“EFFECTS OF MOTIVATIONAL MUSIC ON POST-EXERCISE RECOVERY”

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MAJORING IN EXERCISE SCIENCE

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THE RESEARCH

• Thesis Statement: Listening to motivational music during post-exercise will extend the recovery stage. Listening to calming music during post-exercise will cause the recovery stage to be shortened.
  • Listening to motivational music will cause heart rate, blood pressure, blood lactate levels, and metabolic gas exchange variables to stay elevated before being able to return to resting values, therefore making the recovery period last longer. Listening to calming music may slow the heart rate and lower blood pressure, blood lactate levels, and metabolic gas exchange variables at a faster pace, making the recovery period finish sooner.

• Strategy: 20 Participants will come in for an initial evaluation and will be tested for their VO\textsubscript{2peak}, which is a measure of a person’s aerobic exercise capacity. Afterwards, each participant will come in for three different trials, where they will perform at 70% of their VO\textsubscript{2peak} for 20 minutes. After each trial, participants will listen to different types of music at random; the different trials and their variables are explained in the table below. Their heart rate, blood pressure, blood lactate levels, and gas exchange will be analyzed and compared to their other trials and the results of other participants.

• Why It’s Important: Understanding how music affects the physiological variables during the recovery period could impact the type of music both the recreational athlete and the professional athlete listen to during exercise recovery. While this research project focuses on the average college student, results could provide insight to plan future studies for other populations (i.e. professional athletes or clinical populations).

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<tr>
<th>Exercise</th>
<th>Recovery</th>
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<tbody>
<tr>
<td>Motivational Music</td>
<td>No Music</td>
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<td>Motivational Music</td>
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<tr>
<td>Motivational Music</td>
<td>Calming Music</td>
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FINDINGS

• To date, 10 participants have completed all trials. Several other participants are in the process of completing their trials and will be complete by the start of the fall semester. From our goal of 20 participants, we have 15 either complete or almost completed.

• Preliminary results from our completed participants suggest there are no significant differences in any variable measured: Blood Pressure, Heart Rate, Blood Lactate, VO₂, Ventilation, Respiratory Rate, and Respiratory Exchange Ratio.

• Preliminary data were analyzed using SPSS statistical software. Once data collection is complete, the final analysis with all participant data will be reviewed with the results presented at the TX Stem Conference at Lamar University and the Texas Chapter of the American College of Sports Medicine Conference.

• Currently, this study is one of the first to analyze physiological variables during the recovery stage under different music conditions.
  • While “motivational music” is defined as music with a tempo of 120-140 bpm, there is no such definition pertaining to “calming music”. It is possible this research project did not use music that would be considered tranquil to individual during exercise recovery.
  • Previous literature also suggests that preferred motivational music is more stimulating than random motivational music – each person has their own unique taste in music, including what makes them pumped to be physically active. The same may apply to calming music – individuals could find specific songs more soothing than others.