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Does Daytime Sleepiness Affect Emotional Regulation? - A Questionnaire Based Analysis in Medical Students

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ABSTRACT

Addiction to smart gadgets among the adolescents of generation Z may influence their sleep rhythm reflecting their mental health. The present study is aimed at analysing the correlation between daytime sleepiness and emotional regulation. Literature is scanty on this study in adolescents from north costal Andhra pradesh. This is a questionnaire based study where the study group was explained about the aim before circulating the google forms. Epworth sleepiness and emotional regulation questionnaires were given. Identity was kept anonymous. 132 medical students (45 boys, 87 girls) age ranging between 17-22 years participated. The results were analysed and the correlation between these were studied. Cognitive reappraisal is the attempt to re-interpret an emotion eliciting situation changing its emotional impact. Expressive suppression is an attempt to hide inhibit or reduce an ongoing emotion. Pearson's correlation coefficent R value for correlation between daytime sleepiness and cognitive reappraisal component of emotional regulation was 0.00364 which implies the variables are weakly correlated. Pearson's correlation coefficent R value for correlation between daytime sleepiness and expressive suppression component of emotional regulation was 0.1933 which implies the variables are weakly correlated. More research need to be done on this area to interpret the results on a large population. It can be concluded that daytime sleepiness and emotional regulation are weakly correlated. The cognitive reaprraisal component of emotional regulation was found to be more weakly correlated when compared to the expressive suppression.

KEYWORDS: *Daytime sleepiness, medical students, cognitive reappraisal, expressive suppression, emotional regulation*

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INTRODUCTION

Sleep is one of the essential physiological function for restoring physical and mental health. Sleep seems to be influencing the emotional regulation of the individual. In addition, sleep plays a vital role in the process of learning, memory, physical metabolism and immunity. A study by Bagiloni etal [(1)] describes in detail about the correlation between insomnia and emotional regulation. Hoag etal [(2)] analysed the correlation among low income group women. Stanton etal [(3)] demonstrated an experimental approach to emotional regulation by coping. Another study was done by Yoo etal [(4)] by a prefrontal amygdala disconnect. Zohar etal [(5)] conducted study on medical residents connecting to their work events. We are in the era of technology where adolescents form the target group to keep in pace with ever changing technologies. Sleep deprivation or untimely sleep may have a correlation to their emotional regulation. This is more pronounced in the students pursuing professional education. The present study has been conducted on the medical students to analyse the same.

MATERIALS & METHODS

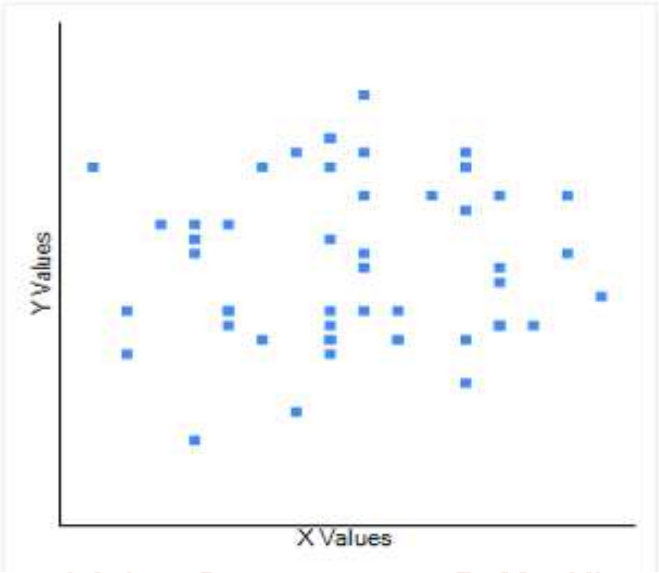
The target group were explained about the aim of the study. After taking verbal consent, 132 students (87 girls & 45 boys) of age group 17-22 years

participated. Epworth sleepiness and Emotional regulation questionnaires were circulated by google forms. Emotional regulation questionnaire had two components- cognitive reappraisal and expressive suppression. Daytime sleepiness score was correlated with emotional regulation score and results interpreted.

RESULTS

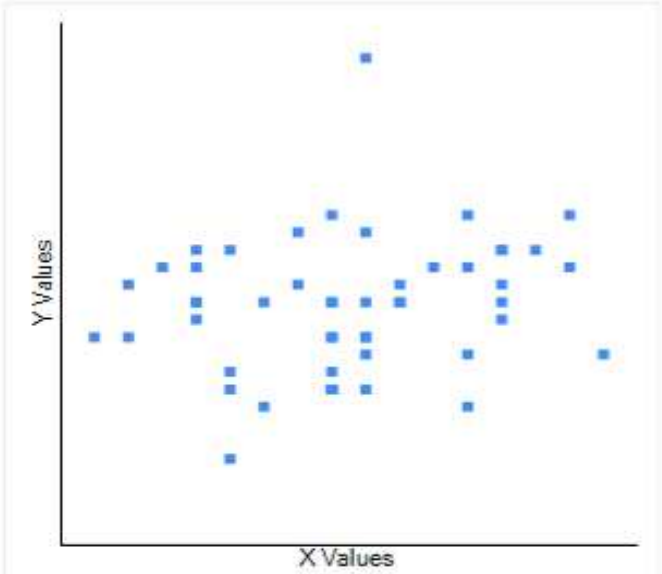
The responses from google forms were evaluated. R value was calculated.

Graph 1: correlation between daytime sleepiness and cognitive reapraissal part of emotional regulation



Pearson's correlation coefficent R value for this graph is 0.00364 which implies the variables are weakly correlated.

Graph 2: correlation between daytime sleepiness and expressive suppression part of emotional regulation



Pearson's correlation coefficent R value for this graph is 0.1933 which implies the variables are weakly correlated.

DISCUSSION

As quoted "A good laugh and a long sleep are the two best cures for anything". Sleep deprivation or disturbed sleep due to any cause may lead to daytime sleepiness which influences the physical and mental wellbeing of an individual. Deliens etal [6] reported the influence of pathological mood on sleep disturbance. Kalmbach etal [7] conducted a two week study on young women. Emotional regulation of any individual is comprised of two parts- cognitive reappraisal and expressive suppression. Very few studies were done on the influence of sleep on emotional regulation. Harvey etal [8] reported that sleep disturbance as transdiagnostic. The present study was done on medical students of north coastal Andhra pradesh to evaluate the correlation between

daytime sleepiness and emotional regulation. It seems there is a weak correlation between these variables as derived from calculating the pearson correlation coefficient. The cognitive reappraisal and expressive suppression have been calculated seperately where expressive suppression component was more related to daytime sleepiness when compared to cognitive reappraisal. The research could be enhanced on this area on a wider population.

CONCLUSION

Daytime sleepiness seems to be weakly correlated with emotional regulation. The cognitive reappraisal component of emotional regulation was found to be more weakly correlated when compared to the expressive suppression.

REFERENCES

[1] Baglioni C, Spiegelhalder K, Lombardo C, et al. Sleep and emotions: a focus on insomnia. *Sleep Med Rev.* 2010; 14:227–238.

[2] Hoag JR, Tennen H, Stevens RG, et al. Affect, emotion dysregulation, and sleep quality among low-income women. *Sleep Health.* 2016; 2:283–288.

[3] Stanton AL, Kirk SB, Cameron CL, et al. Coping through emotional approach: scale construction and validation. *J Pers Soc Psychol.* 2000; 78:1150–1169.

[4] Yoo SS, Gujar N, Hu P, et al. The human emotional brain without sleep—a prefrontal amygdala disconnect. *Curr Biol.* 2007; 17:R877–R878.

[5] Zohar D, Tzischinsky O, Epstein R, et al. The effects of sleep loss on medical residents' emotional reactions to work events: a cognitive-energy model. *Sleep.* 2005; 28:47–54.

[6] Deliens G, Gilson M, Peigneux P. Sleep and the processing of emotions. *Exp Brain Res.* 2014; 232:1403–1414.

[7] Kalmbach DA, Pillai V, Roth T, et al. The interplay between daily affect and sleep: a 2-week study of young women. *J Sleep Res.* 2014; 23:636–645.

[8] Harvey AG, Murray G, Chandler RA, et al. Sleep disturbance as transdiagnostic: consideration of neurobiological mechanisms. *Clin Psychol Rev.* 2011; 31:225–235