



The Influence of Frirage Massage Training on Ankle Sprain Management Skills at Bison Patriot Basketball Academy Sragen

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ABSTRACT

Sport is an activity that provides physical and mental health benefits. Basketball is a sport that is popular in society. In sports there is a risk of ankle sprain injury. One effort to improve individual skills in treating ankle sprain injuries is with a frirage massage training program, which is one of the techniques for treating ankle sprain injuries. The aim of this research is to determine the effect of frirage massage training on ankle sprain handling skills. This research uses a quantitative approach with a Quasi Experimental Design research method with pre and post tests without control. The sample size was 20 respondents using total sampling techniques. The research instrument used the frirage massage SOP to assess the respondent's skills. From the results of data analysis, it was obtained using the Wilcoxon signed test that the significant (p) value was 0.000, which means that $p < 0.05$. The conclusion from this research is that there is an effect of frirage massage training on ankle sprain management skills.

Keywords: ankle sprain; frirage massage

1. INTRODUCTION

Sports provide physical and mental health benefits for their participants (Mukrim et al., 2017). Basketball is one of the most popular sports in society. The popularity of this sport is evident, as almost every school offers a basketball extracurricular program for students interested in the sport. The numerous competitions held serve as motivation for each school to continue practicing and striving to be the best. Thus, maintaining the physical condition of every athlete is crucial (Prasada et al., 2020).

According to (Mahfud et al., 2018) "injuries are a significant obstacle for athletes in achieving success in sports. Sports injuries can occur, in part, due to inadequate warm-up and stretching before engaging in physical activity." Various factors contribute to injuries, with one of them being excessive activity, overloading, or engaging in contact sports, all of which can lead to injuries. In 2017, basketball accounted for the highest number of injuries in the United States, with a prevalence rate of 15.77% (Faruhasa, 2020). In Indonesia, the prevalence of injuries was 8.2% in 2013, but it increased to 9.2% in 2018, disrupting

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daily activities (Kemenkes RI, 2018). Ankle sprain injuries fall into the category of ligament ankle injuries, with the most common occurrence being lateral ligament complex injuries. Meanwhile, ankle strain is described as a pathological stretching or tearing of ankle muscles or tendons (Dwi, 2019). Acute ankle sprain injuries commonly result from excessive stretching and hypermobility, or sudden trauma, leading to ligament structures stretching beyond their normal capacity and causing partial or total tearing (Atmojo & Ambardini, 2019).

Medical measures to reduce pain when athletes experience ankle sprains include conventional physiotherapy techniques such as kinesiotaping, electrotherapy, and thermotherapy, which have shown positive results in reducing swelling and pain associated with ankle sprains (Terada et al., 2013).

The influence of sports massage is necessary as a complementary measure to medical treatment. In Indonesia, various types of massages are currently gaining popularity, including Thai massage, Swedish massage, segment massage, acupressure, tsubo, shiatsu, reflexology, and others (Graha & Priyonoadi, 2012). Massage itself offers many benefits for fitness, including recovery, relaxation, prevention, and injury management. Various massage therapies for treatment and injury management are widely used today, including: 1) Shiatsu, 2) Acupuncture, 3) Qi-gong, 4) Frirage, and others. In sports injury massage therapy developed by Ali Satia Graha, techniques such as frirage (friction and effleurage), traction, and repositioning are employed. Friction techniques are beneficial for breaking down myogilosis or residual muscle burnout. Effleurage is useful for improving blood circulation. Traction helps create space between joints that have experienced joint displacement, and repositioning is used to return the joints to their normal position without any misalignment, thus increasing the range of motion (Sa'roni & Graha, 2019).

Results of the preliminary study, conducted through interviews at Gor Sragen

with 2 members and 1 coach, revealed that the number of members aged 17-18 years old amounted to approximately 16-20 individuals, most of whom are high school students. They have been training at Bison Patriot Basketball Academy Sragen for approximately 1-2 years. One member mentioned that there had been no prior training regarding ankle sprain injury management using frirage massage techniques. Some members of Bison Patriot Basketball Academy Sragen were only aware that in the event of an injury like an ankle sprain, the treatment provided was simply applying an ice compress to the painful area.

Based on the description above, the researcher was interested in conducting a study on the influence of sports massage training. This research aims to determine the impact of frirage massage training on ankle sprain management skills at Bison Patriot Basketball Academy.

2. RESEARCH METHODS

This study is a quantitative research type (Dharma, 2011). The research was conducted in March-April 2022. The population in this research consists of 20 members of the Bison Patriot Academy Basketball Sragen. The research was carried out at Gor Diponegoro Sragen. This study used a total sampling technique with the following inclusion criteria: 1. Being a member of the basketball team for at least 1 year, 2. Willingness to participate in the research. Exclusion criteria, as established by the researcher, include: 1. Not being in an injured condition, 2. Not being in a competitive season.

In this research, the researcher used tests with assessment tools or evaluation sheets to determine the level of skills, which were assessed by experts. Subsequently, the researcher explained the research objectives and obtained informed consent to confirm the willingness of the Bison Patriot Basketball Academy Sragen members to participate. The researcher then provided information about ankle sprains and conducted a pre-test on the first day. On the second day, the researcher delivered content and training on frirage massage and conducted a post-test two days

after the training, using tools to assess skill levels. Once the data collection phase was completed, the researcher performed data analysis using the Wilcoxon Rank Test. The research was approved as ethically sound with approval number 45/UKH.L.02/EC/III/2022.

3. RESULT AND DISCUSSION

The results obtained in this study include:

Table 1. Characteristics of research subjects based on age

No	Characteristics	Frequency (n=20)	Percentage (%)
1	Age		
	- 15 years	2	10
	- 16 years	17	85
	- 17 years	1	5
Total		20	100

Based on Table 1, it shows that the majority of research subjects from the Bison Patriot Basketball Academy are 16 years old, with a total of 17 research subjects (85%). There were 2 research subjects (10%) who were 15 years old, and 1 research subject (5%) was 17 years old. According to the researcher, the most common age group is 16 years old, which represents the early teenage phase characterized by a strong desire to engage in physical activities. This observation is supported by the statement of Mahfud et al. (2018), which suggests that early teenagers experience significant muscle mass growth and have a proportional body shape, leading to increased physical activity in this age group.

Table 2. Characteristics of research subjects based on gender

No	Characteristics	Frequency (n=20)	Percentage (%)
1	Gender		
	- Male	20	100
Total		20	100

In this study, 100% of the subjects were male, totaling 20 research subjects.

According to the researcher, the difference in muscle mass between men and women makes men more likely to engage in high physical activity due to their higher muscle mass compared to women.

Table 3. Categories of respondents' skill levels before receiving training

No	Skill Level	Pre Test	
		Frequency (n=20)	Percentage (%)
1	Very Good	0	0
2	Good	0	0
3	Fair	0	0
4	Poor	1	5
5	Very Poor	19	95
Total		20	100

The majority of the research subjects' skill level categories before receiving training were classified as Very Poor, with 19 (95%) respondents, while 1 (5%) were classified as Poor. According to the researcher, this is because the respondents had not previously received training on injury management through massage or massage techniques.

Table 4. Categories of respondents' skill levels after receiving training

No	Skill Level	Post Test	
		Frequency (n=20)	Percentage (%)
1	Very Good	4	20
2	Good	11	55
3	Fair	5	25
4	Poor	0	0
5	Very Poor	0	0
Total		20	100

After receiving training, the majority of research subjects' skill level categories were classified as "Good," with 11 (55%) respondents, followed by "Fair" with 5 (25%), and "Very Good" with 4 (20%). The data above indicates that the training provided through simulation and demonstration methods was more effective in changing the respondents' perception and behavior. Additionally, conducting a post-test after two days allowed participants to review the material provided.

Table 5. Difference in skill levels before and after training.

		Post Test				P Value
		Very Good	Good	Fair	Total	
Pre Test	Poor	0	1	0	1	0,000
	Very Poor	4	10	5	19	
Total		4	11	5	20	

Statistical test results yielded a p-value of 0.000 (p-value <0.05). This indicates that the null hypothesis (H0) is rejected, and the alternative hypothesis (Ha) is accepted. This means that there is an influence of training on ankle sprain management skills. According to the researcher, the positive results are supported by good preparation and implementation, adherence to standard operating procedures, and the fact that early teenagers aged 16-18 have a strong desire to learn new things, such as this training, which supports their sports activities and allows them to handle injuries promptly. The training has a positive impact as it raises awareness among active teenagers to organize their activities and help themselves if they encounter injuries during practice or competitions.

CONCLUSION

From the results of the research and the discussions above, the following conclusions can be drawn:

The research results indicate that 16 years of age is the most common age group in this study. This is because the early teenage years are a phase of muscle mass growth, which supports training activities.

This training activity has a significant positive impact on the respondents, as evidenced by the increased understanding before and after training. This improvement is achieved through a simulation-based approach and guidance provided by the researcher.

RECOMMENDATION

For the Respondents: It is hoped that the knowledge and methods learned from this research can be utilized by the respondents for aiding in the management of ankle sprain injuries using the frirage massage technique.

For Educational Institutions: This research's findings are expected to contribute to the existing literature and provide valuable insights and benefits to nursing students in understanding the management of ankle sprain injuries using the frirage massage technique.

For Future Researchers: The results of this study are anticipated to serve as a reference for other researchers interested in interventions involving frirage massage training for ankle sprain management. It is suggested that future researchers consider adding different variables to their studies, which could be beneficial to a wider audience.

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