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# The Level of Knowledge of Kancil Mas U-21 Football Athletes about Sports Injuries, Treatment, and Prevention

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Abstract. The study aims to determine the level of knowledge among Kancil Mas football athletes regarding sports injuries, treatment, and prevention. A descriptive statistical design is employed to obtain an overview of athletes' understanding of injury management in sports contexts. Data collection was carried out using an online questionnaire distributed through Google Forms via the WhatsApp application. The sample consisted of thirteen male Kancil Mas football athletes aged between nineteen and twenty-one years. The research findings revealed that a considerable proportion of athletes demonstrated a moderate to low level of understanding related to sports injuries, as well as methods for treatment and prevention. The outcome indicates that Kancil Mas football athletes generally possess a moderate level of knowledge in recognizing, managing, and preventing sports injuries, emphasizing the importance of continuous education and injury-prevention training in athlete development programs.

Keywords: knowledge; kancil mas football athlete; sports injury

Abstrak. Penelitian ini bertujuan untuk mengetahui tingkat pengetahuan atlet sepak bola Kancil Mas mengenai cedera olahraga, penanganan, dan pencegahannya. Penelitian ini menggunakan pendekatan deskriptif dengan analisis statistik sederhana. Pengumpulan data dilakukan melalui penyebaran angket atau kuesioner secara daring menggunakan Google Form melalui aplikasi WhatsApp. Sampel penelitian terdiri atas 13 atlet sepak bola Kancil Mas berjenis kelamin laki-laki dengan rentang usia 19–21 tahun. Hasil penelitian menunjukkan bahwa sebagian besar atlet sepak bola Kancil Mas memiliki tingkat pemahaman yang masih tergolong sedang bahkan rendah mengenai cedera olahraga, serta penanganan dan pencegahannya. Berdasarkan hasil tersebut dapat disimpulkan bahwa atlet sepak bola Kancil Mas memiliki tingkat pengetahuan sedang tentang cedera olahraga serta cara penanganan dan pencegahannya.

Kata kunci: pengetahuan; atlet sepak bola kancil mas; cedera olahraga

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#### INTRODUCTION

Football is a competitive team sport consisting of eleven players, including a goalkeeper, in which the primary objective is to score as many goals as possible while preventing the opposing team from scoring (Okta & Hartono, 2021). The sport primarily relies on footwork, with goalkeepers permitted to use other parts of the body to block or control the ball. Matches are divided into two halves separated by a short break, and players wear specialized uniforms and footwear, while goalkeepers use distinctive attire for protection and identification (Annaafi', 2020).

Football has gained universal appeal and is played by both men and women of various age groups. Successful performance in football requires a systematic and consistent training process supported by professional guidance and appropriate coaching strategies (Nada Sekar Sari, 2020). Over time, football has undergone significant developments in terms of competition regulations, playing field dimensions, equipment, and officiating systems, enhancing both player safety and the sport's global popularity (Moh Nur Rofik, 2022).

Sports injuries remain a common issue in football due to physical contact, technical errors, and excessive physical exertion (Muhibbi et al., 2023). Such injuries occur when the body experiences strain, impact, or repetitive motion beyond its physiological capacity, leading to tissue damage, pain, or restricted movement (Atmaja et al., 2024). Immediate and appropriate management is crucial to prevent

complications that could lead to prolonged disability or even early retirement from competitive play (Sidik Siregar et al., 2022). Injuries in football often involve muscles, joints, and ligaments, which are vulnerable to mechanical stress during training and competition (Nurcahyo, 2015). Both extrinsic factors, such as poor facilities and inappropriate techniques, and intrinsic factors, including inadequate conditioning and fatigue, contribute significantly to the risk of injury (Nurwahidah & Dewangga, 2023). Effective injury management therefore requires a multidisciplinary approach integrating medical, physical, and educational expertise.

Although proper treatment plays an essential role in rehabilitation, prevention remains the most effective strategy for minimizing sports-related injuries. Preventive measures form the first line of defense for athletes who face the potential risk of physical trauma (Dwi Astutik, 2021). Proactive injury prevention programs and coaching education are necessary to reduce the frequency and severity of injuries among football players (Subhan Sa'roni & Graha, 2019). Understanding the mechanisms, management techniques, and preventive actions associated with sports injuries enables athletes to maintain peak performance while minimizing the risk of recurrence.

Comprehensive knowledge of injury management is essential for both coaches and athletes. An informed understanding of the relationship between treatment methods and readiness to return to physical activity supports faster recovery and reduces the likelihood of reinjury (Rizal & Kasriman, 2023; Lalu & Esser, 2024). Structured injury prevention and recovery programs are integral to athlete development and long-term performance sustainability (Herdiandanu & Djawa, 2020). Coaches also need to possess basic medical literacy related to injury prevention and emergency care to ensure player safety during training and competition (Hadi & Sari, 2023). Early identification of injuries and proper first-aid application are vital aspects of football training that can significantly minimize the long-term consequences of trauma (Putra et al., 2024).

Given the prevalence of sports injuries and the essential role of knowledge in their management, it is important to evaluate the awareness level of football athletes concerning injury prevention and treatment. Understanding athletes' awareness allows trainers, educators, and sports institutions to develop targeted educational interventions. Therefore, the present study investigates the level of knowledge among Kancil Mas U-21 football athletes regarding sports injuries, treatment, and preventive measures. The findings are expected to provide valuable insights into the implementation of injury management education programs and support safer and more sustainable athlete development.

### **METHODS**

# Research Design

The study applied a descriptive statistical design, which, according to Darmawan (2023), involves the collection, presentation, and interpretation of numerical data, including the computation of statistical values and the construction of diagrams or graphical representations to describe a phenomenon. The research aimed to provide an objective overview of the level of knowledge related to sports injuries among football athletes. The population consisted of football players who were members of the Kancil Mas club, and the study involved thirteen participants selected based on specific inclusion criteria. The purposive sampling technique was employed to ensure that only athletes meeting the required characteristics were included in the study.

#### **Population And Sample**

The inclusion criteria established for the research were as follows: (1) active membership in the Kancil Mas football club, (2) male or female athletes, and (3) age between nineteen and twenty-one years. Data collection was carried out using an online questionnaire distributed via the WhatsApp application. The instrument consisted of closed-ended questions designed to assess the athletes' understanding of sports injury management. Responses were evaluated using a Guttman scale, which provides two answer options True (B) and False (S) to allow for clear differentiation in the level of knowledge measured.

# **Categorization Norms**

The categorization system in the study comprised five distinct levels of knowledge ranging from very low to very high. These levels were established to classify respondents' scores based on their total responses. The five categories were: very low, low, moderate, high, and very high. This categorization

facilitated the interpretation of the statistical results by providing a structured framework for evaluating the participants' knowledge distribution regarding sports injury, treatment, and prevention.

#### RESULTS AND DISCUSSION

The study investigated the level of knowledge among Kancil Mas U-21 football athletes regarding sports injuries, management, and prevention. Data were obtained from thirteen respondents through a structured questionnaire consisting of forty true-or-false items. Each item represented aspects of the athletes' cognitive understanding related to injury mechanisms, first-aid responses, and preventive measures. The responses were analyzed descriptively using categorical classifications divided into five levels of knowledge: very low, low, moderate, high, and very high. The findings are presented according to three main variables: knowledge of sports injuries, knowledge of injury management, and knowledge of injury prevention.

# **Knowledge of Sports Injuries**

Table 1 summarizes the frequency distribution of athletes' knowledge of sports injuries. The data show one respondent in the very low category, two in the low category, seven in the moderate category, three in the high category, and none in the very high category.

Category	Score Interval	Frequency
Very High	X > 15.315	0
High	$13.56 < X \le 15.315$	3
Moderate	$6.09 < X \le 13.56$	7
Low	$10.56 < X \le 6.09$	2
Very Low	$X \le 10.56$	1
Total		13

Table 1. Knowledge Level of Sports Injuries

The distribution indicates that the majority of Kancil Mas football athletes achieved a moderate level of understanding regarding the concept of sports injuries. The findings reflect a partial awareness of fundamental aspects such as the causes, mechanisms, and types of injuries frequently occurring during training or competition. The predominance of the moderate category implies that the athletes possess basic knowledge of injury symptoms and risk factors but lack comprehensive understanding related to anatomical damage and the physiological processes behind injury occurrence.

The presence of three athletes in the high category demonstrates that a small proportion of respondents exhibit a strong grasp of injury-related information, possibly due to prior training experience or exposure to medical guidance from coaches. Conversely, the single respondent categorized as very low indicates a critical knowledge gap, suggesting inadequate awareness of how training intensity, environmental conditions, and improper movement patterns can contribute to injury development.

The absence of respondents in the very high category underscores that the athletes have not yet achieved optimal comprehension of injury classification and severity recognition. The finding aligns with Darmawan (2023), who explained that descriptive data analysis can reveal disparities in athletes' educational exposure to sports health concepts. The moderate average in the knowledge category emphasizes the need for more structured educational interventions within the Kancil Mas club to enhance athletes' cognitive readiness toward injury risk.

From a broader interpretation, the findings reveal that limited understanding of injury mechanisms may hinder early detection and self-care behavior during training. Athletes with moderate awareness are more likely to recognize surface symptoms but may not respond adequately when more severe internal trauma occurs. Such a condition could result in delayed treatment and an increased likelihood of chronic injury. These data substantiate the argument of Muhibbi et al. (2023), who reported that inadequate comprehension of musculoskeletal trauma often leads to extended recovery time and reduced athletic performance. Therefore, knowledge enhancement programs are essential to prevent improper handling of potential injuries and to build an informed sports culture emphasizing safety.

# **Knowledge of Injury Management**

Table 2 presents the results for the second variable, knowledge of injury management. The analysis shows that none of the athletes fall within the very high category, four within the high category, four within the moderate category, five within the low category, and none within the very low category.

<b>Table 2.</b> Know	vledge	Level	of In	ijury	Management

Category	Score Interval	Frequency
Very High	X > 10.33	0
High	$8.21 < X \le 10.33$	4
Moderate	$6.09 < X \le 8.21$	4
Low	$3.97 < X \le 6.09$	5
Very Low	$X \le 3.97$	0
Total		13

The pattern observed suggests an uneven distribution of knowledge related to injury management among the Kancil Mas athletes. The majority of respondents are clustered between the low and moderate levels, which signifies a deficiency in practical knowledge concerning first-aid principles, such as the use of the PRICES method (Protect, Rest, Ice, Compression, Elevation, Support) as proposed by Moh Nur Rofik (2022). This limited understanding likely reflects insufficient training exposure to medical or physiotherapy techniques during regular coaching sessions.

Athletes in the high category may have gained knowledge through self-learning or past experiences with personal injuries. Such athletes tend to demonstrate better awareness of basic injury management, including identifying the need for immediate rest, applying cold compression, or seeking medical consultation when symptoms persist. However, the relatively small proportion of this group indicates that formal education on injury handling remains minimal.

The five respondents categorized as low highlight a pressing educational concern. Insufficient knowledge of injury management can lead to incorrect treatment methods such as massaging acute injuries, delaying proper immobilization, or returning to physical activity prematurely. These behaviors not only prolong recovery but also increase the risk of reinjury. Nurcahyo (2015) emphasized that improper management of sports injuries can escalate mild trauma into chronic dysfunction, significantly affecting performance longevity.

Overall, the dominance of the low and moderate categories reveals a gap in the practical implementation of sports medicine knowledge among athletes. This condition implies that the Kancil Mas club requires structured workshops focusing on emergency response and athlete self-care. Furthermore, the lack of respondents in the very high category confirms the absence of systematic instruction on recovery protocols and physical therapy within the club's routine training program.

The descriptive findings also suggest that male athletes, who composed the entire sample, may possess less exposure to injury care education compared to professional players supported by medical teams. According to Hadi and Sari (2023), community-based football players often lack access to physiotherapists and rely solely on peer experience when addressing injuries. Such reliance on informal knowledge sources can perpetuate misconceptions and hinder proper treatment. Hence, institutional support from coaches and sports organizations is essential to develop a culture of informed injury management.

From an analytical standpoint, the findings also illustrate that the moderate proportion of respondents signifies a potential learning foundation that could be enhanced through health education. Integrating practical modules, such as first-aid drills and demonstration-based instruction, would likely raise the proportion of athletes in the high category, leading to more efficient recovery outcomes. The descriptive distribution, therefore, provides evidence for prioritizing injury management education as part of the athlete development curriculum at the regional level.

#### **Knowledge of Injury Prevention**

Table 3 summarizes the distribution of knowledge related to injury prevention. The data show one athlete in the very high category, one in the high category, six in the moderate category, four in the low

category, and none in the very low category.

**Table 3.** Knowledge Level of Injury Prevention

Category	Score Interval	Frequency
Very High	X > 7.10	1
High	$5.30 < X \le 7.10$	1
Moderate	$3.59 < X \le 5.30$	6
Low	$1.88 < X \le 3.59$	4
Very Low	$X \le 1.88$	0
Total		13

The data indicate that the largest proportion of athletes fall within the moderate category, which demonstrates a fair level of awareness regarding preventive behaviors but insufficient depth in applying them consistently during practice. Athletes classified as moderate generally understand the importance of warm-up routines, stretching, hydration, and rest; however, many fail to incorporate preventive strategies as habitual practice. The low representation in the very high and high categories suggests that comprehensive preventive education remains limited within the Kancil Mas football environment.

The presence of four athletes within the low category highlights inconsistent adherence to safety practices. Such inconsistency might stem from a lack of structured guidance during training sessions or insufficient emphasis from coaching staff on injury prevention. According to Herdiandanu and Djawa (2020), preventive exercises must be systematically integrated into every training session to minimize the likelihood of acute or chronic injuries. The findings further align with Lalu and Esser (2024), who reported that a strong relationship exists between the quality of injury prevention programs and the condition of athletes returning to play after injury recovery.

The single athlete categorized as very high demonstrates exceptional understanding, possibly attributed to personal motivation or previous participation in external injury prevention training. This finding suggests that individual experiences can significantly influence knowledge acquisition even without formal institutional support. Such athletes can serve as peer role models to promote awareness and behavioral change within the team.

From an interpretive perspective, the dominance of the moderate category across all variables reveals a consistent trend in the athletes' overall knowledge profile. The findings suggest that Kancil Mas athletes recognize the basic concepts of injury prevention but have yet to internalize them as essential components of their athletic discipline. This limitation can potentially compromise long-term performance and increase susceptibility to recurring injuries.

Furthermore, the descriptive results emphasize the critical role of coaches in facilitating preventive education. Coaches who possess adequate understanding of biomechanics, physical conditioning, and load management can guide athletes toward safer training practices. As argued by Dwi Astutik (2021), preventive measures must be the first strategic focus in sports injury management to reduce overall risk exposure. Without preventive awareness, reactive treatment becomes the dominant approach, which is less efficient and often more costly in terms of recovery time and athlete welfare.

Aggregating data from all three variables, the overall pattern indicates that Kancil Mas U-21 football athletes generally possess a **moderate level of knowledge** concerning sports injuries, management, and prevention. The moderate classification across the three domains highlights partial understanding rather than mastery. The findings demonstrate that while the athletes have basic familiarity with injury-related concepts, the application of that knowledge remains limited in scope and consistency.

The predominance of moderate and low categories across multiple variables signifies an educational gap within grassroots football organizations. Such a pattern aligns with the broader context of community-level sports, where formal sports medicine education and medical supervision are rarely accessible. According to Rizal and Kasriman (2023), injury management education conducted through structured workshops or sport-massage training programs significantly improves awareness among athletes and reduces injury recurrence rates. The present results reinforce the necessity of similar interventions in local football clubs.

The uniform distribution of responses also suggests that knowledge deficiencies are not confined to a particular aspect but rather span across injury recognition, treatment, and prevention. This holistic deficiency requires an integrated educational model encompassing both theoretical and practical components. As emphasized by Sartono (2019), early first-aid training and emergency response simulations should be introduced regularly to all athletes to strengthen knowledge retention and behavioral adaptation.

The results further indicate that the athletes' understanding of injury prevention remains limited by environmental and resource constraints. The absence of dedicated physiotherapists and lack of medical consultation during training sessions impede the consistent application of preventive techniques. Consequently, preventive actions tend to rely on intuition or imitation rather than evidence-based practice. Such limitations underscore the importance of collaborative efforts between sports institutions, universities, and local health organizations to implement sustainable educational programs aimed at enhancing athletes' awareness of injury prevention.

From a developmental perspective, the findings confirm that educational strategies focusing solely on physical performance without integrating health literacy are insufficient. Football athletes require exposure to scientific information about body mechanics, recovery principles, and training periodization to maintain optimal performance levels and minimize injury risk. Nurwahidah and Dewangga (2023) observed that integrating medical education into training curricula significantly improves athletes' ability to self-diagnose and manage minor injuries independently. The results of the present study support this notion, as the moderate level of knowledge recorded among Kancil Mas athletes reflects the absence of systematic educational intervention.

The descriptive analysis of 13 respondents reveals that the overall level of knowledge regarding sports injuries, management, and prevention among Kancil Mas U-21 football athletes is classified as moderate. The evidence highlights an urgent need for structured, evidence-based injury education integrated into regular coaching programs. The findings contribute empirical insight to the field of sports education by emphasizing the necessity of strengthening knowledge translation from theory to practical application in local football communities.

The findings of the study reveal that the overall level of knowledge of Kancil Mas U-21 football athletes regarding sports injuries, management, and prevention is classified as moderate. This level of understanding reflects a partial awareness of sports health concepts and limited mastery of practical applications in injury handling. The results correspond with the descriptive statistical approach proposed by Darmawan (2023), which emphasizes that descriptive data analysis provides a clear overview of the state of knowledge among specific populations. The observed moderate classification indicates that while athletes are familiar with fundamental injury concepts, comprehensive understanding and systematic application are still inadequate.

The moderate level of knowledge regarding **sports injuries** demonstrates that athletes are aware of the basic mechanisms of trauma but lack an in-depth understanding of anatomical and physiological implications. The data show that only a small proportion of athletes fall within the high category, while the majority remain in the moderate range. This pattern suggests that the educational exposure provided within the club environment has been insufficient to develop a deep conceptual grasp of injury mechanisms. The findings align with the perspective of Muhibbi et al. (2023), who stated that insufficient comprehension of musculoskeletal trauma increases the risk of prolonged recovery and functional limitations. Similar to previous research on amateur footballers, the current results show that many athletes are capable of recognizing pain and discomfort but often underestimate the severity of internal injuries, resulting in delayed medical attention.

In the variable of injury management, the results reveal a concentration of responses within the low and moderate categories. This outcome implies that knowledge about first aid and acute injury management remains limited among the athletes. The findings confirm the argument of Moh Nur Rofik (2022), who noted that the PRICES method—Protect, Rest, Ice, Compression, Elevation, and Support remains underutilized at the community sports level. The absence of athletes in the very high category suggests that knowledge of first-aid procedures has not been systematically introduced through regular training or educational programs. This limitation has significant implications for athlete safety, as incorrect or delayed management can transform minor injuries into chronic conditions. Nurcahyo (2015) emphasized that improper initial treatment may result in tissue degeneration, prolonged pain, and irreversible performance reduction.

Athletes within the low knowledge category may rely on informal sources such as peer advice or personal experience rather than evidence-based methods. Such reliance perpetuates misconceptions about injury management and leads to inconsistent recovery outcomes. Hadi and Sari (2023) observed a similar phenomenon among community-based football teams, where most athletes lacked access to medical professionals and relied solely on anecdotal practices. The findings from Kancil Mas athletes corroborate this observation, highlighting the urgent need for structured educational interventions in sports medicine. Furthermore, the results align with the theoretical position of Sartono (2019), who emphasized that immediate first-aid response training should be incorporated into athlete education to minimize the long-term effects of sports-related trauma.

The analysis of injury prevention knowledge reveals a distribution dominated by the moderate category, supported by a small number of high and very high responses. This pattern demonstrates partial awareness of preventive measures, including warming up, stretching, and maintaining physical balance, but inconsistent adherence in practical settings. The finding supports the notion by Herdiandanu and Djawa (2020), who argued that prevention is the cornerstone of sports safety and must be integrated into every stage of training. The relatively small representation of high-prevention knowledge suggests that athletes may understand preventive principles conceptually but fail to translate them into habitual behavior during practice or competition.

A contributing factor to the moderate prevention knowledge may relate to limited coach intervention in reinforcing safe movement patterns and workload management. The findings are consistent with Lalu and Esser (2024), who reported that athletes with structured rehabilitation and prevention programs showed better physical readiness and lower recurrence rates. The lack of systematic injury prevention education in the Kancil Mas club implies that athletes receive insufficient guidance on risk mitigation strategies, resulting in inconsistent preventive behavior. Dwi Astutik (2021) asserted that preventive training should be prioritized as the first strategy in injury management, as it reduces both recovery time and resource expenditure.

The cross-variable trend observed across sports injury, management, and prevention knowledge reflects an underlying educational deficit within the athlete development framework. The results suggest that the Kancil Mas football program focuses more heavily on technical and tactical aspects while underemphasizing health literacy and injury awareness. This observation is consistent with the findings of Rizal and Kasriman (2023), who demonstrated that structured training in sports massage and rehabilitation improved athletes' understanding of injury management and significantly reduced injury recurrence. The current findings confirm that community-level football programs require a more comprehensive approach to athlete education that combines physical conditioning with medical awareness.

From a theoretical standpoint, the data also support the multidisciplinary perspective proposed by Nurwahidah and Dewangga (2023), who emphasized that both intrinsic and extrinsic factors contribute to injury risk. The current results illustrate that knowledge deficiencies across multiple variables stem not only from limited individual exposure but also from institutional constraints such as inadequate facilities and the absence of certified trainers specializing in sports medicine. The absence of medical staff in community-based sports environments exacerbates the reliance on informal learning, reducing the efficacy of preventive and management practices.

The findings further emphasize the critical role of coaching staff as mediators in injury education. Coaches with sufficient understanding of biomechanics, recovery principles, and first-aid procedures can significantly reduce the incidence of injuries among athletes. As supported by Putra et al. (2024), the inclusion of first-aid and injury-prevention modules in school-level sports training improved both knowledge retention and behavioral outcomes. Therefore, implementing coach education programs focusing on health and safety would not only enhance player welfare but also contribute to long-term athletic performance.

An additional observation derived from the results concerns the relationship between experience and knowledge. The small number of athletes categorized in the high and very high levels across all variables likely represents individuals with greater exposure to training or previous personal injury experiences. According to Subhan Sa'roni and Graha (2019), athletes who have undergone rehabilitation processes tend to exhibit higher awareness of injury mechanisms and prevention strategies due to firsthand learning. Such findings indicate that experiential learning can serve as an effective complement to formal education, suggesting the importance of incorporating reflective and experiential components

into sports injury education.

The moderate overall result of the study reveals both strengths and weaknesses in the cognitive preparedness of the athletes. On one hand, the presence of baseline knowledge indicates that foundational awareness exists; on the other hand, the absence of advanced understanding points to a systemic shortcoming in the dissemination of health-related information. This gap represents an opportunity for sports organizations and educational institutions to collaborate in implementing structured injury-awareness programs. Incorporating modules on anatomy, biomechanics, and recovery processes into regular coaching curricula would significantly improve athletes' self-efficacy in managing injury risk.

The results also provide empirical evidence supporting the argument that knowledge alone is insufficient unless paired with consistent practice. Knowledge must be transformed into habitual preventive actions, as emphasized by Wardani et al. (2023), who noted that consistent training in ankle injury prevention among athletes led to measurable reductions in injury rates. The observed discrepancy between knowledge and practice among Kancil Mas athletes reflects the broader challenge in translating theoretical understanding into applied behavior within community-level sports.

From a policy perspective, the findings underscore the importance of integrating health education into grassroots sports programs. Community clubs such as Kancil Mas play a vital role in shaping the next generation of athletes, and thus, embedding injury management education within their operational structure would contribute to a safer and more sustainable sporting environment. Partnerships between local universities and sports institutions could also facilitate knowledge transfer through workshops, medical screenings, and practical demonstrations, as recommended by Muhibbi et al. (2023).

In conclusion, the findings indicate that the Kancil Mas U-21 football athletes exhibit a moderate level of knowledge regarding sports injuries, management, and prevention. The data highlight an urgent need for systematic educational interventions that emphasize preventive awareness, first-aid training, and continuous monitoring of athlete health literacy. Strengthening the integration between coaching, medical, and educational disciplines will not only enhance individual athlete performance but also support the broader objective of developing a sustainable sports safety culture. The outcomes contribute to the growing body of research advocating for the inclusion of health education as an integral component of athlete development within community-based sports systems.

# **CONCLUSION**

The findings of the research indicate that the majority of Kancil Mas football athletes possess a moderate to low level of knowledge regarding sports injuries, their management, and prevention. The descriptive analysis reveals that the athletes have a general understanding of the basic principles of injury recognition and care but demonstrate limited comprehension of the broader physiological and preventive dimensions. This condition reflects the absence of structured sports health education and systematic injury management training within the club environment. The results confirm that the overall level of knowledge among Kancil Mas U-21 football athletes can be categorized as moderate, emphasizing the need for the integration of educational programs focused on injury prevention, first-aid response, and rehabilitation techniques. Strengthening such educational interventions through collaboration between sports organizations, medical practitioners, and academic institutions would enhance athlete safety, optimize performance, and contribute to sustainable athlete development within community-based football systems.

#### REFERENCES

Annaafi', A. D. S. (2020). Efektivitas terapi masase terhadap nyeri dan range of motion (ROM) cedera lutut pada pasien Klinik Terapi Health and Sports Center (HSC) Universitas Negeri Yogyakarta [Undergraduate thesis, Universitas Negeri Yogyakarta]. Universitas Negeri Yogyakarta Repository.

Atmaja, A. N., Yuliastrid, D., & Susanto, I. H. (2024). Tingkat pengetahuan anggota UKM Karate Unesa terhadap faktor cedera, pencegahan, dan penanganan cedera. *Jurnal Porkes*, 7(1), 1–10. https://e-journal.hamzanwadi.ac.id/index.php/porkes/article/view/22987

Darmawan, S. (2023). *Statistik deskriptif*. Universitas Teknologi Yogyakarta. https://eprints.uty.ac.id/15053/2/Naskah%20Statistik%20Deskriptif-ISBN-FINAL.pdf

Damara Adiyogi, R. A. (2020). *Tingkat pengetahuan pelatih sepak bola lisensi D terhadap cedera olahraga* (pp. 46–53). [Unpublished manuscript].

- Dwi Astutik, D. (2021). *Tingkat pemahaman penanganan cedera oleh pelatih pada atlet Sekolah Sepak Bola (SSB)* [Unpublished research report].
- Hadi, P., & Sari, I. P. (2023). Upaya peningkatan pengetahuan tentang penanganan cidera olahraga pada pemain sepak bola di komunitas Jambi Fun Soccer. *Jurnal Abdimas Kesehatan (JAK)*, 5(3), 664–671. https://doi.org/10.36565/jak.v5i3.643
- Herdiandanu, E., & Djawa, B. (2020). Jenis dan pencegahan cedera pada ekstrakurikuler olahraga futsal di SMA. *Jurnal Pendidikan Olahraga dan Kesehatan*, 8(1), 97–108. https://ejournal.unesa.ac.id/index.php/jurnal-pendidikan-jasmani/article/view/37006
- Lalu, S., & Esser, B. (2024). Hubungan penanganan cedera olahraga dan kondisi saat kembali berolahraga pasca cedera pada remaja. *Jurnal Ilmiah Mandalika Education*, 5(1), 34–42. https://permatamandalika.com/index.php/MADU/article/view/104
- Moh Nur Rofik, F. R. K. (2022). *Tingkat pengetahuan penanganan cedera olahraga metode PRICES (Protect, Rest, Ice, Compression, Elevation, Support) pada atlet bola tangan* [Unpublished manuscript].
- Muhibbi, M., Yogaswara, A., Fariz, S., & Pratama, Y. E. (2023). Pendampingan pencegahan dan perawatan cedera olahraga melalui sport massage pada atlet PABERSI Kabupaten Jepara. *Jurnal Pengabdian Olahraga Masyarakat (JPOM)*, 4(1), 9–14. https://doi.org/10.26877/jpom.v4i1.14756
- Nada Sekar Sari. (2020). *Efektivitas terapi masase dilanjutkan dengan core stability exercise untuk penyembuhan cedera panggul kronis* [Undergraduate thesis, Universitas Negeri Yogyakarta]. Universitas Negeri Yogyakarta Repository.
- Nurcahyo, F. (2015). Pencegahan cedera dalam sepak bola. *Medikora: Jurnal Ilmiah Kesehatan Olahraga*, 1(1), 1–8. https://doi.org/10.21831/medikora.v0i1.4670
- Nurwahidah, K., & Dewangga, M. W. (2023). Tingkat pengetahuan atlet sepak bola wanita tentang penanganan cidera olahraga. *Jurnal Pengabdian Kepada Masyarakat (JPKM)*, 4(1), 106–113. http://jurnal.stokbinaguna.ac.id/index.php/JPKM/article/view/1671
- Okta, R. P., & Hartono, S. (2021). *Tingkat pengetahuan penanganan cedera olahraga pada mahasiswa* [Unpublished research report].
- Putra, D. M., Ertanto, D., & Sumantri, A. (2024). Pelatihan pertolongan pertama dan cedera olahraga di Sekolah Menengah Kejuruan Negeri 5 Bengkulu Selatan. *Jurnal Pengabdian Masyarakat Olahraga*, 3(2), 45–50. http://repository.unived.ac.id/id/eprint/1422
- Rizal, B. T., & Kasriman, S. K. (2023). Pelatihan penanganan cedera olahraga melalui sport massage pada klub sepak bola Minang Squad FC. *Jurnal SOLMA: Jurnal Pengabdian Masyarakat*, 2(2), 88–95. https://pdfs.semanticscholar.org/c26c/c4312e2464ad5421ce594b932564202410d8.pdf
- Sartono, H. O. A. F. (2019). Pelatihan penanganan pertama cedera olahraga: Training the first handling sports injury. *Jurnal MUI Muhammadiyah Untuk Indonesia*, 1(1), 1–9.
- Sidik Siregar, F., Nugroho, A., & Jejak, R. (2022). Penanganan pertama cedera olahraga bola voli. *Jurnal Olahraga dan Kesehatan Indonesia (JOKI)*, 2(2), 45–51. https://jurnal.stokbinaguna.ac.id/index.php/jok
- Subhan Sa'roni, A., & Graha, A. S. (2019). Efektivitas masase terapi cedera olahraga terhadap nyeri tumit dan nyeri otot tibialis pada atlet futsal SMA Negeri 1 Ciamis. *Medikora*, 18(2), 56–63. https://doi.org/10.21831/medikora.v18i2.26984
- Wardani, A. K., Nilawati, I., & Amin, N. (2023). Pelatihan penanganan dan pencegahan cedera ankle cabang olahraga sepak takraw putri PPLOP Jawa Tengah. *PADIMAS: Jurnal Pengabdian Kepada Masyarakat*, 2(1), 34–40. https://journal.unugiri.ac.id/index.php/padimas/article/view/2255