ISSN PRINT 2319 1775 Online 2320 7876

*Research paper*  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

# A Study On Relationship Between Stress, Sleep Quality And Physical Symptoms Among Young Adults At Tirupattur District

**[i]ANTHONIAMMAL. P & [ii] DHIVYA. T**

[i]Assistant Professor, PG & Research Department of Counselling Psychology, Sacred Heart College (Autonomous), Tirupattur, Tamil Nadu.

[ii] Ph. D Research Scholar, PG & Research Department of Economics, Sacred Heart College (Autonomous), Tirupattur, Tamil Nadu.

**E-mail:** panthonyamal@gmail.com & dhivyamurugan1999@gmail.com

## ABSTRACT

A sensation of mental tension and pressure is referred to as stress. The stress is a form of mental or emotional anguish. Excessive stress will leads to affect the health like increasing the heart strokes, heart attacks, ulcers, mental, psychological disorders, depression and anxiety. The good sleep quality will give a variety of benefits like improvised in mental and physical health, reduced daytime sleepiness, improvise in fitness, improvement in psychological functioning. The sleep is more important for the regeneration of the body and maintenance of energy levels. The people sleep quality and quantity can easily be affected by changes in their physical and social circumstances. This will help to identify the relationship between stress, sleep quality and physical symptoms. Through this study we can identify whether the stress affects the sleep quality and the poor sleep quality make the difference in body or physical symptoms. This study will have investigation and analysis only on early adulthood people, both male and female are included in this study. Limited samples have taken for this this study. The purpose of this study is to identify the stress level, sleep quality and physical symptoms among early adulthood people because the young adults are more addicted to the mobile phones so this will cause increase the stress level. If the people have more stress will affect the sleep quality. When the sleep quality has changed it will leads to changes in the human body.

**Keywords**: Sleep Quality, Stress, Adults

ISSN PRINT 2319 1775 Online 2320 7876

*Research paper*  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

## INTRODUCTION

Life is precious gift of God. In the short span of life filled with full of up and downs. The people should always remember that whatever happens and it happens for good reason only. The people made mistakes, but they will learn from the mistakes. God has given short span of life and blessed with relationships and so many things like friends, family, traditions, cultures and so many festivals. There are people who think of dying every single moment. They forget the fact that just have one single life and they should enjoy it fully. Adversity and hardships make a person strong and ready to face the challenges of life. There is no doubt that there can - be no gain without pain. There is no single person in this world who has not suffered miseries, failure and sadness. They are forgetting the fact that all these failures are giving energy to rise and strength to fight back and win the own individual wars. Remember, life is beautiful, but only if the people make it in a right way. To make our life more beautiful, stress-free life and physical strength. The people trying to fulfil their needs without stressful life, but actually the people has to do live without stress, when they try to live without stress unknowingly, they will be caught by the stress and depression. This make the people think deeply, and this thought is a root for this study. Thus three fundamental variables have been chosen for this study, stress, sleep quality and physical symptoms. Drowsiness and boredom during the day, tension and anxiety, headaches, and a lack of success in daily tasks are all symptoms of poor sleep quality. Sleep deprivation and insufficient sleep trigger cognitive and physiological changes, as well as affecting academic performance. Fatigue, memory and cognitive impairment, increased stress and anxiety, and a decline in routine life quality are all symptoms of sleep deprivation. Furthermore, poor sleep quality worsens depression and anxiety, as well as the ability to deal with daily stress. The physical symptoms are part of a general medical condition. The physical symptoms will change when the people's mental health changes, either positive or negative. Whatever changes happen in human body it will be considered as a physical symptom. Sleep and stress are inextricably related. The stress can have a negative impact on sleep quality and length, while a lack of sleep can raise stress levels. The stress and a lack of sleep can also cause long-term physical and mental health issues.

## STATEMENT OF THE PROBLEM:

The statement of the problem states that the relationship between sleep quality and physical symptoms among the young adults. Now a days more peoples suffered with sleepless because of stress like work pressure, mobile phone addiction, educational pressure etc. The young

ISSN PRINT 2319 1775 Online 2320 7876

*Research paper* **© 2012 IJFANS. All Rights Reserved,** UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

adults are more addicted with mobile phone so this will leads to increase the stress level. Now a days the young generation of college students are not able to live without mobile phone so this type of situation will cause to change the concentration of studies and increase the usage of mobile phones. The study was revealed that relationship between stress, sleep quality and physical symptoms among young adults.

## OBJECTIVES

- To identify the relationship between Stress, Sleep quality and Physical symptoms among college students.
- To measure the level of Stress, Sleep quality and Physical symptoms among the college students.
- To compare the level of Stress, Sleep quality and Physical symptoms among the students taking into account the demographic variable namely educational qualification (Education UG or PG) Boys and girls.

## REVIEW OF LITERATURE:

**Heckman et.al, (2014)**. The study has compared stress and non-stress students. Purpose of the research is the under graduated student have loan their higher studies and personal issues, so this financial stress affects the student's health and study. The research suggested that 71% of the students have stress about their personal loan.

**Pettit & DeBarr (2011)** the author investigated the connection between perceived stress, energy drink intake, and academic performance in college students. According to the findings, stress and energy drinks have a positive relationship, whereas energy drinks have a negative relationship with academic success.

**Walker et.al (2010),** the author conducted a report on adolescent sleep quality and sleep hygiene during chemotherapy. The researchers discovered that adolescents who were given CTX had a poor sleep pattern and poor sleep hygiene behaviour compared to healthy adolescents.

**Harvey et.al (2007)** the author conducted a study on "the subjective meaning of sleep quality" a comparison of individual with and without insomnia. The result was both the insomnia and normal sleeper groups defined sleep quality by tiredness on waking, and the

ISSN PRINT 2319 1775 Online 2320 7876

*Research paper* **© 2012 IJFANS. All Rights Reserved,** UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

number of awakening they experienced in the night. The insomnia group had more requirements for judging sleep to be of good quality.

**Almojali et.al, (2017)** this research study as to determine the prevalence of stress and its relationship to sleep quality among medical students. This study looked at the prevalence of poor sleep quality and stress among medical students, as well as the relationship between the two. The Kessler psychological distress scale was used to measure sleep quality using the "Pittsburgh sleep quality" index and stress level using the "Pittsburgh sleep quality" index. There was a high prevalence of poor sleep quality (76%) and stress (53%) in the study. According to this author report, the students who are not stressed are less likely to have poor sleep quality.

## METHODOLOGY

In this research a descriptive research design is adopted which is used as a systematic approach to explain the reality. In this study, the researcher analyses the relationship between stress, sleep quality and physical symptoms. The hypothesis and variables are analysed through this method and described in a systematic manner. Hence descriptive research design is employed in this research. Simple random technique is used to select the sample in this research method which is also known as, probability sampling. The samples were selected, because of their convenient accessibility to the researcher. Simple random sampling technique is one of the probability sampling techniques is used to choose the sample from the population for the present study. A sample should be truly representation of population characteristics, without any bias so that it may result in reliable and valuable conclusion. The size and description about the sample population is explained in this as follows. The sample selected for the present study consists of 115 students from Sacred Heart College in Tirupattur. It is a co-education college. The sample consists of both boys and girls who are studying in UG and PG level. The age group of the participant's sample ranges from 18 to 23. The statistical analysis of the data in this research is done by correlation and t-test. Correlation is nothing but the relationship between two variables and its purpose is to show, which variables are connected. T-test is inferential statistic used to describe, if there is a significant difference between two groups and it is also used a hypothesis testing tool. It is done to examine the relationship between Stress, Sleep Quality and Physical Symptoms among young adults.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

In this research a descriptive research design is adopted which is used as a systematic approach to explain the reality. In this study, the researcher analyses the relationship between stress, sleep quality and physical symptoms. The hypothesis and variables are analysed through this method and described in a systematic manner. Hence descriptive research design is employed in this research.

## HYPOTHESES

H1: There would be a positive relationship between the stress and sleep quality.

H2: There would be positive relationship between sleep quality and physical symptoms.

H3: There would be positive relationship between stress and physical symptoms.

H4: There is no significant relationship in level of stress among the boys and girls.

H5: There is no significant relationship in level of physical symptoms among the boys and girls.

H6: There is no significant relationship in level of sleep quality among the boys and girls.

H7: There is no significant difference in stress between rural and urban students.

H8: There is no significant difference in sleep quality between rural and urban students.

H9: There is no significant difference in Physical symptoms between rural and urban students.

## ANALYSIS

In this analysis the data was gathered from 115 participants from Sacred Heart College, Tirupattur. Perceived Stress Scale, Sleep Quality Scale (SQS) and Physical Symptoms Inventory (PSI) were used to measure the correlation between these variables.

| Scale | Min | Max | Mean | SD |
|---|---|---|---|---|
| Stress | 15 | 47 | 29.23 | 5.17 |
| Sleep Quality | 34 | 92 | 60.89 | 12.68 |
| Physical Symptoms | 18 | 33 | 22.82 | 4.04 |

**Table 1: Min. Value, Max. Value, Mean and SD of the Scale**

The above table 1 represents the 115 participants who were selected from Sacred Heart College and the table shows that (55%) are Boys, (45%) are Girls participant, (62%) from Rural and (38%) were from Urban.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

**Inferential statistics**

Pearson's product moment correlation analysis was used to understand the correlation between Stress, Sleep Quality and Physical Symptoms. It was hypothesized that there is exists significant positive correlation between Sleep Quality and Stress. Results indicates that there is a significant positive moderate correlation between Sleep Quality and Stress $r = .53$, $p = .01$.

It was hypothesized that there exists significant positive correlation between Stress and Physical Symptoms. The results suggest that there is a significant moderate positive correlation between Stress and Physical Symptoms $r = .41$, $p = .01$.

It was hypothesized that there is exists significant positive correlation between Sleep Quality and Physical symptoms. The results suggest that there is a significant moderate positive correlation between Sleep Quality and Physical Symptoms. $r = .63$, $p = .01$.

**Table 2: Correlation between Stress, Sleep Quality and Physical Symptoms**

| Symptoms | Stress | Sleep Quality | Physical |
|---|---|---|---|
| Stress | - | .53** | .41** |
| Sleep Quality | - | - | .63** |
| Physical Symptoms | - | - | - |

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

The above table 2 represents that among the 115 participants 29 have low level of Stress, 40 have moderate level of Stress, 46 have high level of Stress. Among the 115 participants 37 have low level of Sleep Quality, 39 have moderate level of Sleep Quality, 39 have high level of Sleep Quality. Among the 115 participants 30 have low level of Physical Symptoms, 41 have moderate level of Physical Symptoms and 44 have high level of Physical Symptoms.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

**Table 3: Results of Independent Sample *t* test to compare mean Score of Boys and Girls**

| Boys | | | | Girls | | | | |
|---|---|---|---|---|---|---|---|---|
| **Variable** | **N** | **M** | **S.D** | **N** | **M** | **S.D** | ***T*** | ***P*** |
| Score on Stress | 63 | 28.27 | 4.44 | 52 | 30.40 | 5.77 | -2.24 | .115 |
| Score on Sleep Quality | 63 | 60.62 | 12.42 | 52 | 61.21 | 13.10 | -.248 | .638 |
| Score on Physical Symptoms | 63 | 22.02 | 3.76 | 52 | 23.79 | 4.19 | -2.29 | .365 |

The above table 3 represents the independent sample *t* test was used to identify the difference in the level of Stress, Sleep Quality and Physical Symptoms between boys and girls.

It was hypothesized that there is a significant difference in Stress between Boys and Girls students. Results indicates that there is no significant difference between boys (*M* =28.27, *SD* =4.44) and girls (*M* =30.40, *SD* =5.77), *t* (113) = -.2.240, *p* =.115 with regards to stress. The girls score of stress is greater than boys.

It was hypothesized that there is a significant difference in Sleep Quality between boys and girls. Result indicates that there is no significant difference in Sleep Quality between boys (*M*=60.62, *SD* =12.42) and girls (*M* =61.21, *SD* =13.10), *t* (113) =-.248, *p* =.638 with regards to Sleep Quality of the girls score of Sleep Quality is greater than boys.

It was hypothesized that there is a significant difference in Physical symptoms between boys and girls. Result indicates that there is no significant difference in Physical Symptoms between boys(*M* =22.02, *SD* = 3.76) and girls (*M*=23.79, *SD* =4.19), *t* (113) =-2.387 *p*=.365.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

**Table 4. Results of Independent Sample *t* test to compare mean score of Rural and Urban Students**

| | Rural | | | Urban | | | | |
|---|---|---|---|---|---|---|---|---|
| **Variable** | **N** | **M** | **S.D** | **N** | **M** | **S.D** | ***t*** | ***P*** |
| Score on Stress | 71 | 29.28 | 5.23 | 44 | 29.16 | 5.13 | .12 | .576 |
| Score on Sleep Quality | 71 | 61.63 | 13.13 | 44 | 59.68 | 11.96 | .80 | .621 |
| Score on Physical Symptoms | 71 | 23.10 | 4.08 | 44 | 22.36 | 3.99 | .95 | .879 |

The above table 4 represents the independent sample *t* test was used to identify the difference in the level of Stress, Sleep Quality and Physical Symptoms between Rural and Urban. It was hypothesized that there is a significant difference in Stress between Rural and Urban students with regards to Stress. Result indicates that there is no significant difference between Rural (*M* =29.28, *SD* =5.23) and Urban (*M* =29.16, *SD* =5.13), *t* (113) =.123, *p* =.576 with regards to Stress.

It was hypothesized that there is a significant difference between Rural and Urban with regards to Sleep Quality. Result indicates that there is no significant difference in Sleep Quality between Rural (*M* =61.63, *SD* =13.13) and Urban (*M* = 59.68, *SD* =11.96), *t* (113) =.801, *p* =.621. It was hypothesized that there is no significant difference between Rural and Urban students with regards to Physical Symptoms. Results indicates that there is no significant Physical Symptoms between Rural (*M* =23.10, *SD* =4.082) and Urban (*M*=22.36, *SD* =3.989), *t* (113) =-.947, *p* =.879.

## FINDINGS

There is a significant positive moderate correlation between Sleep Quality and Stress

1. There exists significant positive correlation between Stress and Physical Symptoms.
2. There is exists significant positive correlation between Sleep Quality and Physical symptoms.
3. There is no significant difference in stress between both boys and girls with regards to

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

stress.

4. There is no significant difference in sleep quality between boys and girls with regards to sleep quality
5. There is no significant difference in physical symptoms between boys and girls with regards to physical symptoms.
6. There is no significant difference in stress between rural and urban with regards to stress.
7. There is no significant difference in sleep quality between rural and urban with regards to sleep quality.
8. There is no significant difference in physical symptoms between rural and urban with regard to physical symptoms.

## IMPLICATIONS

The study was to explore the relationship between Stress, Sleep quality and Physical symptoms among Sacred Heart College. The findings may be useful for the college management to understand and Stress, Sleep Quality and Physical Symptoms level prevalent among the students, and thus come up with awareness related activity that will help the students handle Stress, Sleep quality and Physical symptoms.

It can also help college counsellors to understand the intensity of Stress, Sleep quality, and Physical symptoms and thus facilitate them to come out of the problem. College management can give more awareness to parents about the impact of Stress. The teachers can help to overcome in Stress for both boys and girls and thus reduce negative thought of themselves in every situation.

## SUGGESTIONS

The following are some suggestions for future research to make these findings more valid and beneficial for society.

- Large representative sample can be selected for conducting the same study so that the findings can be generalized for the student population.
- Data could be gathered from school students so that a comparative study between college and school students could be done.
- In future experimental research could be done for stress by interventions.
- In future researcher can add few more demographic variables such as religion, residency, type of family, parents working status, siblings etc.

ISSN PRINT 2319 1775 Online 2320 7876

*Research paper*  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

## CONCLUSION

This study aimed to understand the relationship between Stress, Sleep quality and Physical symptoms among Sacred Heart College student in Tirupattur. This study indicate that there is positive correlation between Stress, Sleep quality and Physical symptoms. The researcher accentuates that the students are more addicted to the mobile phones and this will leads to get more stress and less level of sleep quality offend their mental health and they will take a decision in a wrong way.

## REFERENCE


1. Lim, H., Heckman, S., Montalto, C. P., & Letkiewicz, J. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. Journal of Financial Counseling and Planning, 25(2), 148-160.
2. Pettit, M. L., & DeBarr, K. A. (2011). Perceived stress, energy drink consumption, and academic performance among college students. Journal of American college health, 59(5), 335-341.
3. Malinauskas, R. (2010). The associations among social support, stress, and life satisfaction as perceived by injured college athletes. Social Behavior and Personality: an international journal, 38(6), 741-752.
4. Abolghasemi, A., & Varaniyab, S. T. (2010). Resilience and perceived stress: predictors of life satisfaction in the students of success and failure. *Procedia-Social and Behavioral Sciences*, *5*, 748-752.
5. Singh, R. (2016). Stress among School-Going Adolescents in Relation to Psychological Hardiness. *Journal on Educational Psychology*, *9*(4), 8-15.
6. Walker, A. J., Johnson, K. P., Miaskowski, C., Lee, K. A., & Gedaly-Duff, V. (2010). Sleep quality and sleep hygiene behaviors of adolescents during chemotherapy. *Journal of Clinical Sleep Medicine*, *6*(5), 439-444.
7. Walker, A. J., Johnson, K. P., Miaskowski, C., Lee, K. A., & Gedaly-Duff, V. (2010). Sleep quality and sleep hygiene behaviors of adolescents during chemotherapy. *Journal of Clinical Sleep Medicine*, *6*(5), 439-444.
8. Harvey, A. G., Stinson, K., Whitaker, K. L., Moskovitz, D., & Virk, H. (2008). The subjective meaning of sleep quality: a comparison of individuals with and without insomnia. *Sleep*, *31*(3), 383-393.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022


9. Van Laethem, M., Beckers, D. G., Geurts, S. A., Garefelt, J., Hanson, L. L. M., & Leineweber, C. (2018). Perseverative cognition as an explanatory mechanism in the relation between job demands and sleep quality. *International journal of behavioral medicine*, *25*(2), 231-242.
10. Almojali, A. I., Almalki, S. A., Alothman, A. S., Masuadi, E. M., & Alaqeel, M. K. (2017). The prevalence and association of stress with sleep quality among medical students. *Journal of epidemiology and global health*, *7*(3), 169-174.
11. Kamysheva, E., Skouteris, H., Wertheim, E. H., Paxton, S. J., & Milgrom, J. (2010). A prospective investigation of the relationships among sleep quality, physical symptoms, and depressive symptoms during pregnancy. *Journal of affective disorders*, *123*(1-3), 317-320.
12. Greco, T., Eckert, G., & Kroenke, K. (2004). The outcome of physical symptoms with treatment of depression. *Journal of General Internal Medicine*, *19*(8), 813-818.
13. Jackson, J. L., & Kroenke, K. (2001). The effect of unmet expectations among adults presenting with physical symptoms. *Annals of internal medicine*, *134*(9_Part_2), 889-897.
14. 14.Cornaglia, F., Feldman, N. E., & Leigh, A. (2014). Crime and mental well-being. *Journal of human resources*, *49*(1), 110-140.
15. Harvey, A. G., Stinson, K., Whitaker, K. L., Moskovitz, D., & Virk, H. (2008). The subjective meaning of sleep quality: a comparison of individuals with and without insomnia. *Sleep*, *31*(3), 383-393.
16. John-Henderson, N., Williams, S., Brindle, R. C., & Ginty, A. T. Changes in sleep quality and levels of psychological distress during the adaptation to university.
17. Abolghasemi, A., & Varaniyab, S. T. (2010). Resilience and perceived stress: predictors of life satisfaction in the students of success and failure. *Procedia-Social and Behavioral Sciences*, *5*, 748-752.
18. Malinauskas, R. (2010). The associations among social support, stress, and life satisfaction as perceived by injured college athletes. *Social Behavior and Personality: an international journal*, *38*(6), 741-752.
19. Bawalsah, J. A. (2016). Stress and coping strategies in parents of children with physical, mental, and hearing disabilities in Jordan. *International Journal of Education*, *8*(1), 1-22.

ISSN PRINT 2319 1775 Online 2320 7876

Research paper  UGC CARE Listed ( Group -I) Journal Volume 11, Iss 12,Dec 2022

20. Vélez, J. C., Souza, A., Traslaviña, S., Barbosa, C., Wosu, A., Andrade, A., ... & Williams, M. A. (2013). The epidemiology of sleep quality and consumption of stimulant beverages among Patagonian Chilean college students. *Sleep disorders, 2013*.
21. Smith, B. W., Ortiz, J. A., Steffen, L. E., Tooley, E. M., Wiggins, K. T., Yeater, E. A., ... & Bernard, M. L. (2011). Mindfulness is associated with fewer PTSD symptoms, depressive symptoms, physical symptoms, and alcohol problems in urban firefighters. *Journal of Consulting and Clinical Psychology*, *79*(5), 613.
22. Kamysheva, E., Skouteris, H., Wertheim, E. H., Paxton, S. J., & Milgrom, J. (2010). A prospective investigation of the relationships among sleep quality, physical symptoms, and depressive symptoms during pregnancy. *Journal of affective disorders*, *123*(1-3), 317-320.
23. www.researchgate.net
24. Vijayakumar, N., Mayakkannan, R. (2021) Impact on risk quantification of Indian equity markets adopted by beta analysis Turkish Journal of Physiotherapy and Rehabilitation, 2021, 32(2), pp. 1923–1928
25. R.Mayakkannan (2018) Impact of Buying Behaviour of Consumers towards Instant Food Products in Chennai District; International Journal of Pure and Applied Mathematics Volume 119 No. 12 2018, 16279-16286; ISSN: 1314-3395 (on-line version)
26. Raman, M., Kaliappen, N., Suan, C.L. A Study on Machine Learning Classifier Models in Analyzing Discipline of Individuals Based on Various Reasons Absenteeism from Work 2020 International Conference on Decision Aid Sciences and Application, DASA 2020, 2020, pp. 360–364, 9317017
27. R.Mayakkannan (2018) //www.ijpam.eu Special Issue (PDF) Impact of Buying Behavior of Consumers towards Instant Food Products in Chennai District. Available from: https://www.researchgate.net/publication/340633912_Impact of Buying Behaviour of Consumers towards Instant Food Products in Chennai District [accessed May 02 2020]
28. Thiruchelvam, C., & Mayakkannan, R. (2011) An Empirical Study of Indian Individual Investor's Behavior. Singaporean Journal Scientific Research, Vol.4, No.2, pp.315- 322.

[i] Anthoniammal. P, Assistant Professor, PG & Research Department of Counselling Psychology, Sacred Heart College (Autonomous), Tirupattur, Tamil Nadu.

[ii] Dhivya. T, Ph. D Research Scholar, PG & Research Department of Economics, Sacred Heart College (Autonomous), Tirupattur, Tamil Nadu.