



Efficacy of Yoga Training on Self-satisfaction and Mental Wellbeing among Nursing Students

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ABSTRACT

Context: Nursing students experience high level of stress which negatively influences the wellbeing and self-satisfaction. Mindfulness based interventions and exercise regimes demonstrate beneficial effects improving wellbeing. Though Yoga a multi dimensional intervention has a potential role in furthering the wellbeing by means of stress reduction and tranquilisation, the empirical data in this regard is still lacking. Hence the present study in this direction.

Aim: To test the efficacy of yoga on self-satisfaction and mental wellbeing on nursing students.

Setting and Design: The study was carried out in a hospital settings by following a one group pretest posttest pre-experimental design.

Statistical Analysis: The quantitative data were analysed by means of descriptive statistics, paired t-tests, and Cohen's d.

Results: The effect of yoga on the participants was high in case of self-satisfaction, whereas moderate on mental wellbeing. The overall perception of relaxation following yoga training indicated that post-yoga, the scores had improved.

Conclusion: Comparison of pre-and post yoga scores found yoga training beneficial especially in their self-satisfaction and mental wellbeing.

KEYWORDS : nursing students, relaxation, self-satisfaction, wellbeing, yoga,

INTRODUCTION

The transition from adolescence to adulthood, particularly for students, is accompanied by several major life changes and challenges.^[1] High levels of stress is believed to affect students' health and academic performance. Nursing students experience high level of stress.^[2] The emotional stress associated with these changes is correlated with less time devoted to sleep,^[3] reduced academic performance,^[4] and increased rates of anxiety disorders and/or depression.^[5,6] Mental wellbeing refers to how people evaluate their satisfaction, depression and anxiety, moods and emotions. The changes negatively influence the wellbeing and self satisfaction. Stressors inherent to both practicing nurses and nursing students can lead to exhaustion, tension, and fatigue (sometimes known as burnout).^[7] Students should adopt effective coping strategies to handle the interpersonal, intrapersonal, academic or environmental stressors inevitable in their career.^[8] There are Studies supporting the hypothesis that exercise, particularly aerobic exercises have positive effects on psychological stress and well being.^[9] Beneficial effects of mindfulness based intervention on psychological wellbeing and quality of life has been demonstrated.^[10] Yoga is a holistic multi-dimensional intervention with multi-component mind-body practices furthering positive mental health and well being by means of stress reduction and tranquilization.^[11] Though yoga is gaining popularity there is a dearth of empirical data evaluating the holistic benefits of yoga.^[12] Hence the present study was focused in young nursing students with yoga as an intervention.

Main objective of the study

The present study was conducted to determine the effectiveness of yoga on self-satisfaction and mental wellbeing among nursing students.

Subjects and Methods

The present study consisted of pre-post within group design which was experimental in nature, to test the efficacy of yoga on self-satisfaction and mental wellbeing on nursing students, over a period of two weeks yoga training (YT).

Participants: 32 nursing students (Male – 20, 62.5% and Female – 12, 37.5%) selected by means of purposive sampling method from DIMHANS – Dharwad in the state of Karnataka-India. Informed consent was obtained.

Inclusion criteria: Healthy nursing students aged 17-19 years who

are already in training at DIMHANS-Dharwad were included irrespective of their place of living and socio economic status.

Exclusion criteria: The students not meeting the age set limits of inclusion criteria, those having any physical and psychiatric illnesses, students who have undergone any prior yoga training, those not able to participate in regular training programme were excluded from the study.

Description of the research tools

The following research tools were used for the study.

Satisfaction with life scale: was used to assess life satisfaction in nursing students. Developed by Diener et al.^[13] A five-item scale designed to measure global cognitive judgments of one's life satisfaction (not a measure of either positive or negative affect). Participants indicate how much they agree or disagree with each of the five items using seven-point scales that ranges from seven strongly agree to one strongly disagree.

The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Developed by Tennant et al.^[14] was used to assess mental well-being in nursing students. It comprises 14 positively worded statements with five response categories from 'none of the time' to 'all of the time'. A total score is calculated by summing the 14 individual statement scores. The minimum score is 14 and the maximum is 70. Higher scoring indicating higher well-being and lower scores indicate lower well-being.

Visual Analogue Scale (VAS): A visual analogue scale containing a range from 0 to 100 was used to measure the state of relaxation of the nursing student before and after yoga training using visualization technique. In this scale, '0' represents not at all relaxed whereas '100' represents a state of complete relaxation. Each student was instructed to rate his/her level of relaxation by using this scale. Higher rating indicates a greater level of relaxation perceived by the student.

PROCEDURE

The above tools were given to the students before and after yoga training for scoring. The filling details were taught and secrecy of the information was guaranteed. Yoga classes were conducted over a period of two weeks (each session, one hour). Patanjali Yoga techniques were selected as training for the present study through literature review and consultation with the Yoga experts. Patanjali

Yoga includes breathing exercises (pranayama), physical movements (asana), and deep relaxation (shavasana). The classes were conducted by the researcher under supervision of a Yoga expert. In Yoga classes, the first ten min were devoted to deep breathing relaxation techniques. Then, professional Yoga techniques (asana) were exercised for 40 min. The collected data was analysed by using appropriate statistical packages SPSS 16.0.

RESULTS

The quantitative data obtained was analyzed by means of descriptive statistics, paired and independent t test, Wilcoxon signed rank test (to measure the effect of yoga training) by using SPSS 16.0

Table 1.

M, SD and t values for self-satisfaction scores of nursing students during pre- and post-YT

Variable	Pre-YT		Post-YT		t	Cohen's
	M	SD	M	SD		
Self-satisfaction	1.50	.508	4.06	.716	16.51 **	.90

Note: N=32 **p<.01

Figure 1.

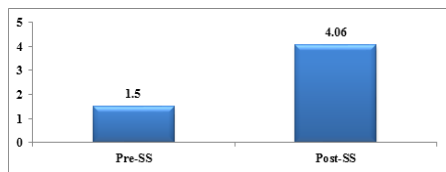


Figure 1 Mean self-satisfaction scores of nursing students pre- and post-YT

The paired t-test done on self-satisfaction scores (Table 1) shows that there was a significant difference between pre- and Post-YT scores of students of Nursing t(32) = 16.50, p<.01, effect size = 0.90. This indicated that the self-satisfaction among nursing students (M = 1.50, SD = .50) in comparison to pre-YT (M = 4.06, SD = .72), and the effect of yoga training was found to be high. Figure 1 shows the mean values of self-satisfaction pre- and post-YT. The figure indicates mean values on self-satisfaction, being higher during post-YT, in comparison to pre-YT.

Table 2.

M, SD and t values for mental wellbeing scores of nursing students during pre- and post-YT

Variable	Pre-YT		Post-YT		t	Cohen's
	M	SD	M	SD		
Mental wellbeing	1.06	.25	1.75	.44	8.25 **	.31

Note: N=32 **p<.01

Figure 2.

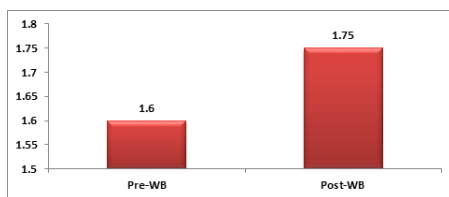


Figure 2 Mean mental wellbeing scores of nursing students pre- and post-YT

The paired t-test done on mental wellbeing scores (Table 2) shows that there was a significant difference between pre- and Post-YT scores of students of Nursing t(32) = 8.25, p<.01, effect size = 0.31. This indicated that the wellbeing among nursing students (M = 1.06, SD = .25) in comparison to pre-YT (M = 1.75, SD = .44), and the effect of yoga training was found to be moderate. Figure 2 shows the mean

values of wellbeing pre- and post-YT. The figure indicates mean values on mental wellbeing, is higher during post-YT, in comparison to pre-YT.

Table 3.

Wilcoxon signed rank test for impact of yoga training in nursing students pre- and post-YT

Measurement	Pre-YT	Post-YT	Z
Yoga Training	Median	Median	4.94 **
	0	16.50	

Note: N=32 **p<.01

The students were trained in yoga using visualization through yoga instructor. Yoga training was given over a period of two weeks with minimum of ten sessions. A visual analogue scale was used to measure the extent of yoga relaxation pre- and post-administration of yoga over two weeks of yoga training.

Wilcoxon test was used to measure the effect of yoga, as perceived and indicated by the students. This non-parametric test was used, as t test cannot be used for original data. The results in table 3, shows a significant difference, z = 4.94, at p <.01, indicating that during post-yoga scores had improved (Median =16.50) in nursing students in comparison with their pre-yoga scores (Median =0).

DISCUSSION

Efficacy of the yoga training is found in following ways.

- (1) Differences seen in pre-and post yoga training on nursing students in their self-satisfaction.
- (2) Differences seen in pre-and post yoga training on nursing students in their mental wellbeing.

The results indicate that there is a high effect of yoga training on self-satisfaction scores. Accepting the objective of the study as per scoring criteria there is difference found in pre-and-post yoga training. The findings are supported by a study which is a confirmation of existing literature, indicating that yoga can improve well-being and satisfaction with life.[15] Considering the current evidence in the field, which indicates the beneficial effects of yoga on the physical, psychological, emotional, spiritual, and overall well-being of nursing students, it could be recommended to incorporate yoga into the curricula for the health benefits of the nursing student-in-making, nursing fraternity, and community at large. In a study by Mahajan.[16] to investigate the effect of Yoga exercises on nursing students, it revealed that these exercises could significantly increase self-satisfaction and problem focus strategies and reduce state-trait focus ones. Schell et al.[17] obtained similar results.

The results indicate that there is a medium effect of yoga training on well-being scores of students of nursing. The findings are supported by Impet et al.[15] On the other hand integrating yogic breathing techniques may provide self-empowering tools for enhancing well-being in young adults.[18] Similar study by Rajagopal et al.[19] major findings of the study revealed that Rajayoga meditation is effective in improving mental wellbeing status, reducing anxiety and improving study habits among the nursing students. The possible mechanisms involved in the beneficial effects of yoga among nursing students include autonomic balance and relaxation. There is a scope to evaluate the effects of yoga further among the nursing students through rigorous studies, wherein these mechanisms could be tested.

The results in table 3 show a significant difference. Pre-and post yoga scores had found yoga training beneficial especially in their self-satisfaction and mental wellbeing. With the ill defined various existing complementary methods in promoting wellbeing, Yoga, a multidimensional systematic intervention is gaining evidence in its efficacy and feasibility.

LIMITATIONS

Firstly as the study design is of uncontrolled nature, the results could have been influenced by placebo effects because of self report measures creating potential self attribution. Secondly the duration of intervention is short, limiting the evaluation of long term effects of yoga.

RECOMMENDATIONS

1. Larger sample and a control group should be included in the study
2. Similar studies with longer duration of intervention to endorse the long term benefits of yoga.
3. A comparative study can be done to compare the effectiveness of yoga training and other relaxation techniques.

CONCLUSION

Preliminary findings suggests the feasibility and a possible role of yoga as an intervention in improving the self-satisfaction and wellbeing of nursing students, with substantial benefits of relaxation as perceived by the students. This study stimulates the need for more research in evaluating the potential effects of yoga in this population.

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