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Relation of Pulse Rate with Singing

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Abstract

This article aims at determining the link between pulse rate and singing. A total of 200 students took part in this. The pulse rate of students was measured and noted down. These students then had to answer a different question about the likeness of singing and analysis was made according to it. Average pulse rate was 79.8 and 78.07 of people saying yes and no respectively. p-value found was not significant. p-value was 0.144. It was obtained after the performance of t-test in Microsoft Excel. The purpose of the article was to find a link between singing and pulse rate.

Keywords: Singing; p-value; Pulse rate

Introduction

The pulse [1] is the rush of blood that is shoved through the arteries when the heart beats. The measure of how many counts a person can sense a pulse every minute is called its pulse rate. The repeated shrinking and relaxation of the heart is called the heartbeat. Apparatus such us stethoscope can be used for the measurement of a heartbeat. The average amount of blood that is pumped into a person's heart is 5 liters of blood per minute. However, strenuous exercise can increase the blood to 20 liters per minute. The average heartbeat of a normal human being is considered to be 70-72 per minute. Pulse rate can change from one person to another. It is less when you are not doing any work and can increase by exercise. Various factors can also affect your heart rates like emotions, body position, and body size. It is considered that active people usually have a lower heart rate. This is because their heart muscle is in fitter state and doesn't need to function as hard to support a steady beat [2-5].

Singing is the move of generating musical sounds from your voice. Singing has numerous health benefits. It can reduce the danger of heart disease and can uplift a person's mood. Listening or singing calm music can decrease heart rate and blood pressure. Singing can have some of the same outcomes as exercise. It can regulate more oxygen into the blood causing better circulation. Singing also helps nourish the muscles that are also accountable for posture. It also helps to increase your lung capacity [6-9]. The target of the current study was to correlate singing with pulse rate.

Material and Method

An aggregate of 200 subjects took part in the present study. The subjects were mainly students of Bahauddin Zakariya University, Multan, Pakistan. A clock or watch can be used for measuring the heart beats. The calculator is needed for calculations. For safety, personal protective equipment can also be used. The pulse rate of 200 students was noted and analysis was made according to it [10,11].

Pulse rate measurement

To start with, the patient was first made to sit and relax to ensure that his heart rate is at its resting rate. Then the patient's elbow was straightened and the inside of the wrist was faced upward. Next, the patient's fingers were positioned in such a way that the tip of his index and middle fingers align. The hollow space was then located. The patient was asked to make a fist and bend his wrist. At this level, the ligament was easily seen. Fingers were then placed next to this ligament. A hollow, soft space was felt. To feel the radial artery, fingers were pressed into the hollow space. Time started and the pulse was counted. Counting stopped after 15 seconds. At last, the counting was multiplied by four to convert it into beat per minute (bpm).

Analysis

This analysis was handled by using statistical software. It is a strong software that can examine data quickly. To survey the final results, student's t-test was collected. P-value of 0.05 was regarded as notable.

Results and Discussion

The average pulse rate of people saying yes and no were 79.8 and 78.07 respectively. The p-value found from t-test was 0.144 which is insignificant. The average was calculated from MS Excel. Standard deviation calculated of people saying yes and no was almost equal.

Conclusion

It was concluded from the current study that maximum persons with higher pulse rate were mostly people who said yes. The p-value was not significant. The average ratio of people saying yes and no were 79.8 and 78.07 respectively. Singing and pulse rate can have a close relation. It is considered that listening to soothing music can give a calming effect which can result in reducing heart rate or pulse rate. Music affects peoples mood and thereby can affect their heart rate too.

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