

# Association between Central Obesity and Bad Dreams among Medical Students

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## Introduction

Central obesity is defined as excess fat deposition in the abdominal region which is common in Indians. Considering that sleep disturbances are already prominent in persons with central obesity, said persons may be prone to unusual dreams. Along this basis, this study aims to measure the association between central obesity and dreams.

## Aim

The aim of this study is to measure the association between central obesity and dreams in medical students.

## Objectives

- To identify the number of students who have nightmares, or very distressing dreams.
- To find the association between central obesity and nightmares among medical students.

## Inclusion & Exclusion Criteria

### INCLUSION:

- Both genders
- Within age range of 17-22 years

### EXCLUSION:

- Students on medications for sleep
- No history of hypertension or diabetes

## Materials

**STUDY TYPE:** Observational Cross Sectional Study

**STUDY POPULATION:** Young adults within age group of 17- 22 years

**SAMPLE SIZE:** 140 volunteers

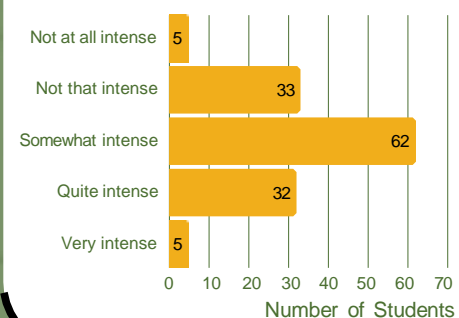
**STUDY SETTING:** Department of Physiology, VMCH & RI

## Method

1. Obtained clearance from the Institutional ethical committee.
2. All 140 volunteers filled out the MADRE Dream Questionnaire
3. Volunteers who had both high nightmare frequency and nightmare distress levels were identified.
4. Those identified volunteers had their Waist Hip Ratio (WHR) calculated.
5. Data was then converted to numerical variables and then a correlation was identified.

## Data

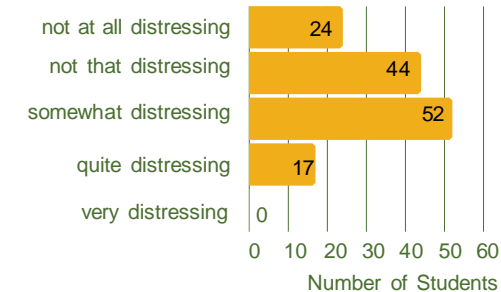
Q.How intense are your dreams emotionally?



Q.How often have you experienced nightmares recently?



Q.If you currently experience nightmares, how distressing are they to you?



Scan Me! Check out the MADRE Questionnaire!

## Results



A total of 140 volunteers filled out the MADRE Questionnaire, out of which 37 volunteers had recurrent and intense nightmares. The WHR of the 37 volunteers were then taken, out of which 7 volunteers had central obesity.



The data indicates a **significant** relationship between nightmares and WHR. The T-Test value of 57.19 and p-Value of less than 0.001 suggest that there is a notable association between the two variables.

## Discussion

According to existing research, an association between central obesity and bad dreams has been shown. In central obesity there is a formation of pro - inflammatory adipokines. These lead to low grade chronic inflammatory diseases and contribute to sleep disorders such as obstructive sleep apnea (OSA). OSA shows lack of oxygen at night which leads to nightmares in patients. A common adipokine present in central obesity is leptin; higher leptin levels are also associated with longer REM stage; which makes patients more prone to nightmares.

## Conclusion

From all this information and the data collected in the study, it can be said that patients with central obesity are said to have altered dreams, hence it is recommend to maintain a good WHR.

Data collected from 140 Volunteers

## References

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