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# The Effect of Progressive Muscle Relaxation Using Classical Music on the Recovery of Soccer Players

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**Abstract:** This study aims to determine the effect of progressive muscle relaxation method using classical music and classical music relaxation method on the recovery of soccer players. The method used in this research is an experiment with two group pretest-posttes design. The sampling technique in this study used total sampling technique. The sample in this study were members of PS Bina Pakuan (age 16-17) totaling 20 members. The instrument in this study used a polar H10 device to measure pulse / minute. Data analysis used Shapiro-Wilk test, Levene Statistics, Paired Sample T-Test, and Independent Sample T-Test with the help of SPSS 29 application. Based on data processing and analysis it was found that: 1) Progressive muscle relaxation method using classical music has a significant effect on the recovery of soccer players, 2) The classical music relaxation method has a significant effect on the recovery of soccer players, and 3) There is a significant difference in effect between progressive muscle relaxation method using classical music and classical music relaxation method.

**Keywords:** Classical Music; Recovery; Football

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## INTRODUCTION

Music in human life today has become a necessity because with music a person can put himself in a degree of peace of mind, mental health, entertain and reassure the soul, heart and mind (Cristin et al., 2022). Individuals who listen to classical music will respond, both physically and psychologically, which will awaken a tired body system, boredom and boredom for individuals in need. Fatigue that occurs during physical activity can be minimized by optimizing the recovery period, recovery basically aims to improve athletes' adaptation to physical and mental stress both in the competition and training phases (Atradinal & Sepriani, 2017). Classical music is believed to activate parts of the brain structure so that it provides comfort for the listener (Cristin et al., 2022). Therefore, individuals who listen to classical music will respond, both physically and psychologically, which will awaken the tired body system, boredom and boredom for individuals in need.

Apart from using classical music, the recovery process after physical activity can be done with the Progressive muscle relaxation (PMR) method, one of the complementary approaches used to reduce physical and psychological stress, this movement is carried out by stretching large muscles slowly, regularly and sequentially (Alfarisi & Muhlisin, 2020). Thus, Recovery with progressive muscle relaxation (PMR)

and classical music relaxation can help accelerate physiological regeneration, reduce lactic acid, provide a relaxed condition, normalize pulse rate and stabilize blood pressure.

The problems experienced by athletes include less than the maximum in the recovery period, due to the tight time of training and competition. As a result of this fatigue, not a few athletes' achievements have decreased due to not achieving optimal recovery both after training and between competitions and the impact of fatigue is that someone can also be lazy to do physical activity or exercise (Zebua et al., 2021). So to support the recovery period, the coaching staff must develop recovery models. Santoso & Sandria's (2021) research revealed that recovery using Javanese music can make a significant difference in training pulse recovery in volleyball, so that athletes easily return to their prime condition. And Huntanggalung's research (2022) which reveals that the use of classical music can be used as a medium of relaxation and is beneficial in raising morale, eliminating feelings of boredom and saturation. So the next researcher is interested in researching and studying further related to recovery by providing progressive muscle relaxation (PMR) methods using classical music and recovery using classical music, so that it can be developed into a method to help the recovery process for athletes or individuals in need. This study aims to determine whether there is a significant effect of the relaxation method (PMR) using classical music on the recovery of soccer players after physical activity.

## METHOD

This research uses experimental research methods, because researchers want to know the effect of a particular treatment on others under controlled conditions (Pratama et al., 2024). In this study using the Two Group Pretest Postest Design (Nekada et al., 2023). The experimental design is carried out on two different groups that receive different treatments, namely measuring the dependent variable from one subject (pretest), then the subject is given treatment for a specified period of time (exposure), then a second measurement is taken (posttest) to determine the effect of the treatment. In this study, the participants involved were all members of PS Binapakuan (age 16-17). The implementation of the research was carried out in two stages, namely the first stage of the initial test (pretest) and the second stage of the final test (posttest) by comparing the results between the treatment group and the control group.

## RESULT AND DISCUSSION

### Result

The purpose of this study was to determine the effect of PMR relaxation method using Classical Music and Classical Music relaxation method on the recovery of soccer players after physical activity PS Bina Pakuan Bandung.

In connection with the purpose of the study, the data obtained from this study are the results or abilities of players measured by the Polar H10 tool, namely the pulse measurement of each player, the initial test data (pretest) after physical activity and the final test (posttest) after treatment / treatment is given, consisting of two groups, PMR relaxation group using Classical Music and Classical Music relaxation.

Tabel 1. Pretest and Posttest Grouping Results

| No. | Athlete Name | Results of PMR Relaxation using Classical Music | | Decline | |
|---|---|---|---|---|---|
| | | Pretest | Posttest | Pretest-Posttest | Percentage |
| 1. | R R R | 128 | 80 | 48 | 37,50% |
| 2. | M R F | 123 | 77 | 46 | 37,40% |
| 3. | T S R | 121 | 78 | 43 | 35,54% |
| 4. | R P I | 119 | 81 | 38 | 31,93% |
| 5. | F D G | 118 | 81 | 37 | 31,36% |
| 6. | A E | 117 | 80 | 37 | 31,62% |
| 7. | A R N | 116 | 79 | 37 | 31,90% |
| 8. | R M Y | 115 | 78 | 37 | 32,17% |
| 9. | R A | 111 | 79 | 32 | 28,83% |
| 10. | S | 103 | 81 | 22 | 21,36% |
| | Average | 117 | 79 | 38 | 31,96% |

In Table 1. it is explained that the results of the grouping of progressive muscle relaxation methods using classical music there is a percentage decrease in pulse rate after being given treatment with an average percentage decrease of 31.96% or has a difference before being given pretest treatment and after being given posttest treatment, namely 38 pulse beats/minute.

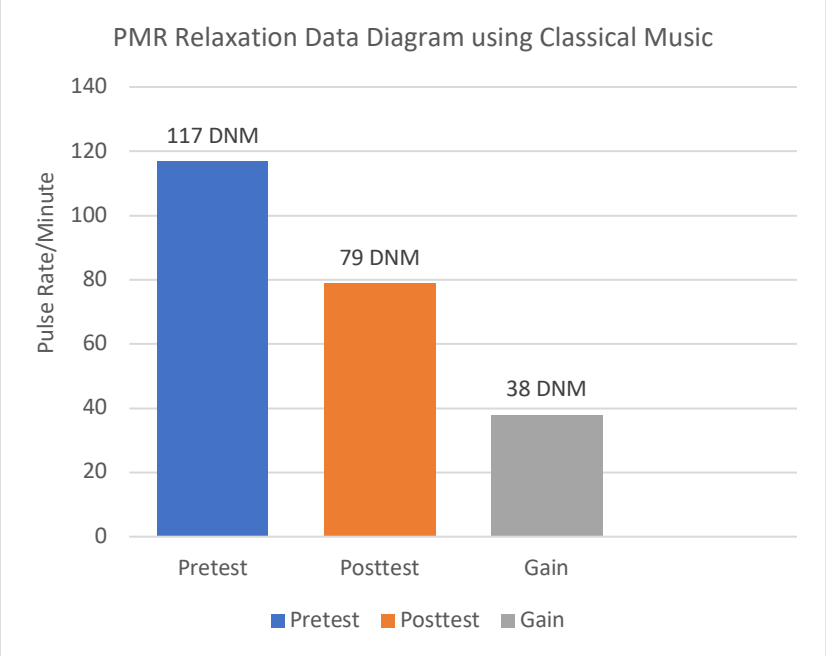


**Figure 1.** Pretest and Posttest Diagram

**Discussion**

In this study the authors combined the progressive muscle relaxation method using classical music which the authors did not do much in helping the recovery period of soccer athletes after physical activity, the results of the pretest and posttest apart from the results of the statistical test, the decrease in resting pulse rate can also be noted from the average results and percentage of pretest and posttest which have decreased and visible differences between the initial test and the final test, can be seen in Figure 1.

explains that the results of the PMR pretest average using classical music amounted to 117 pulse/minute and the posttest after being given treatment amounted to 79 pulse/minute with an average percentage difference of 38 pulse/minute.

So it can be ascertained by using the PMR relaxation method using Classical Music there is an average percentage of pulse rate reduction of 38 or 31.96% pulse rate/minute. Then the results of data processing show a significant decrease in PS Bina Pakuan soccer players, in the paired t-test results it is known that the Sig value. <.001 <0.05, it can be concluded that there is an effect during the study which lasted for 5 meetings, the authors found interesting things when conducting research on the progressive muscle relaxation method using classical music on the recovery of soccer players because when given an explanation of the progressive muscle relaxation method treatment using classical music, they were very enthusiastic and excited because they just found out if there was something called progressive muscle relaxation method training using classical music to help soccer players recover, They are curious and very attentive to the explanation that the author describes and if they are confused or don't know then they immediately ask what is their confusion and lack of knowledge, when doing PMR treatment using classical music they are very enthusiastic, many pay attention and immediately practice it because they after doing physical activity feel tired because this method is new to them in helping recovery after physical activity.

In doing the PMR method using classical music, the sample must remove any accessories that interfere with their comfort, they must also be as relaxed as possible and must be calm in doing every movement that has been instructed to them, this method can help athletes recover after physical activity (Purnamasari & Sopian, 2019).

## CONCLUSION

Based on the results of data analysis and research findings that have been carried out, it can be concluded that the PMR relaxation method using Classical Music affects the recovery of PS Bina Pakuan Bandung soccer players after physical activity. The results obtained from this study are expected to be used as a relaxation method in an effort to develop forms of recovery for soccer players. Based on research conducted by the author, the PMR relaxation method using Classical Music and the Classical Music relaxation method have a significant effect on the recovery of soccer players. The implications of this research can be utilized by various parties in an effort to develop various forms of recovery in the sport of soccer.

## ACKNOWLEDGEMENTS

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## CONFLICT OF INTEREST

Clearly explain whether there are any conflicts of interest related to the reported research.

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