Abstract

Title: Effect of yoga intervention in tinnitus patients

Objectives: The aim of this thesis is to determine whether regular yogic movement intervention in people suffering from chronic tinnitus (without organic cause) has an effect on their quality of life.

The objectives of the first part of the thesis include learning about the theoretical knowledge of tinnitus – its classification, etiology, symptoms, treatment options, etc. The second part will be an experiment-interventional study involving probands suffering from a chronic form of tinnitus with no organic cause. The aim will by to evaluate whether a purposefully designed yoga movement program has an effect on the change in quality of life in tinnitus patients.

Methods: The theoretical part dealt with the given issue in the form of a search from the Czech and foreign literature. In the practical part an experimental research was conducted. The subjects who were included in the research based on selection criteria were randomly divided into two groups. The number of probands in both groups was 15 and they were tested at the beginning and at the end of the research using the TSCHQ and THI questionnaire. The experimental group underwent 10 yoga movement interventions, twice a week for 60 minutes under the guidance of a certified yoga instructor. The study lasted a total of 5 weeks. The control group did not participate in these interventions and was only tested with the questionnaires.

Data from the baseline and exit questionnaires were compared for probands in both groups to determine the effect of the yogic movement intervention on subjective perception of tinnitus volume (as assessed by the TSCHQ questionnaire) and on subjective perception of tinnitus severity (as assessed by the THI questionnaire). Descriptive statistics and nonparametric tests, namely the Mann-Whitney test and the Wilcoxon test, were used to evaluate the effect. The significance level was set at 5 %.

Results: The probands of the experimental group showed a decrease in the average subjective perception of tinnitus loudness by 4 points on the 0-100 scale assessed by the TSCHQ questionnaire. Before the yoga intervention, the mean loudness score of the experimental group probands was 48 and after completion of the 5-week yoga intervention the mean dropped to 44. For the control group, the mean loudness at the beginning of the research was 50.47 and at the end of the research the mean rose to 51.67.

There was also a decreasing trend for probands in the experimental group in the THI questionnaire, which assesses the subjective severity of tinnitus. The mean THI score (0-100) of probands in the experimental group was 24.93 at the beginning of the research and after completing the 5-week yoga intervention, the mean THI score decreased to 22.93. In the control group, the mean THI score was 28.27 both before and after completion of the research.

Despite the tendency for improvement in the probands of the experimental group, a statistically significant positive effect of the 5-week movement yoga intervention on chronic subjective tinnitus could not be demonstrated, thus rejecting the stated hypotheses. Since at the 5% significance level the reduction in subjective perception of tinnitus loudness was not statistically significant ($p = 0.267$), the same was true for the reduction in subjective perception of tinnitus severity based on THI scores ($p = 0.184$).

Keywords: tinnitus, yoga, movement intervention, pranayama