



Medical Team Support for Table Tennis Event – LPTK CUP XXI UM 2023

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ABSTRACT

LPTK CUP strives to improve relationships and unity among LPTK (Lembaga Pendidikan Tenaga Kependidikan) members. It achieves this by merging competitive elements with entertainment to promote a feeling of camaraderie and cooperation. Furthermore, LPTK CUP includes a range of sports competitions, including table tennis. This study aims to comprehend the medical team's involvement in providing support during the table tennis event at LPTK CUP XII UM 2023. The medical team is crucial in delivering general and specialized healthcare services (for sports injuries) throughout the table tennis competition at LPTK CUP XXI UM 2023. Additionally, various approaches are employed in this event, including 1) Acquiring Medical Equipment, 2) Collaborating with Relevant Entities, 3) Arranging the Placement of the Medical Team, 4) Conducting Screening and Medical Services, and 4) occurredviding Health Education. Most table tennis participants are less than 50 years old. Several injuries occur during the match, namely Abrasion, Shoulder Sprain, and Ankle Sprain. The injury management provided is based on the Rice Method for sports injuries.

KEYWORDS

Medical Team, Table Tennis, Sport Injury

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INTRODUCTION

LPTK CUP is an effort to enhance the quality and sense of togetherness among members of LPTK (Lembaga Pendidikan Tenaga Kependidikan). In 2023, LPTK CUP reached its 21st edition, hosted by Universitas Negeri Malang (UM). LPTK CUP combines competition and entertainment to foster a sense of brotherhood and collaboration, especially among former LPTK campus communities (Universitas Negeri Malang, 2023).

LPTK CUP XII UM 2023 is scheduled for four days (October 1-4, 2023). This event is attended by former LPTK campuses, including Universitas Negeri Malang (UM), Universitas Negeri Cendrawasih (UNCEN), Universitas Negeri Padang (UNP), Universitas Negeri Jakarta (UNJ), Universitas Negeri Makassar (UNM), Universitas Negeri Manado (UNIMA), Universitas Negeri





Medan (UNIMED), Universitas Negeri Padang (UNP), Universitas Negeri Semarang (UNNES), Universitas Negeri Surabaya (UNESA), Universitas Negeri Yogyakarta (UNY), Universitas Pendidikan Ganesha (UNDIKSHA), Universitas Pendidikan Indonesia (UPI), dan Universitas Sebelas Maret (UNS). Additionally, LPTK CUP features various sports competitions, including table tennis. (Universitas Negeri Malang, 2023).

Table tennis is among the most popular racket sports, attracting over 40 million participants worldwide (He et al., 2022). Table tennis is a challenging sport that demands technical readiness, strategic thinking, and mental and physical training. Players with advanced technical skills exhibit well-coordinated movements with precise striking force, resulting in sufficient ball speed and spin within a brief decision-making window (Wong et al., 2020).

As table tennis gains more global recognition, there has been a significant rise in the participation of individuals in the sport, leading to the establishment of table tennis teams or clubs in an increasing number of schools. Despite growing popularity, the sport has received relatively limited attention in sports research (Li et al., 2021). Previous studies related to table tennis have primarily focused on areas such as kinematics and biomechanics, exploring topics like differences in various racket strokes and services, examining the psychological aspects during matches, and comparing historical and contemporary methods of match analysis aimed at enhancing athletic performance (Teo et al., 2021). However, there needs to be more knowledge concerning sports injuries associated with table tennis.

A medical team is a trained group of professionals in the healthcare field with a specialized role in providing medical care, first aid, and healthcare support in various situations, including sports events (Ekstrand et al., 2019; Surya Aditya et al., 2023). A medical team can consist of doctors, nurses, paramedics, physiotherapists, medical technicians, and other trained healthcare professionals. The primary role of the medical team in sports events is to provide first aid and care for sports injuries and emergencies, as well as ensure the health and safety of individuals involved in sports competitions (Schwellnus et al., 2019; Surya Aditya et al., 2023).

This research aims to understand the process of medical team support during the table tennis event LPTK CUP XII UM 2023. In this activity, the medical team's role is crucial in ensuring the event's success. Furthermore, the medical team's position becomes highly critical due to the competition system that concludes within a single day, with some participating in sports events other than table tennis on the same day.

MATERIALS AND METHODS

This medical team assists by providing general and specific health services (sports injuries) during the LPTK CUP XXI UM 2023 table tennis competition. Apart from that, there are several methods used in this activity:

1. Procurement of Medical Equipment

Procurement of medical equipment includes medicines and medical equipment in general and specifically related to sports injuries. The medical team in this activity must ensure that it has the necessary medical equipment and drugs to provide general and special medical care for sports injuries. Medical equipment that must be owned includes analgesic spray, elastic bandages, splints, oxygen, resuscitation equipment, cervical collar, and other equipment and medicines.

2. Collaboration with Related Parties





The medical team collaborates with related parties both internally and externally. The internal parties involved were the Polyclinic Universitas Negeri Malang and UKM KSR PMI UM. Meanwhile, the external party involved is an affordable hospital as a referral place if there is an emergency.

3. Placement of the Medical Team

During the activity, the medical team chose a strategic place, which made it possible to monitor all participants during the competition. This is because, in the competition venue, there are six tables used. Therefore, the choice of location for the medical team must be adjusted to ensure overall observation speed and comfort in providing first aid and treatment to injured participants.

4. Screening and Medical Services

Medical screening is carried out before, during, and after the game. This is because the participants in this activity consist of lecturers aged 40 years and over. Before the match, screening measures vital signs, current complaints, and whether they are experiencing injury or fatigue. During the game, screening is done by asking for complaints about mistakes and injuries. Besides that, after the match, screening is carried out by measuring vital signs and assessing complaints and damages that may be experienced. Meanwhile, medical services provided include minor health checks and sports injury treatment.

5. Health Education

The medical team plays a role in providing health education to participants regarding how to manage fatigue during the match. This can be done by maintaining fluid and energy intake during the game. Apart from that, you can ask the participants or trainer to ask for a time out when they feel tired. The medical team also asked participants for longer rest breaks between sets or matches.

Meanwhile, the distribution of personnel during this activity is presented in Table 1

Table 1. LTPK CUP XXI UM 2023 Table Tennis Medical Team Personnel

No	Personnel	Amount
1	Doctor	1
2	Nurse	1
3	KSR PMI UM	6
4	Ambulance Crew	2

RESULTS AND DISCUSSION

LPTK CUP XII UM 2023 is scheduled for four days (October 1-4, 2023). This event was officially opened on October 1, 2023, by the Rector of Universitas Negeri Malang (UM). After the opening ceremony, sports competitions were held, including table tennis. The table tennis matches took place over three days (October 2-4, 2023) and were held at the Lecture Hall Building, Faculty of Education, Universitas Negeri Malang.

The table tennis competition at LPTK CUP XII UM 2023 consists of three categories: women's doubles, men's doubles, and men's singles. The women's doubles competition is participated by 15 pairs (30 individuals), the men's doubles has 31 teams (62 individuals), and the men's singles has



24 participants. Table tennis has two categories: the general category and the executive category. The broad variety is open to faculty members under 50, while the administrative class is for those aged 50 and above. The age distribution of the table tennis participants is presented in Table 2.

Table 2. Age Distribution of LTPK CUP XXI UM 2023 Table Tennis Participants

Characteristics	Amount	
	n	%
Women's Doubles		
< 50 years	26	86.6
> 50 years	4	13.3
Men's Doubles		
< 50 years	50	80.64
> 50 years	12	19.35
Men's Singles		
< 50 years	18	75.0
> 50 years	6	25.0

Table 2 shows that most table tennis participants are less than 50 years old. Even though participants over 50 are in the minority, the medical team still pays special attention to considering the participants' physical status and the intensity and number of matches they have to play.

Table 3 shows points of injuries experienced by participants in table tennis matches.

Table 3. LTPK CUP XXI UM 2023 Table Tennis Injury

Injury	Amount
Abrasion	4
Shoulder Sprain	1
Ankle Sprain	2



Picture1. Medical Team LTPK CUP XXI UM 2023 Table Tennis



Picture 2. Health Screening And Education For Executive Participants



Picture 3. Providing Analgesic Spray To Reduce Pain During The Match



1. Abrasion

Abrasions are shallow injuries on the skin and the inner linings of the body, disrupting the continuity of tissues. They are typically minor wounds that mainly affect the skin's outermost layer (the epidermis) and usually do not result in significant bleeding. Most abrasions heal naturally without leaving noticeable scars. However, if the injury goes deeper into the dermis, it can lead to the formation of scar tissue during the healing process (Shrestha et al., 2023; Twomey et al., 2019).

Abrasions primarily occur due to friction that rubs against the epidermis, causing the removal of the outer skin layer. These abrasions can take various forms resulting from blunt trauma, with friction and impact being the most common causes. Although less common, pressure-related scrapes can have greater legal significance, especially when identifying the material or object responsible for the injury (Shrestha et al., 2023; Twomey et al., 2019).

In table tennis matches, abrasion occurs on the participants' fingers. This is caused by friction between the skin and the table tennis bet. Treatment is given based on cases where abrasion wounds are found, namely cleaning the abrasion wound using normal saline and closing the wound using hansaplast. In addition, during the wound care process, the medical team applies sterile principles, thereby reducing the risk of infection.

2. Shoulder Pain

Shoulder pain injuries in table tennis are categorized as acute pain and pain on a mild-moderate scale. Acute pain is a sensory or emotional experience related to actual or functional tissue damage, with sudden or slow onset and mild to severe intensity that lasts less than three months (Persatuan Perawat Nasional Indonesia, 2017). Mild pain is pain on a scale of 1-3 out of 10, is usually not bothersome, and can be tolerated without the help of medication. Meanwhile, moderate pain is pain on a scale of 4-6 out of 10, quite annoying, and requires pain medication such as analgesic spray (Black & Hawks, 2014).

Shoulder pain in table tennis is caused by shoulder movement when hitting the ball. Shot techniques in table tennis are greatly influenced by shoulder muscle strength. Apart from that, to get the desired hit, whether in terms of movement or strength, you must consider the contact between the ball and the bet. This can cause excessive movement and performance of the shoulder, which can cause minor injuries characterized by pain (Biz et al., 2022).

Management of shoulder pain carried out by the medical team is based on the RICE Method for sports injuries. If a participant experiences shoulder pain while still competing, the medical team will assist and treat the injury by administering an analgesic spray. Meanwhile, when the participants had finished the match, the medical team instructed them to rest and gave them an ice compress. Ice compresses are given every 3 minutes and a 2-3 minute break after ice is given (Scialoia et al., 2020). Ice compresses are given while participants wait for the following match schedule.

3. Ankle Sprain

A sprain is a form of injury in the form of stretching or tearing of the ligament (tissue that connects bone to bone) or joint capsule, which provides joint stability (Rougereau et al., 2022). Ankle Sprain can occur due to sudden excessive stretching of the ankle ligaments. In table tennis matches, this incident can be caused by changing standing positions to receive/return the ball with a blow or incorrect foot support when running after the ball (Biz et al., 2022).

Management of ankle sprains during competition is based on the RICE Method of sports





injuries: the first step is to instruct participants to rest the injured body part. Then, give an ice compress once every 3 minutes and a break of 2-3 minutes after giving the ice (Scialoia et al., 2020). This management is carried out after the match.

Meanwhile, ankle sprain management is carried out during the match by administering an analgesic spray to relieve pain. In this table tennis match, only a mild ankle sprain was experienced so that several participants could continue the match. However, the medical team provides health education to stop competing when the injury worsens. The medical team also pays special attention to participants who suffer injuries to continue monitoring them during the match.

CONCLUSIONS

The role of accompanying the medical team is vital at sporting events, especially when participants are 50 years and over. The medical team's part in sports competitions is very complex, including procurement of medical equipment, collaboration with related parties, placement of the medical team, screening and medical services, and health education. Injury cases found during the LPTK CUP XXI UM 2023 table tennis match were abrasion, shoulder, and ankle sprain. The first aid given to these injuries has been adjusted to existing standard operating procedures so that match participants receive help treatment and do not suffer more severe injuries.

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Conflict of Interest

The authors affirm that they have no known financial or interpersonal conflicts that would have appeared to impact the research presented in this study.

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