ABSTRACT BOOK

INTERNATIONAL CONFERENCE OF SPORTS AND EXERCISE SCIENCE STUDENTS 2023

ICSESS2023

UNIVERSITI MALAYA

FAKULTI SUKAN DAN SAINS EKSESAIS
Faculty of Sports and Exercise Science

The artwork of the cover page was designed by Mr. Ahmad Farizan Razuan from Faculty of Sports and Exercise Science (FSSE), Universiti Malaya. It illustrated the various activities of sports and exercise.

JOURNAL OF HEALTH AND TRANSLATIONAL MEDICINE (JUMMEC)

The first International Conference of Sport and Exercise Science Students (ICSESS) 2023 was organised at the Faculty of Sports and Exercise Science, Universiti Malaya on 24th - 25th June 2023. The theme of ICSESS 2023 was ‘Nurturing Research Culture’.

FOREWORD

The International Conference of Sport and Exercise Science Students (ICSESS) 2023 was the first one organised by the Faculty of Sports and Exercise Science (FSES), Universiti Malaya. The conference served as an international scientific platform especially for the undergraduate students to showcase their research work. The objective of this conference was to promote research culture among students in Sports & Exercise Science, Sports Management and Physical Education areas through sharing knowledge and experience. In addition, the conference also offered opportunity for students to expand their networking internationally.

In this Conference, we received more than 60 papers, oral and poster, from our invited speakers and participants. Considering the total number of participants were about 150, the ratio of presentation-participant was quite impressive. These participants came from neighbouring countries: Malaysia, Thailand, Singapore, and Indonesia.

We introduced a competition for both oral and poster i.e., Junior Researcher Award and Best Poster Award. This spurred their interest and added value to the conference. We concluded that the ICSESS 2023 had brought together university students and nurtured the young and budding researchers.

We published here the abstracts from both oral and poster categories that were filtered and met the Journal's standard requirement. We apologized for several other abstracts presented in this conference not able to be published as they were not complete, and we could not get reply and revision within a specified time.

We present to you this abstract book published in the Journal of Health and Translational Medicine (JUMMEC).

We look forward for the 2nd ICSSES in the future.

Yours sincerely

Dr. Eliza Hafiz
Scientific Committee

Assoc. Prof. Dr. Abdul Halim Mokhtar
Chairman,
Organizing Committee

SCIENTIFIC COMMITTEE OF ICSESS 2023

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Scientific Co-Chairperson
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FREE COMMUNICATION ABSTRACTS

ORAL PL_01

Connecting the Dots

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Abstract
Research is to study and investigate a subject and derive a conclusion. We need to plan and be systematic with our approach. A failure of doing this would result in a weak output and leads to the wrong conclusion. We should start with a valid research question, “What do you want to study and why?”. It can be for the sake of new knowledge, but, preferably, to solve a problem which will increase its relevance to the community. By now, research objective(s) should be derived and pertinent matters like is the objective measurable, and by what method? When doing a literature review, it is important to highlight the research gap and direct that as the reason for your research and justify its importance. The method must be sound, precise, and refereed. A randomised control trial is preferred whenever possible. Data collection should be standardised to allow correct analyses and Interpretation later. When discussing the findings, be ready to highlight your limitation as no one research is perfect. Finally, when we conclude, make sure it answers your objective(s).

ORAL PL_02

Navigating Challenges and Cultivating Success in Sports Research

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Abstract
This lecture, presented at the International Conference of Sports and Exercise Science Students 2023 (ICSESS 2023), addresses pivotal challenges in sports research and provides actionable strategies for researchers. The sharing session establishes a collaborative environment, discussing challenges encompassing funding constraints, time limitations, ethical considerations, and resistance to change. The presentation outlines effective methods to overcome these challenges, including seeking alternative funding, optimizing time management, fostering collaborations, and embracing technological advancements. Practical tips and tricks, such as goal setting and the Pomodoro Technique, are shared, emphasizing the importance of network building through regional associations and conferences. The lecture concludes with valuable research suggestions, including the use of writing and reference software, adherence to specific guidelines, and methodologies for systematic reviews, meta-analyses, epidemiological studies, and randomized controlled trials. This abstract encapsulates a concise guide for researchers navigating obstacles and maximizing opportunities in sports research.

JRA_01

Acute Effects Of 6-Week of Fasted Training on Body Composition and Endurance Performance

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Abstract

Introduction: Fasted training has emerged as a promising approach to improve body composition and endurance performance, both of which are key factors in maintaining optimal health and fitness. This study aims to investigate the acute effects of 6-week fasted training on body composition and endurance performance. **Objective:** The research objectives involve comparing the outcomes of fasted training with non-fasted training and evaluating the potential benefits and limitations of each approach. In this study, the randomized controlled trial design is used to find out the effectiveness of fasted training on body composition and muscular endurance performance. **Method:** In total, 24 university students that fit the criteria will participate in this study and researchers will assign the participants randomly into a fasted group (n=12) and a non-fasted group (n=12). Both groups will go through the same pre-tests, 6 weeks of endurance training and a post-test. The purpose of the pre-tests is to find out every individual's body fat percentage, RM and VO2 max. The design of the endurance training will include both "track & field" and "muscular endurance training" which covers outdoor and indoor. The intervention will focus on finding out the difference of endurance performance between both groups, as well as their body composition when the 6 weeks of training are completed with a post-test session at the end of the training. The meal intake of each participant will be recorded 3 days before pre-tests and post-tests. **Results:** The main findings were, first, that fasted training which is executed by the FT group did not show significant reduction in body fats % as compared to NFT group. There is a slight reduction of body fats % in both groups, but there is no significant difference between pretest and post-test of both groups. Second, the FT group also did not significantly improve the VO2max, the indicator of cardiovascular endurance as compared to the NFT group. 5 out of 11 participants from the FT group and 4 out of 11 participants from the NFT group dropped in their cardiovascular endurance performance which is VO2 max. Third, there is huge improvement in muscular endurance in both groups, but both groups did not show a difference between each other. **Conclusion:** There are no significant differences between FT group and NFT group in InBody test, VO2 max test and RM test. But the pattern of improvements by percentage in both group is like other studies. Future research must increase the duration of fasting period to at least 14 hours and also increase the duration or volume of aerobic training gradually to obtain significant difference between both groups in body composition, cardiovascular endurance and muscular endurance.

JRA_02

Psychological Condition of Female Artistic Swimming Athletes in Facing Competitions

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Abstract

Introduction: It is not uncommon for an artistic swimming athlete to fail when displaying his movements, even though he has been trained intensively and tested well during the training phase. Psychological conditions have a big role to be able to show the best performance in a series of movements in artistic swimming. **Objective:** Therefore, this study aims to determine the psychological condition of female artistic swimming athletes in facing competitions based on different age categories. **Method:** This study used a descriptive method involving 12 West Java female artistic swimming athletes consisting of 7 junior athletes (14.4 ± 1.813 years) and 5 senior athletes (18 ± 0.707 years). The questionnaire was used as a research instrument which consisted of 26 questions that were divided into 3 indicators (attention, self-confidence, and cognitive anxiety). The athlete filled out the questionnaire via the Google Form once and after that the data was analysed. **Result:** The results showed that junior athletes had an attention value of 76%, self-confidence of 76%, and cognitive anxiety of 51%. Meanwhile, senior athletes have an attention value of 74%, confidence of 77%, and cognitive anxiety of 60%. **Conclusion**: This study concludes that female artistic swimming athletes in West Java have different psychological conditions for the junior and senior categories. Although the difference in scores is not too big, senior athletes have a greater cognitive anxiety score than junior athletes. We suggest paying more attention to the psychological condition of athletes, especially in facing competitions by providing psychological treatment according to their respective age categories.

ORAL_03

Effects of Lower Body Plyometrics Exercises on Endurance and Power Performances in Vertical Running

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Abstract

Introduction: Vertical running, or tower running, is a highly specialist type of running in which stair climbing has grown into an organised sport. First and foremost, tower running is an endurance sport that, like middle-distance running, calls for strong cardiorespiratory capacity. In tower running races, the elite skyscraper runners must possess not only excellent cardiorespiratory fitness, but also sufficient muscular endurance and explosive ability to sustain a consistent vertical pace. **Objective**: To investigate the effect of series of jumping exercise program on vertical running. **Methods**: Twenty healthy and active participants were tested using three different tests: tower running (TR) test, Queen's College step test (QCST), Vertec vertical jump test (VJT). After obtaining the baseline data for all the tests, the participants were randomly assigned to either intervention (INT) or controlled (CON) group. A six-weeks intervention program was then designed for the INT which are CMJA, SLJ, two-foot ankle-hops, squat jump, alternate leg bounding, and depth jump. A separate alternative task was given to CON which was some static stretches. Both groups were made to undergo their exercises twice a week for six weeks. **Results**: From this study, the results that was obtained showed there are no significant differences in the MHR and AHR in the TR test despite having a little improvement among the INT. However, the data shows that there is a significant improvement in both the time taken and power output in the TR test ($p = 0.0084$ for both) while no changes in the CON. Similarly, the data also showed that there are significant differences in the AHR and PVO2 max of QCST and the best jump and peak anaerobic power output in VJT ($p = 0.001$; $p = 0.0018$; $p = 0.0007$; $p = 0.0064$). No significant differences were found in the TR, QCST, and VJT among CON. Thus, it was concluded that lower body PE helps to improve endurance and power performance in vertical running. **Conclusion:** Thus, it was concluded that lower body jumping exercise program is able to improve endurance and power performance in vertical running. This program thus could be applied to beginners.

ORAL_04

Transfer of Vo_2 Max Gain Between Upper and Lower Body

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Abstract

Introduction: VO_2 max is the maximal oxygen uptake by the body when performing a certain activity which is part of the cardiovascular fitness and is important to athletes as well as general populations. The transfer of VO_2 max gained is the effect where the maximal oxygen uptake is present in the untrained limb when the other limb is trained. **Objective**: The aim of this study is to investigate the transfer of VO_2 max gain between upper and lower body when High-Intensity Interval Training (HIIT) is introduced to the participant. **Methods**: A total of twenty (10 F and 10 M) physically active individuals participated in a randomized experimental design completing a 6-weeks HIIT for upper body group (UBG) (n = 10) and lower body group (LBG) (n = 10) for twice a week at an intensity of 85% HR max. The participants performed an arm cranking and leg cycle ergometer test before and after the 6-weeks HIIT. The changes of mean percentage in cycle ergometer and arm crank are (0.40 ± 0.20) and (1.67 ± 1.35) respectively for the UBG and (0.49 ± 0.28) and (1.62 ± 1.13) respectively for LBG. A Two-way ANOVA was used to determine the significant interaction within and between the variables ($p < 0.001$) and there is significant transfer of VO_2 max gained in the untrained limb in both UBG and LBG. **Results**: The improvement in VO_2max tested using a cycle ergometer and arm crank are by 4.4 ± 5.6 and 47.0 ± 18.2% respectively for UBG; and by 32.0 ± 0.8% and 4.1 ± 19.1% respectively for LBG. Two-way ANOVA showed significant time effect in both cycle ergometer ($F_{1,9} = 50.19$, $p < 0.05$) and arm crank ergometer tests ($F_{1,9} = 113.5$, $p < 0.05$). There was no significant cross-transfer from UBG and LBG HIIT exercises. VO_2max tested before and after the 6-week intervention is presented in Table I. Although no significance was reported in arm crank test following lower body training in LBG, there was a strong effect size ($d = 1.44$) when comparing changes in LBG's arm crank relative to UBG's cycle ergometer. This suggests that there may be a better transfer of VO_2max gain when training lower body compared to upper body. Logically the bigger muscle groups trained in LBG have a higher demand on the cardiovascular system compared to UBG, causing it to possibly increase its variables such as stroke volume and decrease arteriovenous oxygen differences in a bigger degree, hence a bigger transfer of VO_2max gain when the LBG group is tested on the arm crank. **Conclusion**, both UBG and LBG has significant increase in the VO_2 max gained in both trained and untrained limb which suggests that there is transfer effect from the trained to untrained limb. However, the findings suggests that both UBG and LBG has similar amount of transfer effect from the trained to untrained limb as there is no significant difference found where ($p > 0.001$).

ORAL_05

The Effects of Static and Dynamic Stretching on Hamstring, Lumbar and Quadriceps Flexibility During Menstruation Among University Students

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Abstract

Introduction: The menstrual cycle is a biological peculiarity which occurs in women which is linked with the flexibility during the menstruation. However, the research on the effect of menstruation on muscle flexibility is scant and the outcomes are uncertain. **Objective**: This study will focus its investigation into the flexibility of hamstring, lumbar and quadriceps during the menstrual phase and ovulation phase. Ten healthy female participants were recruited in this cross-sectional experimental study and underwent a stretching intervention program consisting of static and dynamic stretches. Testing measurements were conducted using the Sit and Reach Machine to measure hamstring and lumbar flexibility while the Ely's Test was used to measure quadricep flexibility. The stretching intervention program was done one two consecutive days during menstruation followed by two consecutive days during post menstruation. Two-way repeated measures ANOVA was used to analyze the first cycle sit and reach scores ($p < 0.05$), followed by the second cycle sit and reach scores ($p < 0.01$) while the Ely's Test score for the first cycle was ($p = 0.01$). A three-way repeated measures ANOVA was also analyzed for the sit and reach with scores of ($p < 0.01$) while the Ely's Test scored ($p = 0.01$). The effect size using the Cohen's equation established a large effect size for static stretching (ES = 0.9) and dynamic stretching (ES = 1.3). **Results**: Ten healthy female participants were recruited in this cross-sectional experimental study and underwent a stretching intervention program consisting of static and dynamic stretches. Testing measurements were conducted using the Sit and Reach Machine to measure hamstring and lumbar flexibility while the Ely's Test was used to measure quadricep flexibility. The stretching intervention program was done one two consecutive days during menstruation followed by two consecutive days during post menstruation. Two-way repeated measures ANOVA was used to analyze the first cycle sit and reach scores ($p < 0.05$), followed by the second cycle sit and reach scores ($p < 0.01$) while the Ely's Test score for the first cycle was ($p = 0.01$). A three-way repeated measures ANOVA was also analyzed for the sit and reach with scores of ($p < 0.01$) while the Ely's Test scored ($p = 0.01$). The effect size using the Cohen's equation established a large effect size for static stretching (ES = 0.9) and dynamic stretching (ES = 1.3). **Conclusion**, this study found that young females are more flexible during menstruation and dynamic stretching was proven to be more effective than static stretching in improving the flexibility of hamstring and lumbar region while static stretching was more effective in improving the flexibility of quadriceps.

ORAL_06

Effect of High Intensity Interval Exercise on Nasal Blood Flow in Patients with Allergic Rhinitis

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Abstract
Introduction: Allergic rhinitis is an inflammation of the nasal mucosa produced by IgE-mediated hypersensitivity reactions following allergen exposure. Exercise is an effective alternative to reduce symptoms due to decreased nasal blood flow in allergic rhinitis patients. However, to our knowledge, no studies to date have studied effect of high-intensity interval (HIIT) exercise on nasal blood flow in patients with allergic rhinitis. **Objective**: The aim of the pilot study was to determine the acute effect of HIIT on nasal blood flow in patients with allergic rhinitis. **Method**: Five allergic rhinitis patients were required to complete HIIT (high intensity for 1 minute at 85-90% of maximum heart rate, then alternating with low intensity 50-55% of maximum heart rate for 2 minutes). Nasal blood flow and nasal congestion were measured before and after HIIT exercise within 0, 15, 30, 45, and 60 minutes. **Results**: Nasal blood flow significantly decreased at 0, 15, 30, 45, and 60 minutes after HIIT exercise. There were no significant differences in nasal congestion. **Conclusion**: These data suggest that HIIT exercise may be effective for allergic rhinitis patients by decreased nasal blood flow which result in reduce rhinitis symptoms.

ORAL_07

Qatar's Sporting Revolution: Exploring the State-Of-The-Art Facilities and Their Contribution to the Future of Sports

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Abstract
Introduction: What are the unique features and technologies incorporated into Qatar's sporting facilities? What are the contributions of Qatar in potential long-term development of Qatar sport. **Objective**: To explore the unique features and technologies incorporated into Qatar's sporting facilities. To investigate Qatar's contributions in the potential long-term development in Qatar sport. **Method**: Based on literature review of some Qatar's stadiums selected by the researchers to conduct an in-depth investigation of their features, technologies, and impact on the potential of long-term development in Qatar sport. The data will be from observations or documents regarding these Qatar's sports facilities. **Results**: Qatar's sporting facilities contribute to the development and advancement of sports, such as climate-controlled stadiums that can provide optimal playing conditions for athletes and spectators alike. After Qatar built the 8 stadiums to host major international sporting events, such as the FIFA World Cup, it would provide high quality facilities for athletes training and development. **Conclusion**: Qatar's investment in sporting facilities has had a significant impact on the development and advancement of sports on a global. Qatar has also integrated SDGs into its sports development strategy. The country has developed initiatives to promote physical activity, especially among youngsters and to promote sustainable sports infrastructure development. These efforts align with SDGs related to health and well-being, and sustainable cities and communities. Its revolution is a testament to the country's commitment to innovation and progress in the world of sports.

ORAL_08

The Solar-Powered Cooling System Used in Qatar FIFA World Cup 2022

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Abstract

Introduction: The FIFA World Cup is one of the world's largest and most prestigious athletic events, bringing together various nations to demonstrate their talent on the field. Qatar, the 2022 FIFA World Cup host country, has issues organizing such an event presents numerous challenges, particularly when it is held in a country with extreme climatic conditions due to its hot and humid weather, which can be harmful to athletes and stadium attendees. To address these issues, Qatar has deployed several innovative technologies, the topic of this presentation. What is the new technologies to solve the extreme weather conditions in Qatar that can affect the well-being of athletes and stadium attendees? How technologies can be employed to mitigate these challenges? **Objective**: To investigate the innovative technology of employ tackling climatic legacy issues in the Qatar FIFA World Cup 2022. **Method**: This study is based on the literature review and observation of the related articles and news. **Results**: The paper discusses the challenges Qatar faces in providing aerothermal comfort conditions for both players and spectators during the 2022 World Cup. To address these challenges, passive and active cooling techniques are recommended, with a combined system of solar sorption techniques seen as the most effective. However, these techniques have not yet been tested on large-scale arenas or under real weather conditions. A dynamic thermal simulation was performed, indicating that a minimum cooling load of 47 MW h per game should be provided for indoor thermal comfort, with an additional load of at least 115 MW h per game for semi-outdoor areas. The decisions made should consider sustainable carbon neutrality and future viability of the event, in line with Qatar's development vision for 2030. **Conclusion**: The topic of this research delves into the creative techniques and technologies used by Qatar to host the World Cup. According to the findings, the adoption of modern technologies and sustainable design principles can help alleviate the effects of adverse weather and develop a more fun and safe experience for athletes and spectators alike. It is suggested that future research should focus on assessing the usefulness of these technologies and their effects on the event's legacy. Overall, this research is useful for event organizers, policymakers, and researchers interested in the nexus of technology, sustainability, and sports.

ORAL_09

Accessibility and Inclusion for People with Disabilities in Qatar Stadiums: A Case Study of the 2022 FIFA World

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Abstract

Introduction: Ensuring universal access and inclusion, Qatar's stadiums prioritize accommodating diverse needs, empowering people with disabilities to enjoy sports events with dignity and equality. **Objective**: This research study aims to investigate the accessibility and inclusion of people with disabilities in the stadiums of Qatar during the 2022 FIFA World Cup. The study will examine the facilities provided for disabled fans, including seating arrangements, parking, and transportation. It will also explore the experiences of disabled fans during the tournament and the initiatives taken by FIFA, Qatar 2022, and the Supreme Committee to ensure accessibility and inclusivity beyond the World Cup. The study will provide insights into the challenges faced by disabled fans and the measures taken to overcome them, as well as recommendations for future events to ensure accessibility and inclusion for all. The research will contribute to the ongoing efforts to promote sustainability and wider accessibility in Qatar and beyond. **Method:** For this research, a thorough literature review was conducted to gather important insights from three types of articles. Additionally, YouTube videos were utilized to collect valuable information and perspectives related to the topic. This two-step approach ensured a comprehensive analysis of available resources for our research. **Result**: The stadiums for QATAR 2022 had parking, restrooms, hearing loop inductors for those who use hearing aids, and wheelchair-accessible seats. There were also committed volunteers and personnel on hand to offer assistance throughout matches. The stadiums built for QATAR 2022 offered sensory rooms with controlled lighting and assistive technology for neurodiverse fans, including children with autism. Competent professionals ensure the comfort and safety of spectators during sports. FIFA 2022 games have also included audio-descriptive commentary for viewers who are blind or partially sighted. Additionally, the FIFA Interpreting App, which is accessible for download from the iOS and Google Play Stores, contains in-depth explanations and player interviews. In order to accommodate attendees with a variety of needs and abilities, the FIFA fan festival and other entertainment events offer a variety of accessible features. **Conclusion**: In conclusion, the Qatar 2022 Stadium Committee has taken significant steps to enhance accessibility for people with disabilities during the World Cup. The provision of accessible tickets, audio-descriptive commentary, sensory rooms, and inclusive fan and entertainment attractions demonstrates their commitment to inclusivity.

ORAL_10

Exploring E-Sport Access in Yogyakarta

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Abstract
Introduction: In today's digital age, people have become accustomed to using gadgets for various tasks with just a single click, anytime and anywhere. This marks the era of Industry 4.0, representing the fourth industrial revolution following steam-powered mechanization, electricity, and information and communication technology (ICT) (Culot et al., 2020). Tasks such as payments via QR codes and food ordering through mobile apps exemplify the increasing automation of daily activities. This era allows individuals to earn money and develop skills conveniently. Beyond financial gain, people can enhance skills like cooking, music, sports, academics, and more by creating online content, fostering self-learning. Online classrooms and platforms enable easy access to knowledge, promoting skill acquisition (Venkatraman et al., 2022). While reduced human interaction may limit understanding, online learning offers the advantage of limitless replay and flexibility. **Objective:** This research aimed to examine Yogyakarta people accessing Esports based on gender, age, and profession. As we know, nowadays Esports is trending among all young people and everybody can do their live stream on Youtube, Twitch, and much more. In every live stream, there are a lot of variants of people, from their age, gender, and profession, we like to explore more about people who are always accessing Esports for their living in Yogyakarta. The research is constrained by google forms in the form of filling out a questionnaire that we distribute to all people in Yogyakarta. **Method:** We use explorative research with a survey method, observation, literature, and data analysis. Exploratory research explores new knowledge to try to discover existing or potential problems. We used the sample from people living in Special Region Yogyakarta and spread the survey from WhatsApp. The total who filled out the survey is 376 people. **Result:** The result of this research is that 267 (71%) boys filled out the survey and 109 (29%) girls filled out this survey. Their profession filled out this survey 209 (55%) from students and 167 (45%) from other occupations. The age of people who filled out this survey is from 13-18 y.o there are 105 (28%), 19-24 y.o there 109 (29%), 25-30 y.o there are 68 (18%), and 31-47 y.o there are 95 (25%). **Conclusion:** The conclusion is that boys tend to exhibit more dominance due to innate competitiveness. Girls face stereotypes encouraging passivity, verbal harassment, and abuse. Students dominate Esports due to ample free time and skill enhancement. Teachers follow, requiring critical thinking. The age breakdown is as follows: 19-24-year-olds aspire to be Esports athletes. 3-18-year-olds enjoy free time for gaming. 25-30-year-olds play for fun or stream AdSense. 31-45-year-olds, economically stable, play Esports for recreation.

ORAL_11

Understanding "Sunnah Sport": A Phenomenological Examination of Increasing Public Interest in Archery in Indonesia

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Abstract
Introduction: The growing interest of the Indonesian populace in archery is a topic worthy of further investigation. One of the factors widely suspected to be the driving force is the motivation to practice religion by adhering to the sunnah, or the advice of the Prophet. Then the term "sunnah sports" entered popular culture. In Islam, hadiths of the prophet have been widely disseminated and have become the impetus for individuals to practice archery. **Objective:** This article seeks to examine how far the construction of the understanding that archery is a sunnah sport has progressed and how it has nurtured a modern and traditional public interest in archery. In addition, the purpose of this study is to examine the origins of the conception that archery is a sunnah sport, as this trend only arose around 2010. This research also seeks to determine the extent to which archery, which is designed as a sunnah activity, is sustainable. **Method:** Through in-depth interviews with informants, field observations, and literature studies, phenomenological research employs a qualitative methodology**. Result:** There is a belief held by certain individuals that archery can be considered a sunnah sport since it aligns with their interpretation of the hadith attributed to the Prophet Muhammad. This hadith suggests that archery is among the most commendable recreational sports to engage in. To clarify, archery is commonly understood as a sport that, according to Islamic beliefs, may yield a reward for Muslim participants. In addition to this, the increase in religious conviction can be attributed to the dissemination of knowledge facilitated by religious instructors in Islamic forums or educational settings, specifically referencing the book Al Furusiyah Al Muhammadiyah authored by Ibnul Qoyyim Al Jauziy. This particular text encompasses the principles governing archery within the context of Islamic teachings. The aforementioned mindset pertaining to archery subsequently proliferated through the organization of archery events across various communities, educational institutions, and Islamic boarding schools across multiple areas in Indonesia. **Conclusion:** The increasing popularity of archery as a sport can be attributed to societal perceptions and the recognition of archery as a Sunnah activity rooted in Islamic doctrine. Future research can investigate the extent to which the notion of archery as a leisure and tourism attraction can persist in the community.

ORAL_12

The Comparison of Music and Without Music Conditions on Shooting Score Performance in 10-Meter Air Rifle Shooters

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Abstract
Introduction: The purpose of this study was to assess the comparison of music and without music conditions on shooting score performance in 10-meter air-rifle shooters. 7 males and 8 females (N=15) of air-rifle shooters participated as a subject, age of 18 to 32 (22.0 ± 3.17 years) recruited from the National Defence University Malaysia (NDUM) and Malaysia National shooters. All participants had at least five years of competitive experience at the state level in air rifle shooting. Process of collecting data will be separated 7 days each day, data collection began with participants performing the shooting procedure by fired in total of 120 shots, 60 shots for each condition in different situations, with and without music, but the order of the two conditions was chosen at random to avoid an order effect. Results showed there was significant differences between music (601.8 ± 3.94) and without music conditions (605.8 ± 3.87) on shooting score performance ($p<0.05$). As a conclusion, music did not enhance on shooting performance. It is act as a noise or distracting stimulus. **Objective:** The purpose of this study was to assess the comparison of music and without music conditions on shooting score performance in 10-meter air-rifle shooters. **Method:** 7 males and 8 females (N=15) of air-rifle shooters participated as a subject, age of 18 to 32 (22.0 ± 3.17 years) recruited from the National Defence University Malaysia (NDUM) and Malaysia National shooters. All participants had at least five years of competitive experience at the state level in air rifle shooting. Process of collecting data will be separated 7 days each day, data collection began with participants performing the shooting procedure by fired in total of 120 shots, 60 shots for each condition in different situations, with and without music, but the order of the two conditions was chosen at random to avoid an order effect. **Result:** Results showed there was significant differences between music (601.8 ± 3.94) and without music conditions (605.8 ± 3.87) on shooting score performance ($p<0.05$). **Conclusion:** As a conclusion, music did not enhance on shooting performance. It is act as a noise or distracting stimulus.

ORAL_13

Successful Serves Domination to Winning Games in Sepak Takraw on STL Premier League Season 2021/2022

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Abstract
Introduction: The strategy of service variations plays an important role for tekong players in the sport of sepak takraw. The decision of service selection during the game affects the playing pattern of group members to win the match. **Objective:** This study was carried out with the aim of finding out the effective selection of service variations by tekong players by using three types of serve that is sepak kuda serve, sepak sila serve and tapping/drop serve in the STL Premier League competition season 2021/2022. **Method:** A total of 23 match videos taken from the STL Premier League season 2021/2022 competition were analyzed by the researcher for this study. After being divided into sets, there were a total of 27 sets, and 827 minutes of videos that were analysed. By using the notational analysis method, the sepak kuda serve has a very high value in collected point compared to the other two services that are used as indicators, namely the sepak sila serve and the tapping/drop serve. **Result:** After the data analysis has been done, the results show that there is a significant difference between the three types of service variations. By using a one – way ANOVA revealed that there was statistically significance difference in mean collected point between at least two model ($F(2,45)=[7.331]$, $p=0.002$). This proves that the selection of serving variations by the tekong greatly influences the team to win the match. **Conclusion:** The most important details in this text are that the most effective and efficient serve used by tekong players in the STL Premier League competition this season 2021/2022 is the Sepak Kuda serve. A One-Way ANOVA revealed that there was statistically significant difference in mean collected point between at least two models, and that only two pairs appear to be significantly different (Sepak Kuda Serve, Tapping/Drop Serve) and (Sepak Kuda Serve, Sepak Sila Serve). The researcher found that the serve done by a tekong player during a match can be predicted, with a sepak kuda serve being the most determinant predictor for teams to win

ORAL_14

The Sports Facilities of the Qatar FIFA World Cup Impacted the Tourism of the Country

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Abstract
Introduction: To investigate whether the availability of sports facilities in Qatar for the FIFA World Cup impacted the number of tourists visiting the country. To assess the impact of the sports facilities on tourism in Qatar. **Objective:** To assess the impact of the World Cup on tourism in Qatar, including the number of visitors, the amount of money spent by tourists, and the overall economic impact on the country. **Method:** The design of the study is analyzed by systematic literature review and video documentation. **Result:** Increased tourism: The construction of the sports facilities for the Qatar FIFA World Cup has increased the number of tourists visiting the country. The World Cup is one of the most significant sporting events in the world and attracts millions of fans from across the globe. Infrastructure development: The construction of sports facilities has also led to the development of infrastructure such as roads, hotels, and public transportation. This has made it easier for tourists to travel within the country and access various attractions. **Conclusion:** The construction of sports facilities for the Qatar FIFA World Cup has positively impacted tourism, attracting visitors from around the world and boosting the economy. The facilities are state-of-the-art, with modern technologies integrated into their design. The Qatar government has invested in improving infrastructure to make Qatar a more attractive tourist destination.

ORAL_15

Stadiums for World Cup: The Continuous Evolution of Stadiums Used for World Cup Tournaments Around The World

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Abstract
Introduction: What are the obvious and continuous changes made towards stadiums as we progress further with the new trends? Why are the stadiums designed in a way to cater the needs of football fans, both fans who attend the match and fans who watch the televised version of the match? **Objective:** To investigate and provide an in depth understanding on the continuous evolution of stadiums around the world and to explore the reasons behind the continuous change on stadiums in areas such as design and needs of football fans. **Method:** According to past research and literature review, few stadiums around the world from different continents are chosen for an in-depth analysis based on its design, climate, location, community and technology. Based on these literature reviews, the impact of such information towards the world economy, the business behind the World Cup brand and the social advantages are explored further. **Result:** Findings show that as World Cup tournaments continue to be held every four years, the design team of the host stadiums continue to prepare stadiums to cater every football fan's needs. Cultural and environmental factors play an important role in terms of having fans to attend the match and witness the televised match. Landmarks and historical aspects of the match contribute significantly towards the stadiums built. **Conclusion:** Back then, our Greek ancestors aimed to provide seated views of sports games from the amphitheater's centre by craving steps onto the sides of hills. Today, we have world-renowned stadiums built and designed using the same objective for sports fans worldwide. Moving to the recent times, it is evident that the new and future stadium designs are taken more seriously especially when it comes to catering the needs of fans both at the stadium and at home. The inclusion of a landmark in the study is the current trend, meaning, having an historical and iconic landmark attracts more fans and enhances the success of the stadium.

ORAL_16

Comparing the Effects of Maltodextrin-Based and Simple Carbohydrate Mouth Rinse on Endurance Exercise Performance

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Abstract
Introduction: Rinsing CHO solution around the mouth and spit out stimulates can activate the oral receptors in the mouth, particularly the taste and trigeminal receptors. In recent years, studies have demonstrated that employing the method of mouth rinsing yields advantages in terms of endurance exercise performance compared to the ingestion of carbohydrates through neural pathway. The similar reward stimuli were stimulated with the use of maltodextrin and glucose mouth rinse. **Objective:** To contribute to the current understanding, we investigated the effect of maltodextrin and simple carbohydrates mouth rinse on endurance performance. **Method:** Initially, seventeen participants (9 male and 8 female) were recruited in this double-blinded, randomised-crossover experimental design, however due to the unforeseen occurrences, one of them withdrew from the study in the subsequent phase. Hence, there were sixteen participants (n=16) who completed all the three trials with the given 25 ml of 6.4% of mouth rinse solutions: (i) maltodextrin solution (MALT), (ii) glucose solution (GLU) and (iii) sucrose solution (PLA). All the testing measurements such as total distance covered and mean time were conducted using 2.4 km run, 12-min cycling test, and running-based anaerobic sprint (RAST) in each trial. A repeated measures ANOVA was performed to analyse the data with a significant level set at ($p<0.05$). There were significant differences in distance between PLA vs MALT (4.031 ± 0.756 vs 4.438 ± 0.582, $p = 0.9867$), and GLU vs MALT (4.019 ± 0.726 vs 4.438 ± 0.582, $p = 0.0052$). Furthermore, significant time differences were found in PLA and MALT (15.59 ± 3.733 vs 14.21 ± 2.145, $p = 0.0444$) with the time for 2.4km Run Test. The effect size calculated using Cohen's equation was demonstrated as medium effects in total distance covered (ES 1 = 0.603); (ES 2 = 0.637) respectively and small effects size in time (ES = 0.358). **Result:** No significant differences were found in mean time for 6 laps of RATS. **Conclusion**: In conclusion, the maltodextrin-based mouth rinse can enhance endurance performance significantly when compared to the simple carbohydrates, however no effect was achieved in the anaerobic measurements.

ORAL_17

The Association Between Cognitive Function and Physical Fitness in the Elderly

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Abstract
Introduction: Improved health status has contributed to a rise in life expectancy, resulting in a growing elderly population. Common issues encountered among the elderly are attributed to the aging process, including declines in cognitive function and physical activity. Reduced physical activity can lead to a decline in physical fitness. **Objective:** This study aims to investigate the correlation between cognitive function and physical fitness in the elderly. **Method:** The research follows a cross-sectional design with a sample of 86 elderly individuals from three nursing homes in Indonesia. Cognitive function is assessed using the MMSE (Mini-Mental State Examination) questionnaire, with a cut-off value of 24. Physical fitness is evaluated through a 6-minute walking test. The inclusion criteria encompass elderly individuals aged >60 years, the absence of significant medical history, the ability to read and write, and normal hearing function. **Result:** Results indicate that 53.5% of the participants exhibit decreased cognitive function, while 46.5% demonstrate normal cognitive function. **Conclusion**: In conclusion, this study revealed a relationship between cognitive function and physical fitness in elderly individuals with dementia ($p = 0.45$).

ORAL_18

Nutritional Intake and Supplement Consumption of West Java's Tarung Derajat Athletes

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Abstract
Introduction: There are still many martial arts athletes, especially West Java's Tarung Derajat athletes, who are not concerned about their nutritional condition, and there are still many athletes who are dependent on supplement consumption, which affects their performance. **Objective:** The study aimed to find out the nutritional intake and supplement consumption of West Java's Tarung Derajat athletes **Method:** This study used descriptive and quantitative methods by taking data from 13 of West Java's Tarung Derajat athletes, the nutritional intake data using a 24-hour food recall, and questionnaires to find out the supplements used by athletes. **Result:** The findings revealed that the average athlete had a normal nutritional state. Athletes have a deficit of energy intake when attempting to satisfy 100% of their energy calories; on average, athletes are only able to meet their calorie intake of 48.7% of the total energy required. Athletes' energy consumption from carbohydrate and protein sources has been met with a percentage of carbohydrate fulfilment of 32% and protein of 85.8%, while athletes consume excess fat with a percentage of 77.9%. **Conclusion**: The conclusion is that athletes can only meet 48.7% of the total required calorie intake, but the composition of energy from carbohydrate and protein sources is appropriate, even though there is an excess from fat sources, and the greatest consumption is vitamin C with a total of 15% for athletes.

ORAL_19

The Impact of Kang Duding Exercise on Enhancing Quality of Life in Menopausal Women

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Abstract
Introduction: Menopause often leads to various complaints among women, including dizziness, tiredness, and anxiety. Physical exercise is widely recognized for its positive impact on both physical and psychological well-being. Quality of life encompasses an individual's satisfaction with their physical, psychological, social, and environmental aspects of life. **Objective:** This study aimed to investigate the influence of exercise on the quality of life of menopausal women. **Method:** An experimental design with a pre- and post-test control group was employed over a period of 12 weeks. The study involved 32 women between the ages of 45 and 55, divided into two groups: the Kang Duding exercise group (2 sessions of 60 minutes per week) and the control group. The quality of life was assessed using the WHO-QoL questionnaire. **Result:** The findings revealed that Kang Duding exercise significantly improved all domains of quality of life (QoL) in menopausal women: physical ($p = 0.009$), psychological ($p = 0.006$), social ($p = 0.008$), and environmental ($p = 0.029$). **Conclusion**: Physical activity is known to positively impact the quality of life through various mechanisms. In conclusion, exercise effectively enhances the quality of life for menopausal women.

ORAL_20

The Effectiveness of Exercise on Physical Performance in Women Living with Dementia

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Abstract
Introduction: Dementia, characterized by a significant decline in cognitive function, can be exacerbated by insufficient physical exercise, which in turn leads to decreased physical performance. Women are known to experience dementia at a faster rate than men. **Objective:** This study aimed to investigate the impact of exercise on the physical performance of women with dementia. Employing an experimental design with a control group, the study conducted a 24-week pre- and post-test assessment. **Method:** The participants consisted of 30 women aged 60–90 years, divided into two groups: an exercise group (2x60 minutes per week) and a control group. Physical fitness evaluations included hand muscle strength assessed using a handgrip dynamometer and leg muscle strength evaluated through a 30-second sitting-standing test. **Result:** The results indicated that exercise did not significantly improve hand and leg muscle strength in women with dementia ($p > 0.05$). **Conclusion**: These findings suggest that numerous factors may influence fitness levels in women with dementia, and longer durations of exercise intervention may be necessary to observe improvements in physical fitness.

ORAL_21

Communication Among Coaches and Female Athletes Who Has Menstruation: Based on Perceptions and Experienced Elite Female Athletes' in Bandung City

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Abstract
Introduction: The lack of openness of elite female athletes to their coaches regarding their menstrual condition leads to decrease performance. **Objective:** The study aimed to accomplish two main objectives: (a) to investigate the experiences of elite female athletes regarding their menstrual cycle, particularly its impact on training and performance in competition, and (b) to female athletes' openness to the coach regarding menstruation. **Method:** 33 elite female athletes in Bandung City were given a questionnaire regarding their menstrual cycle, the symptoms experienced during menstruation, and how they communicate with their coaches during menstruation. In order to fulfill the objectives of this research and enhance a comprehensive comprehension of the experiences of elite female athletes, a descriptive study has been carried out. **Result:** This research found that elite female athletes with an average of aged 19±1.9 experienced menarche when they were 12±1.2 by menstruation lasting 6±1.1 days. The symptoms felt were 30.3% mood swings, 27.3% cramps, 21.1% abdominal and back pain, 15.2% easily tiredness, and 6.1% sleep disturbance. In addition, this study found that 63.6% of female athletes felt better after communicating their menstrual symptoms to their coach. **Conclusion**: In summary, it is important to recognize that the menstrual cycle is a natural body function and physiological process that can impact exercise and performance, as it is given symptom problems experienced by individuals, and it is equally important to increase opportunities to talk about the menstrual cycle and its impact on health, exercise, and performance.

ORAL_22

Comparative Analysis of Hand Muscle Strength in Elderly with and Without Dementia

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Abstract
Introduction: Dementia is a syndrome characterized by severe deterioration in cognitive function, resulting in the inability to independently perform daily tasks. Physical health is crucial for individuals to be capable of performing daily tasks effectively. Physical fitness is the capacity of an organism to engage in daily activities without experiencing excessive fatigue. **Objective:** The purpose of this study was to compare the consequences of hand muscle strength in elderly adults with and without dementia. **Method:** The study employed a cross-sectional methodology. The Mini-Mental State Examination (MMSE), with a cutoff score of 24, was used to determine the presence of dementia. Using a handgrip dynamometer, hand muscle strength was measured. The study sample involved 86 residents aged 60 to 80 from nursing homes in Bandung, Indonesia. For data analysis, independent sample t-tests were conducted. **Result:** There were significant differences between the right and left hands' muscle strength ($p = 0.001$ and $p = 0.014$, respectively). **Conclusion**: In conclusion, elderly women with dementia exhibit lower levels of physical activity and possible muscular imbalances compared to their peers without dementia.

ORAL_23

A Case Study: Implementing Isometric Handgrip Exercise to Reduce Blood Pressure in Elderly Individuals with Hypertension

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Abstract
Introduction: The elderly are a vulnerable age group susceptible to degenerative diseases, including hypertension. Hypertension can lead to serious complications and impact the quality of life of the elderly. Pharmacological and non-pharmacological therapies are used to reduce blood pressure in elderly individuals with hypertension. One non-pharmacological therapy that can be implemented is isometric handgrip exercise (IHE). **Objective:** This study aims to evaluate the effect of IHE on blood pressure in elderly individuals with hypertension. **Method:** The research design employed a qualitative approach with a case study design. Two elderly subjects with hypertension aged 60–70 years were involved in the study. The IHE intervention was performed for five consecutive days, once a day. **Result:** The results of this study indicate that IHE is effective in reducing blood pressure in elderly individuals with hypertension. Decreases in systolic and diastolic blood pressure were observed after five days of IHE intervention. Previous studies have also shown similar results, with blood pressure reductions following IHE exercises. **Conclusion**: This research has important implications for the management of hypertension in the elderly. IHE can serve as an effective and safe non-pharmacological alternative therapy to reduce blood pressure in elderly individuals with hypertension.

ORAL_24

The Sustainability and Environmental Impact of World Cup Qatar 2022

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Abstract
Introduction: How does the construction of stadiums and other infrastructure for the World Cup impact the environment in Qatar, and what measures are being taken to mitigate this impact? What is the social and economic impact of the World Cup on Qatar, and how does this impact the country's sustainability goals? **Objective:** To understand the potential impact of a major event like the World Cup on the environment and to identify ways to minimize any negative impact and maximize positive impact. **Method:** Case study: A detailed case study approach could be used to explore the sustainability and environmental impact of each event, focusing on specific aspects such as waste management, transportation, or energy consumption. This could provide a more in-depth understanding of the specific challenges and opportunities associated with each event. The data will be from observations or documents regarding Qatar's sports facilities. **Result:** Carbon emissions: The construction of new infrastructure and transportation of people and goods to and from the event may result in significant carbon emissions. Water consumption: Qatar is a water-scarce country, and the large amount of water needed to maintain the event may put additional strain on already limited water resources. **Conclusion**: In conclusion, while the World Cup Qatar 2022 has made some progress towards sustainability, there is still room for improvement. It is important that the organizers continue to work towards reducing the environmental impact of the event and prioritize sustainability in all aspects of the tournament.

ORAL_25

A Paradigm of "Merdeka Belajar" Curriculum Development in Physical Education Learning

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Abstract
Introduction: The dynamic education system has resulted in systematic curriculum changes and developments. The Covid-19 virus pandemic has impacted the curriculum, including learning Physical Education. Physical Education learning previously implemented Curriculum 13 and Emergency Curriculum to accelerate adaptation to environmental conditions. In 2022 the Indonesian Minister of Education implemented the Freedom to Learn Curriculum as an alternative curriculum to overcome learning setbacks during the pandemic. **Objective**: The purpose of this study is to describe and find out how the role of the independent Curriculum in Physical education learning with the development of Pancasila Student Profile competencies in Indonesia. **Method**: The research method uses a literature review of 33 articles relating to the topic information discussed. Articles are collected in Indonesian and English through National and International Journal Websites such as Google Scholar, PubMed, Proquest, Wiley, and Science Direct. **Result:** The results of the study show that the change in curriculum-13 to become an independent curriculum, especially in physical education learning, can be seen from the learning outcomes, which are the main objectives of learning movement skills, movement knowledge, motion utilization, character development and internalization of motion values used to support the Pancasila student profile program, such as leadership, sportsmanship, cooperation, and responsibility. Strengthening literacy and numeracy skills is used as a program to shape student character through physical education. **Conclusion:** The independent Curriculum allows each academic unit and teacher to plan physical education learning according to students' character; character development is developed through the Pancasila student profile program, which can be adapted to physical education learning materials.

ORAL_26

A Meta-Analysis of Neuromuscular Training Effectiveness on Balance Performance: Active and Non-Active Individuals

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Abstract
Introduction: Clinical guidelines recommend neuromuscular training (NMT) exercise as a core treatment for ankle injury prevention by improving balance. However, how effective it is on active as compared to non-active participants is still unknown. **Objective:** The aim of this study is to identify whether NMT is more effective on active or non-active participants in terms of improving balance performance. The data was retrieved from five databases: PubMed, Medline, WOS, Cinahl and SportDiscuss in February 2023. **Method:** Only English language and randomized controlled trials (RCTs) using NMT intervention on balance performance were included. Individuals who play recreationally or who have been classified as physically active participants in the study are considered active participants, whilst those who do not exercise or classified as inactive individuals in the study are considered non-active participants. Participants less than 18 years old or competing in high level of competition are excluded from the study. A total of 15 RCT studies were included. For the active participants, the NMT intervention on balance performance showed significant effect (standardized mean difference (SMD) = 0.26, 95% confidence interval (CI) 0.01 to 0.51; n=7 RCTs). Similarly, for the non-active participants, it displayed significant effect between NTM intervention and balance performance (SMD = 0.14, 95% CI -0.11 to 0.39; n= 8 RCTs). However, the effect size of active participants is greater than non-active participants meaning that NMT is likely to have a larger effect on enhancing balancing performance on active participants. **Result:** Neuromuscular training is more effective on individuals who are active than on those who are not. Thus, NMT intervention should be given more prominence in clinical settings, especially in active participants to improve balance performance. **Conclusion:** From clinical perspective, neuromuscular training is more effective on individuals who are active than on those who are not. Thus, NMT intervention should be given more prominence in active participants to improve balance performance.

ORAL_27

Screen Time, Sleep Quality, and Quality of Life Among Sport Collegiate Students During Ramadan

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Abstract
Introduction: Ramadan causes various changes in individual living habits, including increased screen time and changes in sleep patterns. These changes can impact the quality of life, especially in the student group. **Objective:** This study aims to assess screen time use, sleep quality, and quality of life among sports students during Ramadan. **Method:** A total of 151 students majoring in sports participated in this study. The data collection for this cross-sectional study consisted of the characteristics of the respondents, screen time, sleep quality, and quality of life obtained by using a questionnaire filled in directly by the respondents through the Google Form platform. **Result:** This study revealed there is a significant difference between sports-college students with good sleep quality and those with poor sleep quality in their use of screen time on weekdays (13.26 ± 5.38 hours), weeknights (10.99 ± 5.15 hours), and weekends (13.72 ± 6.58 hours). The prevalence of screen time on weekends also showed a significant difference between students with a poor, average, and good quality of life (p-value 0.013). A significant difference also shows between the sleep quality of sport-collegiate students with their quality of life. **Conclusion**: Pertaining to this, limiting screen time and regulating sleep patterns are crucial to enhancing the quality of life and reducing the likelihood of significant health issues, particularly during the holy month of Ramadan.

BPA_01

Somatotype Characteristics of Junior Martial Art Athletes in West Java

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Abstract
Introduction: Anthropometric and somatotype measurement analysis plays an important role in talent identification of young athletes also it can determine body characteristics and profiles that can improve athletes' performance. **Objective:** The objective of this study is to compare the somatotype characteristics of West Java's martial art junior athletes from wrestling, judo, karate, martial arts, taekwondo, and tarung derajat. **Method:** The method used in this study was a correlational survey with a cross-sectional design on 56 athletes aged 13-18 years old. Measurement of body segments was carried out using a scale, stadiometer, skinfold calliper, sliding calliper, and LILA tape, and somatotype calculations were carried out based on the formula from Carter Heath. **Result:** The results of this study revealed that most of the athletes (60%) had an ectomorphic body type while the remains are categorized as endomorph (35%) and mesomorph (5%). Martial arts athletes with ectomorphic body shapes tend to have good natural speed, since their thin and light bodies allow them to move quickly, dodge opponent attacks, and respond quickly to changing situations. **Conclusion**: A large number of published studies have established the importance of anthropometric and somatotype characteristics on talent identification of athletes. It is revealed that the dominant body type in junior martial arts athletes are ectomorph (60%) followed by endomorph (35%). Martial arts athletes with ectomorphic body shapes tend to have good natural speed. Their thin and light bodies allow them to move quickly, dodge opponent attacks, and respond quickly to changing situations, but it is essential to carry out further analysis between sports achievements and performance with the suitability of the sports in which athletes participate.