness of metacognitive strategies in biology among higher secondary students. *handle.net*. <http://hdl.handle.net/10603/61584>
- [9] Kalpna. (2022). Impact Of Job Satisfaction and Perceived Stress on Work Life Balance and Mental Wellbeing of Women Working in Cisf. *Handle.net*. <http://hdl.handle.net/10603/386698>
- [10] KHanshan, M., & Tamnaeifar, M. R. (2022). The relationship between parenting styles and attachment styles with adolescent sleep disorders: the mediating role of internet addiction. *Rooyesh-e-Ravanshenasi Journal (RRJ)*, 11(1), 185–198.
- [11] Låftman, S. B., Modin, B., Granvik Saminathen, M., Östberg, V., Löfstedt, P., & Rajaleid, K. (2023). Psychosocial School Conditions and Mental Wellbeing Among Mid-adolescents: Findings From the 2017/18 Swedish HBSC Study. *International Journal of Public Health*, 311
- [12] Sandhu, H. (2014). A study of sleep related disturbances among adolescents in relation to academic achievement anxiety stress coping and familial factors. *Handle.net*. <http://hdl.handle.net/10603/83108>
- [13] Sharma, A., & Sharma, R. (2018). Internet addiction and psychological well-being among college students: A cross-sectional study from Central India. *Journal of Family Medicine and Primary Care*, 7(1), 147
- [14] Trabelsi, K., Ammar, A., Masmoudi, L., Boukhris, O., Chtourou, H., Bouaziz, B., Brach, M., Bentlage, E., How, D., & Ahmed, M. (2021). Sleep quality and physical activity as predictors of mental wellbeing variance in older adults during COVID-19 lockdown: ECLB COVID-19 international online survey. *International Journal of Environmental Research and*

*Public Health*, 18(8), 4329

- [15] Wang, Y., Xiao, H., Zhang, X., & Wang, L. (2020). The role of active coping in the relationship between learning burnout and sleep quality among college students in China. *Frontiers in Psychology*, 11, 647.

### Author Profile

**Anusree. A**, M.Sc. Psychology, Alva's College Moodbidire, Karnataka, India

**Kavyasree K**, Assistant Professor, Department of Psychology, Alva's College Moodbidire, Karnataka, India