

# A REVIEW OF THE EFFECT OF SLEEP DEPRIVATION ON TESTOSTERONE

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## ABSTRACT

Sleep deprivation concern with lack of sleep, either in a whole of sleepless throughout a specific period of time or a less than neutral sleep time. sleep deprivation lead abnormalities of hormone level of the body since some of the hormones produces during period of sleep. problem of sleep deprivation can be associate with education performance among student.. however, this study conduct problem that associate with lack of sleep on testosterone hormone among young men adult. The objective of this study was to measure the effect of sleep on testosterone, to analyze use of Pittsburgh sleep quality index in measuring sleep quality, to analyze association of sleep quality with testosterone. Methods of this study was analyzing uses of Pittsburgh sleep quality index which is tool that measuring sleep quality, research have been used search engines 'Microsoft Academic, Google Scholar, Science Direct. The result shows that Poor quality of sleep has significantly cause low level of testosterone, 10-15 % lower to normal level of testosterone. sleep deprivation resulted in a significant increase in low testosterone hormone overnights of sleep deprivation, compared to a normal night's sleep.

## INTRODUCTION

- Sleep deprivation is the condition of not having enough sleep.
- Sleep deprivation involves either in a whole of sleepless throughout a specific period of time or a less than neutral sleep time.
- sleep deprivation causes abnormalities of hormone level of the body since some of the hormones produces during period of sleep

## OBJECTIVES

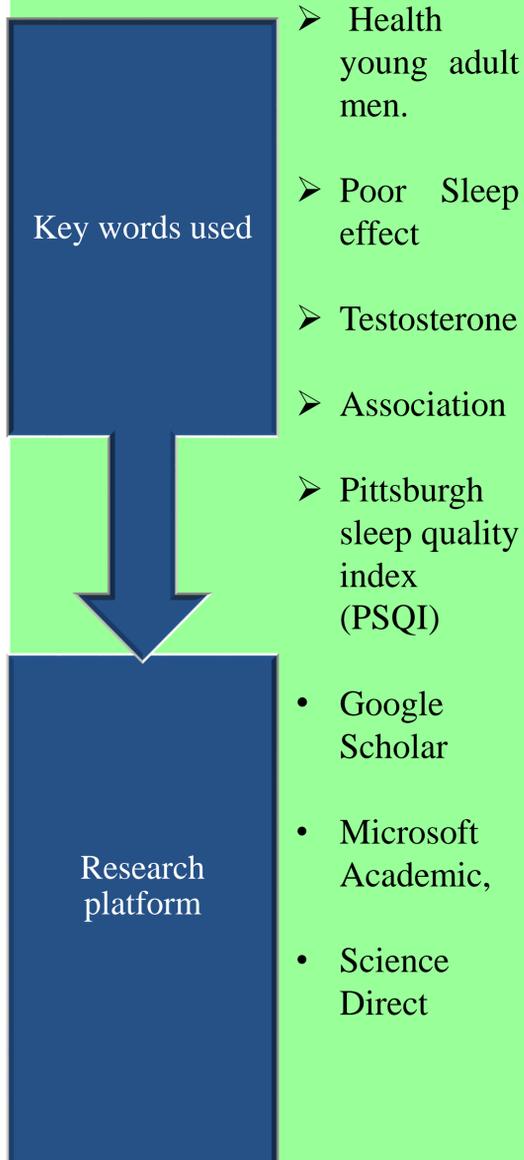
### General Objective

To measure the effect of sleep on testosterone

### Specific Objective

1. To analyse use of Pittsburgh sleep quality index in measuring sleep quality
1. To analyse association of sleep quality with testosterone

## METHODOLOGY



- Health young adult men.
- Poor Sleep effect
- Testosterone
- Association
- Pittsburgh sleep quality index (PSQI)
- Google Scholar
- Microsoft Academic,
- Science Direct



Figure 1



Figure 2

## RESULT

- effect of sleep deprivation on testosterone in young healthy men, some articles shows , that there is significant effect of poor quality of sleep on testosterone
- Healthy men with normal level of BMI, irregular sleep bed time. 10-15 % lower to normal level. sleep restriction comparing to rest condition 16.5 nmol/L vs 18.4nmol/L.

## DISCUSSION

- Wittert, G. (2014). Studied association between sleep and testosterone
- Luboshitzky (2016). Reported young healthy men secrete more testosterone at night during sleep
- Ten Berg, J. M. (2011). Stated that Effect of 1 Week of Sleep Restriction on Testosterone Levels in Young Healthy Men
- For other association effect, Irwin, M. R. (2015) stated sleep is important for health.
- Measure of sleep in using PSQI Hinz, A., Glaesmer (2017) used PSQI for Sleep quality in the general population

## CONCLUSION

- this study is to describe the effect of sleep deprivation on testosterone level in young men. This study will be helpful for health professionals, institutions and organizations to see the level of reduction of sleep quality, to Assess the stage of attitude, and practice regarding good and poor quality of sleep and their risk factors

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