

Perception of Coaches and Students Towards Sports Safety Risk Management Practices in Secondary Schools in Philippines

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ABSTRACT Sports safety is essential to protecting student-athletes and maintaining effective school sports programs. This study examined sports safety risk management practices in three large secondary schools near Isabela State University-Echague Campus and provided inputs to enhance sports safety in schools. A quantitative descriptive-comparative research design was employed, involving a purposive sample of 30 coaches and 150 student-athletes. Data were collected using a sports safety risk management questionnaire and analysed using means, standard deviations, and independent-samples t-tests. Coaching and supervision emerged as the strongest dimension, whereas training and preparation, as well as equipment and facilities, showed notable weaknesses. No significant differences were found between coaches' and student-athletes' perceptions of sports safety risk management practices. Risk assessment and prevention received the lowest ratings, while health and medical support emerged as the strongest area. The findings highlight the need for continuous safety education, systematic risk assessment, emergency preparedness, regular facility maintenance, strengthened medical support, policy enforcement, and institutional monitoring to promote safer school sports environments.

INTRODUCTION

Sports participation has long been recognised as an essential component of secondary education because it promotes learners' physical, cognitive, emotional and social development. Beyond enhancing physical fitness, involvement in organised sports helps develop discipline, teamwork, leadership, resilience, communication, and decision-making skills, all of which support students' holistic development (Gupta and Reddy 2023; Yang et al. 2025). School-based athletic programs provide learners with valuable opportunities to develop healthy lifestyles, improve physical fitness, strengthen interpersonal relationships, foster teamwork, and cultivate a sense of responsibility (Acar and Duran 2025; An et al. 2022). In the Philippines, secondary school student-athletes regularly participate in intramural meets and higher levels of competition, including division, regional, and national athletic events, while simultaneously fulfilling their academic obligations. As UNESCO (2024) emphasised, quality physical education and school sports are fundamental to developing competent, healthy, and socially responsible learners through safe and inclusive participation.

Although participation in sports offers numerous educational and developmental benefits, it also

exposes student-athletes to various forms of risk. Injuries sustained during training or competition remain one of the most common concerns in school sports, particularly among adolescents whose bodies continue to undergo rapid physical and physiological development. According to the World Health Organisation (2024), insufficient preparation, excessive training loads, inadequate supervision, unsafe facilities, environmental hazards, and poor emergency preparedness contribute significantly to preventable sports-related injuries among young athletes. These risks may not only interrupt athletic participation but also affect learners' academic performance, psychological well-being, and long-term health.

Recognising both the educational value of sports and the need to protect student-athletes, the Philippine government has enacted policies that strengthen school sports programs while safeguarding learner welfare. The Republic Act No. 5708, known as the Schools Physical Education and Sports Development Act of 1969, institutionalised physical education and sports development in educational institutions. This commitment was reinforced through Republic Act No. 10676 (2015), or the Student-Athletes Protection Act, which promotes the protection of student-athletes' educational rights and general welfare. These legislative

measures affirm that schools carry not only the responsibility of developing athletic excellence but also of ensuring that sports participation occurs within a safe, supportive, and well-managed environment.

The growing emphasis on athlete welfare has elevated sports safety risk management as a critical function of school administration. Rather than focusing solely on responding to injuries, contemporary sports safety management adopts a proactive approach that seeks to identify hazards before accidents occur, evaluate the likelihood and severity of risks, implement preventive measures, and continuously monitor safety practices. Nojadeh et al. (2025) and Mountjoy et al. (2021) emphasised that effective sports safety management requires coordinated collaboration among coaches, school administrators, healthcare professionals, parents, and student-athletes. Such collective efforts enhance the institution's ability to identify and prevent potential injuries while ensuring timely and appropriate responses to sports-related emergencies.

Training and physical preparation are essential components of sports injury prevention. Student-athletes can reduce their risk of injury through structured conditioning programs that incorporate proper warm-up and cool-down exercises, strength and flexibility training, adequate hydration, recovery strategies, and sport-specific preventive techniques. Coaches also have a critical responsibility in assessing athletes' physical readiness, injury history, fitness levels, and training demands before assigning appropriate activities. Moreover, providing athletes with knowledge of safe playing techniques and emergency procedures enhances their ability to identify potential hazards and respond effectively during sports-related incidents (Indharty et al. 2023; Máté and Takács 2026; Woods et al. 2025).

The responsibilities of coaches extend beyond providing technical and tactical instruction. They play a vital role in shaping athletes' safety-related behaviours, ensuring adherence to established safety protocols, managing training intensity, and making informed decisions about athletes' participation following illness or injury (Bayram et al. 2022; Nor et al. 2025). Therefore, the effectiveness and quality of coaching are closely associated with the protection, well-being, and overall safety of student-athletes. Wilczyński et al. (2025) emphasised that continuous professional development enables coaches to strengthen their knowledge of injury prevention, first aid, concussion recogni-

tion, safeguarding, and emergency response, thereby improving athlete safety and preparedness in school sports programs.

Physical resources also determine the effectiveness of sports safety management. Safe participation depends not only on athletes' preparedness but also on the condition of sports equipment and athletic facilities. Damaged equipment, uneven playing surfaces, poor lighting, inadequate ventilation, and the absence of protective barriers increase the likelihood of preventable accidents. For this reason, schools are expected to conduct regular inspections, establish preventive maintenance schedules, and replace defective equipment whenever necessary. The World Health Organisation (2025) highlighted the need for readily accessible first-aid resources, clearly identified emergency exits, and visible safety signs to strengthen emergency preparedness and promote safer participation in sports activities.

Comprehensive risk assessment and emergency preparedness are essential to sports safety. Regular safety inspections, emergency action plans, and drills enable schools to identify potential hazards and respond more effectively to unexpected incidents (Kanase et al. 2025; Sprague and Walker 2021). As reported by Hadi et al. (2025), effective emergency preparedness protocols facilitate prompt injury management, efficient crisis response, and better health outcomes among athletes.

Health and medical support strengthens school sports safety through medical screening, first aid, injury management, rehabilitation, and appropriate return-to-play decisions. Coordination among coaches, health personnel, parents, and healthcare providers ensures continuity of care and protects student-athletes' well-being (Harris and Odai 2023; Kazemi et al. 2026). A coordinated approach allows schools to address injuries promptly while minimising the risk of long-term health complications.

Despite existing national policies and international recommendations, the implementation of sports safety measures differs considerably across secondary schools. Institutional capacity often varies according to available financial resources, facility conditions, equipment availability, coaching qualifications, access to healthcare services, and administrative support. Schools with larger student populations and more active athletic programs frequently encounter additional challenges related to supervision, scheduling, and facility maintenance. UNESCO (2026) observed that dis-

parities in school resources continue to influence the quality and effectiveness of physical education and sports programs worldwide, highlighting the need for context-specific assessments of safety practices.

In the province of Isabela, school sports remain an important avenue for youth development and athletic excellence. Several large secondary schools situated near Isabela State University-Echague Campus actively participate in interschool athletic competitions while providing students with opportunities to develop their sporting abilities. However, little empirical evidence exists regarding the extent to which these schools implement comprehensive sports safety risk management practices. Understanding current safety mechanisms within these institutions may provide valuable insights for strengthening athlete protection and improving school sports governance.

Although previous studies have explored sports participation, athletic performance, physical education, and injury prevalence, institutional sports safety risk management in Philippine secondary schools remains an underexamined area of research. Existing literature suggests that sports safety should be viewed as a multidimensional system encompassing athlete preparation, coaching practices, facility management, equipment safety, emergency preparedness, risk assessment, and health support. Examining these dimensions collectively provides a more comprehensive understanding of how schools protect student-athletes from preventable injuries while sustaining quality sports programs (Gurgis et al. 2026; Salemi et al. 2023).

Therefore, the present study examined the sports safety risk management practices implemented in three large secondary schools located near Isabela State University-Echague Campus. Specifically, it assessed the extent to which schools implement safety measures related to training and preparation, coaching and supervision, sports equipment and facilities, risk assessment, emergency preparedness, and health support. By comparing the perspectives of coaches and student-athletes, the study seeks to generate empirical evidence that can inform policy enhancement and contribute to the sports safety of secondary school athletic programs.

Objectives of the Study

This study generally aimed to assess sports safety risk management practices as a basis for

enhancing the sports safety framework in selected secondary schools in Isabela. Specifically, the study aimed to:

1. Determine the extent of sports safety risk management practices, based on coaches' and student-athletes' assessments, in terms of training and preparation, coaching and supervision, and equipment and facilities.
2. Examine whether significant differences exist between coaches' and student-athletes' perceptions of sports safety risk management practices.
3. Assess the status of sports safety risk management in terms of risk assessment and prevention, safety policies and emergency preparedness, facility and equipment safety, and health and medical support.

METHODOLOGY

The study employed a quantitative descriptive-comparative research design to examine sports safety risk management practices from the perspectives of coaches and student-athletes. A quantitative approach is appropriate for collecting measurable data and analysing relationships among variables using statistical procedures (Creswell and Creswell 2018). The descriptive component was used to determine the extent and status of sports safety risk management practices, while the comparative component examined differences between the assessments of coaches and student-athletes through statistical comparison.

The study was conducted in three large secondary schools located within the vicinity of Isabela State University-Echague Campus in Isabela, Philippines. The schools were purposively selected based on their relatively large student populations, established sports programs, and active participation in interschool athletic competitions. These characteristics provided an appropriate context for examining sports safety risk management practices in secondary education, where organised athletic participation and safety management are integral components of school sports programs.

The respondents consisted of 30 coaches and 150 student-athletes, yielding a total of 180 participants. Coaches were actively involved in the training, supervision, and preparation of school athletic teams, while student-athletes were officially enrolled in school sports programs and regularly par-

participated in training sessions and athletic competitions. Purposive sampling was employed to ensure that participants possessed relevant experience and knowledge necessary to provide meaningful responses regarding sports safety practices (Ahmad and Wilkins 2025).

Data were collected using a structured Sports Safety Risk Management Questionnaire developed from the literature on sports safety and risk management. The first component measured the extent of sports safety practices in terms of training and preparation, coaching and supervision, and equipment and facilities. The second component assessed the status of sports safety risk management in relation to risk assessment and prevention, safety policies and emergency preparedness, facility and equipment safety, and health and medical support. The development of the questionnaire was guided by established principles of sports safety and risk management emphasising injury prevention, hazard identification, emergency preparedness, and athlete welfare (Fuller et al. 2006; National Athletic Trainers' Association 2013).

The questionnaire utilised a four-point Likert-type scale interpreted as 'Very High', 'High', 'Low', and 'Very Low'. The indicators included athlete preparation, injury prevention, coaching supervision, hazard monitoring, equipment inspection, facility maintenance, risk assessment, emergency procedures, and medical support. Likert-type rating scales are widely used in educational and social science research to measure attitudes, perceptions, and practices because they provide consistent and quantifiable responses suitable for statistical analysis (Koo and Yang 2025).

Descriptive statistics, specifically the mean and standard deviation, were computed to determine the extent and status of sports safety risk management practices. To determine whether significant differences existed between the perceptions of coaches and student-athletes, an independent-samples t-test was employed. This statistical pro-

cedure is appropriate for comparing the mean scores of two independent groups on continuous variables (Chicco et al. 2025). All hypotheses were tested using a significance level of .05.

Ethical principles were observed throughout the conduct of the study in accordance with established research ethics involving human participants (Ali et al. 2025). Permission to conduct the study was obtained from the appropriate school authorities prior to data collection. All respondents were informed of the objectives of the study, the voluntary nature of participation, and their right to withdraw at any stage without penalty. Since the student-athlete respondents included minors, appropriate parental or guardian informed consent and student assent procedures were secured before participation. Confidentiality, anonymity, and the privacy of respondents were maintained throughout data collection, data analysis, and reporting of the findings.

RESULTS

Sports Safety Risk Management Practices

The extent of sports safety risk management practices in the selected secondary schools as assessed by coaches and student-athletes is presented in Table 1. As shown in Table 1, the overall mean of 2.60 (SD = 0.70) falls within the 'High' range, indicating that sports safety risk management practices were generally evident in the participating schools. However, the results show that the extent of implementation differed considerably across the three dimensions. The standard deviations, which ranged from 0.69 to 0.71, indicate a relatively similar degree of variation in the respondents' assessments.

Among the three dimensions, coaching and supervision ranked first, with a mean of 2.83 (SD = 0.69), interpreted as 'High'. This was the strongest aspect of sports safety risk management reported

Table 1: Sports safety risk management practices

<i>Dimension</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Rank</i>	<i>Interpretation</i>
Training and Preparation	2.48	0.70	3	Low
Coaching and Supervision	2.83	0.69	1	High
Equipment and Facilities	2.49	0.71	2	Low
Overall Mean	2.60	0.70		High

Note: 3.26-4.00 = Very High; 2.51-3.25 = High; 1.76-2.50 = Low; 1.00-1.75 = Very Low

in the schools. The finding suggests that coaches generally provide safety-related supervision during sports activities, monitor training sessions, identify potentially unsafe practices, and provide guidance to student-athletes. The relatively low standard deviation also suggests that the respondents' assessments of coaching and supervision were fairly consistent. The result highlights the important role of coaches as the immediate safety monitors during training and competition.

Equipment and facilities ranked second, with a mean of 2.49 (SD = 0.71), interpreted as 'Low'. Although the mean was close to the lower boundary of the 'High' category, it remained within the 'Low' range based on the study's interpretation scale. This indicates that practices involving equipment examination, facility inspection, emergency exits, maintenance, repair, and safety monitoring were not implemented to the same extent as coaching and supervision. The finding suggests that the presence of safety-conscious coaches does not necessarily correspond to equally strong institutional systems for maintaining the physical environment in which sports activities occur. Thus, equipment and facility management represents an area requiring greater consistency and regular monitoring.

Training and preparation obtained the lowest mean, at 2.48 (SD = 0.70), and was likewise interpreted as 'Low'. This result indicates that safety considerations were not yet consistently incorporated into the preparation of student-athletes. In particular, individual risk assessment, sport-specific emergency preparation, continuing safety education, and adjustment of training activities to athletes' physical conditions may not be systematically practiced. The low rating suggests that injury prevention may be addressed during routine training but may not yet be supported by a comprehensive preparation process that considers the varying risks and needs of individual athletes.

In essence, the findings show an important distinction between supervision during sports activities and the broader systems that support safety before and around those activities. While coaching and supervision emerged as a relative strength, training preparation and equipment and facility management remained below the desired level. The overall 'High' rating should therefore be interpreted with caution because it is largely supported by the stronger performance of coaching and supervision, while two of the three dimensions were rated 'Low'. These results indicate the need to strengthen preventive and systematic safety measures rather than relying primarily on the day-to-day vigilance of coaches.

Differences Between Coaches' and Student-Athletes' Perceptions

Table 2 presents the differences between the perceptions of coaches and student-athletes regarding sports safety risk management practices. The results show that the two groups provided generally similar assessments across all three dimensions. More importantly, none of the computed differences reached statistical significance at the 0.05 level, indicating that the perceptions of coaches and student-athletes did not differ significantly.

For training and preparation, coaches reported a mean of 2.52, compared with 2.47 among student-athletes. The difference between the two means was 0.05. The computed *t*-value of 1.26 with a *p*-value of .21 indicates that the difference was not statistically significant. This suggests that coaches and student-athletes had generally similar views concerning the extent to which training and preparation practices were implemented.

A similar pattern was observed for coaching and supervision. Coaches obtained a mean of 2.85, whereas student-athletes obtained 2.82, produc-

Table 2: Differences in sports safety risk management practices between coaches and student-athletes

<i>Dimension</i>	<i>Respondent</i>	<i>Mean</i>	<i>t-value</i>	<i>p-value</i>	<i>Interpretation</i>
<i>Training and Preparation</i>	Coaches	2.52	1.26	.21	Not significant
	Student-Athletes	2.47			
<i>Coaching and Supervision</i>	Coaches	2.85	0.96	.34	Not significant
	Student-Athletes	2.82			
<i>Equipment and Facilities</i>	Coaches	2.52	1.15	.25	Not significant
	Student-Athletes	2.48			

Note: *p* < .05 indicates a statistically significant difference

ing a small mean difference of 0.03. The computed t-value of 0.96 and p-value of .34 indicate that the difference was not statistically significant. Thus, the two respondent groups generally shared similar assessments of coaching and supervisory practices.

For equipment and facilities, coaches reported a mean of 2.52, while student-athletes reported 2.48, resulting in a mean difference of 0.04. The computed t-value of 1.15 and p-value of .25 likewise indicate a statistically non-significant difference. This finding demonstrates that both groups generally perceived the condition and management of sports equipment and facilities in a similar manner.

Collectively, the absence of statistically significant differences across all three dimensions indicates a consistent pattern of perception between coaches and student-athletes. Although coaches reported slightly higher mean ratings than student-athletes in all dimensions, the differences were small and did not reach statistical significance. This suggests that the identified strengths and weaknesses of sports safety risk management were generally shared by both respondent groups rather than being limited to the perspective of one group. Consequently, interventions to improve sports safety may be developed around these shared perceptions, particularly in areas where both groups indicated comparatively lower levels of implementation.

Status of Sports Safety Risk Management

Table 3 presents the status of sports safety risk management in the selected secondary schools across four institutional dimensions. The overall mean of 2.50 (SD = 0.71) was interpreted as 'Low', indicating that although some safety mechanisms were present, the overall institutional system for managing sports-related risks remained insufficiently developed. The results also reveal a clear disparity among the four dimensions, with health and medical support emerging as the strongest

area and risk assessment and prevention emerging as the weakest.

Health and medical support ranked first, obtaining a mean of 2.70 (SD = 0.70) and an interpretation of 'High'. This indicates that first aid, immediate injury response, health information, and basic medical assistance were comparatively more evident than the other dimensions. The result suggests that the schools have established some capacity to respond when injuries or health-related incidents occur. Nevertheless, the relatively higher rating should not be interpreted as evidence that the entire medical management system is fully developed. Health and medical support would be more effective when linked with systematic athlete screening, injury documentation, referral mechanisms, follow-up procedures, and appropriate return-to-play decisions.

Facility and equipment safety ranked second, with a mean of 2.47 (SD = 0.71), interpreted as 'Low'. The result indicates that although safety signage, emergency exits, and equipment-use rules may be present, these measures are not necessarily supported by regular facility audits, preventive maintenance, timely repairs, safety barriers, and documented inspections. The finding points to a gap between having basic safety provisions and maintaining a systematic facility safety-management process.

Safety policies and emergency preparedness ranked third, with a mean of 2.46 (SD = 0.71), also interpreted as 'Low'. This result suggests that basic safety policies and emergency procedures may exist, but their implementation may not be sufficiently regular or comprehensive. Limitations may include infrequent emergency drills, inadequate review and updating of policies, inconsistent monitoring of implementation, and unclear communication of emergency responsibilities. The finding indicates that written policies alone may not be sufficient unless they are regularly practiced, eval-

Table 3: Status of sports safety risk management

<i>Dimension</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Rank</i>	<i>Interpretation</i>
Risk Assessment and Prevention	2.36	0.72	4	Low
Safety Policies and Emergency Preparedness	2.46	0.71	3	Low
Facility and Equipment Safety	2.47	0.71	2	Low
Health and Medical Support	2.70	0.70	1	High
Overall Mean	2.50	0.71		Low

Note: 3.26-4.00 = Very High; 2.51-3.25 = High; 1.76-2.50 = Low; 1.00-1.75 = Very Low

uated, and communicated to all individuals involved in school sports.

The lowest-rated dimension was risk assessment and prevention, with a mean of 2.36 (SD = 0.72). This finding indicates weaknesses in the systematic identification of hazards, regular assessment of sports-related risks, documentation of safety concerns, communication of identified hazards, and evaluation of preventive measures. Its last rank is particularly significant because effective risk management should ideally begin with identifying and controlling hazards before an injury or emergency occurs. The low rating therefore suggests that sports safety practices in the participating schools may be more reactive than preventive, with greater emphasis placed on responding to incidents than on systematically anticipating and reducing risks.

The difference between the highest-rated dimension, health and medical support (2.70), and the lowest-rated dimension, risk assessment and prevention (2.36), is 0.34 points. This pattern indicates that the schools appear relatively stronger in responding to injuries and health concerns than in preventing hazards from occurring in the first place. Such a pattern has practical implications for school sports safety because effective risk management requires both response capacity and preventive systems.

Taken together, the findings indicate that the selected secondary schools possess basic but unevenly developed sports safety mechanisms. Health and medical support constitute a relative strength, while risk assessment and prevention, emergency preparedness, and facility and equipment safety remain areas for improvement. The results therefore point to the need for a more comprehensive and preventive sports safety framework that integrates hazard identification, regular facility and equipment inspections, emergency preparedness, coach and athlete safety education, medical response, documentation, and continuous monitoring. Strengthening these interconnected components would help move sports safety management from a primarily responsive approach toward a more systematic and preventive institutional practice.

DISCUSSION

The findings indicate that sports safety risk management practices are generally evident in the

selected secondary schools in Isabela, as reflected in the overall assessment. However, the variation across dimensions reveals that the implementation of safety practices is uneven. Coaching and supervision emerged as the strongest area, whereas training and preparation and equipment and facilities were comparatively weaker. This pattern is important because a generally favourable overall assessment may conceal specific weaknesses in the preventive aspects of sports safety. In practice, schools may be able to manage risks during actual sports participation through active coaching, but may have less developed systems for anticipating and controlling risks before they occur. Thus, the findings suggest that sports safety is present but has not yet been fully institutionalised as a comprehensive risk-management system (Gu et al. 2026; Sam et al. 2023).

The high rating for coaching and supervision demonstrates the central role of coaches in maintaining a safe sporting environment. Coaches are directly involved in monitoring training sessions, enforcing safety rules, correcting unsafe behaviours, and identifying signs of fatigue, injury, or excessive physical strain. Their continuous interaction with student-athletes enables immediate intervention when risks become apparent, making coaching an important frontline component of injury prevention (Miranda-Comas et al. 2022; Riaz et al. 2025). This finding is also consistent with the intent of Republic Act No. 10676, which emphasises the protection of student-athletes' welfare. However, a critical consideration is that strong supervision should not substitute for institutional safety systems. When safety depends heavily on individual coaches, its effectiveness may vary according to differences in training, experience, workload, and adherence to safety protocols. Therefore, the high rating for coaching should be viewed as a strength that needs to be supported by standardised policies and organisational mechanisms.

The lower assessment of training and preparation points to a potentially important preventive gap. Injury prevention should begin before athletes enter the playing environment and should include appropriate conditioning, warm-up, hydration, recovery, progressive increases in training load, and consideration of previous injuries and individual physical conditions (Haff and Triplett 2026; Nye et al. 2023). The finding may indicate that preparation is still viewed primarily in terms of

improving athletic performance rather than managing individual risk. This distinction is particularly relevant among secondary school athletes because adolescents differ considerably in physical development, fitness level, experience, and susceptibility to injury. A uniform training approach may therefore fail to address the specific risks of individual athletes. Schools should consequently strengthen pre-participation assessment and integrate injury-prevention strategies into routine training rather than treating them as supplementary activities.

The low assessment of equipment and facilities further suggests that sports safety is affected by institutional and environmental conditions beyond the control of individual coaches. Unsafe playing surfaces, damaged equipment, inadequate safety barriers, and poorly maintained facilities can create hazards even when athletes are properly supervised. Regular inspection, preventive maintenance, documentation of defects, and timely repair or replacement are therefore essential components of effective risk management (Paul 2023; Puhalla et al. 2026). A critical issue is that facility safety is often reactive, with action taken after equipment becomes visibly damaged or an incident occurs. Such an approach may increase exposure to preventable risks. The findings therefore point to the need for school-level systems that assign clear responsibility for inspections and ensure that identified hazards are addressed promptly.

The absence of significant differences between coaches' and student-athletes' perceptions provides an important indication of convergence between the two groups. The similarity of their assessments suggests that the identified strengths and weaknesses are not merely attributable to the perspective of one respondent group. Rather, both coaches and student-athletes appear to experience the same safety conditions within their sporting environment (Gurgis et al. 2022; Osegbue et al. 2025). This agreement may strengthen the credibility of the findings and provide school administrators with a shared basis for intervention. Nevertheless, the absence of significant differences should not automatically be interpreted as evidence that safety practices are adequate. Agreement between groups may instead indicate that both have become accustomed to existing limitations. Thus, the findings should be used not only to confirm

shared perceptions but also to identify areas requiring objective assessment through facility audits, injury records, and documented safety procedures.

Risk assessment and prevention emerging as the weakest component represents perhaps the most critical finding of the study. Effective risk management is fundamentally preventive, as hazards should be identified, risks evaluated, control measures implemented, and their effectiveness periodically reviewed (Marzban et al. 2025; Wang and Li 2021). The low assessment suggests that participating schools may place greater emphasis on responding to incidents than on systematically anticipating them. This reactive orientation has significant implications because injuries may be managed effectively after they occur while the underlying hazards remain unaddressed. Consistent with Republic Act No. 10121 and relevant Department of Education policies, risk reduction should therefore be incorporated into sports planning through regular hazard identification, risk assessment, documentation, and monitoring. The priority should be to move from an incident-response model toward a proactive risk-reduction model.

The relatively low rating for safety policies and emergency preparedness reinforces this concern. Having written policies does not necessarily mean that schools are adequately prepared to respond to emergencies. Policies become operational only when coaches, athletes, administrators, and health personnel understand their respective responsibilities and have opportunities to practice them. Regular orientations, emergency drills, first-aid training, and periodic policy reviews can help translate written procedures into actual preparedness (Horton et al. 2023; Ramey et al. 2025). The finding therefore raises a critical distinction between policy existence and policy implementation. Schools may have formal procedures in place, but their effectiveness depends on how consistently these procedures are communicated, practiced, monitored, and updated.

Health and medical support received the highest rating among the status indicators, indicating that schools have comparatively stronger capacity to provide first aid and immediate medical assistance. This is a positive finding because prompt medical response can reduce the severity of sports-related injuries. However, the result should not be interpreted as evidence of a fully developed sports health system. Effective medical management ex-

tends beyond emergency treatment to include pre-participation screening, injury surveillance, documentation, referral, rehabilitation, and evidence-based return-to-play decisions (Rimer and Petway 2025; Stephenson et al. 2021). Without these components, schools may respond effectively to acute injuries but remain limited in preventing recurrence and protecting athletes' long-term health.

In essence, the findings reveal an important imbalance between response capacity and prevention capacity. The schools appear relatively stronger in areas requiring immediate human intervention, particularly coaching, supervision, and basic medical support, but weaker in the organisational systems required to anticipate and control risks. This suggests that sports safety management in the participating schools may still be developing from a largely responsive model toward a more systematic preventive model. The implication is not simply that schools need more safety measures, but that existing measures need to be connected within an institutional framework.

Taken together, the schools possess a reasonable foundation for sports safety, but the findings demonstrate that the presence of safety practices does not necessarily equate to comprehensive risk management. Strengthening training preparation, risk assessment, emergency preparedness, and equipment and facility management should therefore be prioritised. More importantly, these interventions should be integrated rather than implemented independently. A sustainable sports safety system should connect pre-participation preparation, hazard identification, safe facilities, competent supervision, emergency response, medical care, injury documentation, and continuous evaluation. Such an integrated approach would reduce reliance on individual vigilance and strengthen the schools' capacity to prevent avoidable injuries while promoting the long-term safety and welfare of student-athletes (Genovard et al. 2025; Thompson et al. 2023).

CONCLUSION

This study examined sports safety risk management practices in selected secondary schools near Isabela State University-Echague Campus, based on coaches' and student-athletes' perceptions. Sports safety practices were generally evident, with coaching and supervision rated stron-

gest, while training and preparation and equipment and facilities showed gaps.

Overall, sports safety risk management was rated Low. Health and medical support was strongest, while risk assessment and prevention received the lowest rating, suggesting that schools are better prepared to respond to injuries than to prevent risks.

No significant differences were found between coaches' and student-athletes' perceptions. The findings highlight the need for a more preventive and integrated approach focused on risk assessment, athlete preparation, emergency preparedness, facility and equipment safety, and continuous monitoring.

RECOMMENDATIONS

Based on the findings, participating secondary schools should strengthen sports safety risk management by prioritizing training and preparation, equipment and facilities, risk assessment and prevention, and emergency preparedness. Regular training in injury prevention, first aid, CPR, hydration, heat-related illness, and sport-specific risks should be provided to coaches and student-athletes, supported by routine risk assessments and safety orientations.

Schools should maintain clear emergency action plans, conduct regular drills and facility inspections, and promptly address identified hazards. Health and medical support should also be enhanced through health screening, injury documentation, rehabilitation monitoring, and appropriate return-to-play procedures.

Finally, schools should promote continuous professional development for coaches and encourage student-athletes to report injuries and unsafe conditions. A coordinated and preventive safety framework integrating training, supervision, risk assessment, emergency preparedness, facility management, and medical support should be regularly evaluated to ensure a safer sports environment.

LIMITATIONS

This study was limited to three large secondary schools near Isabela State University-Echague Campus, with 30 coaches and 150 student-athletes. Thus, the findings may not be generalised to all secondary schools in Isabela or other regions. The

study also excluded administrators, health personnel, parents, and other stakeholders involved in athlete welfare and emergency response.

The data relied on respondents' perceptions, which may have been influenced by differences in understanding, social desirability, and prior experiences. The study did not include technical facility audits, equipment inspections, or systematic injury-record reviews; therefore, the findings reflect perceived safety practices rather than independently verified conditions or injury incidence. Its cross-sectional design also limited assessment of changes over time.

Future research should involve more schools and examine differences by school type, location, sport, and competition level. Facility audits, injury surveillance, interviews, and longitudinal assessments are recommended to provide a more comprehensive understanding of sports safety risk management in Philippine secondary schools.

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