

The Use of Laughter Yoga to Decrease Stress and Improve Coping Nursing Students

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Laughter Yoga to Decrease Stress and Improve Coping in Junior-Level Nursing Students

Abstract

Nursing students experience stress from many different facets. Stress has a negative impact on academic performance and cognition. Research shows the positive effects mirthful laughter has on psychological and physiological health. This pilot project evaluated the effectiveness Laughter Yoga had on stress and coping. Cohen's Perceived Stress Scale-10 and a stress and coping questionnaire measured project outcomes. The overall results give anecdotal evidence for continuing projects to evaluate student stress and coping strategies.

Keywords: Laughter Yoga, Nursing Students, Stress, Coping Skills

Introduction

Nursing students can experience stress from many different facets: academic, clinical, and personal (1). The rigors of a nursing program, the fear of failure, new clinical placements, and time pressures all can contribute to increased experiences of stress (1-3). Stress can have a negative impact on academic performance and cognition, both vital to any university student (3, 4). If academic performance is affected, students may voluntarily or involuntarily take a leave of absence, or permanently withdraw, from their nursing program (5, 6). Extensive research has been done that shows the positive effects laughter, sometimes referred to as mirthful laughter, can have on a person both psychologically and physiologically; including decreasing stress and improving immune function (7-12). This project was aimed at decreasing stress and improving healthy coping strategies for nursing students through weekly Laughter Yoga (LY) sessions, offered for 5 weeks. An expedited review by the project site's Institutional Review Board (IRB) was granted.

Method

All junior-level nursing students at an upper Midwest state university were invited to participate in the LY project (N= 50 potential project participants). Student participation was low at the first session (N=5 participants); therefore, additional recruitment occurred and 4 additional participants attended the second session (N=9). At each session the participants attended, they received a nominal gift related to humor or stress relief. They were entered into a drawing for a chance to win a \$50 gift card to a retail store if they attended 75% (3 out of 4) of the sessions or more. Since some participants joined the project during Week 2, a make-up session was scheduled which resulted in 5 sessions offered altogether. Postsurveys were collected on only 4 of the respondents.

The questionnaires evaluated stress using Cohen's Perceived Stress Scale-10 (PSS-10) (13) and a 7-item Nursing Student Stress and Coping (NSSC) questionnaire. Questionnaires were coded and administered to project participants before the first LY session and following completion of the 5 LY sessions. These questionnaires were used to collect responses on student experiences of stress and whether there is continued interest in LY to cope with stress.

Cohen's PSS-10

Cohen's Perceived Stress Scale-10 (PSS-10) has respondents report how often in the last month they have experienced events which they deem unpredictable, uncontrollable, and overloading (14). Cohen's PSS-10 has shown to be a valid tool to measure stress. The higher the PSS score, the more likely people were experiencing elevated biological markers of aging, increased cortisol levels, suppressed immune function, greater susceptibility to disease, as well as poorer health practices, fewer hours of sleep per night, skipping breakfast, and consuming larger amounts of alcohol (14).

Stress and Coping Questionnaire

The Nursing Student Stress and Coping (NSSC) questionnaire was meant to further inquire about how the students perceived their stress and coping. The NSSC questionnaire was specifically developed for the LY project and tested for face validity by external reviewers. Since there were such a small number of participants, validity and reliability for the questionnaire will not be established until further projects are completed.

Results

The LY project participants reported a decreased level of stress following the 5 LY sessions. Cohen's PSS-10 scale ranges from 0 to 40, in which a higher score indicates a higher level of perceived stress. A t-test was used to compare preproject and postproject Cohen's PSS-10 scores.

Mean scores for the PSS-10 preproject was 22 and mean postproject scores were 16. On average the PSS-10 scores decreased by 6 points in the 4 respondents who completed both the preproject and postproject PSS-10 questionnaires. A within-subject analysis was possible because of coding of the questionnaires to match the respondents' preproject and postproject.

The preproject NSSC questionnaire was completed by 9 participants, although again only anecdotal data, it shows need for further investigation of students' experience of stress. On average, the 9 participants reported feeling stressed 5 out of 7 days a week. When asked to rate their level of stress, the average stress level was 3.5 out of 5, which rates between moderate and high levels of stress.

Project Satisfaction Survey

The junior-level nursing students completed a postproject satisfaction survey to gather more information for future projects; it was assessed for face validity prior to administering. This survey was used to elicit feedback on barriers to attending the LY sessions, interest in future offerings if the sessions were scheduled further in advance, and additional stress relief activities that were of interest to them.

The project satisfaction survey was completed by 23 of 50 junior-level nursing students (46%). Barriers identified were work (52%), personal obligations (30%), homework (23%), or traveling out of town on weekends (4%). A majority of students (69%) answered "yes" that they would attend future sessions of LY if they knew the schedule further in advance. Student responses confirmed the last-minute scheduling of sessions was a barrier for participation. Last, when asked about other stress relief activities that were of interest to them for potential future offerings, students showed interest in yoga, laughter yoga, breakfast or lunch "club" with faculty to casually discuss concerns or current issues, or a relaxation room.

Discussion

The LY project was designed to help students find a healthy way to cope with stress associated with rigors of a nursing program. Ideally, students would consistently attend LY sessions to use mirthful laughter as a way to reduce stress and promote psychological and physical well-being (5, 7-12). The results of the project data and the project satisfaction questionnaire show students are experiencing high levels of stress most days of the week and are interested in finding healthy ways to cope. Since Cohen's PSS-10 scores decreased following the LY sessions, further projects could continue to look at using LY to try and assist students with stress reduction.

Limitations

The LY project had lower than expected participation related to multiple factors. These factors were poor communication regarding LY sessions, students balancing work and school, and scheduling of the sessions. Additional barriers for the project included a rushed time line of receiving IRB approval and needing to implement the project in the spring semester. This time frame only allowed for students to receive notification of the LY project less than 2 weeks prior to the first session. Another limitation of the project was the use of the NSSC questionnaire and project satisfaction survey which were both tested only for face validity. This limitation reduces the statistical validity of the findings.

Recommendations

Although the students reported decreased stress and interest in using LY as a healthy coping technique, there are recommendations for improving the student experience. Future sessions should include using student input to schedule the LY sessions, offering multiple sessions a week, and communicating the LY sessions early and often to students. These recommendations increase and improve the availability of the sessions in order to promote the activity to students.

In addition, sessions could be opened up to every level of student within the School of Nursing (SON) including all prelicensure students and RN to BSN completion program students.

Further testing of the NSSC and project satisfaction questionnaires to establish validity and reliability will strengthen the statistical validity for future data collection.

Information from the project satisfaction questionnaire can be used to guide additional stress relief activities or opportunities to students, such as a relaxation room. More feedback should be collected from every level of nursing student within the SON in order to meet the needs of the diverse student population.

Conclusion

This pilot project has started conversations with faculty regarding how this SON can encourage and support students. The students reported experiencing decreased stress following the LY sessions. Continuing to provide LY sessions as a positive coping mechanism for students experiencing stress is one way the SON can continue to enrich student learning. Building on the results of the LY project, the SON can continue providing stress-relief activities to students in order to be viewed as a supportive and positive learning environment.

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