

# NWC Psychology Department

## The Effect of Adversity in Childhood and Religious Orientation on Sleep Health in College Students

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### Abstract

Insufficient sleep has been shown to lead to emotional, psychological, and physical issues. In addition, factors such as adverse childhood experiences (ACEs) and religious orientation may impact sleep.

However, little research has been conducted in this area concerning the college population. The present study seeks to understand the effect

ACEs and religious orientation have on sleep health in college students.

Correlational analysis found no significant relationship between sleep health scores and ACEs or religious orientation scores. Additionally, a multiple regression showed no significant relationship between household abuse ACE scores, abuse ACE scores, and sleep health scores. Finally, the t-tests calculated did not show a significant relationship between gender and ACEs or sleep health scores.

### Introduction

#### CONSTRUCTS:

**Sleep Health:** sleep quality, duration, and lack of disordered sleep

- *Disordered sleep includes:*

- *Insomnia*

- *daytime sleepiness*

- *nightmares*

**Adverse childhood experiences (ACES):** Negative

experiences from birth-18

- *Household dysfunction and*

- *Maltreatment*

**Religiosity:** involves beliefs, practices, and rituals

related to spirituality and faith

- *Religiosity can be defined as religious orientation*

- *Intrinsic, motivation from within*

- *Extrinsic, concerned with social relationships*

### Materials

Adverse Childhood Experiences Scale (ACEs)  
-17 items that fall into 7 categories

Sleep Health Index  
-14 items total, Sleep Quality Subindex was used,  
comprised of 6 questions

Religious Orientation Scale  
- 14 items scored on a 4-point Likert-type scale

### Participants & Methodology

Total of 79 participants

- 22 = men, 56 = women, 1= unidentified

- Ranged from ages 18-23.

- All current college students at Northwestern College

- Attended a data gathering session to fill out a

Qualtrics survey measuring these variables.

- Each participant provided consent before participating

in the remainder of the study.

#### HYPOTHESES:

1. ACEs would negatively impact sleep health scores in college students.

2. Childhood maltreatment ACEs would negatively impact sleep health scores more than household dysfunction ACEs.

3. Individuals with higher religious orientation scores would have higher sleep health scores.

4. Women will report a higher number of ACEs and have poorer sleep health scores than men

### Results

#### Hypothesis 1:

- Pearson product moment correlation
- No significant correlation was found
- Negative relationship

$$r(78) = -.12, p = .284.$$

#### Hypothesis 2:

- Multiple regression
- No significant relationship was found
- Neither coefficient was a significant predictor of sleep health

( $F(2,75) = 1.72, p = .186$ ), with an  $R^2$  of .04.

#### Hypothesis 3:

- Pearson product moment correlation
- No significant correlation found
- Negative relationship

$$r(77) = -.21, p = .072$$

#### Hypothesis 4:

- Independent samples T tests
- ACES: no significant difference in the scores for men ( $M = 32.12, SD = 2.57$ ) or women ( $M = 32.14, SD = 1.89$ ),  $t(75) = .089, p = .929$
- Sleep health: no significant difference in the scores for men ( $M = 12.61, SD = 5.12$ ) or women ( $M = 13.97, SD = 4.44$ ),  $t(76) = .117, p = .246$

### Discussion

#### HYPOTHESIS 1:

- Negative but not significant relationship between ACEs and sleep health
- Power issue?
- Possible moderators (religious coping)

#### HYPOTHESIS 2:

Possible sleep measure issue

- Cronbach's alpha of sleep sub-index had lower reliability (.35) than reported (.75)

- Higher number of questions may be required

#### HYPOTHESIS 3:

Higher religious orientation related to lower sleep health

- Related to the sleep measurement issue?

- Due to the nature of the participant sample?

- Extreme variation in sleep quality may mask any significant relationships

#### HYPOTHESIS 4:

Previous research is divided on this issue

- Consistent with research that reports no differences in sex

- A larger study with a more proportionate sample may show differences based on sex.

### Limitations:

Reliability of the sleep measurement

Sample size & disproportionality

Nature of the sample: sleep variability in college and religious organization

### Future Research:

Different sleep measure

Larger sample size

Comparison groups

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