

Treatment Effects of Pop Music Combined with Aerobic Exercise on COPD Patients

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Abstract

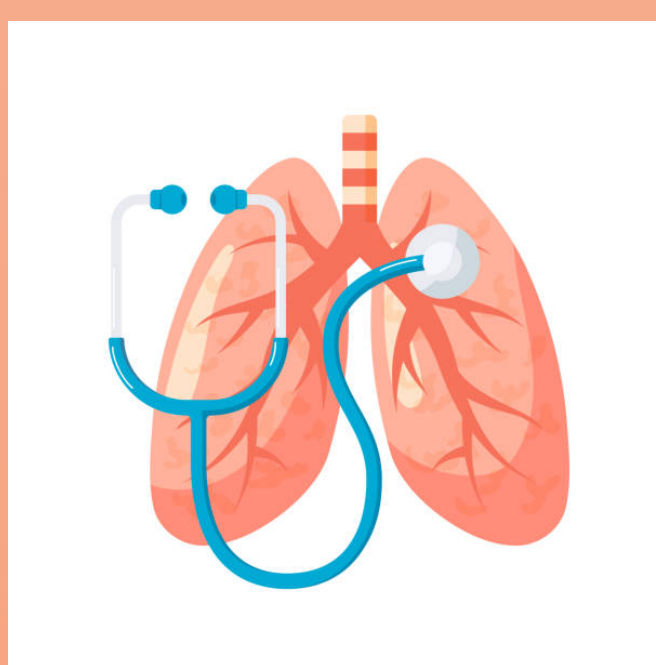
The purpose of this study is to investigate the relationship between music-exercise therapy on patients with Chronic Obstructive Pulmonary Disease. Specifically, looking at the effect of pop music combined with aerobic exercise over the course of 12-weeks using a quantitative approach. It is hypothesized that exposing COPD patients to aerobic exercise and pop music will decrease COPD symptoms and improve their overall quality of life. This study will use N=60 participants. There will be a control group and a music-exercise therapy group. The music-exercise therapy group will be taken through aerobic exercises while listening to pop music. This will be completed three times a week over the course of 12-weeks. This research will measure the physical, emotional, and cognitive effects of music exercise therapy on COPD patients.

Key Words: COPD, Aerobic Exercise, Pop Music



Introduction

- COPD is a group of clinical issues that share a common theme of limitation to airflow
 - Third leading cause of death and affects about 24 million Americans, resulting in about 120,000 deaths a year
- The American Thoracic Society defines COPD as emphysema and chronic bronchitis.
 - This includes sputum production and a chronic cough. Emphysema is chronic dyspnea, which is enlarged air spaces and destruction of the tissues in the lungs.
- If left untreated it can cause rapid growth of the disease, heart problems, and an increased risk of respiratory infection
- Symptoms of COPD include shortness of breath, cough, wheezing, tight chest, mucus in the lungs, frequent cold and flu, lack of energy, fatigue, swelling in the lower limbs, and weight loss
- Aerobic exercise can improve your peripheral muscle function, can make daily tasks easier for COPD patients and prevent them from getting fatigued faster.



Methods

Participants

- must be over the age of 50 and have been diagnosed with mild to moderate COPD (N=60)

Instrumentation

- This study assesses the status of the patients at the beginning, end, and every two weeks throughout the trial
- This study utilizes:
 - Symptom scale (1-10)
 - Cognitive assessment
 - Behavioral rating scale
 - Life satisfaction index
 - Physical assessment



Research Design

- Randomized control trial
- Groups are split into a music-exercise therapy group and a control group
- The music exercise therapy group will go through sessions of aerobic exercise while listening to pop music
- The program consists of three 40-minute sessions a week for 12 weeks

Procedure

- The control group was asked to continue with their daily lives with no added treatments
- The music-exercise therapy group was taken through workouts that consisted of walking, cycling, and water aerobics for 40 minutes, 3 times a week, every week. Some stretching was included
- The researchers assessed the patients throughout the trial, logging and keeping track of data

Other Factors

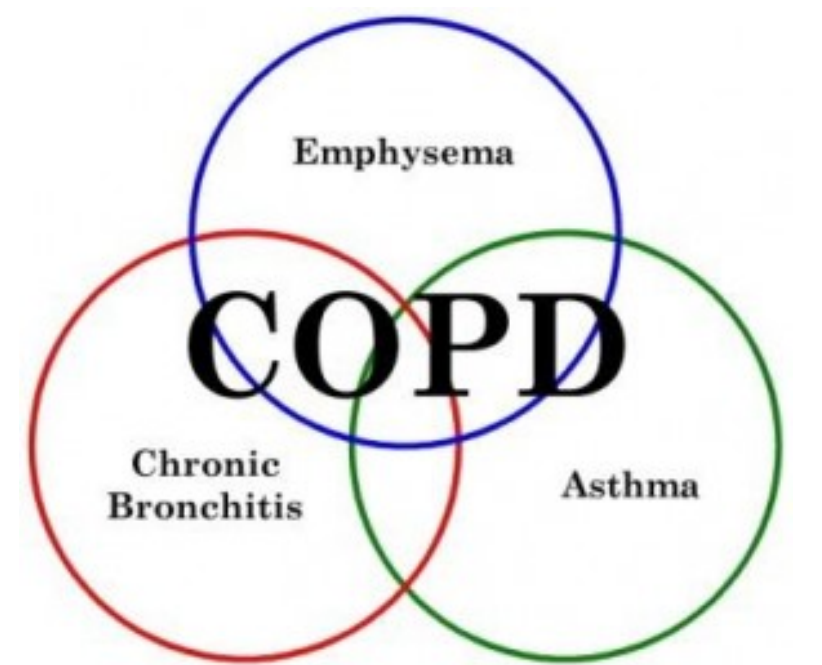
- The participants must sign a consent form and can leave at anytime and all data will be destroyed
- Participants are informed of all risks and procedures prior to starting
- HIPPA laws are followed

Discussion

- It was assumed that the participants followed the 12-week protocol and will give their full effort and honesty throughout
- Limitations include a small sample size, mild to moderate patients only, music and exercise choice was limited
- Future research can further study the effects of different types of music and exercises on COPD

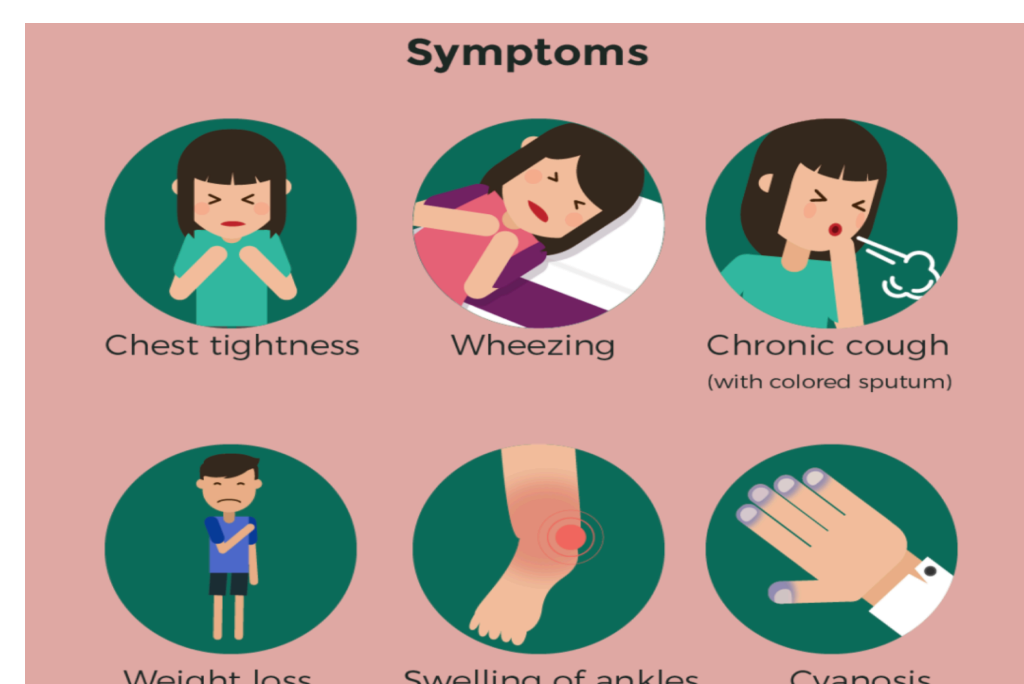
Review of Literature

- Ziv & Lidor (2011) found that music-exercise therapy can play a role in reducing the symptoms in a COPD patients.

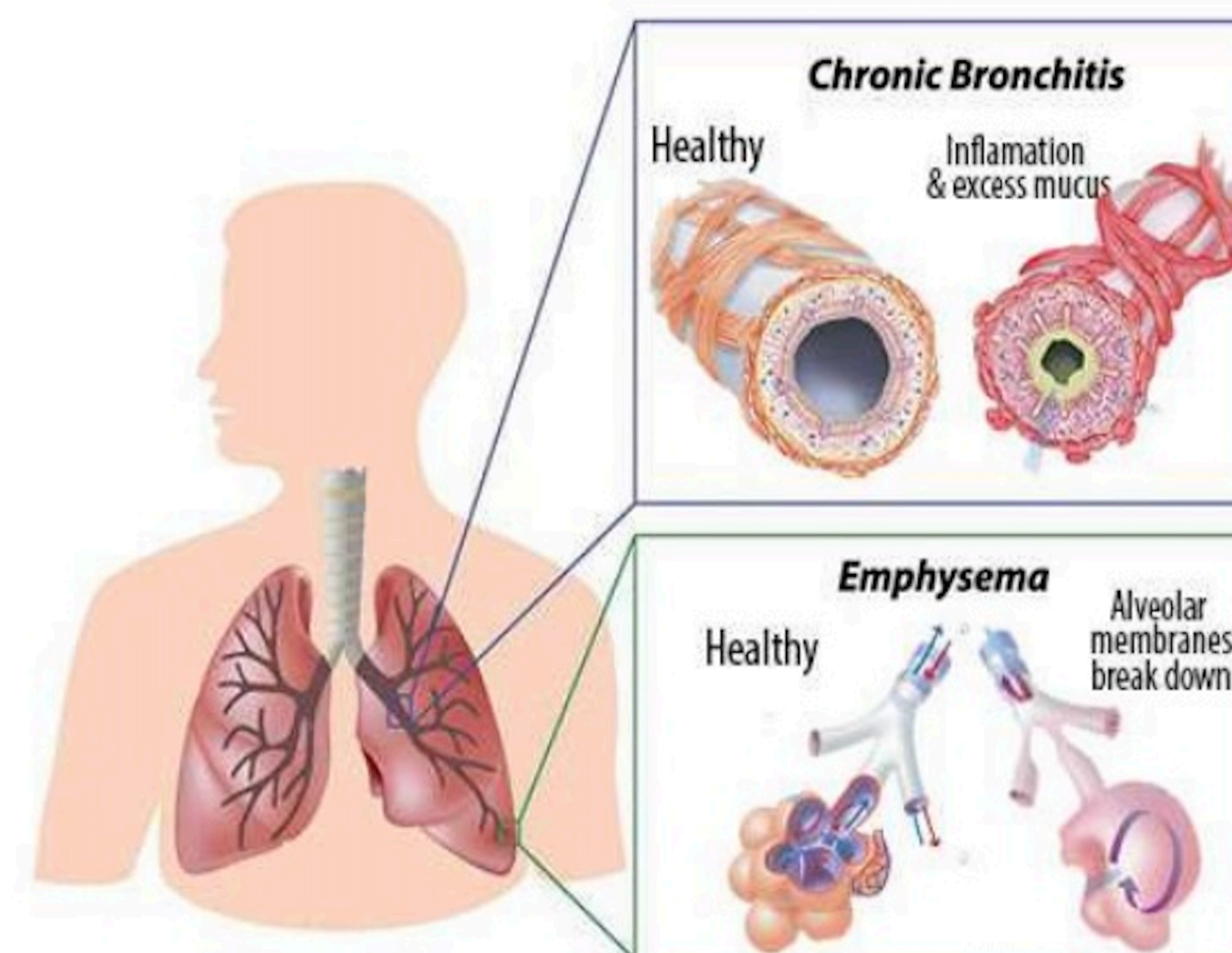


- Hagen et al. (2003) conducted a study on music-exercise therapy on elderly people. In this study, subject were split into a control group, an occupational therapy group, and a music-exercise therapy group. It was found that the control group declined, the OT group improved in some categories, and the music-exercise therapy group improved in all categories of cognitive function, life satisfaction, overall dependency, balance, and joint function.

- Markell (2020) researched the relationship between music and exercise and found significant responsiveness in humans. This relationship has been studied extensively and has shown to result in numerous benefits across all ages. Different types of music to exercise combinations that can create different outcomes (Markell, 2020).



Chronic Obstructive Pulmonary Disease (COPD)



A special thank you to all the contributors of this research. I would like to acknowledge Tori Birks, Dr. Jeffrey Hartman, and the Gardner-Webb library staff.

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