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Impact of music tempo on the heart rate of female

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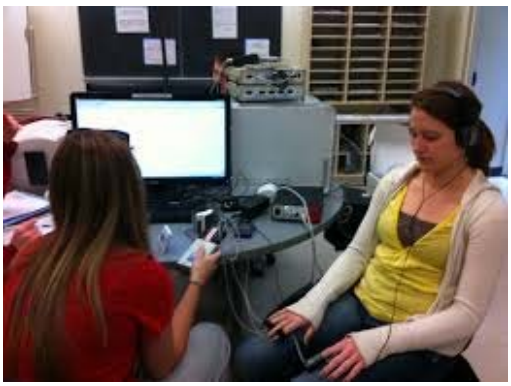
Abstract
The reason for this analysis was to figure out what the impact of music is on the human heart rate of young ladies. We became interested in this idea when we wondered how a music effect human does. The information gained from this experiment may help people find a more lively or relaxing music tempo.

Keywords: Music, Tempo, Heart Rate (HR), Electronic Pulse Monitor (EPM), Stopwatch.

Introduction

Music has an endless impact over the countries and people groups. It has been utilized as a part of each society, and is regularly associated with anxiolytic and pain relieving properties. Today it is utilized as a part of numerous healing centers to assist patients with relax and help relieve or ease pain, confusion and anxiety. Music treatments methods [14] may incorporate guided listening or improvisational playing and are utilized inside of the setting of numerous hypotheses, and for some sorts of mental issue, from wretchedness to schizophrenia. Large portions of the mending characteristics of music in directing are joined with its utilization as a nonverbal medium for correspondence.



Music is perused diversely in the cerebrum than non-musical tones and is joined with a wide range of regions of the mind. Learning music consigns a bigger piece of the cerebrum to perceiving and deciphering music. Listening to music has additionally been found to have an impact on learning. The Effect of Music on the Human Body and Mind Throughout history, man has made and listened to music for some reasons. Music has served to express feelings, for example, bliss or distress, and has done as such successfully. Music has been an instrument of correspondence along these lines, assisting one with keeping an eye on to comprehend another and giving a medium of interconnection. Each known society all through history has had some type of music. People were at that point playing such complex instruments as bone woodwinds, jaw harps and percussive instruments long back in the soonest development [11]. Music has been seen to have supernatural qualities, and has in this manner been utilized pervasively inside of types of religious love [12]. Music is a special blessing to and from every individual who makes it. It uncovers incomprehensible amounts of data about the entertainer, from their emotional episodes to natural chemistry, internal rhythms of organs, and even the way they are physically fabricated [13]. Music is a perpetually evolving, always expanding blessing from God, free and accessible to all who look for it and numerous who don't. All things considered, it is normally invested with the capacity to influence the individuals who listen in fantastic ways. Music has been connected with physical and enthusiastic mending all through history.

Hypothesis

Our hypothesis is that the slower the tempo the slower the heart rate will be. We base our hypothesis on R.M. Lonyears article in World Book Encyclopedia about "Music". He states that tempo makes the music seem more exciting. The heart beats faster when a person is scared or excited and slower when the person is relaxed according to Michael H. Crawford's article in World Book Encyclopedia's article about the "Heart" [1-10].

Experiment

The constants in this study were: How long the subject rested before listening. How long subject listened. Same gender subject. Where the pulse was taken. Instrument listened to. Number of songs listened to. Same approximate age of subject. How far away the subject sits from CD player. Same volume listened to.
The manipulated variable was the tempo of the music.
The responding variable was the heart rate.
To measure the responding variable we took the radial pulse of the subject for 20 seconds.

Materials

For our experiment design we used 1 no of Stop Watch, CD-1 no, CD Player-1 no, Chair- 1 no, EPM- 1 no, Subjects-13

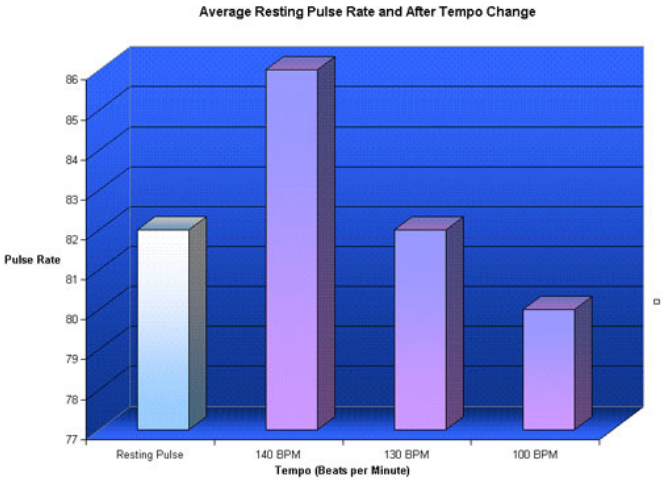
Procedures

- Obtain Permission slips from volunteers.
- Gather materials in test room.

- Set up our CD player and test the volume.
- Bring 1 subject to test room.
- Let subjects rest for three minutes in a chair.
- Take pulse.
- Subject listens to music for three minutes.
- Take radial pulse for 20 seconds and record.
- Let rest 3 minutes.
- Repeat steps 4-9 three times with different tempos of music.

Results

The original purpose of this experiment was to find out what the effect of music is on the human heart rate of girls. The results of the experiment were that the slower the tempo the slower the heart rate was.



In this graph we can see the average resting pulse rate and the average pulse rate after listening to music at different tempos for three minutes. The first bar is resting pulse. Second bar after listening to music at 140 beats per minute (BPM). Third bar after listening to 130 BPM. Fourth bar after listening to 100 BPM. As we can see the average pulse rate is higher after listening to music at 140 BPM than listening to music at 130 or 100 BPM. The average pulse rate after listening to 130 BPM is lower than listening to 140 BPM but higher than listening to 100 BPM.

Conclusion

Our hypothesis was that the slower the tempo the slower the heart rate will be. The results indicate that this hypothesis should be accepted. Because of the results of this experiment, we wonder if music would have affected males different than females. If we were to conduct this project again we would have a larger sample size of subjects. We would also use a larger range of tempo variations.

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