

Randomized Controlled Study Protocol: Assessment of the Effect of Laughter Yoga on Mental Symptoms Frequency and Level of Cortisol in First Year Nursing Students

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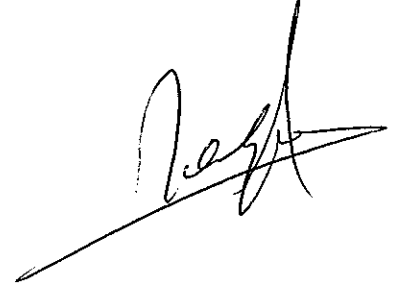
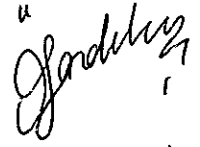
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Assessment of the Effect of Laughter Yoga on Mental Symptoms Frequency and Level of Cortisol in First Year Nursing Students: Experimental Study Protocol

Introduction: Students starting university; In the first year of their education, they face many stress factors affecting mental health. Students who cannot cope with these stress factors and who cannot adapt to university life may experience failure in courses and psychological and physical illnesses after a period of time. For this reason, it is a period that requires careful attention and research on the first year of university. It is thought that laughter yoga can affect the mental health of students positively, adapt to university life and be an effective attempt to cope with stress.

Objective: The aim of this study is to investigate the effect of laughter yoga on mental state and cortisol level in new nursing students.

Method: The population of our research; Ankara University Faculty of Health Sciences Nursing Department consisting of 202 students studying at the First Year. A descriptive question form has been applied to the entire population of the research. 191 students fulfilling the criteria of this study have been included. Eleven students who have not fulfilled this criteria the inclusion criteria have been excluded from the study. Power analysis has been performed and the required sample volume for each group has been calculated as 34 with 0,90 power and 0.05 margin of error. Sample of the study consists of 75 students considering the possibility of students leaving the research. This 75 students have been divided into two groups as intervention group (n=38) and control group (n=37). Intervention and control group have been randomly selected among Ankara University Faculty of Health Sciences Nursing Department.

The implementation process of the study is described below:

Descriptive characteristics questionnaire was applied to the experimental and control group students.

Pre-test: A short symptom inventory was applied to the students in the experimental and control groups before the first session. A saliva sample was taken from the students to measure salivary cortisol level at 07:55 before each session.

Intervention phase: After the pre-test, laughter yoga was applied to the experimental group. No attempt was made to the control group. A total of 8 sessions of laughter yoga were administered to the experimental group in 4 weeks, 2 sessions a week. The sessions were started at 08:00 and finished at 08:40. Laughter yoga; hand-held and warm-up exercises, deep breathing exercises, childish games, laughter exercises. The first three episodes are the same in every laughter yoga session and the laughter exercises in the fourth section vary.

Post-test: After all of the laughter yoga sessions were completed, a short symptom inventory was applied to the students in the experimental and control groups. After each session, saliva samples were taken from the students to measure salivary cortisol levels.

In order to minimize the factors that may affect the cortisol level, participants were asked to eat anything after 22 pm and to give saliva samples to the hungry stomach. As cortisol hormone showed diurnal rhythm and cortisol level was measured according to the time of measurement, simultaneous saliva samples were taken from the control group. Salivary tubes were given to the students in the experimental and control groups in order to obtain saliva samples. The students were asked to soak the roll cotton material contained in the saliva tubes for 1 minute with saliva and place in the tube again.

Salivary cortisol measurements were performed in the Department of Medical Biochemistry of Gülhane Training and Research Hospital. The data were evaluated with SPSS 14.0 package program.

Results: Laughter yoga is expected to be effective in reducing psychological symptoms and saliva cortisol in the experimental group.

Conclusion: This study will provide evidence to reduce mental symptoms and saliva cortisol in nursing department students.

Keywords: Nursing, Student, Laughter Yoga, Cortisol, Psychiatric Symptom