

THE EFFECT OF MUSIC FORMS ON MAXIMUM OXYGEN UPTAKE AND DISTANCE COVERED IN COOPER 12 MINUTE RUN/WALK TEST

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ABSTRACT

The purpose of this study was to find out the effect of with and without music on distance covered in 12 minute run /walk test and maximum oxygen uptake by students. Total 20 students were selected as subjects for the study. The physiological variables of maximum oxygen uptake and Distance were selected for the purpose of this study. The 't' test was applied to find out the difference and level of significance was set at 0.01 or 0.05 level of confidence.

Keywords: Maximum Oxygen, Uptake and Distance.

INTRODUCTION:

The music is like oil in a car—it helps the car run very efficiently. In exercise, music can help to coordinate the brain-body-and breath of each participant, which is truly the start and end, the alpha and omega, of fitness today. (Lawrence Biscontini)

Research has shown that music can be most effective when played at the point when workers reach a plateau in work output. When devising your own music playlist for training, it is important to take into consideration the type of mindset you want to achieve for a particular workout. For example, British rowing Olympic gold medalist James Cracknell, used the persistent rhythms of the Red Hot Chili Peppers during training and his pre-event routine. Thus, if your movements are steady and rhythmic, the music should not have fluctuations in temp; rather, it should parallel the speed of your own movements. For example, if you are warming up on a gym bike at a pace of approximately 65 rmp, commercial dance music, typically in the range of 120 to 130 bmp, is ideal as you can take half a pedal revolution to each beat of the music (Karageorghis& Terry, 2011). American researcher, resercher found that cyclists pedaled faster while listening to music than they did in silence.

C. J. Bacon in 2012, another piece of research showed that cyclists who listened to music required 7% less oxygen to do the same work as those who cycled in silence without music. So not only does music help us to push ourselves further and faster, it can also help us use our energy more efficiently.

METHOD AND PROCEDURE:

Selection of Subjects: The study was conducted on Total twenty (N=20) students. These subjects were selected in terms of purposive samples at the master standard from department of physical education, age ranging from 23-27 years, Punjabi University, Patiala.

Selection of Variables:

Independent variable:

Music

Dependent variable:

Maximum Oxygen Uptake ($VO_{2\text{ Max}}$)

Distance covered in 12 minutes

DEPENDENT VARIABLES:

Sr. No	Dependent variable	Tests	Unit of Measurement
1.	Maximum Oxygen Uptake($VO_{2\text{ Max}}$)	Cooper 12 min Run-Walk Test	ml/kg/min
2.	Distance covered in 12minutes	Cooper 12 min Run-Walk Test	Meters

TOOLSTO BE USED:

- MP3 player
- Ear phones
- Stopwatch
- Lime powder

PROCEDURE OF DATA COLLECTION AND ANALYSIS:

All subjects were subjected to 12 minutes cooper run/ walk for 3 week with and without music. Subjects were asked to go for 12 min cooper run/walk without music. Subjects asked to go for 12 min cooper run/walk with music. Distance covered (meters) by the subjects with and without music was considered as his score.

STATISTICAL PROCEDURE:

In order to find out the effect of Different Music Forms on Maximum Oxygen Uptake and Distance Covered in Cooper 12 Minute Run/Walk Test, the data analyzed by applying the 't' test.

FINDINGS OF THE STUDY:

To find out the effect of with and without music on distance covered in 12 minute run /walk test and maximum oxygen uptake by students. The 't' test was applied to find out the difference and level of significance was set at 0.01 or 0.05 level of confidence. The results have been depicted in the following tables & figures.

TABLE 4.1

SIGNIFICANT DIFFERENCE OF MEAN OF 12 MINUTE RUN AND WALK TEST WITH AND WITHOUT MUSIC

Group	Mean	S.D.	t-test
Without music	2128.2	145.53	6.9196
With music	2401.55	118.53	

Tabulated 't'-value at₀₅(19) 2.093

As clear from the table-4.1 that mean and standard Deviation of master degree students on 12 minute run & walk test with music and without music were 2128.2 & 2401.55 and 145.53

&118.53 respectively. It depicts that there is significant difference found between master degree students on the variable 12 minute run & walk test with music and without music.

TABLE 4.2
SIGNIFICANT DIFFERENCE OF MEAN OF MAX OXYGEN UPTAKE WITH AND
WITHOUT MUSIC

Group	Mean	S.D.	t-test
Without music	36.29	3.25	6.9123
With music	42.39	2.65	

Tabulated 't'-value at_{.05(19)} 2.093

The table-4.2 perusal that the Mean & SD of master degree students on the variable VO_{2max} with music and without music were 36.29 & 3.25 and the Mean & SD of master degree students VO_2 max 12 minute run & walk test with music were 42.39 & 2.65 respectively. It reveals that there is significant difference found between master degree students VO_2 max 12 minute run & walk test without music & with music.

1. **MAXIMUM OXYGEN UPTAKE ($VO_{2 MAX}$)** :- 12 minutes cooper run/ walk test was applied to measure the maximum oxygen uptake of master level students. The result which we found after the statistical procedure shows that there is significant difference between without and with music of master level students.
2. **DISTANCE**:-12 minutes cooper run/ walk test was applied to measure the distance of master level students. The result which we found after the statistical procedure shows that there is significant difference between without and with music of master level students.

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