



SOCIALIZATION OF AEROBIC EXERCISE BASED ON CULTURE IN SOUTH SULAWESI

By

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Abstract: *The socialization of aerobic dance based on South Sulawesi culture was raised because of the increasing dependence of humans on technology so that physical activity is reduced. This community service activity focuses on encouraging physical activity, especially sports, in this case aerobic dance based on South Sulawesi culture. This service activity aims to provide sports references to teenagers aged 17-25 years. The form of South Sulawesi culture that is carried out in aerobic dance is in the form of several movements and music adopted from dances in South Sulawesi. Before and after implementing the South Sulawesi culture-based aerobic dance, participants had their pulse measured to see their resting pulse. Measure their pulse using an oximeter. The results showed an increase between the resting pulse rate and the training pulse rate for all subjects entering the training zone.*

INTRODUCTION

Health problems are a serious problem, namely the lack of physical activity, especially sports. This problem arises because there are more and more conveniences that can be obtained and do not require physical activity. For example, to go up to the 10th floor, someone no longer needs stairs, they just need to press the button on the elevator. In the past people had to go to the market to shop, now just by using an online shop, just by lying down all your needs could be met. This problem does not only affect the elderly, even children have experienced a decrease in physical activity. The Indonesian Ministry of Health further stated that obesity and stress are some of the symptoms and impacts of the limited participation of Indonesian people in physical activity¹. Decreased intensity of physical activity which can result in health problems². Lack of motor activity leads to a deterioration in health, an increased risk of cardiovascular and other diseases, and a decrease in physical activity³.

Obesity not only causes excess weight but can have more impacts than that. Various

¹ Nia Sri Ramania et al., "The Effect of Social Interaction and Environment during Aerobic Dance on Salivary Cortisol," *Physiotherapy Quarterly* 28, no. 3 (2020): 14–20.

² Libena Kovacova et al., "Adherence to the Aerobics Exercise Program in Women Aged 40 to 65," *Acta Gymnica* 41, no. 2 (2011): 55–63, https://gymnica.upol.cz/artkey/gym-201102-0006_Adherence_to_the_aerobics_exercise_program_in_women_aged_40_to_65.php.

³ Natalia Chuprun and Igor Yurchenko, "Optimization of Movement Activity and the Mental State of Students by Dance Aerobics," *Sport and Tourism. Central European Journal* 3, no. 1 (2020): 121–131.



degenerative diseases can arise, for example, coronary heart disease, hypertension, diabetes mellitus, and rheumatism. Not only that, obesity can affect a person's appearance, slow movements, and an unattractive appearance. Health problems caused by obesity can cause cardiovascular disorders such as hypertension, coronary heart disease, and respiratory problems⁴⁵.

Based on the results of several studies, there was a significant increase in the average cardiovascular endurance between before and after aerobic dance intervention⁶⁷⁸. This inspired us to hold an aerobic dance outreach based on South Sulawesi culture. Where in Indonesia everything related to culture is booming, which is one of the efforts to maintain authentic Indonesian culture. This aerobic dance was chosen with various considerations, especially since aerobic dance is an economical sport, can be done anywhere, alone or together, and is cheap. Several previous studies have revealed that the benefits of doing aerobic dance can reduce an individual's stress response level and reduce psychosomatics⁹.

The chosen service subjects are teenagers aged 17-25 years, where they should have intense physical activity, but are more busy with their respective devices. It is hoped that from this outreach activity, the teenagers involved will remain active in participating in sports activities, one of which is aerobics.

METHOD

This service is an outreach carried out with full involvement from the community. This socialization was carried out on Saturday, October 21 2023. The decision to make the schedule was determined together with community members. This socialization was carried out at the Universitas Negeri Makassar Faculty of Education Campus. The service subjects chosen were teenagers aged 17-25 years. Service subjects are actively involved in preparing socialization schedules, and providing facilities for holding aerobic dance activities. The form of South Sulawesi culture that is carried out in aerobic dance is in the form of several movements adopted from dances in South Sulawesi, as well as music. The beat of the music is adjusted to the beat of low-impact aerobic exercise, namely 120-158 BPM. Before and after implementing the South Sulawesi culture-based aerobic dance, participants had their pulse measured to see their resting pulse and exercise pulse. Measurement of pulse using an oximeter. This service involves professional aerobic dance instructors from the city of Makassar. This service activity can be depicted in the picture below:

⁴ Umar Nawawi, "The Effect of Low Impact and Mixed Impact Aerobic Exercise on Percentage of Body Fat," *Asian Social Science* 10, no. 5 (2014): 163–167.

⁵ Poppy Elisano Arfanda, *Improving Physical Condition Through Variations of Aerobic Exercise*, ed. Moh. Nasruddin, 1st ed. (Pekalongan, Central Java: Nasya Expanding Management, 2023).

⁶ Poppy Elisano Arfanda et al., "The Effect of Low-Impact Aerobic Dance Exercise Video on Cardiovascular Endurance, Flexibility, and Concentration in Females With Sedentary Lifestyle," *Teoriã ta Metodika Fiziãnoã Vihovannã* 22, no. 3 (2022): 303–308.

⁷ Harun Genc and Harun Genc, "Effect Of The Calisthenics Exercises on Static and Dynamic Balance in Tennis Players," *International Journal of Applied Exercise Physiology* www.ijaep.com 9, no. 3 (2020): 2322–2357, <https://www.researchgate.net/publication/341113465>.

⁸ Surachet Kwannai, "THE EFFECT OF AEROBIC DANCE EXERCISE AND BIKE EXERCISE ON MAXIMAL OXYGEN CONSUMPTION," *Journal of Sports Science and Technology* Volume 20, no. 1 (2020): 51–61.

⁹ Ramania et al., "The Effect of Social Interaction and Environment during Aerobic Dance on Salivary Cortisol."

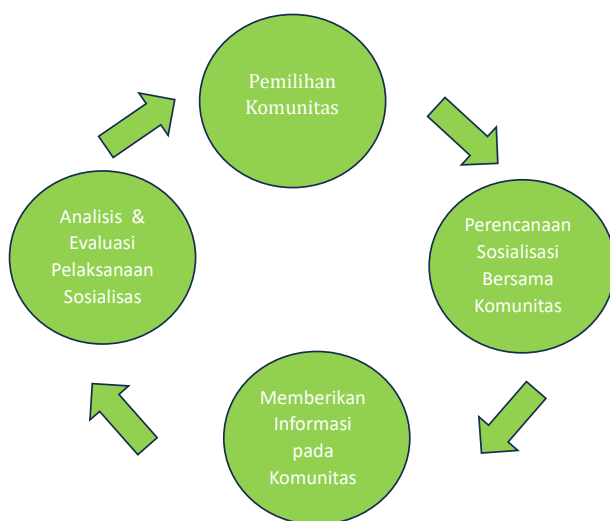


Figure 1. Diagram Of The Implementation Of Culturally Based Aerobic Dance Service In South Sulawesi

RESULT

This Community Service is carried out to socialize aerobic dance based on South Sulawesi culture, taking place from 9.00 - 12.00 WITA. During the socialization, assistance is provided in carrying out good and correct movements, so that the goals of aerobic dance can be achieved. It is hoped that these subjects will, continue to do aerobic dance even without assistance so that physical fitness through physical activity can be achieved.

To describe the physical condition of the community, pulse measurements were taken before and after aerobic exercise based on South Sulawesi culture. The descriptive statistical results can be seen in the table below:

Table 1. Frequency Distribution of Socialization Participants

Gender	Frequency	%
Man	27	39.13
Woman	42	60.87
Total	79	100.00

Table 1 describes the number of subjects involved in South Sulawesi culture-based aerobic exercise. There were 27 male teenagers and 42 female teenagers, so the total number was 79 people.

Table 2. Descriptive Statistics

	N	Min	Max	Mean	SD
Resting Pulse Rate	79	87.00	98.00	91.50	3.56
Exercise Pulse	79	138.00	169.00	148.22	8.20

Table 2 shows the number of subjects as many as 79 teenagers, for resting pulse the minimum value was 87.00, the maximum value was 98.00, the mean was 91.50 and the standard deviation was 3.56. Meanwhile, for exercise pulse, the minimum value was 138.00, the maximum value was 169.00, the mean was 148.22 and the standard deviation was 8.20.



DISCUSSION

Griadhi also did the same thing, who adopted aerobics and Legong dance as aerobic dance¹⁰. Légong dance is a famous Balinese dance with dynamic movements. It has the potential to become the exercise of choice for improving physical fitness. This study aims to evaluate the effect of légong dance training on physical fitness¹¹. Similar research was also conducted by Argiriadou in 2018 regarding traditional Greek dance, music, and singing which can increase physical fitness, improve social life, reduce stress, and improve mood¹².

This aerobic dance training is based on South Sulawesi culture, if done according to the correct rules, namely at least 3 times a week with a total duration of at least 150 minutes, then this aerobic dance training will increase cardiovascular endurance and concentration¹³.

One of the reasons why aerobic dance is based on South Sulawesi culture, namely the popularity of aerobic dance, is because the movements carried out are supported by music so that there is harmony between the movements and the rhythm of the music. Aerobic dance participants enjoy the process that occurs, this is helped by supportive music¹⁴. In socialized aerobic dance, movements and music must always be updated, because this will greatly influence the popularity of aerobic dance itself¹⁵.

All subjects experienced an increase from resting heart rate to exercise heart rate and all of them entered the training zone. Measurement of exercise pulse is by using the 220-age formula, where the exercise zone is between 50-70%.

CONCLUSION

Socialization of aerobic dance based on South Sulawesi culture can improve the cardiovascular system of service subjects. So aerobic dance based on South Sulawesi culture can be used as an alternative in choosing aerobic physical activity.

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¹⁰ I. Putu Adiartha Griadhi, I. Putu Gede Adiatmika, and I. Ketut Tirtayasa, "Traditional Lègong Dance Training Is Superior to Moderate Aerobic Training on Physical Fitness Improvement among Young Girls," *Journal of Physical Activity and Health* 18, no. 7 (2021): 826–831.

¹¹ I Putu Adiartha Griadhi, I Putu Gede Adiatmika, and I Ketut Tirtayasa, "Traditional Lègong Dance Training Is Superior to Moderate Aerobic Training on Physical Fitness Improvement Among Young Girls," *National of Library Medicine* 18, no. 7 (2021): 826–831, <https://pubmed.ncbi.nlm.nih.gov/34039773/>.

¹² Eir Argiriadou, "Greek Traditional Dances and Health Effects for Middle-Aged and Elderly People- A Review Approach," *World Journal of Research and Reviews (WJRR)*, no. 6 (2018): 16–21.

¹³ Poppy Elisano Arfanda et al., "Workshop on Increasing Cardiovascular Endurance and Concentration Through Low Impact Aerobic Dance," *Journal of Community Service* 2, no. 9 (2023): 31–41.

¹⁴ Yonglan Hua and Xiangdong Ye, "Research on Teaching System of Aerobics Based on Electronic Action Library," *Journal of Physics: Conference Series* 1574, no. 1 (2020).

¹⁵ Yanjuan Dun et al., "Multimedia Technology Can Be Used to Enrich Teaching Resources of Aerobics," *ACM International Conference Proceedings Series* (2021): 662–665.



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