Does Sleep Quality Mediate the Relationship Between Secondary Traumatic Stress and Burnout Among Nurses?

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BACKGROUND

- Nurses can experience significant work-related stress, which may lead to the critical problem of burnout
- Burnout is linked to nurse turnover and thoughts of quitting the profession
- Burnout impacts nurses' quality of care provided to patients and nurses' physical and psychological health
- Burnout is precipitated by secondary traumatic stress and sleep problems

PURPOSE

To determine whether sleep quality mediates the relationship between secondary traumatic stress and burnout among registered nurses

METHODS

- Secondary analysis of a descriptive, cross-sectional study
- Sample and Settings: 350 registered nurses in an academic medical center in the USA
- Measures:
  - ❖ **Secondary traumatic stress and Burnout**
    - Professional Quality of Life scale:
      - ➤ Secondary traumatic stress subscale
      - ➤ Burnout subscale
  - ❖ **Sleep quality**
    - A single-item 10-point numeric rating scale
- Data Analysis:
  A multiple regression approach using the PROCESS macro in SPSS with bootstrapping of 5,000 samples

Table 1

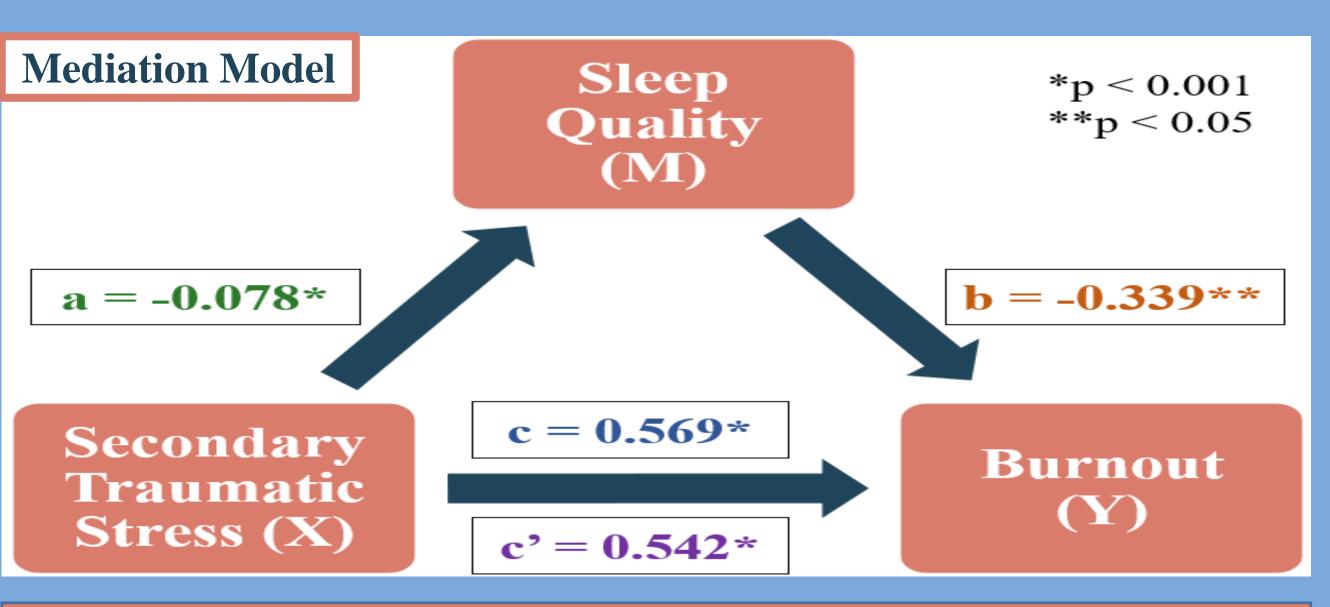| Characteristics (N=350)	n (%)
Gender	
Female	321 (91.7)
Age	
18-35 years	204 (58.3)
≥36 years	146 (41.7)
Education	
ADN	71 (20.3)
BSN	228 (65.1)
Master/Doctoral	21 (6.0)
APRN/CNS	30 (8.6)
Length of practice in discipline	
≤ 1 year	65 (18.5)
2-5 years	105 (30.0)
6-10 years	71 (20.3)
> 10 years	109 (31.1)
Work shifts	
Days	221 (63.1)
Nights	107 (30.6)
Other	22 (6.3)
Work area	
Intensive Care	110 (31.4)
Emergency	50 (14.3)
General Medical-Surgical	124 (35.4)
Oncology	15 (4.3)
Psychiatric Service	32 (9.1)
Outpatient	19 (5.4)
Patient population	
Pediatrics	124 (35.4)
Adults	226 (64.6)

Legends: ADN=Associate's Degree in Nursing; APRN=Advanced Practice Registered Nurse; CNS=Clinical Nurse Specialist

RESULTS

- Secondary traumatic stress significantly predicted burnout (B= 0.569, β= 0.570, p < .001; the total effect)
- Secondary traumatic stress significantly but negatively predicted sleep quality (B= - 0.078, β= - 0.253, p < .001)
- Sleep quality significantly but negatively predicted burnout when controlling for secondary traumatic stress (B= - 0.339, β= - 0.105, p = .021)
- Secondary traumatic stress significantly predicted burnout when controlling for sleep quality (B= 0.542, β= 0.543, p < .001; the direct effect)
- The indirect effect of secondary traumatic stress on burnout was significantly mediated by sleep quality (c - c' = 0.03, 95% CI= [0.003 to 0.054])

Mediation Model

*p < 0.001
**p < 0.05

Sleep Quality (M)

a = –0.078*

b = –0.339**

Secondary Traumatic Stress (X)

c = 0.569*

c' = 0.542*

Burnout (Y)

CONCLUSION

Nurses who experience secondary traumatic stress may decrease their likelihood of experiencing burnout by improving their sleep quality. This study can guide the development of self-care strategies to facilitate nurses' coping with work-related traumatic events and poor sleep quality to reduce their risk for burnout.