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IDENTIFICATION OF THE DIFFERENCES OF TRADITIONAL MASSAGE AND SPORT MASSAGE

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ABSTRACT

The need for massage among the public and athletes is increasing day by day. It is this increasing number of patients who need to be given education on the differences between traditional massage and sports massage. The purpose of this study was to identify the differences between traditional massage and sports massage for alumni of PJKR FKIP Tadulako University who have received sports massage courses and have opened a sports massage clinic. The research method used was qualitative research which was carried out in three stages: (1) the first stage was the approach stage and problem identification at the research location through interviews, (2) the second stage was conducting FGDs to equalize perceptions about massage and information sharing between traditional masseurs and alumni and lecturers of sports massage courses, and (3) the third stage, is data collection which is carried out by referring to the steps and techniques of data collection. The research was conducted in Palu City. The sample of this study were 4 traditional masseurs in Palu City and Poso Regency, Central Sulawesi with 4 alumni of PJKR FKIP Tadulako University who had attended massage courses (sport massage) and had opened a sports massage clinic and had also completed their undergraduate studies. The results of this study are that there are differences between traditional massage and sports massage which are quite striking in terms of the massage techniques and manipulation movements used, and in terms of techniques and where massage skills are obtained.

Keywords: Identification, Traditional Massage and Sport Massage

Introduction

Massage therapy dates back thousands of years, with the first written records relating to ancient Chinese and Egyptian cultures where oils and herbs were used as adjuncts to treat sore muscles (Trofa et al., 2020). Massage is a skill that involves elements of scientific knowledge, instinct, and the art of caring for the body. This is obtained through formal (certified) and non-formal (experience) education (Rendimiento & Variación, 2021). A masseur or male masseur and masseus or female masseur must have experience and knowledge of massage, because when treating patients a therapist must be able to diagnose, provide solutions, and execute or provide treatment (Boguszewski et al., 2021). The science of massage has various types, namely therapeutic massage, beauty or cosmetic massage, sports massage, traditional massage, hygiene massage, relaxation massage, aromatherapy massage, reflexology massage, and oriental massage. The massage technique in massage is

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called manipulation (Efendy et al., 2022). Manipulation massage consists of massaging, pressing, shrinking, grinding, shaking, hitting, and so on (Graha & Ambardini, 2022). Sport massage can also be part of the business (Field, 2019)

Massage therapy, defined as manipulation by using hands or mechanical devices to maintain body immunity (Lee et al., 2015). Traditional massage, by applying pressure to the body. Especially in rural areas, this traditional massage is considered to cure disease (Sananpanichkul et al., 2019). This type of traditional massage is usually pressed firmly (Mahmood et al., 2020). The technique commonly used in traditional massage is known as the sequence technique. There is also traditional massage which is usually used as an alternative when you have a fracture or injury to the bone. Massage can help cure various physical ailments (Boonruab et al., 2020). Massage is a type of physical therapy that has been shown to have the potential to reduce unpleasant pain sensations (Sejari et al., 2016). Gently move the fingertip in a longitudinal direction over the painful site, and consist of firm pressure and movement of the fingertip across the painful site (Khoramizadeh et al., 2019). Traditional massage is a type of manual therapy in complementary and alternative medicine that applies pressure to the skin and soft tissues of the body (Sornkayasit et al., 2021). Various problems can be overcome with the right massage (Boonruab et al., 2020). Traditional massage is a treatment for some communities (Sejari et al., 2016)through a touch that has a relaxing effect on the patient (Aslani, 2003). Massage is not only useful for physical healing, but can also help relax the mind so it can reduce stress and make you comfortable, even massage can help people with insomnia or difficulty sleeping (Ningsih et al., 2017). Massage, massage and so on on certain parts with the hands or special tools to improve blood circulation as a way of treatment or to relieve fatigue (Wahyuni & Rahmayani, 2020). Massage is also part of the way to get healing, whether due to fatigue, illness or just to increase fitness because after a massage usually the muscles become loose again, circulation becomes smooth (Shen et al., 2021). The technique used is with the palms and thumbs, the tense muscles can relax again so that the body is fresher (Sinsomboon et al., 2022).

Types and techniques of massage in the world are growing rapidly and can be explained scientifically, one of the massages that is often used is sports massage (Graha & Yuniana, 2021). Sport Massage is a soft tissue manipulation technique through pressure and rubbing (Boguszewski et al., 2021). This technique can be done on the whole body or on certain parts (Konrad et al., 2020). Under the influence of massage there is an increase in blood flow, reduced muscle tension, improved mood, massage can also increase the range of motion in joints and reduce passive and active stiffness (Choroszewicz et al., 2020). Massage with Swedish techniques has its main application in the form of movement techniques such as effleurage, petrissage, vibration, and tapotement. Sport massage is an effort to deal with the effects of fatigue from other physical activities (Priyambada & Kusumawati, 2018). Sport Massage can be useful as an alternative to injury healing, fitness restoration, chronic disease healing, and to support athlete achievement (Kong et al., 2018). Today, a number of methods are used to speed recovery, including various massage techniques, which are therapeutic procedures that have long been used in sports (Chwała et al., 2021). Sport Massage is something that is done with a sense of calm and relaxation followed by chatting with each other. Sport Massage is an emphasis on soft body parts, especially muscles with the aim of relieving the pain suffered and returning to being fit again (Özdinç, 2020). The proposed benefits of sports massage include better recovery, performance and injury prevention (Davis et al., 2020)

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The goals and benefits of doing sports massage, the goals and benefits of sports massage include: (1) Sport massage is done to improve blood circulation, (2) Sport massage is done to stimulate the peripheral nerves to be more sensitive to stimulation, (3) Sport massage is done to increase muscle elasticity and increase muscle performance, (4) Sport massage functions to clean and smooth the skin, (5) Sport massage is done to reduce or even eliminate nerve muscle tension, reduce pain or soreness and massage can also aim to make a person patient can sleep more soundly (Priyambada et al., 2018). In performing massage techniques, massage or manipulation terms are known, including effluorization techniques, frictions techniques, petrissase techniques, tapotemen techniques, walken techniques, skin rolling, and others (Romadhona et al., 2019).

Physical Education, Health and Recreation (Penjaskesrek) is a science in which the learning process is mostly done in practice/tutorials so that it requires appropriate learning media to be able to attract active participation from students. One of the subjects at Penjaskesrek is sports massage. In practice, sports massage courses require more intense practice, so students are required to understand every detail of massage techniques (Utomo & Wahyudi, 2021).

This research began by carrying out an initial survey of traditional massagers or messeure in Palu City, by asking several questions to strengthen the identification, these questions included asking about procedures for doing massage or massage on patients, the materials used for doing massage as well as special terms that are often used in massage movements. The survey was also conducted on 4 alumni who had graduated from the PJKR FKIP Study Program at Tadulako University who had received sports massage courses and had clinics, interview questions related to sports massage, including regarding massage techniques, materials used, and anything learned during the course of massage science (sport massage). The data was collected and identified to then be used as a strong basis for conducting research, namely comparing traditional massage and sports massage. This research was conducted to compare traditional massage performed by traditional masseuse and sports massage performed by alumni who have become measurements, the differences to be examined are massage techniques or manipulations used in traditional massage and sports massage.

Method

In conducting this research, the appropriate method was chosen to analyze the data. The method taken in this study is a naturalistic qualitative research method (Sugiyono., 2019). (Sugiyono., 2017) argues that qualitative research methods are often called naturalistic research methods because the research is carried out in natural conditions (natural setting); Also known as the ethnographic method because initially this method was more widely used for research in the field of cultural anthropology; referred to as a qualitative method because the data collected and the analysis is more qualitative in nature. Qualitative research is understood as research on collecting data which is described by conducting several analyzes to obtain an accurate theoretical basis. This theoretical basis is very important so that the research carried out can be well understood. Qualitative research is research to answer problems that require in-depth understanding in the context of the time and situation in question, (Arifin, 2011).

The research will be held in three stages. The first stage is the approach and problem identification stage at the research location in Palu City, by visiting several traditional

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masseurs or masseurs, then conducting interviews related to the traditional massage that was carried out. The second stage is to conduct FGDs to equalize perceptions about massage and share information between traditional masseurs and alumni and lecturers in sports massage courses. The third stage, is data collection which is carried out by referring to the steps and techniques of data collection.

The research location is the location that the researcher is looking for to find a traditional masseur's place or house, while for Alumni of PJKR FKIP Tadulako University who have attended sequence science courses the location where the data is collected is carried out at the clinic of each alumni. The focus of observation to find traditional masseur work places or locations is in areas in Palu City where there are traditional masseurs. This study observed and interviewed 4 traditional masseurs and 4 alumni of PJKR FKIP Tadulako University who had completed sports massage courses and had opened a sports massage clinic in Palu City.

The design used in the implementation of this research is a design model that uses two data retrieval. The data collected is then described as well as possible to explain some of the things found during the research or data collection process, namely how to compare manipulation or massage techniques performed in traditional massage and massage courses. The data collection techniques used in this study are as follows: (1) making observations, in carrying out observation activities the researcher goes directly to the locations of several traditional massages to foster intimacy so that when gathering information about traditional massage, researchers can obtain the information needed easily, (2) make observations, The four data collection techniques were also carried out on five alumni who had taken massage courses at the PJKR FKIP Study Program, Tadulako University and had opened a sports massage clinic. The data obtained from 4 traditional masseurs and 4 people who have taken massage courses at the PJKR FKIP Tadulako University Study Program and have opened a sports massage clinic are then analyzed for comparison or identification.

This research used qualitative data analysis, the characteristic of qualitative research is to describe in words the data obtained from the research sample. Before conducting the research, the authors conducted a literature review on sports massage and sports massage on traditional massage with sports massage in the Science of Massage course. Studying observation material is very important, so that when the observation takes place the researcher can understand and master questions, analysis, and can construct research objects in a more detailed and clear manner. Data is collected in several ways, namely observation, interviews, and documentation. Data analysis activities are carried out using three streams of activities that occur simultaneously, namely reduction, presentation, and drawing conclusions from the data taken. Data analysis techniques taken in this study include observation, interview data, data reduction, analysis, interpretation, and data triangulation. The research data that has been analyzed is then drawn conclusions.

Discussion

To find out the differences between traditional massage and sports massage, it is necessary to have knowledge about the characteristics and uniqueness of the two types of massage. Based on research and interviews with several traditional massagers, several striking differences were found between traditional massage and sports massage, including massage techniques, and how massage is capable. obtained, then an explanation of the characteristics of the two massages will be explained in order to provide clear information.

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Traditional massage is usually done to get rid of several complaints, for example complaints in children who cannot speak or cannot walk, catch a cold, in children who experience falls and collisions, massage for pregnancy, and several other traditional beliefs that traditional massage can make someone who is difficult to have offspring to be able to get offspring, this is of course the opposite of sports massage. The massage technique or manipulation used in sports massage is when an athlete gets a break from participating in a competition or championship and usually only consists of several massage techniques which are quite fast, including friction, tapotemen, and shaking, the manipulation or massage that is done tends to be on the large muscles that are often used for physical activity. In some types of sports, there is no opportunity to do massage or manipulation because it is hindered by very limited rest periods, for example in futsal and volleyball which have rest periods with intervals that allow massage to optimize athlete performance.

To compare traditional massage and sports massage, you can look at the techniques of doing massage, which show a striking difference. The traditional massage method is by applying pressure to the body which tends to be unstructured, not sedentary, or moving by applying pressure, movement, or vibration, whether done manually. Massage usually uses hands, fingers, elbows, arms, legs. There is no special name for each massage movement performed by a traditional masseur because the movements are based on instinct. Further information is how traditional massagers obtain their massage skills. Based on the interview results, traditional masseuses tend to get massage skills from their ancestors or from generation to generation in the family and are self-taught.

DISCUSSION

	Results of Interviews with Traditional Masseuse and Alumni		
No	Traditional Masseuse	PJKR Alumni	
1	Harpani Larekeng is a traditional masseuse who has experience as a masseuse for 10 years, the ability to massage is owned by self-taught, the massage tends to be unstructured, following instincts, but the patient gets a good effect after being given a massage. Massage experience is already very proficient, but he does not know the name of the massage techniques.	Sahrir, S.Pd Alumi PJKR FKIP Tadulako University in 2021, Starting the profession of becoming a measure after getting a massage science course, after completing his studies, Sahrir turned sports massage into a job as proven by the fact that in 2021 he joined the meussure team on the PERSIPAL football team and Celebes Fc who joined league 3. In 2022 Sahrir joined the team that competed in league 1, namely the Borneo Fc team. Based on the results of the interviews, information was obtained that after attending the massage science course, knowledge was increased about the importance of massage for athletes, sports massage is massage that is structured and has standard rules for each massage movement in parts of the body.	
2	Irfan Padanggi, who obtained his massage skills from family generations, has been a masseuse for 8 years. However, his abilities are different from other massagers, he knows if there are visitors who will come to ask for help in doing massages. Its uniqueness is not only for fitness massage, but for cases of broken bones and acute injuries, colds, and doing massages for children who cannot walk at a certain age, even doing massages for husband/wife couples who have fertility complaints to be able to walk. get offspring.	Ibnu Sutowo, S.Pd who has just finished his studies in 2023 who has opened a "sport massage clinic" clinic and has a license in the field of sports massage. With the experience he has in 2021-now he is a PERSIPAL measurement team competing in league 2. Ibnu explained that before attending sports massage lectures and learning sports massage, he did not know and master massage and thought that there was no special knowledge in doing massage, after completing In sports massage courses, a lot of knowledge is gained, including the relationship between massage and the physiology of the human body and the anatomy of the human body. In sports massage, several massage techniques are studied with special terms, including eflurase, tapotemen, petrisase, friction, vibration, walken,	
3	Seprian., S.Pd opened a service as a masseuse since 5 years ago and has received many calls for massage services, this is because he promotes his massage services using online media, but the technique for doing massage is not structured and they don't understand the name of the massage movements, but the patient feels good after massage. Some patients even always increase the time given by adding rewards.	Moh. Tris Maulana, S.Pd., M.Pd., AIFMO. Alumni of PJKR FKIP Tadulako University in 2018 who started his career as a measure in 2022. Several times participated in sports massage and physiotherapy training at LKP (Training Course Institute) both offline and online. In 2022 also opened a MOBA Massage CLINIC. According to Tris, sport massage is a structured massage and has many terms for every movement that is made, massage movements cannot be done according to the tastes of those who carry out massage activities because there are already standard rules for massage techniques. After taking massage	

courses and participating in training in the field of sports massage, a lot of knowledge was obtained regarding the duration, pressure and

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Muh. Rizki L, opened a massage practice for 4 years, his massage skills were obtained self-taught, and he tends to do massages in an irregular and unstructured manner, following instincts when doing massage activities, and the pressure of massage on the limbs is usually harsher and causes painful effects on people massaged. With complaints felt by patients he always experiences protests.

handling of injuries.

Moh. Wahyu, S.Pd., M.Pd., AIFO. now works as a lecturer at the PJKR FKIP Study Program, University. completing Tadulako undergraduate studies in 2018, has been working as a measure since 2021 until now and has opened the "Sport Massage Therapy WAHYU" clinic and is also a tutor for the Massage Science course in the PJKR study program. Based on the results of the interviews, data was obtained that before taking the massage course, Wahyu had often carried out massage activities, but the massage activities he did were unstructured and not based on knowledge and understanding of the anatomy and physiology of the human body. After attending the massage course, his ability and understanding of sport massage is increasing that sport massage is a structured massage or sequence, and has rules for carrying out massage movements. As well as there are special terms, namely naming for all massaging movements. The pressure when doing sports massage is light pressure and not hard.

Traditional masseurs, the massage movements that are carried out tend to be unstructured, and the emphasis on the limbs occurs because of the instincts of the traditional masseur himself, in contrast to the sports massage which performs massage in accordance with the anatomy and structure of the body, as well as massage movements on the body. Certain limbs have been regulated using specially studied massage techniques.

Based on the interview results, information can be obtained that traditional massage does not use special terms when doing massage which are often used in sports massage such as eflurase, tapotemen, petrisase, friction, vibration, walken, skin rolling, and others. Based on the results of interviews, the abilities of traditional masseurs tend to be obtained by self-taught or family-derived ability, in contrast to alumni who have attended massage courses, sports massage which are obtained by studying massage courses and have attended sports massage training.

Traditional massage obtained by self-taught and from hereditary abilities from the family has features, including: (1) the ability acquired occurs self-taught and is passed down from generation to generation without going through a learning process, while sports massage is obtained through a learning process, (2) traditional massagers can treat some complaints that may not necessarily be done through traditional massagers, while sport massage is limited to some complaints, (3) traditional massage does not use manipulation or techniques that are as numerous and complicated as those in sports massage.

However, there are several disadvantages of traditional massage compared to sports massage, including: (1) because the ability is obtained self-taught without going through a learning process (does not have a special certificate) causing not all people to trust the ability of traditional massagers, (2) traditional massage techniques tend to harder and causes discomfort because it hurts more, (3) the average traditional masseuse does not study human anatomy, this is considered important enough to know which parts of the body need special treatment, while in sports massage before learning about massage manipulation, first learn

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human anatomy to find out the points of the body that can be massaged, and the parts of the body that cannot be treated.

From the results of the analysis of interviews conducted with 4 traditional masseurs and 4 alumni who have attended massage courses and have opened a sports massage clinic, it was found that there are differences between traditional massage manipulation and sports massage which are quite striking in terms of technique, the knowledge studied specifically, how massage skills are obtained, sport massage skills are obtained by following massage courses while traditional massage is obtained by auto or heredity from the family, Sport massage and traditional massage are quite different but thus it is a wealth of massage methods that exist in Indonesia. The next stage in this research is to socialize PJKR FKIP Tadulako University students who will program massage science courses as additional information for students who are expected to make sports massage an addition in increasing economic welfare.

Conclusion

Based on the results of interviews and research, several findings were found that answered the differences between traditional massage and sports massage, including: (1) in traditional massage, masseurs tend to acquire massage skills by self-taught or based on hereditary abilities from the family while sport massage is obtained by studying specifically starting from human physiology, anatomy and then entering into massage techniques, (2) traditional massage does not use special terms for each manipulation/massage technique while in sports massage there are several special terms, (3) the massage techniques of traditional masseurs are different from those of other people. who studied sports massage, and (4) the capabilities of traditional massagers include several abilities that cannot be explained medically and also cannot be performed by people who study sports massage, while sports massage tends to be more of a treatment for minor injuries due to sports and to improve blood circulation.

References

Arifin, Z. (n.d.). Penelitian Pendidikan. In 2011. Remaja Rosdakarya.

Aslani, M. (2003). Teknik pijat untuk pemula. Esensi.

- Boguszewski, D., Adamczyk, J. G., Hanc, A., Szymańska, A., Chełchowska, S., & Białoszewski, D. (2021). Classic sports massage vs. Chinese self-massage. Which one is more effective in warm-up? *Biomedical Human Kinetics*, *13*(1), 97–102. https://doi.org/10.2478/bhk-2021-0012
- Boonruab, J., Poonsuk, P., & Damjuti, W. (2020). Effect of Court-Type Thai Traditional Massage Versus Senokot Treatment on Chronic Constipation: A Randomized Controlled Trial. *Journal of Evidence-Based Integrative Medicine*, 25, 1–8. https://doi.org/10.1177/2515690X20960644
- Choroszewicz, P., Dobosiewicz, A. M., & Badiuk, N. (2020). Sports massage as a method of preventing delayed onest muscle soreness. *Pedagogy and Psychology of Sport*, 6(2), 104–112. https://doi.org/10.12775/pps.2020.06.02.010
- Chwała, W., Pogwizd, P., Rydzik, Ł., & Ambroży, T. (2021). Effect of vibration massage and passive rest on recovery of muscle strength after short-term exercise. *International Journal of Environmental Research and Public Health*, 18(21). https://doi.org/10.3390/ijerph182111680
- Davis, H. L., Alabed, S., & Chico, T. J. A. (2020). Effect of sports massage on performance

Published by Study Program Physical Education, Health and Recreation _Universitas Negeri Medan Email: pjkr@unimed.ac.id

- and recovery: a systematic review and meta-analysis. *BMJ Open Sport & Exercise Medicine*, 6(1), e000614. https://doi.org/10.1136/bmjsem-2019-000614
- Efendy, B. A., Hanif, A. S., Sulaiman, I., & Lanos, M. E. C. (2022). Android-Based Material for Sports Massage Learning. *International Journal of Human Movement and Sports Sciences*, 10(1), 112–120. https://doi.org/10.13189/saj.2022.100116
- Field, T. (2019). Pediatric massage therapy research: A narrative review. *Children*, 6(6), 1–12. https://doi.org/10.3390/children6060078
- Graha, A. S., & Ambardini, R. L. (2022). The Effectiveness of Fitness Massage After Physical Activity and Sport Massage of Lower Extremities in Improving Range of Motion and Joint Function Scale of Futsal Athletes. *Proceedings of the Conference on Interdisciplinary Approach in Sports in Conjunction with the 4th Yogyakarta International Seminar on Health, Physical Education, and Sport Science (COIS-YISHPESS 2021)*, 43, 207–211. https://doi.org/10.2991/ahsr.k.220106.039
- Graha, A. S., & Yuniana, R. (2021). The effect of sports massage with meditation on myalgia disorders. *Medikora*, 20(2), 153–161. https://doi.org/10.21831/medikora.v20i2.43082
- Khoramizadeh, M., Hashem-Dabaghian, F., & Mohammadikenari, H. (2019). Dalk and Ghamz: An Iranian Traditional Massage Technique. *Complementary Medicine Research*, 26(4), 280–281. https://doi.org/10.1159/000496541
- Kong, P. W., Chua, Y. H., Kawabata, M., Burns, S. F., & Cai, C. (2018). Effect of post-exercise massage on passive muscle stiffness measured using myotonometry A double-blind study. *Journal of Sports Science and Medicine*, 17(4), 599–606.
- Konrad, A., Glashüttner, C., Reiner, M. M., Bernsteiner, D., & Tilp, M. (2020). The acute effects of a percussive massage treatment with a hypervolt device on plantar flexor muscles' range of motion and performance. *Journal of Sports Science and Medicine*, 19(4), 690–694.
- Lee, S. H., Kim, J. Y., Yeo, S., Kim, S. H., & Lim, S. (2015). Meta-Analysis of Massage Therapy on Cancer Pain. *Integrative Cancer Therapies*, 14(4), 297–304. https://doi.org/10.1177/1534735415572885
- Mahmood, Q., Habibullah, S., & Babur, M. N. (2020). The effects of traditional massage on spasticity of children with cerebral palsy: A randomized controlled trial. *Journal of the Pakistan Medical Association*, 70(5), 809–814. https://doi.org/10.5455/JPMA.24442
- Ningsih, Y. F., Kurniasih, F., Puspitaningrum, D. A., Mahmudi, K., & Wardoyo, A. A. (2017). The Effect of Sport Massage and Thai Massage to Lactic acid and Pulse Decreased. *International Journal of Advanced Engineering Research and Science*, *4*(12), 92–98. https://doi.org/10.22161/ijaers.4.12.16
- Özdinç, Ö. (2020). *Public Perception of Massage Therapy*. 5652(17), 271–278. https://doi.org/10.15314/tsed.721837
- Priyambada, G., & Kusumawati, Y. T. (2018). Sosialisasi Sport Massage Dan Penggunaan Kinesio Taping Bagi Atlet Dan Pelatih Pencak Silat. *Jurnal Pengabdian Kepada Masyarakat*, 24(2), 713. https://doi.org/10.24114/jpkm.v24i2.10632
- Priyambada, G., Raharja, A. T., & Putra, F. (2018). Persepsi dan minat pelatih olahraga sekolah khusus olahraga internasional terhadap sport massage Perception and interests of sports coaches of sekolah khusus olahraga internasional on sport massage. *Jurnal Keolahragaan*, 6(1), 77–86.
- Rendimiento, E. L., & Variación, Y. L. A. (2021). Evening: Massage Affects Performance and Diurnal Variation. 2459–2474.
- Romadhona, N. F., Sari, G. M., & Utomo, D. N. (2019). Comparison of sport massage and

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- combination of cold water immersion with sport massage on decrease of blood lactic acid level. In *Journal of Physics: Conference Series* (Vol. 1146, Issue 1). https://doi.org/10.1088/1742-6596/1146/1/012012
- Sananpanichkul, P., Sawadhichai, C., Leaungsomnapa, Y., & Yapanya, P. (2019). Possible role of court-type Thai traditional massage during parturition: A randomized controlled trial. *International Journal of Therapeutic Massage and Bodywork: Research, Education, and Practice*, 12(1), 23–28. https://doi.org/10.3822/ijtmb.v12i1.422
- Sejari, N., Kamaruddin, K., Ramasamy, K., Lim, S. M., Neoh, C. F., & Ming, L. C. (2016). The immediate effect of traditional Malay massage on substance P, inflammatory mediators, pain scale and functional outcome among patients with low back pain: Study protocol of a randomised controlled trial. *BMC Complementary and Alternative Medicine*, *16*(1), 1–7. https://doi.org/10.1186/s12906-016-0988-1
- Shen, C. C., Tseng, Y. H., Shen, M. C. S., & Lin, H. H. (2021). Effects of sports massage on the physiological and mental health of college students participating in a 7-week intermittent exercises program. *International Journal of Environmental Research and Public Health*, *18*(9). https://doi.org/10.3390/ijerph18095013
- Sinsomboon, O., Noppakulsatit, P., Tassanarong, A., Tungsukruthai, P., & Sriyakul, K. (2022). A Comparison of Effectiveness of Thai Traditional Massage and Tamsulosin in Lower Urinary Tract Symptoms: A Randomized Controlled Trial. *Journal of Evidence-Based Integrative Medicine*, 27, 1–8. https://doi.org/10.1177/2515690X211068825
- Sornkayasit, K., Jumnainsong, A., Phoksawat, W., Eungpinichpong, W., & Leelayuwat, C. (2021). Traditional thai massage promoted immunity in the elderly via attenuation of senescent cd4+ t cell subsets: A randomized crossover study. *International Journal of Environmental Research and Public Health*, 18(6), 1–14. https://doi.org/10.3390/ijerph18063210
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. (C. :Bandung Alfabeta (ed.)). Alfabeta, CV.
- Sugiyono. (2019). Metode Penelitian Pendidikan Pendekatan Kuantitaif, Kualitatif, dan R&D. Alfabeta.
- Trofa, D. P., Obana, K. K., Herndon, C. L., Noticewala, M. S., Parisien, R. L., Popkin, C. A., & Ahmad, C. S. (2020). The Evidence for Common Nonsurgical Modalities in Sports Medicine, Part 1: Kinesio Tape, Sports Massage Therapy, and Acupuncture. *Journal of the American Academy of Orthopaedic Surgeons Global Research and Reviews*, 4(1). https://doi.org/10.5435/JAAOSGlobal-D-19-00104
- Utomo, A. W. B., & Arief Nur Wahyudi. (2021). Media Pembelajaran Sport Massage untuk Mahasiswa, A Research and Development Study. *Jurnal Pendidikan Modern*, 6(2), 108–113. https://doi.org/10.37471/jpm.v6i2.206
- Wahyuni, & Rahmayani, N. (2020). The Effect of Traditional Thai Massage on Chronic Low. *International Journal of Multi Science*, 1(5), 31–39.