Abstract

The effects on Group Empowerment Drumming (GED) on State-Anxiety in selected populations was examined in this study. Does group empowerment drumming lower state-anxiety in college student athletes male and female, in clients at Charlie’s Place, and in non-athlete college-age students? A pretest-posttest design was used to evaluate the effectiveness of a Group Empowerment Drumming Program. By adults were surveyed, ages 17-70. Each subject performed a pretest and posttest prior to and following the GED program. State Anxiety levels were recorded and it was concluded the statistical data displayed an overall reduction in state anxiety among the three selected populations. Overall, pre to post test measures across populations showed correlation between GED program and the reduction of state anxiety.

Design and Development

Verbal consent was asked of all subjects through reading the protocol for the study and signing the acknowledgement form. There were no pre-study questionnaires in scales to determine eligibility of participants. Data was recorded in a deidentify manner to maintain the confidentiality of participants. All subjects were chosen by voluntary action and were not influenced by the PI or Co-PI (Primary Investigator and Co-Private Investigator). The scholar in this research acted as the Co-PI. The PI was to distribute the pre-State Anxiety Questionnaire to all subjects and go over instructions how to fill it out correctly. The pre and post Anxiety Questionnaires are self evaluation questions that gauge the levels of anxiety a person feels at the present time before and after the selected intervention. There are 20 items on the adult questionnaire. The subjects then filled out a questionnaire and the Co-PI collected each one. Next, subjects were seated in a circle and the PI (Primary Investigator) explained the Group Empowerment Drumming Program. Percussion instruments were then passed out to participants. After the percussion-related instruments are passed out (small drums, tambourines, woods, bells, shakers, triangles, and plastic tubes), the PI demonstrated how to play each one. The PI then facilitated the Group Empowerment Drumming program by playing easy mother rhythms (four beat rhythms) and invited subjects to play along. This portion lasted approximately 90 minutes, with variations in time according to population and extraneous circumstance. Upon completion of the Group Empowerment Drumming Program, the subjects took the post-State Anxiety Questionnaire and Co-PI (Co-Private Investigator) collected each. The investigators thanked each subject for their part in the research study. The procedure was performed one time through including the pre and post test measures and a debriefing.

Literature Review

Many people experience state anxiety every day, whether it is from the inevitable stresses of navigating their way around or actual danger. State anxiety can be best defined as a stressor that is occurring in the present time and place, not over a period of time (Gadberry, 2011). Anxiety can be detrimental to a person’s health by exacerbating stress reactions as a result of overreacting in the brain with stimuli, often causing panic attacks in the short term and depression longitudinally. Music, it is able to divert stress energy to either be recycled into positive energy or alleviated by the effects of music therapy (Bittman et al., 2015). It is important to research the effects of Group Empowerment Drumming as a remedy for general state anxiety as anxiety is one of the top complained medical conditions in the world. From music suggested patterns and repeated tones make it easier for the brain to remember information or stimuli coming into the brain because of the naturally occurring ability to know what comes next, prompting memory and processing information. Recent research suggests that community music therapy can have a lasting effect on social bonding and social composure (Petriccione & Ansdell, 2014).

In one study it was found that those who listened to a steady beat in times of high anxiety experienced a moderate alleviation of anxiety symptoms than compared to the group that did not (Gadberry, 2011). As modern technology and advancements have developed, humans have seemingly lost the connection to music circles. Additional research suggests that music has the ability to alter one’s own cognitions to how one processes and handles stress, while also displaying the ability to promote and cause social change (Bittman et al., 2010; Elliott et al., 2011; Petriccione & Ansdell, 2014).


Reference


Experimental Results

- The results of this study were a movement toward significance in that among the participants polled before and after Group Empowerment Drumming treatment, all populations showed a reduction in state anxiety among those with already perceived psychological disturbances. This was stronger than the participants on the male basketball team, which have no underlying anxiety condition of note.
- Of the 85 subjects studied, 75 showed a movement toward reduction, as seen in Figure 1. Eight participants showed a higher score and two of the participants saw no change in mean anxiety levels measured.
- Among the Charlie’s Place population, the difference in mean from pre to post test showed a positive relationship between the GED program and a reduction in state anxiety among those with already perceived psychological disturbances. This was stronger than the participants on the male basketball team, which have no underlying anxiety condition of note.
- The Charlie’s Place clients also displayed the largest standard deviation score among the selected populations, suggesting larger variation of anxiety scores among participants with already high levels of resting state anxiety.
- University Student Health class displayed the second largest significance among the selected populations, suggesting larger variation of anxiety scores among participants with already high levels of resting state anxiety.
- Perceived state anxiety was reduced in all populations analyzed together, with a ninety-five percent confidence level.
- As seen in Measure 3, a Within-Subjects contrasts results yielded a significance level of .05 (see Measure 3) for relation between time (the GED program) and the Groups given. This suggests a slight significance for the GED program effectiveness in lowering state anxiety.

Conclusion

Collectively, Group Empowerment Drumming lowered anxiety levels among the subjects in the three selected populations, which is in accordance to past literature on the topic. Based on the data along with the additional research referenced in the article, the hypothesis that Group Empowerment Drumming would reduce State-Anxiety in selected populations was founded and supported. The data for this research stated a 96% confidence interval that the change from pre to post test would be statistically impossible to be any other variable other than the GED program being responsible for the reduction effect. Of the 85 subjects studied, 75 showed a lower score from the pre to the post measures. This result suggests that Group Empowerment Drumming can lower anxiety as a generalizable statement and did as the research concluded. Eight subjects showed a higher score and two stayed the same. The results as a whole population and the statistical analysis run on the test scores overall showed a movement toward reduction in state anxiety among the selected populations.

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