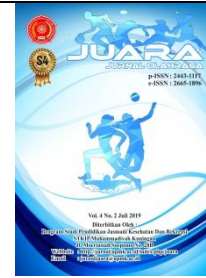




JUARA: Jurnal Olahraga

E-ISSN 2655-1896 ISSN 2443-1117
<https://doi.org/10.33222/juara.v9i1.3795>



THE INFLUENCE OF MUSIC ON THE ENDURANCE OF THE BANDUNG RUNNING COMMUNITY

Yordhi Lesmana Putra^{1*}, Sandey Tantra Paramitha², Mustika Fitri³, Agung Wahyudi⁴

^{1,2,3}Universitas Pendidikan Indonesia, Indonesia

⁴Universitas Negeri Semarang, Indonesia

*e-mail: yordhi133445@gmail.com

Info Artikel

Abstract

Article History:

Received (January) (2024)
Approved (February) (2024)
Published (March) (2024)

Keywords:

**Music; endurance;
running community**

This study aims to explore the influence of listening to music on running performance and endurance in the running community of Bandung City. The method used involves the utilization of Survey Monkey as an instrument to gather data from respondents through specifically designed online questionnaires. The results of this study reveal that the average age of respondents falls within the range of 18-45 years among 400 respondents, divided into 150 females and 250 males, with the majority being students. The majority of respondents run with a frequency of 40.00% per week. The timing of running exercises tends to be more dominant in the morning, reaching 72.50% of the total respondents. More than half of the respondents, 57.50%, use devices to listen to music while running. The majority of them, 73.98%, listen to pop music genres. Additionally, 47.37% of respondents can sustain a running duration of more than 30 minutes. These findings provide a better understanding of running exercise preferences and habits, as well as highlight the potential influence of music on the physical and mental activities of individuals in the running community.

© 2019 STKIP Muhammadiyah Kuningan

Under the license CC BY-SA 4.0

✉ Alamat korespondensi: Jl. Dr. Setiabudhi No. 229. Bandung

E-mail : yordhi133445@gmail.com

INTRODUCTION

Running has become a popular form of exercise among the public, both as a recreational and competitive activity (Stenseng, Steinsholt, Hygen, & Kraft, 2023). Amidst the growing awareness of the importance of a healthy lifestyle, many individuals are interested in incorporating running into their daily routine (Aprillia, Budiono, & Wijaya, 2022). Bandung, as one of the major cities in Indonesia, has also seen the rapid growth of running communities in recent years. These communities not only attract experienced runners, but also introduce many beginners to the health and fitness benefits offered by running (Manning, Notaro, Chen, & Fitzpatrick, 2022).

Performance and endurance are two key aspects that runners focus on to improve their abilities (Parra-Camacho, Dos Santos, & González-Serrano, 2020). While intensive training and structured training programs have become an integral part of runners' preparation, the potential of other supports including the use of music as an additional tool to improve performance and endurance has not been fully explored in depth (Barashkova, Drobysheva-Razumovskaya, & Dorfman, 2019). While many claim listening to music can improve motivation, concentration, and endurance during physical exercise, strong scientific evidence is still needed to support these claims (Chair, Zou, & Cao, 2021).

Previous research has provided initial insights into the relationship between music listening and exercise performance. For example, research (Park, Buseth, Hong, & Etnier, 2023) showed that up-tempo music can increase speed and motivation during physical activity. In addition, a study (H.A., K., & C., 2011) highlighted the influence of music on the perception of fatigue and endurance during exercise. However, little is known about how individual music preferences, listening

intensity, and other contextual factors may influence physical and psychological responses to music during running (Paramitha & Anggara, 2018).

Music has been shown to have a strong influence on individuals' motivation and psychology when running (Hidayat, Hendrayana, Paramitha, & Permadi, 2020). Several studies have shown that music can trigger positive emotions, such as joy and satisfaction, which directly contribute to increased motivation and running performance (Muhlisin, Paramitha, Purnama, Qomarullah, & Ramadhan, 2021). In addition, music can also serve as a tool to distract from the sense of fatigue and discomfort during running, thus helping runners stay focused and maintain high energy levels (C. Karageorghis, Kuan, & Schiphof-Godart, 2021). In addition, synchronizing stride with the appropriate music tempo has been shown to improve movement efficiency and extend the time until fatigue occurs, allowing runners to maintain better speed and performance (Clissold, Westoby, McNamara, & Fleming, 2022). Furthermore, music favored by individuals can increase their intrinsic motivation to exercise, creating a strong drive to keep going and achieve set goals (Fadhilah, Hamidi, & Paramitha, 2023). Thus, understanding the motivational and psychological effects of music in the context of running provides a strong basis for the use of music as an effective tool in enhancing running performance and experience (Sobarna, Hambali, Paramitha, Shafie, & Ramadhan, 2023).

In this context, this study aims to examine in depth the influence of music listening on running performance and endurance in the Bandung City running community. By taking into account factors such as individual music preferences, listening duration, and running environment conditions, it is hoped that this study can provide valuable insights for runners and coaches in optimizing

the use of music as an additional tool in their training programs.

METHODS

This study used the Survey Monkey method as the main instrument to collect data from respondents (Radha & Mayank, 2015). Through the Survey Monkey platform, the research objects were asked to fill out a specially designed questionnaire to collect information on the time preference of running exercise, the type of music listened to, the duration of running intensity, and the effect of listening to music on running performance and endurance. In addition, this study also adopted a qualitative approach through thematic analysis of the responses and comments provided by the respondents in the questionnaire.

The qualitative approach was used to deepen the understanding of the perceptions, experiences, and meanings contained in the practice of listening to music while exercising and running. With the combination of the online survey method and qualitative approach, this research can provide a comprehensive picture of the relationship between music listening and running activity in the context of Bandung's running community.

FINDINGS AND DISCUSSION

Findings

The data obtained in this study showed that the respondents had a varied age range, ranging from 18 to 45 years old. This wide age range provides a comprehensive picture of how the effects of listening to music can be felt by different age groups within the Bandung City running community. In analyzing the data, it can be considered that reactions to music and its impact on running performance may differ between younger and older participants (Atan, 2013). For example, younger respondents may be more open to the influence of music and more susceptible to motivational changes triggered by certain types of music, while older

respondents may have more stable music preferences and more running experience.

By taking this age factor into account, data analyses can yield deeper insights into how musical influences interact with individual characteristics such as age in shaping running experiences and outcomes. Therefore, the wide age range of the respondents in this study provides an opportunity to explore the complexity of the relationship between music listening and running performance in diverse age contexts, which may make a valuable contribution to the development of more personalized and effective training strategies within the Bandung City running community.

In addition to the age range, the majority of the respondents were university students. The involvement of university students in this study reflects the important role of the academic community in sporting activities, especially running, in Bandung City. As members of this group, students often have flexible time patterns that allow them to engage in running activities regularly. In addition, university students also tend to have a high level of awareness of the importance of a healthy and active lifestyle, which encourages them to engage in sports as part of their efforts to maintain their health and well-being.

In the context of this study, understanding how listening to music affects running performance and endurance in university students can provide valuable insights for the development of health and fitness programs in the campus environment. In addition, the results of this study may also provide useful guidance for university students to improve the effectiveness of their exercise through the utilization of music as a supportive tool.

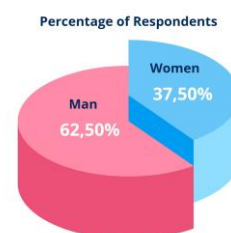


Figure 1. Percentage of Respondents

In the number of respondents, there is a striking comparison between the number of male and female respondents. A total of 62.50% of the total respondents, equivalent to 250 people, were male, while 37.50% or 150 people were female. This difference illustrates the male dominance in participation in running activities in the Bandung City community, which may reflect a common trend in running in various communities. However, the significant presence of female respondents also indicates their strong interest and involvement in this sports activity (Farnsworth-Grodd, 2012).

The importance of considering gender differences in data analysis is to understand potential differences in responses to variables such as music and running performance, which may affect the interpretation and implications of the research results. Therefore, by considering the gender distribution of the respondents, a holistic analysis can be conducted to uncover how certain factors, including music listening, affect the running experience and outcomes of both male and female members of the Bandung City running community.

| Frequency/week | Percentage |
|----------------|------------|
| 6 times | 2,50% |
| 4 times | 10,00% |
| 3 times | 40,00% |
| 2 times | 20,00% |
| Never | 2,50% |

Table 1. Respondents' Running Duration Data

The duration of running exercise in a week was one of the indicators observed. The results showed significant variation in the frequency of respondents' running exercise. A total of 2.50% of respondents reported running 6 times a week, indicating a high commitment to this physical activity. Furthermore, 10.00% of respondents reported running 4 times a week, while 40.00% did running 3 times a week. The most common training frequency was 2 times a week, reported by 20.00% of respondents. In addition, there were 2.50% of respondents who never did running.

This variation reflects respondents' varying levels of engagement and commitment to this physical activity. By understanding the existing training patterns, it is possible to

evaluate the impact and relationship between factors such as music listening and running performance by considering different training intensities within the Bandung City running community.

| Time | Percentage |
|-----------|------------|
| Morning | 72,50% |
| Afternoon | 5,00% |
| Evening | 22,50% |

Table 2. Data on Respondents' Running Time

Based on data obtained from a study entitled "The Effect of Listening to Music on Running Performance and Endurance in the Bandung Running Community," the timing of running exercise has an interesting pattern. A total of 72.50% of the participants tended to run in the morning, indicating that morning is the most favorable time for running. Only a small percentage, 5.00%, chose to run during the day, perhaps due to the higher air temperature. Meanwhile, 22.50% chose the afternoon to run, suggesting that several participants prefer this time of day for their physical activities. The combination of these diverse time preferences provides insight into the habits and patterns of running activities in Bandung's running community.

Based on the data on the use of devices to listen to music, 57.50% of respondents admitted that they use these devices regularly. This shows a high prevalence of the use of technology to support music-listening activities. However, 7.50% of respondents stated that they do not use the device at all, which could be due to personal preference or other considerations. Meanwhile, 35.00% of respondents revealed that they use the devices to listen to music sometimes, indicating a variation in usage habits. This research provides an interesting picture of how technology has become an integral part of supporting music-listening activities in various walks of life.

| Type of Music | Percentage |
|------------------|------------|
| Pop music | 73,98% |
| Keroncong Music | 2,63% |
| Rock music | 15,79% |
| Campursari music | 7,89% |

Table 3. Music Type Preference Data

Based on the data on preferences for the type of music listened to, the majority of

respondents, 73.98%, tend to listen to pop music. This phenomenon reflects the high popularity of the pop music genre among the public. However, there is also a small proportion of respondents, 2.63%, who prefer to listen to keroncong music, showing the diversity in musical tastes among respondents. In addition, around 15.79% of respondents favor rock music, while another 7.89% prefer campursari music. This difference in preference illustrates the diversity of music tastes in society, which is influenced by various factors such as culture, background, and personal experience. This study provides interesting insights into the dynamics of music preferences in modern society.

| Duration | Percentage |
|----------------|------------|
| <30 minutes | 39,47% |
| 30-60 minutes | 47,37% |
| 61-120 minutes | 13,15% |

Table 4. Duration of Running Intensity Using Music

The data on intensity duration based on running accompanied by listening to music

Discussion

From the data obtained, a common thread can be drawn that listening to music has been shown to have a positive impact on running performance and endurance. Based on research conducted by (Bishop, Wright, & Karageorghis, 2014), music can increase motivation and distract from the sensation of fatigue during exercise. Music with a fast tempo can increase one's running rhythm and speed, thus helping in improving performance. In addition, music can also increase endurance by reducing the perception of fatigue felt by runners. Another study by (C. Karageorghis et al., 2021) showed that music can increase satisfaction and pleasure during exercise, which in turn can increase motivation to persist longer in running activities. Thus, listening to music not only provides entertainment during exercise but can also be an effective tool in improving running performance and endurance.

By listening to music, the intensity of running in a week as well as the duration of running that can be sustained and consistent tends to increase. Research suggests that music can be a stimulus that encourages individuals to

shows an interesting variation in physical activity. A total of 39.47% of respondents reported that they could last for less than 30 minutes when running while listening to music. This indicates that for some respondents, listening to music is only a support in shorter runs. Meanwhile, 47.37% of respondents were able to last between 30 and 60 minutes, suggesting that music can be an effective motivation to maintain consistency and sustainability of longer physical activities. Longer run durations, between 61 to 120 minutes, had a lower percentage, with only 13.15% of respondents able to stay within that time frame.

The scientific explanation for this may be related to factors such as physical fatigue, varying fitness levels, and intrinsic motivation. In-depth studies on the effect of music on the duration and intensity of physical activity can be found in scientific journals such as "The Journal of Sport and Exercise Psychology" or "Psychology of Music", which provide deeper insights into the interaction between music and physical activity.

increase exercise frequency and longer exercise duration. According to a study by (C. I. Karageorghis, 2020), participants who listened to music during exercise tended to have higher levels of physical activity compared to those who did not listen to music. This suggests that music not only improves running performance but can also increase motivation to train regularly. Furthermore, by creating a more enjoyable and engaging exercise experience, music can help individuals to remain consistent in their training. Thus, through the use of music as a supportive tool in running activities, individuals can achieve higher exercise intensity and maintain consistent exercise duration, which can ultimately contribute to improved overall health and fitness.

However, it is important to note that listening to your favorite music while running can increase its impact on running performance. Research shows that music that is personally selected or emotionally favored by the runner has a greater influence on improving motivation and performance during exercise. Favorite music tends to trigger stronger emotional responses in the form of enjoyment, excitement,

and nostalgia. This creates a more immersive and satisfying experience while exercising.

According to a study by (C. I. Karageorghis & Jones, 2014), listening to favorite music can cause the release of the hormone dopamine in the brain, which is associated with sensations of pleasure and satisfaction. When runners feel excitement and satisfaction from their favorite music, they tend to feel more motivated and energized during their runs. This can improve their overall performance.

In addition, favorite music is often associated with strong memories or emotions, which can increase the connection between the runner and the song. This can help runners create a more personalized and meaningful experience while exercising, which in turn can increase mental resilience and allow them to persevere longer.

Thus, choosing your favorite music as your running accompaniment not only increases your enjoyment and satisfaction while exercising but can also improve your motivation, performance, and overall endurance. Therefore, it is highly recommended that runners create a playlist of their favorite songs to support a more optimal performance and exercise experience.

CONCLUSION

Overall, this study provides an in-depth understanding of the effect of listening to music on running performance and endurance in the Bandung City running community. From the results of the data analysis, it can be concluded that listening to music has a significant impact on increasing motivation, distracting from the sensation of fatigue, improving running rhythm and speed, and increasing satisfaction and pleasure during exercise. These findings underline the importance of psychological factors in sports, where music can be an effective tool to improve athletes' performance and help them reach their maximum potential.

Therefore, to achieve optimal results in running activities, it is advisable to choose music that suits personal preferences and supports motivation and consistency in training. By understanding the role of music in sports, we

can effectively utilize it as a tool to improve performance and the overall experience of exercise. As such, this research provides a solid foundation for the development of better strategies and interventions to support athlete development and increase participation in sport.

ACKNOWLEDGMENTS

REFERENCES

- Aprillia, S., Budiono, J., & Wijaya, M. (2022). Educational Efforts to Improve Public Awareness about Greening and Healthy Lifestyle in Urban Areas. *MITRA: Jurnal Pemberdayaan Masyarakat*. <https://doi.org/10.25170/mitra.v6i1.2947>
- Atan, T. (2013). Effect of music on anaerobic exercise performance. *Biology of Sport*. <https://doi.org/10.5604/20831862.1029819>
- Barashkova, E. V., Drobysheva-Razumovskaya, L. I., & Dorfman, L. Y. (2019). Integrative musical psychology. *Obrazovanie i Nauka*. <https://doi.org/10.17853/1994-5639-2019-2-96-112>
- Bishop, D. T., Wright, M. J., & Karageorghis, C. I. (2014). Tempo and intensity of pre-task music modulate neural activity during reactive task performance. *Psychology of Music*. <https://doi.org/10.1177/0305735613490595>
- Chair, S. Y., Zou, H., & Cao, X. (2021). A systematic review of effects of recorded music listening during exercise on physical activity adherence and health outcomes in patients with coronary heart disease. *Annals of Physical and Rehabilitation Medicine*. <https://doi.org/10.1016/j.rehab.2020.09.011>
- Clissold, R., Westoby, R., McNamara, K. E., & Fleming, C. (2022). Wellbeing outcomes of nature tourism: Mt Barney Lodge. *Annals of Tourism Research Empirical*

Insights.

<https://doi.org/10.1016/j.annale.2022.100077>

- Fadhilah, S. N., Hamidi, A., & Paramitha, S. T. (2023). The Impact Of Mixed Aerobic Exercise On The Body Mass Index (BMI) Of Employees With Sedentary Behavior. *COMPETITOR: Jurnal Pendidikan Keperawatan Olahraga*. <https://doi.org/10.26858/cjeko.v15i2.45791>
- Farnsworth-Grodd, V. A. (2012). Mindfulness and the Self-Regulation of Music performance Anxiety. *International Symposium on Performance Science 2013*.
- H.A., L., K., M., & C., F. (2011). The effects of Therapeutic Instrumental Music Performance on endurance level, self-perceived fatigue level, and self-perceived exertion of inpatients in physical rehabilitation. *Journal of Music Therapy*.
- Hidayat, H., Hendrayana, Y., Paramitha, S. T., & Permadi, A. A. (2020). Evaluasi Pembelajaran Penjas (Analisis Keterlaksanaan Pembelajaran Renang Di MTs Sekecamatan Leles Kabupaten Garut). *Multilateral Jurnal Pendidikan Jasmani Dan Olahraga*. <https://doi.org/10.20527/multilateral.v19i2.8463>
- Karageorghis, C. I. (2020). Music-Related Interventions in the Exercise Domain: A Theory-Based Approach. *Handbook of Sport Psychology*.
- Karageorghis, C. I., & Jones, L. (2014). On the stability and relevance of the exercise heart rate-music-tempo preference relationship. *Psychology of Sport and Exercise*. <https://doi.org/10.1016/j.psychsport.2013.08.004>
- Karageorghis, C., Kuan, G., & Schiphof-Godart, L. (2021). Music in sport: From conceptual underpinnings to applications. In *Essentials of exercise and sport psychology: An open access textbook*. <https://doi.org/10.51224/b1023>
- Manning, J. R., Notaro, G. M., Chen, E., & Fitzpatrick, P. C. (2022). Fitness tracking reveals task-specific associations between memory, mental health, and physical activity. *Scientific Reports*. <https://doi.org/10.1038/s41598-022-17781-0>
- Muhlisin, M., Paramitha, S. T., Purnama, Y., Qomarullah, R., & Ramadhan, M. G. (2021). Sport of Policy Analysis and Evaluation: a Systematic Literature Review. *Jp.Jok (Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan)*, 5(1), 76–90. <https://doi.org/10.33503/jp.jok.v5i1.1677>
- Paramitha, S. T., & Anggara, L. E. (2018). Revitalisasi Pendidikan Jasmani untuk Anak Usia Dini melalui Penerapan Model Bermain Edukatif Berbasis Alam. *Jurnal Pendidikan Jasmani Dan Olahraga*. <https://doi.org/10.17509/jpjo.v3i1.10612>
- Park, K. S., Buseth, L., Hong, J., & Etnier, J. L. (2023). Music-based multicomponent exercise training for community-dwelling older adults with mild-to-moderate cognitive decline: a feasibility study. *Frontiers in Medicine*. <https://doi.org/10.3389/fmed.2023.1224728>
- Parra-Camacho, D., Dos Santos, M. A., & González-Serrano, M. H. (2020). Amateur runners' commitment: An analysis of sociodemographic and sports habit profiles. *International Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph17030925>
- Radha, L., & Mayank, J. T. (2015). Utilization of online survey tools for academic research: A practical approach to survey monkey. *TIJ's Research Journal of Science & IT Management - RJSITM*.
- Sobarna, A., Hambali, S., Paramitha, S. T., Shafie, M. S., & Ramadhan, M. G. (2023). The Effect of Training Stride Length and Stride Frequency on Increasing Sprint Speed. *Migration Letters*. <https://doi.org/10.59670/ml.v20i6.5079>
- Stenseng, F., Steinsholt, I. B., Hygen, B. W., &

Kraft, P. (2023). Running to get “lost”?
Two types of escapism in recreational
running and their relations to exercise
dependence and subjective well-being.

Frontiers in Psychology.
<https://doi.org/10.3389/fpsyg.2022.10351>
96