Brain Boosters to Promote College Success Through Stress Reduction in Nursing Students

Deborah Kramer1, EdD, RN, CPNP, FNP • Sandra Hillman1, PhD, RN
1College of Mount Saint Vincent, Bronx, NY

ABSTRACT

Motivation
And exercise can increase academic achievement and students’ brains as well as improve focus.

“Comprehensive nursing care” for patients nursing students affects their ability to provide class, including inattention, absence and lateness. Sites revealed high levels of problematic behaviors in nursing education program deans and heads of affiliated sites, and the high levels of stress they feel

Conclusions
Students identified need for managing stress, Students doing the intervention found it calming, helpful with taking exams and improving concentration.

Recruitment and retention challenges are formidable but they are surmountable

BACKGROUND

Nursing students experience stress, and at higher levels than medical, social worker and pharmacy students. Approximately one-third of nursing students experience stress severe enough to induce anxiety or depression. Nursing faculty report hearing their students talk about their academic and clinical regimens and the high levels of stress they feel. A survey of 409 nursing education program deans and heads of affiliated sites revealed high levels of problematic behaviors in class, including inattention, absence and lateness.

Stress affects memory, concentration, and problem-solving ability and negatively influences coping ability and academic outcomes. Poor stress management in nursing students affects their ability to provide “comprehensive nursing care” for patients. Stress also negatively impacts communication, interpersonal effectiveness and empathy. Research demonstrates that small physical movements can help stimulate students’ brains as well as improve focus. Exercise in small bursts can help students reduce anxiety, especially when taking high-stakes standardized tests. And exercise can increase academic achievement and motivation.

MATERIALS AND METHODS

Eligible participants were high risk nursing students in need of extra academic support.

Participants completed a demographic questionnaire at the beginning of the pilot. They also were given two other scales at the beginning and end of the study to access coping and stress.

The Folkman-Lazarus Ways of Coping Scale (WOC)
Student Life Stress Inventory (SSI)
Participants were randomly assigned to a control group and an intervention group using a 2:1 randomization.

Participants in the intervention group were provided with a 30-minute training session and six week implementation of the PACE Brain Gym Program. The training session was followed up by weekly review sessions of six minutes at the ARC by the instructor.

The participants completed a daily log of the time they spent practicing the PACE exercises for six minutes a day for the six weeks.

Participants wrote a journal entry each day on their observations about themselves during the day.

RESULTS

The initial demographic survey depicted that 82% were interested in learning strategies to manage stress; 70% stated that they have taken prescription medicine for anxiety or depression.

Many recruitment and retention challenges were experienced.

The stress and coping scales comparison pre and post intervention revealed some significance.

Outcomes on Ways of Coping Scales had a P value of .047 on problem solving, 0.20 for escape avoidance, 0.27 for confrontive coping, and 0.41 for positive reappraisal.

The Stress Inventory had a P value of 0.13 for frustrations, 0.11 for total reactions to stressors, 0.13 for physiologic stressors, and 0.13 for emotional stressors with a total inventory score of 0.043 for stress.

Journal entries were indicative of helpful outcomes:

“I used Brain Boosters before exams or when I had a rough week filled with assignments.”

“I found it relaxing.”

“Gave me better concentration.”

OUTCOMES

Based on the outcomes of this pilot study, stress needs to be addressed in this nursing student population. Using the PACE Brain Boosters program may be one way to improve the coping behaviors and lower the stress levels of nursing students.

Helping future nurses develop skills to decrease stress and anxiety will ultimately lead to improved nursing care, less burnout and reduced staff turnover in the profession.

CONCLUSIONS

Pilot
Based on the data that was analyzed, no conclusions about the benefits of the PACE Brain Gym program were able to be drawn, due to the lack of consistent participation.

Population Effects
Based on the outcomes of the pilot, the recommendation is to have a larger sample size to be able to deal with the high attrition rate and to be able to include the overall student body—not just those who attend the ARC. Staff at the ARC had initially expressed concern that the students would not follow through in this pilot study; these students were already not following through in their attendance and homework at the ARC.

Future Studies
We recommend repeating the pilot study with a larger sample size and an incentive for completing the scales at pre and post intervention periods. If the hypothesis is validated at that point, the program may be utilized to fine tune the methods and the program for possible roll out to all the students in the nursing department to reduce stress and promote student success.

Importance of Addressing Stress
Based on the outcomes of this pilot study, stress needs to be addressed in this nursing student population. Using the Pace Brain Boosters program may be one way to improve the coping behaviors and lower the stress levels of nursing students.

These findings have implications for lowering the stress levels and improving coping skills once nurses are in the workplace. A similar program could be used to cope with stress in the workplace that may reduce burnout and promote staff retention as well as improve patient care. Helping future nurses develop skills to decrease stress and anxiety will ultimately lead to improved nursing care, less burnout and reduced staff turnover in the profession.

REFERENCES

8. (Kandari, 2000). Marum, 1985.)