

**KNOWLEDGE, ATTITUDE AND USE OF INJURY PREVENTION STRATEGIES
AMONG COACHES OF SCHOOL SPORTS TEAMS IN UNIVERSITY OF BENIN**

BY

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CERTIFICATION

This dissertation by Adebimpe, Stella Lepe, is accepted in its present form as satisfying the dissertation requirement of the degree of Bachelor of Physiotherapy of the School of Basic Medical Sciences, College of Medical Sciences of the University of Benin.

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DEDICATION

This dissertation is dedicated to God almighty and to my mum MRS Lepe Omowunmi.

ABSTRACT

Background:

Sports-related injuries among young athletes remain a major concern in school sports programs, often resulting from inadequate preventive measures and insufficient coaching knowledge. Coaches play a vital role in ensuring athlete safety; hence, understanding their knowledge, attitude, and practices toward injury prevention is essential. This study assessed the level of knowledge, attitude, and injury prevention strategies among coaches of school sports teams, and examined the associations between selected demographic factors and these variables.

Methods:

A descriptive cross-sectional research design was used involving 50 coaches with at least one year of experience. Data on sports team KAP were collected using a structured questionnaire administered to school sports coaches across the institution. The instrument assessed respondents' knowledge of sports injuries, attitudes toward injury prevention, and the strategies they implement. Data were summarized with descriptive statistics of frequencies, and valid percentages, while Chi-square test was employed to determine associations between KAP variables and selected socio-demographic factors at $p \leq 0.05$.

Results:

Findings revealed that most coaches possessed moderate knowledge of sports injury prevention, although gaps were identified in specific domains of injury risk awareness. Significant associations were observed between years of coaching experience and attitudes toward preventing head and knee injuries ($p = 0.024$ and $p = 0.043$, respectively), as well as between years of experience and the use of FIFA 11+ and flexibility training on the pitch ($p = 0.000$ and $p = 0.001$). Additionally, the type of sport coached was significantly associated with attitudes toward preventing other injuries ($p = 0.025$) and the adoption of the FIFA 11+ program ($p = 0.048$).

Conclusion:

Although coaches demonstrated positive attitudes toward injury prevention, their knowledge and practical application of standardized prevention protocols remain inadequate. Strengthening capacity through continuous education, certification, and evidence-based workshops is recommended to enhance coaches' competence and ensure safer sports participation among students.

Keywords: Knowledge, Attitude, Injury Prevention, Coaches, School Sports.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Sports is played widely across the world. Certainly, it is an enjoyable and profitable activity for some. This activity comes with several injury occurrences based on the kind of sport. Over the years a large amount of populace over the world engages in sporting activities. Participation in sport and recreation has important positive implications for public health across the lifespan; however, the burden of sport-related musculoskeletal injury is significant, with the greatest risk being in youth and young adults (Emery et al., 2019). People who are involved in sporting activities are known as sportsperson or an athlete.

Sports injury are diverse in terms of mechanism of injury, how they present in individuals and how injuries should be managed (Verhagen et al., 2024). According to World Health Organization WHO, (2023), "Injury is defined as the physical damage that results when a human body is either briefly or suddenly subjected to intolerable levels of energy". Variability in Injury Rates, the study reveals that injury rates vary significantly among different sports. Sports like football, handball, and volleyball exhibit higher injury rates, while running and cycling demonstrate lower rates (Turska et al., 2023). Common Injury Types: Musculoskeletal injuries are prevalent, with common types including: Sprain, Strain, with lower injury rates, such as running and cycling.

Injury-prevention training programs focus on improving neuromuscular control through balance, agility, strength, and plyometric exercises. When performed precisely and consistently, evidence-based injury-prevention training programs can reduce the rate of non-contact injury by 51% to 62% (Emery et al., 2021). Furthermore, introducing injury-prevention training programs for preadolescent and adolescent individuals (ranging in age from 10 to 18 years)

reduces the magnitude of high-risk movement patterns and mitigates the development of such movement patterns, respectively. These programs have primarily been packaged as warm-ups to be incorporated by coaches and sports medicine professionals before practice.

Furthermore, the incidence of sports injuries may be influenced by athletes' level of performance such as professional or amateur athletes (Szukics et al., 2022). According to the National Collegiate Athletic Association (NCAA, n.d.), amateur athletes are individuals who do not play professionally (i.e., are not in a professional team or do not receive money more than actual or necessary expenses). In the NCAA context, amateur athletes include student-athletes in high school preparing to enter college or already in college. Studies have shown that injuries can be prevented through warming up, stretching cooling down, fitness, bracing and taping, complete treatment and rehabilitation of past injuries, protective equipment, balance training, adequate recovery and reconditioning.

The heterogeneity of sports injuries brings high-risk sports into the spotlight. High-risk sports can be referred to as those sports that put athletes at higher risk of sustaining injuries (Aman et al., 2016). These sports are characterized by contact and a high jump rate. High-risk sports are basically team sports of basketball, ice hockey, handball, field hockey, soccer, volleyball and football (Backx et al., 2016). These sports are associated with high injury incidence rates and ought to be the target of preventative actions (Aman et al., 2016; Krutsch et al., 2018).

Considering the potentially prolonged recovery and high rate of recurrence, effective methods of prevention and risk factor management are of great interest to athletes, trainers, coaches, and therapists, with substantial competitive and financial implications (Samuel et al., 2023). Coaches of school sports teams are the oversight of all the events and trainings pertaining to the competition. This makes them bear whatever burden the players are facing. Preventing injuries during training and in the competition now become their primary responsibility. They are in

charge of proper trainings, to ensure promotive, preventive, curative and rehabilitative measure are taken in the course of the trainings. Also, their maximum support, encouragement and motivation stands to be what the trainees need to push for a better participation in their various sporting activities and as well improve their skills.

Despite evidence suggesting that such programs can reduce injury, only about 20% of coaches engage them with their teams (Lauren et al., 2015). Injury prevention has fundamentally been the responsibility of the athletic trainer. However, only 37% of public and 27% of private schools with access to athletic trainers received full-time coverage, making it difficult to regularly provide care for all athletes (Ellen et al., 2019). When integrating injury-prevention training programs in youth sport, coaches are an invaluable resource, as they are the primary decision makers driving practice structure and content, present at all practices, and potential injury-prevention training program implementers. Coach engagement is almost universally agreed upon as one of the early steps for successful implementation. Due to their position, athletic trainers are key individuals to engage coaches regarding injury-prevention training programs.

The implementation of science frameworks and behavioral theories will be crucial in creating train-the-trainer programming to ensure that the needs and motivations of coaches are considered, addressed and the strategies applied are acceptable, appropriate, and realistic (Kelvin et al., 2023). Participation of sports has many health benefits, but participation also increases the risk of injuries (Kelvin et al., 2023). Sports events have led to a risk of musculoskeletal pain and injuries such as sprain, strain, tendinitis, fracture, soft tissue injury, bursitis, on their everyday lives thus leading to difficulty at school, work, and other daily activities. For example, there are about 8.6 million annual injuries incurred during sports participation in the USA (Okobi et al., 2022).

To deliver education and training effectively, coaches' motivations and the context in which the intervention will be administered should inform the implementation strategies (Oghumu et al., 2025). As such, a better understanding of their behaviors and motivations is key to successful implementation of injury-prevention training programs. Researchers have developed several implementation frameworks specifically for injury-prevention training program implementers to promote impactful intervention, (Finch et al., 2024). Others have drawn on existing behavioral theories and frameworks to evaluate the development of interventions and successful implementation of injury-prevention training programs. Although investigators provided roadmaps through these frameworks, the best implementation strategies for integrating injury-prevention training programs in the real world remain unclear.

It has been hypothesized that understanding the factors that influence this low or non-adherence rate may be the next logical step in this field of research (Verhagen et al., 2010). Regarding this, McGlashan and Finch (2010) have proposed that efforts should be made to understand the behavioural and social aspects of sports injury and prevention. To ensure the uptake and maintenance of injury prevention strategies, it is important to understand athletes' attitudes towards injury and safety (Finch et al., 2002). Many studies have been done to understand the knowledge, perception, and attitudes toward injury and injury prevention among high school athletes (Chrisman et al., 2013; Iversen & Friden, 2009; Kurowski et al., 2014). However, few studies in the literature have considered the attitudes of university athletes toward injury and injury prevention.

1.2 Statement of The Problem

Sports is an inevitable activity that most persons engage in, some health benefits and financial benefits attached for some. Study has shown that in injury prevention, strengthening and stretching exercises are beneficial before and after Sports to prevent injury. Wearing

comfortable protective equipment for sporting activities, warm-up phase, cool-down, physical fitness, complete treatment and rehabilitation, are other factors that help athletes in preventing injuries. Despite the injury event before, during and after a competition, coaches in school sports team have had little knowledge among athletes and how to prevent injury.

Research indicates that coaches play a vital role in promoting injury prevention, yet there is limited understanding of their knowledge, attitude and actual use of these strategies. Many coaches may lack adequate training, harbor misconceptions about the effectiveness of preventive measures, or face contextual barriers, such as time constraints or resource limitation, which hinders the ability to integrate these strategies into their coaching practices. This gap in knowledge, attitude, and practice contributes to the persistence of preventable sport injuries among young athletes. Without a clear understanding of these factors, efforts to design targeted interventions to enhance coaches' engagement with injury prevention strategies will remain limited, perpetuating the risk of injuries and their associated consequences in school sports settings.

1.3 Research questions

1. What was the level of knowledge among university sports coaches regarding injury prevention strategies?
2. What was the attitude of school sports coaches towards injury prevention strategies?
3. Do coaches of school sports team use injury prevention strategies for their players?

1.4 Aim of the study

This study determined the knowledge, attitude and use of injury prevention strategies among coaches of school sports team in the University of Benin.

1.4.1 Specific Objectives

- i. Determine the knowledge of injury preventions strategies among coaches of school sports team in the University of Benin.
- ii. Explore the attitude of coaches towards injury prevention strategies in the University of Benin Sports team.
- iii. Evaluate the use of injury prevention strategies by coaches for their players.

1.5 Hypothesis

1.5.1 Main Hypothesis

There would be no significant association between social demographic parameters (e.g., gender, years of experience, type of sport) and each of knowledge, attitude and use of injury prevention strategies of coaches for their players.

1.5.2 Sub Hypotheses

- i. There would be no significant association between social demographic parameters (e.g. gender, years of experience, type of sport) and knowledge of injury prevention strategies of coaches for their players.
- ii. There would be no significant association between social demographic parameters (e.g, gender, years of experience, type of sport) and attitudes of injury prevention strategies of coaches for their players.
- iii. There would be no significant association between social demographic parameters (e.g, gender, years of experience, type of sport) and use of injury prevention strategies of coaches for their players.

- iv. What was the association of social demographic parameters (e.g., age, gender, years of experience, type of sport) of coaches and each of knowledge, attitude and use of injury prevention strategies on their players.

1.6 Significance of Study

This study introduced effective and reliable injury prevention strategies technique and programs among coaches of school sports team. With the benefit to improve expertise in the sports world, reducing the severity of injuries incurred during sports training and the competition itself. Equally encouraging upcoming athletes to engage more in any sports that catches their fancy.

1.7 Scope/Delimitation

This study was among coaches of the University of Benin sports teams. The study will be delimited to the injury prevention strategy questionnaire.

1.8 Limitation of the study

The research employed a cross-sectional design, which was limited to the ability to establish causal relationships between coaches' knowledge, attitude, and their injury prevention practices. The associations identified can only suggest relationships rather than determine cause and effect.

The data were collected using self-administered questionnaires, which rely on participants' honesty and recall ability. This may have introduced response bias or social desirability bias, as some coaches may have overreported positive attitudes or practices to appear more competent or professional.

1.9 Definition of Terms

Some terms were used and were defined to understand the objectives in this research.

Knowledge: Knowledge refers to the theoretical or practical understanding of a subject, acquired through experience, education, or training. It encompasses facts, information, and skills gained through learning or observation (Merriam-Webster, 2025). In research contexts, knowledge often denotes awareness or familiarity with specific concepts or procedures (Polit & Beck, 2021).

Attitude: A stable psychological construct involving emotions, beliefs, and behavioural tendencies toward a specific entity, shaping positive, negative, or ambivalent evaluations. Formed by cognitive, affective, and behavioural factors, attitudes influence decisions and actions, evolving with experience and context (Albarracín & Shavitt, 2021; Maio *et al.*, 2022).

Practice: The deliberate, repeated engagement in an activity or skill to build expertise or achieve outcomes, applying knowledge in real-world contexts through iterative learning and adaptation within social and professional settings (Wenger-Trayner *et al.*, 2020; Nicolini, 2012).

Injury prevention strategies: Injury prevention strategies to systematic, evidence-based approaches designed to reduce the incidence, severity, and recurrence of injuries, particularly in sports or physical activity context (Donaldson *et al.*, 2022).

Coaches: According to the International Council for Coaching Excellence (ICCE), a coach is defined as a sports professional who is trained and certified to provide guidance, instruction, and supervision to athletes or teams to improve their performance and achieve their goals."

1.10 List of abbreviations

KAP: Knowledge, Attitude and Practice

WHO: World Health Organization

NCAA: National Collegiate Athletics association

ICCE: International Council for Coaching Excellence

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews existing literature relevant to the knowledge, attitude, and use of injury prevention strategies among coaches of school sports teams. The review is organized logically to provide a comprehensive understanding of the subject area, focusing on core and allied literature. The discussion includes the epidemiology of sports injuries in school settings, the role of coaches in injury prevention, relevant anatomical considerations, and clinical correlates. The literature is primarily sourced from peer-reviewed journals, which constitute at least 75% of the references, with additional sources from books and credible websites.

2.1 Introduction

Sports participation among school-aged children and adolescents has numerous physical, psychological, and social benefits. However, it is also accompanied by the risk of injuries that can impair performance, reduce participation, and, in severe cases, cause long-term disability. Injury prevention has therefore become a key aspect of sports management, particularly at the school level where athletes are still developing physically and may lack adequate conditioning.

Coaches play a critical role in safeguarding the health of their athletes by recognizing injury risks, applying preventive strategies, and cultivating safe training environments. Their knowledge, attitude, and practice (KAP) of injury prevention measures are essential in reducing injury occurrence and ensuring sustainable sports participation. Previous studies (Soligard et al., 2018; Owoeye et al., 2017; McKay et al., 2020) have consistently emphasized that adequate understanding and implementation of preventive strategies among coaches contribute significantly to athlete safety.

This chapter reviews the conceptual and empirical literature related to injury prevention strategies among coaches of school sports teams, focusing on definitions, relevance, and the KAP framework.

2.2 Conceptual Framework

The conceptual framework of this study is grounded in the Knowledge–Attitude–Practice (KAP) model, which posits that the acquisition of knowledge influences an individual’s attitude, and together, these shape behavioral practices. Within the context of school sports, coaches’ knowledge of injury prevention strategies affects how they perceive and value such interventions (attitude), which ultimately determines the extent and quality of their application (practice).

The framework assumes a sequential relationship among these constructs but also acknowledges the influence of socio-demographic variables (such as age, gender, years of coaching experience, and type of sport coached), which can either strengthen or weaken the relationships between knowledge, attitude, and practice.

2.3 Definition of Injury Prevention Strategies

Injury prevention strategies refer to systematic actions and interventions aimed at minimizing the risk, severity, and recurrence of sports-related injuries (Emery & Pasanen, 2019). These strategies encompass primary prevention (reducing injury risk before occurrence), secondary prevention (minimizing severity when injuries occur), and tertiary prevention (preventing recurrence or chronic disability).

Common injury prevention strategies in sports include structured warm-up programs (e.g., *FIFA 11+*), flexibility and balance exercises, strength and conditioning routines, use of protective equipment, adequate rest periods, and safe playing techniques. According to Finch

(2006), the “Translating Research into Injury Prevention Practice (TRIPP)” framework emphasizes not only developing evidence-based interventions but also ensuring their real-world implementation through education and policy integration.

Therefore, effective injury prevention goes beyond awareness—it involves practical application guided by scientific principles and supported by institutional policies.

2.4 Relevance of Injury Prevention Strategies

Injury prevention is crucial for maintaining athlete health, optimizing performance, and ensuring continuity in sports programs. According to Donaldson et al. (2019), effective injury prevention not only reduces healthcare costs and absenteeism but also enhances athletes’ confidence and longevity in sports.

In school sports teams, the relevance is even greater due to the age and developmental stage of athletes. Adolescents are particularly vulnerable to overuse and growth-related injuries, and improper training methods can have long-term musculoskeletal consequences (Emery et al., 2015). Implementing preventive strategies ensures that students develop proper movement mechanics, adequate physical conditioning, and safe participation habits.

Moreover, at the institutional level, injury prevention enhances the reputation of sports programs, reduces liability risks, and fosters a culture of safety. When coaches prioritize prevention, they contribute to a holistic sports development system that balances competition with well-being.

2.5 Knowledge of Injury Prevention Strategies

Knowledge refers to the awareness and understanding of injury mechanisms, risk factors, and preventive techniques. Coaches’ knowledge plays a pivotal role in shaping preventive practices.

Studies have shown that many school coaches have moderate knowledge of injury prevention but often lack formal training in evidence-based programs (Owoeye et al., 2017; Attwood et al., 2018).

In a study by Emery and Pasanen (2019), coaches with formal sports medicine education demonstrated greater accuracy in identifying high-risk injuries and selecting appropriate preventive exercises. Similarly, Finch et al. (2014) observed that limited access to updated injury prevention information reduces coaches' ability to implement effective measures.

At the school level, knowledge gaps often stem from inadequate training, limited access to medical professionals, and the absence of standardized prevention curricula. Therefore, enhancing coaches' knowledge through workshops, certifications, and continuous education is vital to improving overall injury prevention outcomes.

2.6 Attitude Toward Injury Prevention Strategies

Attitude represents the coaches' beliefs, values, and perceptions toward the importance and implementation of injury prevention strategies. A positive attitude is a strong predictor of actual preventive behavior. Studies have revealed that when coaches view injury prevention as integral to sports performance, they are more likely to adopt and sustain preventive programs (Soligard et al., 2018; McKay et al., 2020).

However, attitudes can be influenced by contextual factors such as coaching experience, administrative support, and perceived time constraints. Donaldson et al. (2019) noted that some coaches view injury prevention as secondary to performance enhancement, leading to inconsistent application of preventive exercises. Conversely, experienced coaches often demonstrate stronger commitment due to exposure to the consequences of injuries.

In the school setting, developing a culture that values prevention requires both attitudinal change and institutional reinforcement. Coaches' willingness to adopt structured warm-up and conditioning routines reflects not only their understanding but also their belief in the value of prevention for athlete success and longevity.

2.7 Practice of Injury Prevention Strategies in School Sports Teams

Practice refers to the actual implementation of injury prevention strategies during training and competition. While many coaches acknowledge the importance of prevention, the consistency and quality of implementation often vary. Research by Owoeye et al. (2017) showed that although most coaches incorporated warm-ups and stretching into training sessions, only a small proportion used evidence-based protocols like *FIFA 11+*.

The gap between knowledge, attitude, and practice—often termed the “implementation gap”—remains a major challenge in school sports. Barriers include inadequate facilities, lack of time, limited resources, and insufficient training. Emery and Pasanen (2019) emphasized that sustained practice requires institutional support, continuous monitoring, and inclusion of prevention strategies in official training schedules.

Effective practice also depends on coaches' ability to adapt injury prevention routines to age, sport type, and training intensity. In school teams, consistent application of flexibility, balance, and strength exercises has been shown to significantly reduce lower limb injuries (Soligard et al., 2018).

Therefore, promoting a preventive culture within school sports demands both individual initiative and organizational commitment.

2.8 Epidemiology of Sports Injuries in School Settings

According to The International Olympic Committee Injury and Illness Epidemiology Consensus, injury is “tissue damage or other derangement of normal physical function due to participation in sports, resulting from rapid or repetitive transfer of kinetic energy” (Bahr et al., 2020). Sports injury represents a great burden on the Canadian healthcare system and is most common among junior high school students in Canada (Richmond et al., 2020) . Sports injury is also the leading cause of medical treatment and sixth leading cause of injury cost among youth in Canada (Richmond et al., 2020). Not only does an injury impact the health of an athlete but it also affects their ability to train as well as their performance (Soligard et al., 2017). In addition, injury influences their preparedness for competition and their ability to participate in competitions. This, in turn, may significantly affect their dreams and goals of becoming successful athletes (Soligard et al., 2017).

Sports injuries among school-aged athletes are a significant public health concern due to their frequency and potential long-term consequences. Studies indicate that school sports programs, while beneficial for physical and mental development, are associated with a high incidence of injuries, particularly in contact sports such as football, basketball, and soccer. Emery et al., (2006) reported that approximately 30–40% of youth athletes experience at least one sports-related injury annually, with sprains, strains, and fractures being the most common.

The epidemiology of these injuries varies by sport, age, and gender. For instance, Fernandez et al. (2015) found that male athletes are more likely to sustain contact-related injuries, while female athletes have a higher incidence of overuse injuries, particularly in sports like volleyball and gymnastics. The study highlighted that inadequate injury prevention strategies contribute significantly to these outcomes. This underscores the need for coaches to be knowledgeable about and implement effective prevention measures to reduce injury rates. This is why injury

surveillance and epidemiological studies are essential to protecting athletes' health. These two elements are designed to address important aspects of sports injury including; injury mechanism, mode of onset, risk factors, and body location (Bahr et al., 2020).

2.8.1 Mechanism of sports injury

Injury mechanism can be described as an “inciting event” leading to an injury. From a biomechanical perspective, considering tissue properties and load characteristics, an injury occurs when the energy transfer to the tissue and the mechanical load is more than the tissue's load tolerance (Bahr & Krosshaug, 2005). Bahr et al. (2020) stated that sports injury may result from direct participation during competition or training (e.g., a collision between players) and may occur from indirectly participating in activities related to competition or training (e.g., athlete slipping and sustaining an injury when in the training camp).

Mechanism of injury in sports could be further classified into contact and non-contact mechanism in which acute type of injury can be contact or non-contact in nature and overuse injury by nature are non-contact (Bahr et al., 2020). Non-contact acute injury has no evidence of disruption of a player's movement patterns, for example, a basketball player landing and twisting their ankle with no contact with other players (Bahr et al., 2020). Contact mechanism of injury can be direct contact with another athlete (e.g., a soccer player sustains an anterior cruciate ligament tear as a result of a direct tackle to the knee) or with an object (e.g., a volleyball player being hit in the face by a spiked ball, resulting in a concussion). Also, it can be indirect through another athlete (e.g., anterior cruciate ligament tear in a handball player landing off-balance after being pushed on his shoulder by an opponent while in the air) or through an object (e.g., a downhill skier suffers concussion from a crash after hitting the gate with his knee; Bahr et al., 2020). All these demonstrate how acute injury can occur in sport.

2.8.2 Risk factors of sports injury

Earlier in the review, it was described that sports injury mechanism is the inciting event leading to an injury. The inciting event is the final link in the series that causes an injury, and such events are regarded as necessary causes. Herrington and colleagues (2019) provided detailed lists of these factors involved in the risk of injury occurrence. These are non-modifiable factors, training-related factors, health factors, motor control, environmental factors, conditioning, psychological factors, other factors, and additional demands. Non-modifiable factors include sex, age, maturation stage, body type, genetics, and past injury history of the athlete. Training-related factors are the volume, load, intensity, nature of training, training & competition schedule, and rest. Health factors comprise diet, medication, previous treatments, medical issues, general health, fatigue, and sleep.

Motor control factors include habitual postures & movement patterns, muscle tone, biomechanics, sport-specific movements, and technique. Environmental factors are the playing surface, equipment, weather, and coaching. Conditioning factors comprise muscle strength, endurance, muscle length, joint range, and chronic capacity. Psychological factors include cognitive beliefs, fear, coping strategies, self-efficacy, catastrophizing, and emotional status (stress, anxiety, depression). Other factors like sport-specific skill level, ranking & status, and short and long-term goals were also noted. Lastly, Additional demands from home, work, family, leadership, media, and sponsors were also considered risk factors for sports injury (Herrington et al., 2019).

2.8.3 Mode of onset of sports injury

Understanding the mode of onset of sports injury is also vital in understanding sports injury and is directly associated with injury mechanisms (Meeuwisse et al., 2007). Traditionally,

injuries have been classified into those with a sudden onset and those with a gradual onset. Sudden onset injuries were considered to be those that resulted from a specific identifiable event. On the contrary, gradual-onset injuries were considered to be those that lack a definable sudden, precipitating event as the onset (Bahr et al., 2020). According to Bahr and colleagues (2020), sports injuries should be classified as overuse (gradual) or acute injury (sudden).

Consideration is also given to acute injury that occurs due to overuse injury (Bahr et al., 2020). The following sentences will give some examples to explain these scenarios better. Acute injury occurs due to an exchange of large quantities of kinetic energy, like a collision between athletes. An overuse injury is a gradual retention of low-energy transfer over time (e.g., the development of tendinopathy caused by repetitive movement or stress fracture). An acute injury that results from overuse injury is a combination of both (e.g. an athlete with a repetitive training regime can develop tendinopathy or tendon weakness but also sustains an acute tendon tear during a jump; Bahr et al., 2020).

2.8.4 Sports injury type/location in the body

Sports injuries can be classified according to their etiology type (i.e. the cause of the injury) and location in the body. Bahr et al. (2020), in their consensus statement on methods for recording and reporting epidemiological data on injury and illness in sports, categorized sports injury into specific regions of the body: head, neck, shoulder, upper arm, elbow, forearm, wrist and hand, chest, thoracic spine, lumbar spine, pelvis/buttock, hip/groin, thigh, knee, lower leg, ankle, and foot injuries. Some of these injuries were further classified into etiology type and even to the level of diagnosis. This was done to highlight the most significant injuries in sports.

The authors mentioned the following as significant injuries: concussion was highlighted as the most common head injury; shoulder injuries were divided into acute dislocation, hematoma, and joint sprain (acromioclavicular and glenohumeral); knee injuries were classified into knee

cartilage injury (meniscal cartilage injury) and knee ligament injury (medial collateral ligament injury, anterior cruciate ligament injury, posterior cruciate ligament injury, posterolateral corner and lateral collateral injury). The last significant injuries mentioned were at the ankle, consisting of lateral ligament sprain and syndesmosis pain (Bahr et al., 2020).

2.9 Role of Coaches in Injury Prevention

Coaches play a pivotal role in fostering a safe sports environment by implementing injury prevention strategies. According to Gianotti et al. (2009), coaches with adequate knowledge of injury prevention can reduce injury rates by up to 50% through proper training techniques, warm-up routines, and adherence to safety protocols. However, a lack of awareness or negative attitudes toward these strategies can hinder their adoption.

Santos et al. (2017) conducted a survey among high school coaches and found that while most coaches recognized the importance of injury prevention, only 40% consistently applied evidence-based strategies such as dynamic stretching or strength training. The study suggested that barriers such as time constraints, lack of training, and limited access to resources often prevent coaches from prioritizing injury prevention. These findings highlight the need for targeted education programs to improve coaches' knowledge and attitudes.

2.9.1 Sports Injury Prevention and Injury prevention programs

It has been recognized that there is a high participation in sports across all ages and this participation is highest among youth and young adults (Billette & Janz, 2011; Sheu et al., 2016). This high participation in sports brought about increased injury rates not only in youth but in the adult population as well (Emery & Tyreman, 2009; Sheu et al., 2016). Previous studies have shown that 20% of schoolchildren will miss at least one day of school per year due to sports injuries, and one in three youth seek medical attention for sports-related injuries per year

(Emery et al., 2006). Even adults lose at least one day a year from work as a result of sport-related injuries (Sheu et al., 2016). Apart from the significant impact sports injury has on the health of those participating in sports, the financial impact is huge. In Canada, it has been estimated that sports injury treatment will cost Canadians greater than \$187 million annually (Parachute, 2015; Yancher et al., 2012). These health and financial burden caused by sports injury shows that there is a need to implement evidence-based injury prevention strategies to reduce the risk of injury in youth, and also across the lifespan.

Injury prevention programs are those strategies put in place to reduce the number of injuries as well as the severity and extent of injuries (Emery et al., 2015). Injury prevention strategies in sports typically focus on modifiable risk factors and they are training strategies, rules, and equipment (Emery et al., 2020; Stephenson et al., 2021). Training strategies focus on athlete-related (motor control) risk factors such as strength, endurance and balance through neuromuscular exercise interventions. Environmental risk factors are targeted through rule modification and equipment strategies (e.g. body checking in youth ice hockey, wearing of the helmet in ice hockey, wearing of knee and ankle braces, wicket keeping or fielding close to the batter in cricket, disallowing jewelry while playing in soccer; Emery et al., 2020; Stephenson et al., 2021).

Training strategies (also called neuromuscular training strategies) have been evaluated in most prospective studies (RCT, quasi-experimental, and cohort studies; Emery & Pasanen, 2019). Neuromuscular training strategies (NMT) are typically led by a coach or trainer, ideally following a comprehensive coach training workshop by a physiotherapist or a strength and conditioning coach who is an expert in delivering NMT workshops (Emery & Pasanen, 2019). Typically, NMT consists of exercises aimed at improving balance, strength, and agility (e.g., coordination, cutting and landing techniques; Emery et al., 2015). NMT programs are often

introduced as part of an extended warm-up program, with other components that include aerobic, balance, strength, and agility. Ideally, levels of progression are built into each NMT exercise component such that participants can progress as they want. However, these programs have to be feasible and fit in a real-world sports setting (Emery & Pasanen, 2019).

Rule modification and policy changes are important aspects in regulating sports, although some have been implemented specifically to reduce the risk of injury. One example of this evidence-based policy is body checking in youth ice hockey (Emery & Pasanen, 2019). Body checking is a strategy used to gain competitive advantage by changing direction or leaving the established skating lane to make contact with the body of the opponent, or using hips, shoulders, or arms to push off and separate the opponent from the puck (Emery et al., 2020). Previous findings have shown that policy change disallowing body checking is associated with fewer injuries in youth ice hockey (Emery et al., 2020).

Lastly, the use of protective equipment in sports may help to prevent musculoskeletal injury and/or severity in sports (Emery & Pasanen, 2019). Examples of this equipment are bracing/taping and wrist guards. Dizon and Reyes (2010) examined the protective effect of ankle bracing and taping among previously injured adult and youth athletes. The risk of ankle sprain re-injury was reduced by 69% and 71%, respectively. However, the evidence surrounding the preventative effect of bracing/taping did not support using them as a primary prevention strategy in healthy populations with no previous history of ankle/knee injury (Yang et al., 2005). Also, wrist guard use in snowboarding revealed a significant protective effect in reducing the risk of wrist injury, wrist fracture, and wrist sprains (Russel et al., 2007). Although there is some evidence to support the use of protective equipment in youth sports, there is also evidence that they are underused (de Nooijer et al., 2004; Kroncke et al., 2008).

2.9.2 The implication for Injury Prevention Programs.

Efforts to design and implement effective injury prevention programs in sports have been studied in the medical community for many decades (Emery et al., 2010). The success of these programs involves many factors and depends on the identification of the injury risk, analyzing the mechanism of injury, the qualitative content of the injury prevention program, compliance, and adherence to the prescribed evidence-based programs (Fortington et al., 2015; McKay & Verhagen, 2016).

Taking into account the attitudes, beliefs, opinions, and perceptions of the people directly involved (coaches and athletes) in injury prevention when designing and implementing injury prevention programs may increase the odds of successful

injury prevention in real-life sports settings (Fokkema et al., 2019; Shamlaye et al., 2020). These behavioural factors greatly affect compliance (Silvers-Granelli et al., 2018) and adherence (Rees et al., 2022) rates to injury prevention programs.

Compliance refers to “the act of an individual conforming to professional recommendations with regard to prescribed dosage, timing and frequency of an intervention” while adherence “is a process influenced by the environment, recognizing that behavior is shaped by social contexts as well as personal knowledge, motivations, skills and resources” (McKay & Verhagen et al., 2016). Although researchers have used these terms interchangeably, adherence is said to be more appropriate when capturing dynamic and complex changes required to assess interventions over time (Owoeye et al., 2018).

Research on adherence to Injury prevention programs among coaches and athletes is sparse in the literature, but the existing research suggests that these prevention programs are underused (Dix et al., 2021). The cost of injury prevention programs and lack of education in injuries and prevention programs have been suggested as potential barriers to implementation (Dix et al., 2021). The burden of adoption is not on the coaches alone; the athletes themselves are also key

to successfully implementing an injury prevention program (Martinez et al., 2017). So, it is essential to understand the attitudes and motivations of the athletes so that efforts can be targeted in the widespread use and ultimately, adherence to injury prevention programs (Martinez et al., 2017).

2.3 Relevant Anatomy

Understanding the anatomy of commonly injured structures is critical for coaches to design effective injury prevention strategies. The following subsections discuss the anatomy of key areas prone to sports injuries in school athletes.

2.3.1 Musculoskeletal System: Joints and Ligaments

Joints such as the knee, ankle, and shoulder are frequently injured in school sports. The knee joint, for example, is a complex hinge joint comprising the femur, tibia, and patella, stabilized by ligaments such as the anterior cruciate ligament (ACL) and medial collateral ligament (MCL). According to Moore et al. (2018), ACL injuries are prevalent in sports requiring sudden changes in direction, such as soccer and basketball. Coaches must understand the biomechanics of these joints to implement exercises that strengthen supporting muscles and reduce ligament strain.

The ankle joint, formed by the tibia, fibula, and talus, is susceptible to sprains, particularly lateral ankle sprains, due to inversion movements. Waterman et al. (2010) noted that ankle sprains account for 15–20% of sports injuries in youth athletes. Proper warm-up and proprioceptive training can mitigate these risks, emphasizing the need for coaches to incorporate such exercises.

2.3.2 Muscles and Tendons

Muscles and tendons, particularly those of the lower extremities, are prone to strains and overuse injuries. The hamstrings, quadriceps, and Achilles tendon are commonly affected in sports involving sprinting or jumping. Standring (2016) explains that the hamstrings, located at the posterior thigh, are biarticular muscles crossing both the hip and knee joints, making them vulnerable to strains during rapid acceleration. Coaches can reduce these injuries by incorporating flexibility and strength training into their programs.

2.3.3 Bone Structure

Adolescent athletes are at risk of growth plate injuries due to the presence of epiphyseal plates in long bones, such as the femur and tibia. Caine et al. (2014) reported that growth plate injuries occur in 15–30% of youth sports participants, particularly in sports with repetitive impact. Coaches must be aware of these vulnerabilities to avoid overloading young athletes with excessive training. Figure 1, 2, 3 & 4 shows the diagram of common knee injuries in athletes.

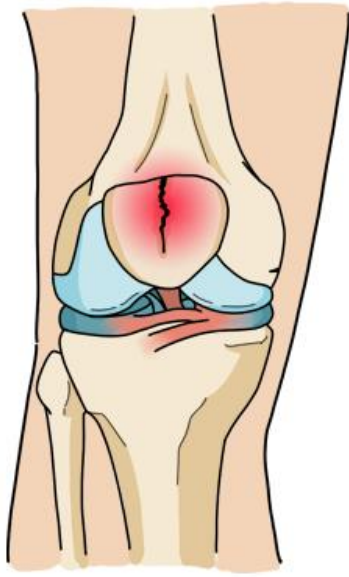


Figure 1: Patellar Fracture

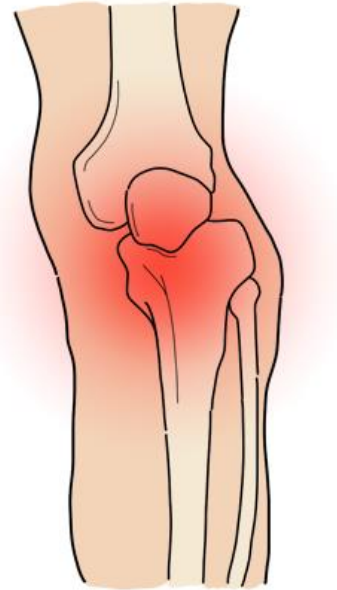


Figure 2: Knee Dislocation

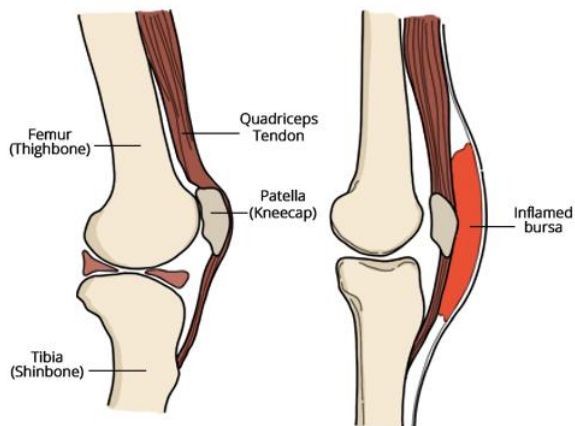


Figure 3: Knee Bursitis

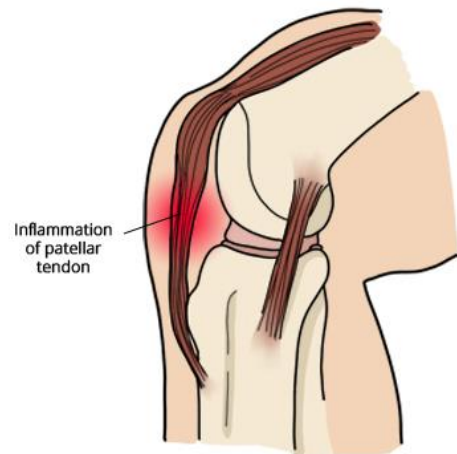


Figure 4: Patellar Tendonitis

Diagrams of Common Knee Injuries among sport athletes

2.4 Clinical Correlates

The clinical implications of sports injuries in school settings are significant, as they can lead to acute pain, long-term disability, or psychological impacts such as fear of reinjury. For instance, Myer et al. (2015) found that ACL injuries in young athletes can result in early-onset osteoarthritis if not properly managed. Coaches' knowledge of injury prevention strategies, such as neuromuscular training, can reduce the incidence of such injuries and their long-term consequences.

Attitudes toward injury prevention also influence clinical outcomes. A study by Norcross et al. (2016) indicated that coaches who viewed injury prevention as integral to performance were more likely to adopt evidence-based practices, leading to lower injury rates and faster recovery times. Conversely, negative attitudes, such as prioritizing winning over safety, were associated with higher injury rates.

2.5 Summary of Literature Review

The reviewed literature indicates that coaches are central to the implementation of injury prevention in school sports. While awareness of prevention strategies exists, gaps remain in specific knowledge areas and consistent practical application. Attitudinal and experiential factors influence how coaches integrate preventive measures into daily routines.

Empirical findings consistently highlight the need for structured education, institutional support, and standardized prevention programs such as *FIFA 11+*. This study therefore seeks to bridge these gaps by assessing the knowledge, attitude, and practices of school sports coaches regarding injury prevention and identifying key factors associated with their implementation levels.

2.6 Empirical Review of Literature

Table 1: Empirical literature review on Knowledge, attitude and practice of injury prevention strategies.

No	Author (Year) / Country	Title	Sample Size	Aim of Study	Study Type	Outcome/Measure	Major Findings
1.	S. Mawson et al. (2018) / Canada	Lower limb injury prevention programs in youth soccer: a survey of coach knowledge, usage, and barriers	101 coaches (from 418 contacted)	To assess youth soccer coaches' awareness, use of neuromuscular injury-prevention programmes (IPP), and barriers/facilitators	Cross-sectional survey	% coaches aware/using IPPs; barriers	Only 29.8% used a prevention programme; major barriers: lack of education/communication, time constraints.
2.	Manaseer, Al-nassan & Taifour (2024) / Jordan	The knowledge and attitude concerning sport-related concussion among coaches: A survey study	193 coaches (62 basketball , 66 martial arts, 30 soccer, 35 swimming)	To examine knowledge about and attitude toward sport-related concussion (SRC) among Jordanian sports coaches	Cross-sectional survey	Knowledge score (0-10), attitude score (8-40)	Median knowledge = 4, attitude = 30; coaches had deficient knowledge and attitudes not aligned with recommended practice.
3.	De Ste Croix et al. (2020) /	Grass-root coaches'	269 coaches	To explore differences in	Cross-sectional survey	Knowledge level, attitude,	Knowledge, attitude and confidence were

	UK/Spain/Czech	knowledge, understanding, attitude and confidence to deliver injury prevention training in youth soccer: a comparison of coaches in three EU countries		knowledge, attitude, and confidence to deliver injury-prevention training among youth soccer coaches in three countries		confidence, programme usage	generally poor; only 23% of coaches reported using injury-prevention training; country differences existed.
4.	Ní Chaomhánaigh (2018) / Ireland	Injuries in adolescents and coaches' attitude towards injury prevention in Ladies Gaelic Football	(survey of coaches + injury audit)	To identify injury incidence in adolescents and coaches' attitude toward IPP and current practices in Ladies Gaelic Football	Mixed design: prospective injury log + online survey of coaches	Injury incidence per 1,000 h; % coaches using IPP; barriers	Injury incidence: 10.32 injuries/1,000 h; less than half (47.8%) of coaches used IPP elements; main barrier: coach knowledge/information (81.5%)
5.	Norcross et al. (2015) / USA	Survey: Prep coaches uninterested in injury prevention programs	66 coaches (15 Oregon high schools)	To determine coaches' awareness and use of injury-prevention programmes (IPPs) in high-	Cross-sectional survey	% awareness and use of IPPs	Only ~9.1% implemented IPPs exactly as designed; many coaches aware but did not adopt the programmes.

				school soccer/basketball			
6.	Study: Irish field hockey coaches (2021) / Ireland	Coaches' attitudes to injury and injury prevention: a qualitative study of Irish field hockey coaches	13 coaches	To investigate attitudes of amateur field-hockey coaches to injury and injury prevention	Qualitative interviews	Themes about beliefs, barriers, implementation	Coaches held positive beliefs about prevention but lacked necessary knowledge/skills; many system-level barriers.
7.	Yates et al. (2023) / USA	Evaluation of a Coach-Centered Youth ACL Injury Risk Reduction Workshop Using the RE-AIM Sports Setting Framework	373 coaches attended workshop ; 171 completed pre/post surveys; 53 followed up at 1 month	To evaluate feasibility and short-term effectiveness of a coach-centered ACL-risk-reduction workshop	Prospective longitudinal/implementation study	Changes in knowledge, attitudes/beliefs, confidence; adoption rate	Significant improvements: knowledge +8.1%, attitudes +18.0%, confidence +39.6% (p<0.0001); at 1 month: 75.5% reported adoption of the ACL IRP.
8.	Study of heat-illness knowledge among German coaches (2025) / Germany	Too hot to handle? Heat-illness knowledge gaps and prevention shortfalls among German	1,200 coaches	To assess knowledge of heat-related illness symptoms and prevention practices among German sports coaches	Cross-sectional survey	Knowledge score (KOSI) and prevention practice score	Average KOSI = 10.31 ± 1.81 (range 3-14); prevention practice score far below ideal; younger coaches and licensed coaches had higher knowledge; many coaches lacked

		sports coaches					institutional support for prevention.
9.	Brief research report (2021) / Canada	Injury-Related Knowledge, Attitudes, and Beliefs” (youth basketball coaches)	50 coaches	To assess injury-related knowledge, attitudes and beliefs among youth basketball coaches	Cross-sectional survey	% of coaches agreeing with statements about injury prevention programmes	All coaches agreed injury prevention is important; 62% agreed NMT programmes reduce injury risk; only ~22.7% reported healthcare-professional as info source.
10	Udechukwu & Bitrus (2023) / Nigeria	Evaluation of Knowledge, Attitude and Practice of Coaches Towards Sports Injury Management in Nigerian Universities”	41 coaches	To evaluate knowledge, attitude, and practice of coaches regarding injury-management	Cross-sectional survey	Knowledge levels; attitude mean; practice mean	97.6% had “good knowledge”; positive attitude and good practice reported, although criteria thresholds applied.

CHAPTER THREE

MATERIALS AND MEHODS

3.1 Materials

3.1.1 Population

This study was conducted among Coaches in Faculties of University of Benin, Benin city, Nigeria.

3.1.2 Selection Criteria

3.1.2.1 Inclusion Criteria

- i. Coaches who participate full-time in Sports, for at least one year in the University of Benin.
- ii. Coaches who implore the use of injury prevention strategies professionally, before, during and after the sports.

3.1.2.2 Exclusion Criteria

- i. Coaches with less than one year of coaching experience.
- ii. Coaches who do not implement the use of injury prevention strategies, before, during and after sports.
- iii. Coaches of sports team who were unwilling to participate voluntarily in the research.

3.1.3 List of Instruments

Injury prevention strategy questionnaire (Geertsema et al., 2021).

3.1.3.1 Description of the Instruments

A questionnaire by (Geertsema et al., 2021) on injury prevention, knowledge, beliefs and strategies in elite female footballers at the FIFA Women's world cup France 2019, was adopted in this study.

The questionnaire was designed to evaluate three key aspects of REAIM framework: Reach, Adoption and Implementation. Included questions assessed (1) Knowledge on risk and types of injury, (2) Attitudes and beliefs towards injury prevention and (3) injury prevention practices.

3.2 Methods

3.2.1 Research design

A cross-sectional Survey design was used for this study.

3.2.2 Sampling techniques

The population selected comprises of coaches in the University of Benin.

3.2.3 Sample size

Formula for sample: Taro Yamane Formula

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n = the sample size

N = population size (51)

e = margin of error (0.05)

$$n = \frac{N}{1 + N(e)^2} = \frac{22}{1 + 22(0.05)^2}$$

n = 50

3.2.4 Procedure for data collection

After obtaining ethical approval for the study, permission was taken from all coaches. The data for this study was collected using a questionnaire on injury prevention which was adopted from (Geertsema et al. 2021). After obtaining ethical approval for the study, permission was obtained from all coaches to fill the questionnaire, the questionnaire was distributed to coaches during training hours, and it will be self-completed by the coaches. I waited for them to finish filling it, and retrieved it afterwards.

3.2.5 Ethical consideration

Ethical approval for this study was sought and obtained from the University of Benin (Approval number: CMS/REC/2025/839) (Appendix I).

I ensured that all participants, including coaches fully understand the purpose, procedures, and potential risks of the study is critical. I ensured coaches were provided with clear, accessible information about the research and voluntarily agree to participate without coercion. This includes informing them of their rights to withdraw from the study at any time without consequences.

3.2.6 Data Analysis

Data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 25. Descriptive statistics (frequencies and percentages) was used to summarize demographic characteristics, knowledge, attitude and use of injury prevention strategies. Inferential statistics, including Chi-square tests was employed to determine associations between KAP variables and selected socio-demographic factors, with significance set at $p \leq 0.05$.

CHAPTER FOUR

RESULTS

4.1 Sociodemographic Characteristics of all Respondents

The findings in figure 5.0 represents the respondents' age in pie a chart. Most participants were male coaches (64%), while the female coaches were (36%). In terms of years of coaching experience shown in Figure 6.0, majority was 4 years (62%), followed by 3 years (26%), the least being 5 years (2%).

The data presented in Figure 7.0 highlights the coaching experience of participants in terms of the number of teams they have coached. A majority of the respondents (62%) reported having coached only one team, while 32% had experience coaching two teams. A smaller proportion indicated coaching three teams (4%) and four teams (2%).

Looking at types of sports coached in Figure 8.0, The most coached sport is football (34%), followed by volleyball (30%).

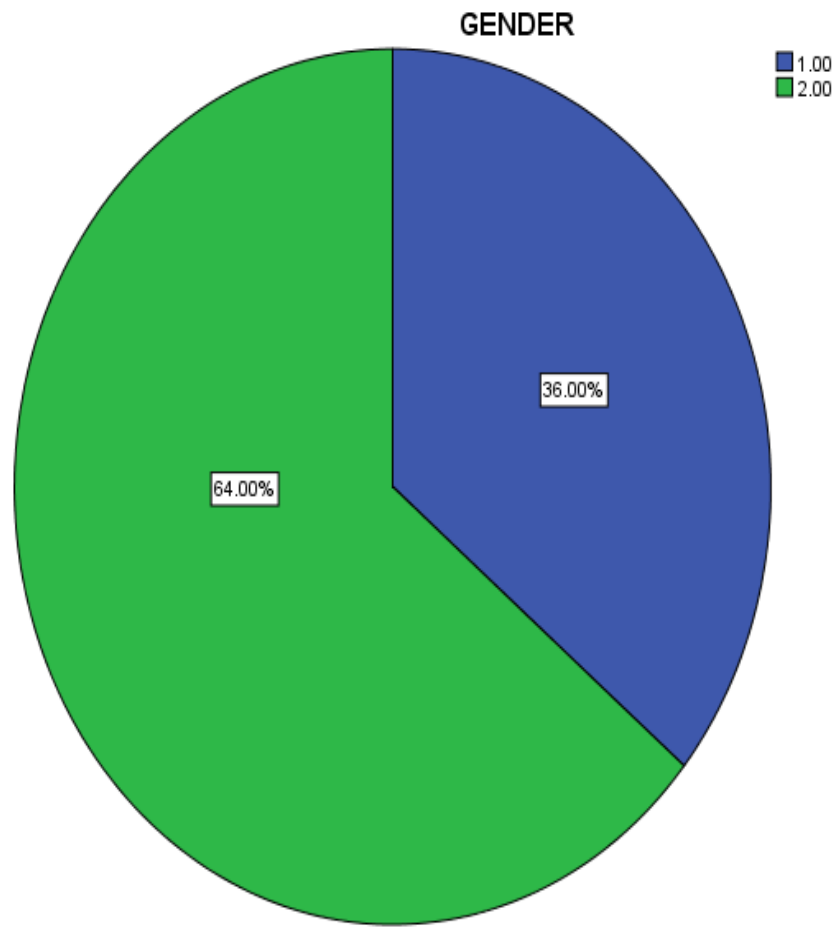


Figure 5.0: Gender of respondents.

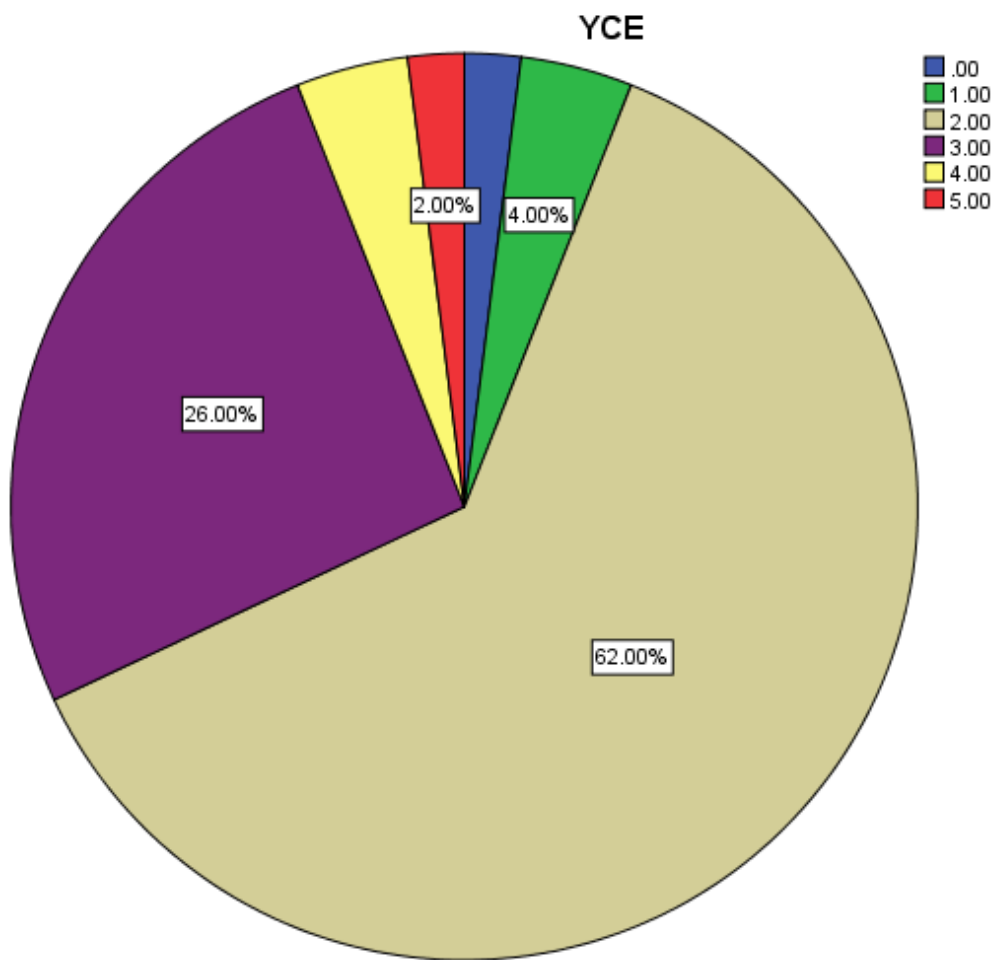


Figure 6.0: Years of coaching experience of respondents.

Key: YCE (Years of coaching experience)

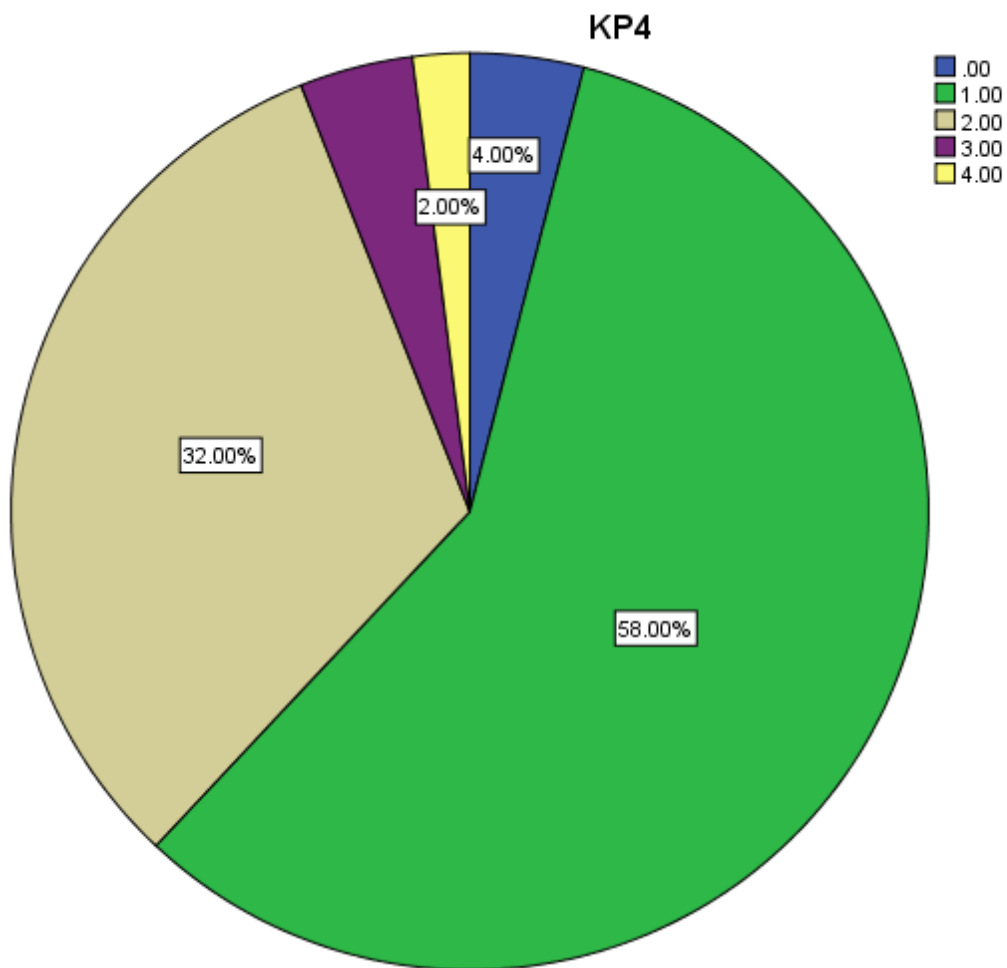


Figure 7.0: Teams Coached

Key: KP4 (How many teams have you coached)

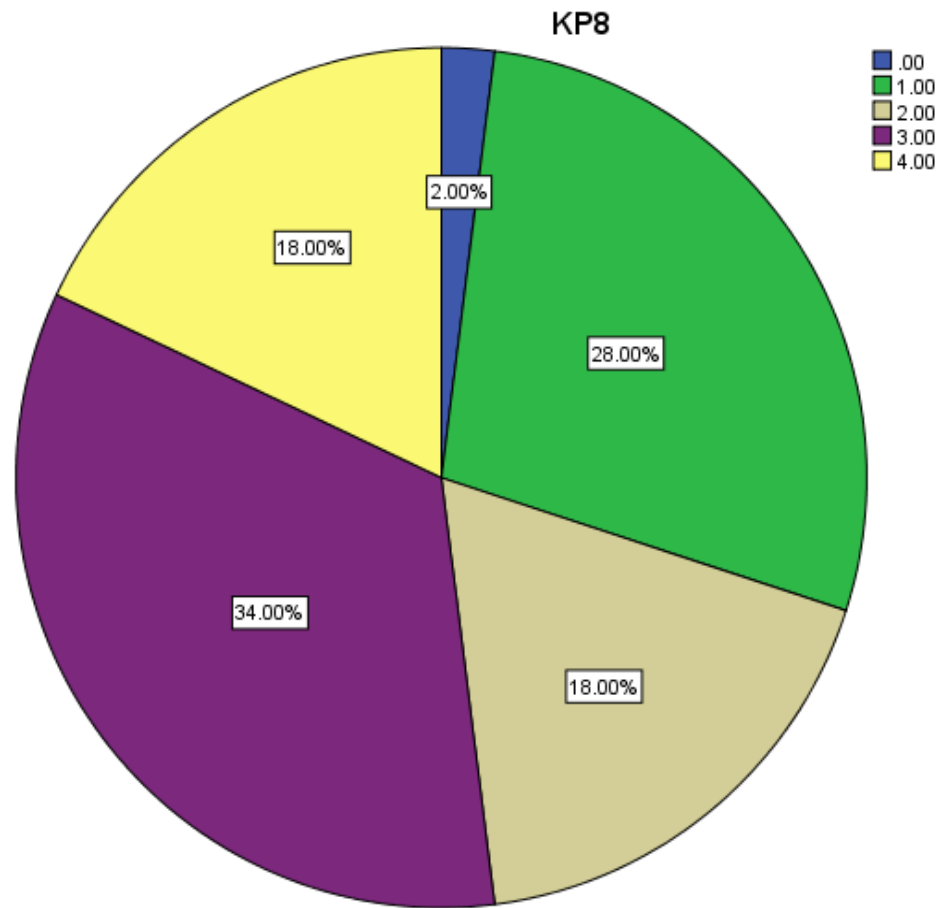


Figure 8.0: Types of sports teams of respondents.

Key: KP8 (Types of sports team that you coach)

4.2 Respondent's Knowledge of Injury Prevention Strategies

Table 2 presents data on coaches' knowledge about injury risk, types of injuries, and the body parts they consider most exposed to injury. These findings shed light on the baseline knowledge level among coaches of school sports teams.

Knowledge of injury risk according to the table. High risk: 23 coaches (46.0 %) believe athletes face a high risk of sustaining injuries, moderate risk: 20 coaches (40.0 %), low risk: 6 coaches (12.0 %), don't know: 1 coach (2.0 %). Nearly half of the coaches view injury risk as "high," which suggests a reasonable awareness that participation in sports carries meaningful danger. This is favorable, as perceiving risk is a prerequisite for taking preventive action. However, 40 % see only moderate risk, and 12 % see low risk, which indicates a nontrivial proportion may underestimate the true likelihood of injuries in school sports. Underestimation can reduce urgency to adopt prevention strategies.

In the aspect of the most Common type of injury; Sprain being the highest (54.0 %), Strain (26.0 %), Dislocation (16.0 %), Contusion (2.0 %), Fracture (2.0 %). More than half of coaches identified sprains as the most common injury type, followed by strains. This aligns with many sports-injury epidemiology studies, which frequently report ligament sprains (especially ankle sprains) and muscle strains as among the top injuries in school sports.

The fact that dislocation holds a notable share (16 %) suggests some coaches are also conscious of joint injuries beyond soft-tissue damage. Very few coaches mention contusion or fracture, possibly because these injuries are less frequent or known as more severe and thus less "common" in day-to-day coaching.

Table 2: Respondents knowledge of sport injury prevention strategies

Variable	Frequency (n)	Percentage (%)
How big is the risk of an athlete sustaining an injury?		
High	23	46.0
Moderate	20	40.0
Low	6	12.0
Don't know	1	2.0
What is the most common type of injury you think athletes are exposed to?		
Sprain	27	54.0
Strain	13	26.0
Dislocation	8	16.0
Contusion	1	2.0
Fracture	1	2.0
Others		
Which part of the athlete's body is exposed to injury the most?		
Head		
Left	28	56.0
Right	22	44.0
Neck		
Left	31	62.0
Right	19	38.0
Shoulder		
Left	28	56.0
Right	22	44.0
Elbow		
Left	26	52.0
Right	24	48.0
Thigh		
Hamstrings: Left	27	54.0
Right	23	46.0
Quadriceps: Left	40	80.0
Right	10	20.0
Hip		
Left	27	54.0
Right	23	46.0
Knee		
Left	23	46.0
Right	27	54.0
Ankle		
Left	28	56.0
Right	22	44.0
Groin		
Left	22	44.0
Right	28	56.0
Others		
Left	27	54.0
Right	23	46.0

4.3 Respondent's Attitude of Injury Prevention Strategies

When asked whether it is more important to use training time to play sports rather than conduct injury prevention strategies, only 2% fully agreed, and 34% agreed. However, 44% (disagree and totally disagree) opposed this view, with 40% totally disagreeing, indicating that a significant portion of coaches believe that injury prevention should be prioritized equally or more than skill-based training.

Attitudes about coach influence on players' motivation to engage in injury prevention were mixed. While 54% (fully agree and agree) believe their motivation influences players, 26% were unsure, and 16% disagreed. This could indicate uncertainty about their role as behavioral models or reflect challenges in motivating young athletes to consistently perform preventive exercises.

Furthermore, when asked about their overall feelings toward injury prevention, a combined 50% expressed positive or very positive attitudes, while 28% were neutral, and 20% expressed negative or very negative attitudes. This suggests that although the majority are supportive, a significant minority are either indifferent or resistant to these strategies. Such attitudes may stem from a lack of time, training, or perceived relevance of injury prevention protocols in daily practice. These findings are represented in table 4 below.

Table 3: Respondents attitude towards sport injury prevention strategies

Variable	Frequency (n)	Percentage (%)
How important is it for you as a coach to try to prevent injuries in players?		
Very important	50	100.0
Moderately important	0	0.0
Not very important	0	0.0
Don't know	0	0.0
What kind of injuries do you think are the most important to prevent in players?		
Head	50	100.0
Thigh (hamstrings or quadriceps)	50	100.0
Knee	50	100.0
Ankle	50	100.0
Groin	50	100.0
Others	50	100.0
What do you think are the most common reasons for injuries among athletes?		
Too little training	50	100.0
Too much training	50	100.0
Too many matches	50	100.0
Hard tackles	50	100.0
Low muscle strength	50	100.0
Reduced mobility	50	100.0
Reduced recovery time between matches	50	100.0
Artificial turfs	50	100.0
Poor pitch quality	50	100.0
Others	50	100.0
Is it more important to use training to play sports than to do injury prevention strategies?		
Fully agree	1	2.0
Agree	17	34.0
Not sure	9	18.0
Disagree	2	4.0
Totally disagree	20	40.0
Don't know	1	2.0
Does the motivation of coach affect the players' motivation to do injury prevention strategies?		
Fully agree	13	26.0
Agree	14	28.0
Not sure	13	26.0
Disagree	4	8.0
Totally disagree	4	8.0
Don't know	2	4.0
How do you feel about injury prevention strategies?		
Very positive	9	18.0
Positive	16	32.0
Neutral	14	28.0
Negative	8	16.0
Very negative	2	4.0
Don't know	1	2.0
Have you previously given advice about injury prevention programs to your players?		
Yes	28	46.0
No	19	38.0
Don't know	3	6.0

4.4 Respondent's Practice on Injury Prevention Strategies

The data in table 4.0 indicates a relatively low level of proactive engagement in injury prevention strategies among school sports coaches. Only 30% of the respondents reported having conducted injury prevention training or implemented preventive measures during training or competitions. An equal proportion, 30%, stated that they had not engaged in any injury prevention activities, while a notable 40% of coaches were unsure if such measures had been taken.

Table 4: Respondents practice towards sport injury prevention strategies

Variable	Frequency (n)	Percentage (%)
Have you done any injury prevention training or carried out other preventive measures to reduce the risk of injury sustain by players during training or competitions?		
Yes	15	30.0
No	15	30.0
Don't know	20	40.0
If yes, what kind of injuries have you tried to prevent?		
Head	50	100.0
Thigh (hamstrings or quadriceps)	50	100.0
Knee	50	100.0
Ankle	50	100.0
Groin	50	100.0
Other	50	100.0
How often do you use the following injury prevention strategies?		
FIFA 11+	50	100.0
General warm up programme	50	100.0
Movement preparation/sport specific movement	50	100.0
Strength training on the pitch	50	100.0
Strength training in a separate session	50	100.0
Flexibility training on the pitch	50	100.0
Flexibility training before or after football training	50	100.0
Flexibility training in a separate session	50	100.0
Sprint training	50	100.0
Specific prevention protocol	50	100.0
Cool down	50	100.0
Balance and core stability	50	100.0
Other prevention measures	0	0.0

4.5 Association between gender of Respondents and their Knowledge, attitude, and injury prevention strategies.

From Table 5, significant association was found between respondent gender and knowledge of injury prevention strategies related to the thigh ($p = 0.017$) and hamstrings/quadriceps ($p = 0.024$). No significant association was observed for the other variables.

From Table 6, significant association was found between respondent gender and attitude toward injury prevention related to knee injuries ($p = 0.016$) and artificial turfs ($p = 0.003$). No significant association was observed for the other variables.

From Table 7, no significant association was found between respondent gender and any of the injury prevention strategies, as all p -values were greater than 0.05.

Table 5: Association between Respondent Gender and their Knowledge

Variables	Gender	
Knowledge	X ²	p
How big is the risk of an athlete sustaining an injury?	1.452	0.693
Common type of injuries athletes are frequently exposed to?	2.911	0.573
Part of the athlete's body is exposed to injury the most? (Head)	1.862	0.394
Part of the athlete's body is exposed to injury the most? (Neck)	1.945	0.378
Part of the athlete's body is exposed to injury the most? (Shoulder)	1.957	0.376
Part of the athlete's body is exposed to injury the most? (Elbow)	1.852	0.396
Part of the athlete's body is exposed to injury the most? (Thigh)		
Hamstrings	8.200	0.017*
Quadriceps	7.429	0.024*
Part of the athlete's body is exposed to injury the most? (Hip)	2.155	0.340
Part of the athlete's body is exposed to injury the most? (Knee)	0.027	0.867
Part of the athlete's body is exposed to injury the most? (Ankle)	0.298	0.585
Part of the athlete's body is exposed to injury the most? (Groin)	3.745	0.154
Part of the athlete's body is exposed to injury the most? (Others)	4.348	0.114

Table 6: Association between Respondent Gender and their Attitude

Variables	Gender	
	X ²	p
Attitude		
Is it important as a coach to try to prevent injuries in players?	----	----
Injuries you think are the most important to prevent in players? (Head)	0.023	0.880
What injuries are the most important to prevent in players? (Thigh)	0.485	0.486
Hamstrings		
Quadriceps		
What injuries are the most important to prevent in players? (Knee)	5.824	0.016
What injuries are the most important to prevent in players? (Ankle)	0.087	0.768
What injuries are the most important to prevent in players? (Groin)	0.066	0.797
What injuries are the most important to prevent in players? (Others)	0.485	0.486
What are the common reasons for injuries among athletes? (Too little training)	0.617	0.432
What are the common reasons for injuries among athletes? (Too much training)	0.209	0.648
What are the common reasons for injuries among athletes? (Too many matches)	1.814	0.178
What are the common reasons for injuries among athletes? (Hard tackles)	0.786	0.375
What are the common reasons for injuries among athletes? (Low muscle strength)	1.719	0.190
What are the common reasons for injuries among athletes? (Reduced mobility)	2.283	0.131
What are the common reasons for injuries among athletes?	1.063	0.302
(Reduced recovery time between matches)		
What are the common reasons for injuries among athletes? (Artificial turfs)	8.882	0.003*
What are the common reasons for injuries among athletes? (Poor pitch quality)	2.105	0.147
What are the common reasons for injuries among athletes? (Other)	0.001	0.977
Is it more important to use the training time to play sports than to do injury prevention exercises”?”	10.524	0.062
Does motivation of the coach affects the players’ motivation to do injury prevention exercises”?”	6.001	0.306
How do you feel about injury prevention strategies?	7.067	0.216
Have you previously given advice about injury prevention programs to your players?	0.267	0.875

Table 7: Association between Respondent Gender and their Injury**Prevention Strategies**

Variables	Gender	
Injury Prevention Strategies	X ²	p
FIFA 11+	13.510	0.061
General warm up programme	2.934	0.231
Movement preparation/sport specific movement	5.771	0.449
Strength training on the pitch	6.184	0.403
Strength training in a separate session	2.458	0.873
Flexibility training on the pitch	4.014	0.675
Flexibility training before or after football training	8.321	0.139
Flexibility training in a separate session	7.755	0.355
Sprint training	4.014	0.675
Cool down	2.969	0.705
Specific prevention protocol	2.125	0.832
Balance and core stability	4.324	0.633
Other prevention measures	7.132	0.309

4.6 Association between Years of experience of Respondents and their Knowledge, attitude, and injury prevention strategies.

From Table 9, no significant association was found between respondents' years of experience and their knowledge of injury prevention, as all p-values were greater than 0.05.

From Table 10, a significant association was found between respondents' years of experience and their attitude regarding the importance of preventing head injuries ($p = 0.024$) and knee injuries ($p = 0.043$). No significant association was observed for the other attitude-related variables ($p > 0.05$).

From Table 11, a significant association was found between respondents' years of experience and their use of FIFA 11+ ($p = 0.000$) and flexibility training on the pitch ($p = 0.001$) as injury prevention strategies. No significant association was observed for the other injury prevention strategies ($p > 0.05$).

Table 8: Association between Respondent Years of experience and their Knowledge

Variables	Years of experience	
	X ²	p
Knowledge		
How big is the risk of an athlete sustaining an injury?	9.776	0.834
Common type of injuries athletes are frequently exposed to?	10.841	0.950
Part of the athlete's body is exposed to injury the most?	10.470	0.400
(Head)		
Part of the athlete's body is exposed to injury the most?	12.547	0.250
(Neck)		
Part of the athlete's body is exposed to injury the most?	8.938	0.538
(Shoulder)		
Part of the athlete's body is exposed to injury the most?	7.583	0.669
(Elbow)		
Part of the athlete's body is exposed to injury the most? (Thigh)	8.951	0.537
Hamstrings	14.811	0.139
Quadriceps		
Part of the athlete's body is exposed to injury the most? (Hip)	6.843	0.740
Part of the athlete's body is exposed to injury the most? (Knee)	9.243	0.100
Part of the athlete's body is exposed to injury the most? (Ankle)	6.253	0.282
Part of the athlete's body is exposed to injury the most? (Groin)	9.738	0.464
Part of the athlete's body is exposed to injury the most?	13.166	0.215
(Others)		

Table 9: Association between Respondent Years of experience and their Attitude

Variables	Years of experience	
	X ²	p
Is it important as a coach to try to prevent injuries in players?	—	—
Injuries you think are the most important to prevent in players?(Head)	12.916	0.024*
What injuries are the most important to prevent in players? (Thigh)	6.941	0.225
Hamstrings		
Quadriceps		
What injuries are the most important to prevent in players? (Knee)	11.452	0.043*
What injuries are the most important to prevent in players? (Ankle)	4.723	0.451
What injuries are the most important to prevent in players? (Groin)	4.555	0.473
What injuries are the most important to prevent in players? (Others)	3.513	0.621
What are the common reasons for injuries among athletes? (Too little training)	1.034	0.960
What are the common reasons for injuries among athletes? (Too much training)	2.410	0.790
What are the common reasons for injuries among athletes? (Too many matches)	2.904	0.715
What are the common reasons for injuries among athletes? ((Hard tackles)	3.158	0.676
What are the common reasons for injuries among athletes? (Low muscle strength)	7.961	0.158
What are the common reasons for injuries among athletes? (Reduced mobility)	3.409	0.637
What are the common reasons for injuries among athletes?	6.242	0.283
(Reduced recovery time between matches)		
What are the common reasons for injuries among athletes? (Artificial turfs)	5.549	0.353
What are the common reasons for injuries among athletes? (Poor pitch quality)	1.963	0.854
What are the common reasons for injuries among athletes? (Other)	2.751	0.738
Is it more important to use the training time to play sports than to do injury prevention exercises”?	25.375	0.442
Does motivation of the coach affects the players’ motivation to do injury prevention exercises”?	33.475	0.120
How do you feel about injury prevention strategies?	20.975	0.694
Have you previously given advice about injury prevention programs to your players?	8.663	0.564

Table 10: Association between Respondent Years of experience and their Injury Prevention Strategies

Variables	Years of experience	
	X ²	p
FIFA 11+	92.665	0.000*
General warm up programme	9.097	0.523
Movement preparation/sport specific movement	32.182	0.359
Strength training on the pitch	12.668	0.998
Strength training in a separate session	34.233	0.272
Flexibility training on the pitch	60.184	0.001*
Flexibility training before or after football training	36.735	0.061
Flexibility training in a separate session	22.857	0.943
Sprint training	36.409	0.195
Cool down	24.347	0.449
Specific prevention protocol	20.366	0.727
Balance and core stability	28.671	0.535
Other prevention measures	20.460	0.904

4.7 Association between Types of Sports of Respondents and their Knowledge, attitude, and injury prevention strategies.

From Table 12, no significant association was found between the types of sports respondents participated in and their knowledge of sports injuries ($p > 0.05$) across all variables.

From Table 13, A significant association was found between the types of sports respondents participated in and their attitude regarding the importance of preventing other types of injuries ($p = 0.025$). No significant association was observed for the other attitude-related variables ($p > 0.05$).

From Table 14, a significant association was found between the types of sports respondents participated in and their use of the FIFA 11+ program as an injury prevention strategy ($p = 0.048$). No significant association was observed for the other injury prevention strategies ($p > 0.05$).

Table 11: Association between Types of Sports Respondent and their Knowledge

Variables Knowledge	Types of Sports	
	X ²	p
How big is the risk of an athlete sustaining an injury?	7.230	0.842
Common type of injuries athletes are frequently exposed to?	10.499	0.839
Part of the athlete's body is exposed to injury the most? (Head)	9.482	0.303
Part of the athlete's body is exposed to injury the most? (Neck)	5.721	0.678
Part of the athlete's body is exposed to injury the most? (Shoulder)	6.866	0.551
Part of the athlete's body is exposed to injury the most? (Elbow)	6.583	0.582
Part of the athlete's body is exposed to injury the most? (Thigh)	7.556	0.478
Hamstrings	4.725	0.786
Quadriceps		
Part of the athlete's body is exposed to injury the most? (Hip)	5.822	0.667
Part of the athlete's body is exposed to injury the most? (Knee)	3.538	0.472
Part of the athlete's body is exposed to injury the most? (Ankle)	1.729	0.785
Part of the athlete's body is exposed to injury the most? (Groin)	3.631	0.889
Part of the athlete's body is exposed to injury the most? (Others)	2.818	0.945

Table 12: Association between Types of Sports Respondents and their Attitude

Variables	Types of Sports	
	X ²	p
Is it important as a coach to try to prevent injuries in players?	—	—
Injuries you think are the most important to prevent in players? (Head)	3.905	0.419
What injuries are the most important to prevent in players? (Thigh)	3.556	0.469
Hamstrings		
Quadriceps		
What injuries are the most important to prevent in players? (Knee)	5.478	0.242
What injuries are the most important to prevent in players? (Ankle)	1.475	0.831
What injuries are the most important to prevent in players? (Groin)	5.360	0.252
What injuries are the most important to prevent in players? (Others)	11.152	0.025*
What are the common reasons for injuries among athletes? (Too little training)	3.792	0.435
What are the common reasons for injuries among athletes? (Too much training)	2.647	0.614
What are the common reasons for injuries among athletes? (Too many matches)	1.981	0.739
What are the common reasons for injuries among athletes? ((Hard tackles)	1.400	0.844
What are the common reasons for injuries among athletes? (Low muscle strength)	5.209	0.267
What are the common reasons for injuries among athletes? (Reduced mobility)	2.311	0.679
What are the common reasons for injuries among athletes?	0.872	0.928
(Reduced recovery time between matches)		
What are the common reasons for injuries among athletes? (Artificial turfs)	3.210	0.523
What are the common reasons for injuries among athletes? (Poor pitch quality)	0.823	0.935
What are the common reasons for injuries among athletes? (Other)	1.146	0.887
Is it more important to use the training time to play sports than to do injury prevention exercises”?	17.961	0.590
Does motivation of the coach affect the players’ motivation to do injury prevention exercises”?	25.177	0.195
How do you feel about injury prevention strategies?	14.559	0.801
Have you previously given advice about injury prevention programs to your players?	7.269	0.508

Table 13: Association between Types of Sports of Respondent and their Injury Prevention Strategies

Variables	Types of Sports	
	X ²	p
Attitude		
FIFA 11+	41.539	0.048*
General warm up programme	3.561	0.894
Movement preparation/sport specific movement	30.302	0.175
Strength training on the pitch	26.242	0.341
Strength training in a separate session	28.714	0.231
Flexibility training on the pitch	22.282	0.562
Flexibility training before or after football training	26.068	0.164
Flexibility training in a separate session	24.058	0.678
Sprint training	21.038	0.636
Cool down	16.095	0.711
Specific prevention protocol	24.354	0.227
Balance and core stability	27.841	0.267
Other prevention measures	19.403	0.730

4.8 Hypotheses Testing

Hypothesis 1

Statement: There would be no significant association between gender and knowledge of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for hamstrings ($p = 0.017$) and quadriceps ($p = 0.024$), was less than the stated p-value, the null hypothesis was therefore REJECTED. Hence, there was a significant association between gender and knowledge variable “What part of the athletes body is exposed to injury the most.”

Hypothesis 2

Statement: There would be no significant association between gender and attitude of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for knee injuries ($p = 0.016$) and artificial turfs ($p = 0.003$), was less than the stated p-value, the null hypothesis was therefore REJECTED. Hence, there was a significant association between gender and attitude variable “What injuries are the most important to prevent in players.”

Hypothesis 3

Statement: There would be no significant association between gender and practice of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p > 0.05$

Decision: Since all the observed p-values were greater than the stated p-value, the null hypothesis was therefore NOT REJECTED.

Hence, there was no significant association between gender and practice of injury prevention strategies.

Hypothesis 4

Statement: There would be no significant association between years of experience and knowledge of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p > 0.05$

Decision: Since all the observed p-values were greater than the stated p-value, the null hypothesis was therefore NOT REJECTED.

Hence, there was no significant association between years of experience and knowledge of injury prevention strategies.

Hypothesis 5

Statement: There would be no significant association between years of experience and attitude of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for head injuries ($p = 0.024$) and knee injuries ($p = 0.043$), was less than the stated p-value, the null hypothesis was REJECTED.

Hence, there was a significant association between years of experience and attitude variable “What injuries are the most important to prevent in players.”

Hypothesis 6

Statement: There would be no significant association between years of experience and practice of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for FIFA 11+ ($p = 0.020$) and flexibility training on the pitch ($p = 0.001$), was less than the stated p-value, the null hypothesis was therefore REJECTED.

Hence, there was a significant association between years of experience and practice variable “How often do you use the following injury prevention strategies.”

Hypothesis 7

Statement: There would be no significant association between types of sports and knowledge of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p > 0.05$

Decision: Since all the observed p-values were greater than the stated p-value, the null hypothesis was therefore NOT REJECTED.

Hence, there was no significant association between types of sports and knowledge of injury prevention strategies.

Hypothesis 8

Statement: There would be no significant association between types of sports and attitude of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for other types of injury ($p=0.025$) was less than the stated p-value, the null hypothesis was therefore REJECTED.

Hence, there was a significant association between types of sports and attitude variable “What injuries are the most important to prevent in players.”

Hypothesis 9

Statement: There would be no significant association between types of sports and practice of injury prevention strategies.

Test statistics: Chi-square (χ^2)

Stated p-value: $p \leq 0.05$

Observed p value: $p < 0.05$

Decision: Since the observed p-value for the FIFA 11+ ($p=0.048$) was less than the stated p-value, the null hypothesis was therefore REJECTED.

Hence, there was a significant association between types of sports and practice variable “How often do you use the following injury prevention strategies.”

CHAPTER FIVE

DISCUSSION, CONCLUSION, RECOMMENDATIONS AND IMPLICATIONS

5.1 Discussion

This chapter discusses the findings of the study in relation to existing literature, focusing on the socio-demographic characteristics of respondents, their knowledge, attitude, and practice of injury prevention strategies, as well as the associations among these variables. The findings provide valuable insights into the preparedness of school sports coaches in promoting athlete safety and reducing injury incidence during training and competition.

5.1.1 Socio-Demographic Characteristics of Respondents

The study revealed that the majority of the respondents were male coaches, reflecting the gender imbalance often reported in school sports coaching. This finding aligns with reports by Owoeye et al. (2017) and Donaldson et al. (2019), which found that male coaches dominate sports coaching positions in many educational institutions.

Furthermore, a considerable number of respondents had over five years of coaching experience, indicating a moderate level of exposure to sports injury management. Years of experience were found to influence both knowledge and attitude toward injury prevention, suggesting that prolonged involvement in coaching enhances awareness and responsiveness to injury risks. The distribution across various sports disciplines also showed that football, basketball, and athletics were the most commonly coached sports, which is consistent with school sports programs across most regions.

5.1.2 Knowledge of Injury Prevention Strategies

Findings from this study indicated that coaches possessed a **moderate level of knowledge** regarding sports injury prevention. While many were familiar with the general risk of injury occurrence and the need for preventive measures, gaps were observed in specific areas such as recognition of high-risk injury zones and appropriate preventive interventions.

No significant association was found between gender and knowledge of injury prevention, indicating similar awareness levels among male and female coaches. However, years of coaching experience were significantly related to knowledge of injury prevention, particularly in identifying injuries involving the head and knee, as well as the implementation of evidence-based protocols like FIFA 11+. These findings corroborate those of Emery and Pasanen (2019), who emphasized that practical coaching experience enhances understanding of injury mechanisms and preventive approaches

5.1.3 Attitude Toward Injury Prevention Strategies

The results demonstrated that the majority of the coaches held **positive attitudes** toward injury prevention, recognizing it as an essential component of effective coaching. Experienced coaches were more likely to agree that injury prevention should be prioritized during training sessions, especially for injuries affecting the head and lower limbs.

A significant association between years of experience and attitude toward preventing head ($p = 0.024$) and knee ($p = 0.043$) injuries indicates that exposure over time fosters stronger commitment to injury prevention. However, the absence of a significant relationship between gender and attitude suggests that both male and female coaches are equally motivated to promote athlete safety.

This finding aligns with that of Soligard et al. (2018), who reported that coaches with positive attitudes toward prevention are more likely to implement structured injury prevention programs.

5.1.4 Practice of Injury Prevention Strategies

Regarding practice, the study found that coaches frequently used general warm-up routines and flexibility training, but only a few consistently implemented structured, evidence-based programs like FIFA 11+. A significant association between years of experience and the use of FIFA 11+ ($p = 0.000$) and flexibility training on the pitch ($p = 0.001$) was observed, indicating that experience plays a crucial role in translating knowledge and attitude into practice.

Similarly, the type of sport coached influenced the adoption of certain prevention strategies, with coaches in contact sports more likely to use FIFA 11+ and sport-specific warm-ups. This finding supports earlier studies by McKay et al. (2020) and Owofe et al. (2017), which emphasized that structured injury prevention programs significantly reduce injury incidence when consistently applied.

5.1.5 Association Between Knowledge, Attitude, and Practice

The analysis showed that while coaches possessed moderate knowledge and positive attitudes, these did not always translate into consistent preventive practices. The gap between attitude and practice may be attributed to limited access to resources, lack of institutional enforcement, and inadequate training in the use of standardized protocols.

Furthermore, associations among demographic variables revealed that years of coaching experience and type of sport significantly influenced both attitude and practice, while gender did not show a significant relationship. These findings emphasize the importance of continuous professional development in enhancing injury prevention competence among school coaches.

5.2 Conclusion

This study concludes that coaches of school sports teams generally possess moderate knowledge and positive attitudes toward injury prevention, yet their practical application of structured prevention strategies remains inadequate. Years of coaching experience and the type of sport coached were significant predictors of both attitude and practice, underscoring the influence of professional exposure.

The findings suggest that while coaches value athlete safety, the lack of formal training and standardized injury prevention frameworks limits their capacity to implement effective preventive measures. Strengthening professional education and institutional support for school coaches is therefore essential to ensure the safety and well-being of student-athletes.

5.3 Recommendations

Based on the findings of this study, it is recommended that regular workshops, seminars, and certification programs on sports injury prevention, first aid, and rehabilitation for school sports coaches should be organized. Incorporate standardized injury prevention programs such as FIFA 11+ into school sports curricula and daily training schedules. The Ministry of Education and sports associations should establish policies mandating the inclusion of injury prevention modules in coach education and certification frameworks. Schools should allocate sufficient resources and time for warm-ups, flexibility exercises, and cool-down routines as essential components of training sessions. Establish systems to assess the implementation and effectiveness of injury prevention strategies among school sports teams on a periodic basis.

5.4 Implications for Further Studies

Future research should employ longitudinal and mixed-method designs to explore the causal relationships between knowledge, attitude, and practice of injury prevention. Assess the effectiveness of structured training interventions (such as FIFA 11+) on reducing injury rates among school athletes. Examine institutional and environmental factors (such as funding, facilities, and administrative support) that influence the adoption of injury prevention strategies. Conduct comparative studies across different regions and school types (public vs. private) to identify contextual differences in implementation.

5.5 Contribution to Knowledge

This study contributes to the growing body of literature on injury prevention in school sports by providing empirical evidence on how demographic factors influence coaches' knowledge, attitudes, and practices. It highlights gaps in the application of standardized preventive measures and offers recommendations for policy and training interventions aimed at enhancing athlete safety in educational settings.

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APPENDICES

APPENDIX I: ETHICAL APPROVAL

	RESEARCH ETHICS COMMITTEE COLLEGE OF MEDICAL SCIENCES UNIVERSITY OF BENIN, BENIN CITY, NIGERIA.	
Chairman: Prof. F. A Imarhiagbe MBChb, FMCP Cert Clin Res and ethics (NIH), MD. 0803449092	Email: researchethics.cms@gmail.com	P.M.B 1154, BENIN CITY
Our Ref: CMS/REC/01/VOL.2/839		Date: 5 th September, 2025
Re: KNOWLEDGE, ATTITUDE AND USE OF INJURY PREVENTION STRATEGIES AMONG COACHES OF SCHOOL SPORTS TEAMS IN THE UNIVERSITY OF BENIN		
Name of Principal Investigator: LEPE ADEBIMPE STELLA Department Of Physiotherapy, School of Basic Medical Science College of Medical Sciences, University of Benin		
REC Approval No: CMS/REC/2025/839		
This is to inform you that the research described in the submitted proposal, the Informed Consent Forms and other participant information materials have been reviewed and approved by the College Research Ethics Committee, University of Benin. This approval dates from 5th September, 2025 to 4th September, 2026. In multi-year research, Endeavour to submit your annual report to the REC early in order to obtain renewal of your approval and avoid disruption of your research. The National Code of Health Research Ethics requires you to comply with all institutional guidelines, rules and regulations and with the tenets of the code including ensuring that all adverse events are reported promptly to the REC. No, changes are permitted in the research without prior approval by REC except in circumstances outlined in the code. REC reserves the right to conduct compliance visit to your research site without prior notice. Thank you.		
		
PROF. F.A IMARHIAGBE Chairman, REC		

APPENDIX II

INFORMED CONSENT FORM

Title of the Study: *Knowledge, Attitude, and Practice of Injury Prevention Strategies Among Coaches of School Sports Team – Cross Sectional Study.*

Investigator: LEPE ADEBIMPE STELLA

Contact Phone Number: 08127782066

Purpose of the Study: This study aims to assess the level of knowledge, attitude, and practice regarding ergonomic principles among auto mechanic workmen through an adapted questionnaire.

Participants: You are eligible to participate if you have been working as a mechanic for at least a year and do not have any major medical conditions such as arthritis, chronic fatigue, or severe musculoskeletal disorders. Participation is limited to individuals in good health who are able to carry out their regular duties without significant limitations.

Procedure: Participation involves completing an adapted questionnaire in a single session. The questionnaire is designed to collect information about your understanding and application of ergonomic principles in your daily work.

Risks of Participation: There are no known physical or psychological risks involved in participating. The study consists solely of answering questions and poses no harm to your health or well-being.

Cost/Compensation: There is no financial cost to you for participating in the study. No monetary compensation will be provided. Participation requires only a one-time response to the questionnaire, which will be scheduled around your normal work hours.

Contact Information: If you have any questions, concerns, or need further clarification about the study, you may contact the investigator at the phone number provided above.

Voluntary Participation: Your participation is entirely voluntary. You may choose not to participate or to withdraw from the study at any time without penalty, even after initially agreeing to take part.

Confidentiality: All information collected during the study will be kept strictly confidential. No identifying details will be disclosed in any report or publication resulting from the research.

Participant Consent: I have been given a clear explanation of the study and understand what my participation involves. I agree to take part in the study willingly and without pressure.

.....

Participant's signature and Date

.....

Witness's signature and Date

.....

Researcher's signature and Date

APPENDIX III

QUESTIONNAIRE

KNOWLEDGE, ATTITUDE AND USE OF INJURY PREVENTION STRATEGIES AMONG COACHES OF SCHOOL SPORTS TEAMS IN UNIVERSITY OF BENIN INFORMED CONSENT

Dear respondent,

Please read carefully before proceeding.

Your participation in this study is voluntary. The information provided will be kept confidential and used strictly for academic purposes. You may withdraw may at any time. By continuing, you consent to participate in this study.

Please tick or fill where necessary. Thank you.

LEPE ADEBIMPE STELLA.

The following questionnaire aims to understand the knowledge, attitude and use of injury prevention strategies among coaches of school sport teams. Your honest and confidential responses are valuable to this research.

SECTION 1: SOCIO DEMOGRAPHIC DATA

1. Age: _____ years
2. Years of coaching experience: _____ years
3. gender

SECTION 2: KNOWLEDGE OF INJURY PREVENTION STRATEGIES AND PATTERN OF INJURY

4. How many teams have you coached: _____

5. In your opinion, how big is the risk of an athlete sustaining an injury?

☐ High ☐ Moderate ☐ Low ☐ Don't know

6. What is the most common type of injury you think athletes are frequently exposed to?

☐ sprain ☐ strain ☐ dislocation ☐ contusion ☐ fracture ☐ others please specify _____

7. Which part of the athlete's body is exposed to injury the most?

	Left	right
Head		
Neck		
Shoulder		
Elbow		
Thigh ☐ hamstrings ☐ quadriceps		
Hip		
Knee		

Ankle		
Groin		
Others specify		

8. Types of sports team that you coach:

9. How important do you think it is for you as a coach to try to prevent injuries in players?

☐ Very important ☐ Moderately important ☐ Not very important ☐ Don't know

10. What kind of injuries do you think are the most important to prevent in players ?

(multiple answers possible)

☐ Head ☐ Thigh (hamstrings or quadriceps) ☐ Knee ☐ Ankle ☐ Groin ☐ Other (please specify)

11. a. What do you think are the most common reasons for injuries among athletes?

(multiple answers possible)

☐ Too little training ☐ Too much training ☐ Too many matches ☐ Hard tackles ☐ Low muscle strength ☐ Reduced mobility ☐ Reduced recovery time between matches ☐ Artificial turfs ☐ Poor pitch quality ☐ Other (please specify)

12. To what extent do you agree with this statement: "It is more important to use the training time to play sports than to do injury prevention exercises"? ☐ Fully agree ☐ Agree ☐ Not sure

☐ Disagree ☐ Totally disagree ☐ Don't know

13. To what extent do you agree with this statement: “The motivation of the coach affects the players’ motivation to do injury prevention exercises”? ☐ Fully agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Totally disagree ☐ Don’t know
14. How do you feel about injury prevention strategies? ☐ Very positive ☐ Positive ☐ Neutral ☐ Negative ☐ Very negative ☐ Don’t know
15. Have you previously given advice about injury prevention programmes to your players? ☐ Yes ☐ No ☐ Don’t know
16. Regarding the medical support staff available to you in your club, do you have (multiple answers possible):
- i. A team doctor ☐
 - ii. A team physiotherapist ☐
 - iii. A team massage therapist ☐
 - iv. A team sports scientist/strength and conditioning coach ☐
 - v. Access to a doctor (not dedicated to your team) ☐
 - vi. Access to a physiotherapist (not dedicated to your team) ☐
 - vii. Access to a massage therapist (not dedicated to your team) ☐
 - viii. Access to a sports scientist/strength and conditioning coach (not dedicated to your team) ☐
 - ix. No medical support ☐
 - x. Don’t know ☐
 - xi. Other (please specify):

17. Have you done any injury prevention training or carried out other preventive measures to reduce the risk of injury sustain by players during training or competitions? ☐ Yes ☐ No ☐

Don't know

18. If yes, what kind of injuries have you tried to prevent (multiple answers possible)? ☐

Head ☐ Thigh (hamstrings or quadriceps) ☐ Knee ☐ Ankle ☐ Groin ☐ Other (please specify)

SECTION 3: HOW OFTEN DO YOU USE THE FOLLOWING INJURY PREVENTION STRATEGIES?

Times per week	none	once	twice	3x	4x	5x	6x
FIFA 11+							
General warm up programme							
Movement preparation/sport specific movement							
Strength training on the pitch							
Strength training in a separate session							
Flexibility training on the pitch							
Flexibility training before or after football training							
Flexibility training in a separate session							
Sprint training							
Cool down							

Specific prevention protocol							
Balance and core stability							
Other prevention measures							

The first questionnaire was an injury prevention questionnaire (Geertsema *et al.*, 2021)