



The Effect of a 15-minute Aerobic Exercise Session on Perceived Stress Level among Accelerated Nursing Students

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Statement of the Problem: There is extensive research that nursing students, in particular accelerated nursing students, are under a significant amount of perceived stress. Exercise is an acceptable means of lessening perceived stress and providing numerous benefits to physiological and psychological health. Nursing students report lower levels of activity and the inability to meet accepted guidelines for activity.

Approach: An evidence-based practice intervention was conducted to determine whether targeted education could improve knowledge about the mental health benefits of exercise, and whether adopting recommended exercise regimens would reduce stress levels of accelerated nursing students. The population consisted of participants who volunteered to participate in either the exercise or non-exercise group. Both groups had their current activity levels evaluated using a short questionnaire, including exercise modalities they practiced and how long and often they exercised. Using their responses, determinations were made whether the groups met the current American College of Sports Medicine and Centers for Disease Control recommendations of at least 150 minutes per week of moderate aerobic exercise. The non-exercise participants completed the perceived stress questionnaire (PSQ) prior to viewing the educational material on exercise and afterwards. The exercise group completed the PSQ, completed a 15 minute aerobic exercise class and then completed the PSQ afterwards. Both groups' PSQ scores were compared utilizing a paired and independent t-tests for both groups, as well as a two-sample t-test assuming unequal variances to determine the efficacy of exercise compared to education.

Findings: The non-exercise group had 20 participants with a mean age of 27.2 years and BMI of 27.3 kg/m², and a majority were female. The exercise group had 13 participants with a mean age of 30.2 years and BMI of 27.8 kg/m², and a majority were female. The majority of both groups do not meet the recommended guidelines for physical activity set forth by the American College of Sports Medicine and Centers for Disease Control. The exercise group had a statistically significant decrease in perceived stress level following the exercise session ($p = 0.012$). In comparison, there was an overall statistically significant decrease ($p = 0.039$) in perceived stress level in the non-exercise group. Additionally, there was a significant difference between the differences between the pre and post scores for both groups ($p = 0.041$).

Conclusions and Implications: Exercise had a favorable impact on perceived stress level among nursing students. Further investigation is needed to determine whether these effects are representative of the entire student body as well as other accelerated nursing students in other programs. Additionally, this pilot study serves to establish the feasibility of introducing a short exercise session as an accessible means of health promotion among nursing students. As a part of health promotion, educational programs on the benefits of exercise may also prove beneficial in combination with exercise in promoting healthier habits for nursing students.

PUBLISHED
ABSTRACT



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TO CITE THIS ARTICLE:

Angielczyk, D. (2023). The Effect of a 15-minute Aerobic Exercise Session on Perceived Stress Level among Accelerated Nursing Students. *Practical Implementation of Nursing Science*, 2(2), pp. 3–4. DOI: <https://doi.org/10.29024/pins.44>

COMPETING INTERESTS

The author has no competing interests to declare.

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*Practical Implementation
of Nursing Science*
DOI: 10.29024/pins.44

4

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Submitted: 08 November 2023

Accepted: 08 November 2023

Published: 21 December 2023

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