

# EVALUATING STRESS RELIEF & STRESS EFFECTS WITH COGNITIVE APPRAISAL & PERCEIVED STRESS CONSTRUCTS

DALE HILTY, PHD

## Background

Cognitive appraisal and stress research has been applied to training stressors, creative arts, pregnancy, burnout, psychotherapy, academic, and sleep quality (Erschens et al., 2018; Gonzalez-Ochoa, 2018; Korczak, Huber, & Kister, 2010; Martin, et al., 2018; Wersebe et al., 2018; You-wei et al., 2018).

According to Fink (2016),

Stress has been dubbed the "Health Epidemic of the 21<sup>st</sup> Century" by the World Health Organization and is estimated to cost American businesses up to \$300 billion a year. The effect of stress on our emotional and physical health can be devastating. In a recent USA study, over 50% of individuals felt that stress negatively impacted work productivity. Between 1983 and 2009, Stress levels increased by 10 to 30 percent among all demographic groups in the USA.

Numerous studies show that job stress is by far the major source of stress for American adults and that it has escalated progressively over the past few decades. Increased levels of job stress as assessed by the perception of having little control but many demands have been demonstrated to be associated with increased rates of heart attack, hypertension, obesity, addiction, anxiety, depression and other disorders.

Researchers explored (Ross, Hilty, Strohschein, Gray, & Blanchard, 2018) the relationship among cognitive appraisal, stress, and first semester nursing students. The purpose of the study was to evaluate the effectiveness of the Brief College Student Hassle Scale (BCSHC) measuring stressors (Ward & Hay, 2015) for first year, first semester traditional BSN nursing students.

Exploratory factor analysis principle axis (EFAPE) was used to select underlying factors and items (loadings >.50) on the 20 item BCSHC instrument. EFAPE analysis found two factors (eigenvalues: 2.25, 1.71) based on the scree test accounting for 65.9% of the variance. Six of the BCSHC hassles/frustrations loaded on the two common factors (i.e., School, N=3; Personal, N=3). Coefficient alpha estimates: School, .748 and Personal, .721 (Ross et al., 2018).

Researchers (Ross et al., 2018) recommend exploring the role of the effects of stress and alternatives for relieving stress.

Ways of Relieving Stress	Effects of Stress
Aromatherapy scents	Anger
Call a friend	Anxiety
Deep breathing	Colds
Eat healthy	Decrease in school satisfaction
Exercise	Difficulty learning
Good night's sleep	Difficulty sleeping
Gratitude journal	Eating unhealthy foods
Guided imagery	Illness
Hang with your pet	Irritability
Join a religious community	Migraine headaches
Listen to music	Reduction in school productivity
Massage	Stomach ache
Meditation	Tension headache
Pilates	Weight gain
Progressive relaxation	Weight loss
Quiet, meditative walk	
Take a nap	
Talk yourself through it	
Yoga	

## Methods

The purpose of this research investigation was to evaluate first year, first semester nursing student ways of relieving stress and the effects of stress. One-Hundred and eighty-four (184) completed questionnaires were received from the participants. The questionnaire presented the 19 ways of relieving stress and the 15 effects of stress. Participant responses to these stimuli were categorical (i.e., yes, no). Based on the student responses to the School and Personal common factors, participants were divided into two groups. Hypothesis 1: There would be differences in the ways of relieving stress primarily from School stress and Personal stress groups. Hypothesis 2: There would be differences in the experience of the effects of stress primarily from School stress and Personal stress groups.

## Findings

Using SPSS 25, chi-square analyses were used to analyze the nominal, categorical data. Regarding ways of relieving stress (Hypothesis 1), participants experiencing primarily School stress used aromatherapy scents (p=.012), eat healthy (p=.041), exercise (p=.016), pilates (p=.026), and progressive relaxation (p=.021) effectively when compared to the participants in the Personal stress group. Participants reporting primarily School stress were significantly more likely to experience two types of stress effects (Hypothesis 2). They acknowledged experiencing a "decrease in school satisfaction" (p=.017) and "difficulty learning" (p=.017) compared to students experiencing Personal stress.

## Conclusions

These findings suggest that first year, first semester students experience differential ways of relieving stress and the effects of stress. Further exploration of the first year experience is required to understand the differential effects of experiencing School and Personal stress.

## References

- Erschens, R., Herrmann-Werner, A., Keifenheim, K., Loda, T., Bugaj, T., Nikendei, C., Lammerding-KoE, M., Zipfel, S., & Junne, F. (2018). *Differential determination of perceived stress in medical students & high-school graduates due to private & training-related stressors*. PLOS ONE 13(1): e0191831. <https://doi.org/10.1371/journal.pone.0191831>
- Fink, G. (2016). *Stress: Concepts, cognition, emotion, & behavior* (1st Edition). London, UK : Academic Press
- González-Ochoa, R., Sánchez-Rodríguez, E., Chavarría, A., Gutiérrez-Ospina, G., & Romo-González, T. *Evaluating stress during pregnancy, Do we have the right conceptions and the correct tools to assess it*. Journal of Pregnancy, 28, Article ID 4857065, <https://doi.org/10.1155/2018/4857065>
- Korczak, D., Huber, B., & Kister, C. (2010). *Differential diagnostic of the burnout syndrome*. GMS Health Technol Assess 2010;6:Doc09 Retrieved from <https://www.egms.de/static/en/journals/hta/2010-6/hta000087.shtml>
- Martin, L., Oepen, R., Bauer, K., Nottensteiner, A., Mergheim, K., Gruber, H., I& Koch, S. (2018). *Creative arts interventions for stress management and prevention—A systematic review*. Behavioral Sciences, 8, 28; doi:10.3390/bs8020028
- Ross, K., Hilty, D., Strohschein, J., Gray, M., & Blanchard, K. (2018). *Measurement of cognitive appraisal, perceived stress, and first semester BSN students*. Poster presentation at Sigma Theta Tau International Central Ohio Consortium Spring Scholarship Day (Ohio State University), Columbus, Ohio.
- Ward, R. & Hay, M. (2015). *Depression, coping, hassles, and body dissatisfaction: Factors associated with disordered eating*. Eating Behaviors, 17, 14-18.
- Wersebe, W., Lieb, R., Meyer, A., Hofer, P., & Gloster, A. (2018). *The link between stress, well-being, & psychological flexibility during an acceptance & commitment therapy self-help intervention*. International Journal of Clinical and Health Psychology, 18, 60-68
- You-wei, Y., Rong-Mao, L, & Yan-Kui, S. (2018). *The relationship between adolescent academic stress and sleep quality: A multiple mediation model*. Social Behavior and Personality,46(1), 63-78.