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Comparison of sports injuries among school going children according to their gender.

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Abstract

The purpose of this study was to provide an overview of studies analyzing the Comparison of sports injuries among school going children according to their gender. Searches for this review were conducted using Web of Science, Scopus, PubMed, ERIC, SPORT Discus and Medline with Full-Text databases, and studies from electronic databases from inception to 27 March 2022 were identified. Out of 799 studies, 09 met the inclusion criteria and were included in the review. A total of nine studies articles were kept, representing the Associative studies that exclusively compared the gender differences in sports-related injuries among school-age children. From the nine studies that were considered, three dealt with men, and six with both men and females student's sports injuries. Results showed that Both male and female school-aged children who participate in structured sports training have a marked decline in sports-related injuries. The primary conclusions of the research that were part of the evaluation highlighted some important problems relating to sports injuries in young boys and girls. The majority of the papers examined in the review supported the finding that male children experience sports injuries more frequently than female children.

Keywords: *sports injuries; school going children; gender; associative studies.*



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INTRODUCTION

Sports activity among school-age children fosters healthy development and wards off the emergence of chronic diseases in later life.¹ Over the past 20 years, changes have been made to the teenage sport experience.³ A number of social and economic variables have been linked to the tendency in Western countries toward more frequent, intense, and structured sport from an early age. There may be inherent growth-related elements in a young skeleton that render bone and soft tissue especially vulnerable to injury² the presence of epiphyseal growth plates, for instance.⁴ During the height of skeletal development, there might also be an imbalance in limb lengths and strength that compromises motor control.⁵

It could raise the risk of harm with both an acute and slow onset. Additionally, there is some evidence to support the idea that engaging in unstructured adult free play may raise your chance of developing an overuse injury.⁶

The most frequent injuries in juvenile sports are those to the musculoskeletal system.⁷ A growing athlete may be especially vulnerable to risk factors such as growth spurts, maturation-associated variance, and a lack of complicated motor abilities.⁸ As kids move from childhood to puberty, there may be an epidemic of both acute and overuse injuries.⁹ Studies have shown that structural and tissue alterations may contribute to an environment that is more conducive to damage.^{8,10} Because bones grow quickly throughout development, there is an asynchronous growth of soft tissue and bones.¹¹ The soft tissues extend slowly and passively instead of quickly following the rapid bone expansion, becoming increasingly tense as a result.¹² Loss of flexibility may happen; however this is debatable for certain authors¹³ and apophysis, muscle-tendon units, joints, growth plates, and other structures all experience tension. There are very few research examining the nature and incidence of sport injuries in puberty, despite the wide spectrum of injuries sustained by teenagers while participating in sports.¹⁴

Due to the fact that most sports are not matched to the motor skills of their particular age group, children and adolescents are particularly at risk for accidents.¹⁵ Because the equipment is not sized appropriately for adolescents, they play by adult rules.¹⁶ For instance, basketball hoops are only available in one height, and practically all games use the same size ball for adults.

However, injuries, especially those involving adolescents, can stunt growth and have potentially lifetime effects.¹⁷

Physically active students tend to have higher psychological health than their peers, reporting less depressive symptoms, more confidence and emotional self-control, as well as improved social well-being and levels of life satisfaction. This is in addition to the benefits of physical health.¹⁸ Participation in youth sports also fosters character development, lowers risky behaviors, boosts academic performance, and encourages civic involvement.¹⁹ Youth sports engagement may have long-term benefits that last into adulthood because young athletes may be more inclined than their peers to stay physically active as they get older.²⁰ Participating in sports, meanwhile, may also increase your risk of suffering an injury that leaves you permanently unable or even temporarily so.²¹

METHODOLOGY;

Search strategy

The current study follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses' standards for systematic reviews (PRISMA). The author independently conducted the literature search, chose the reviews, and extracted the data. Any discrepancies will be resolved by consensus during a conversation with the research adviser. Studies were included if they involved sports-related injuries, youth sports, male or female youngsters, or a comparison of school pupils' genders.

Through electronic databases like PubMed, Web of Science, Scopus, Science Direct, and Medline, searches were undertaken for studies comparing sports injuries among school-age children based on their gender. We searched using the Mesh terms (medical subject headings) and text terms (sports, sports injuries, gender difference, school-age children, and shadow boxing). A snowball search was eventually completed.

Quality of the studies and extraction of data

The Critical Review Form for Quantitative Studies (Law et al., 1998)²⁹, which consists of 16 items, was used to evaluate the overall methodological quality of the studies that were included in the review. Studies were assessed based on the following criteria: study purpose (item 1), relevance of the background literature (item 2), appropriateness of the study design (item 3),

sample (items 4 and 5), informed consent (item 6), reliability and validity of the outcome measures (items 7 and 8), description of the intervention (item 9), statistical significance of the results (item 10), appropriateness of the analysis methods (item 11), clinical importance of the results (item 12), dropouts from (item 16). The results were 1 (meets the criterion), 0 (does not fully satisfy the criteria), and N/A for each item (not addressed). A N/A response indicates that no information was provided regarding the validity and/or reliability of the instrument(s) employed in the study. Low methodological quality was indicated by a total score of less than 11 out of 16. High methodological quality was indicated by a total score of 14 or higher out of 16 points, while good methodological quality was indicated by a total score between 11 and 14 points out of 16. The author of this review chose this classification. Independently, authors evaluated the included articles' methodological quality. If there are any discrepancies with the scores, the adviser will debate them and come to a decision. Studies were considered relevant if they met the following criteria: (1) Study design; (2) Associative studies only; (3) Intervention type. Male and female students' sports injuries were compared; interesting results included the pattern and prevalence of sports injuries in both sexes. There must be English-language literature available. Investigations were disqualified if (1) they were just presented as abstracts in conference proceedings without any supporting documentation, (2) they were reviews, or (3) they were experimental studies. (3) The population is older than 18 or younger than 4 years.

RESULTS

There were 799 articles found after searching four databases that may be included (Fig. 1). A total of 131 research were thoroughly examined for eligibility after duplicates and unrelated papers were eliminated. After analyzing these research, we found that 5 were rejected owing to concerns about originality, and 9 were rejected because they did not specifically address sports injuries. Since the research was not of the associative sort, 15 were excluded. Only 09 articles that satisfy the inclusion criteria were kept after 82 were disregarded because they were not compared between men and women, and 11 were also deleted because the population's age was higher than the school-age threshold. A total of nine studies articles were kept, representing the Associative studies that exclusively compared the gender differences in sports-related injuries among school-age children. From the nine studies that were considered, three dealt with men, and six with both men and females student's sports injuries.

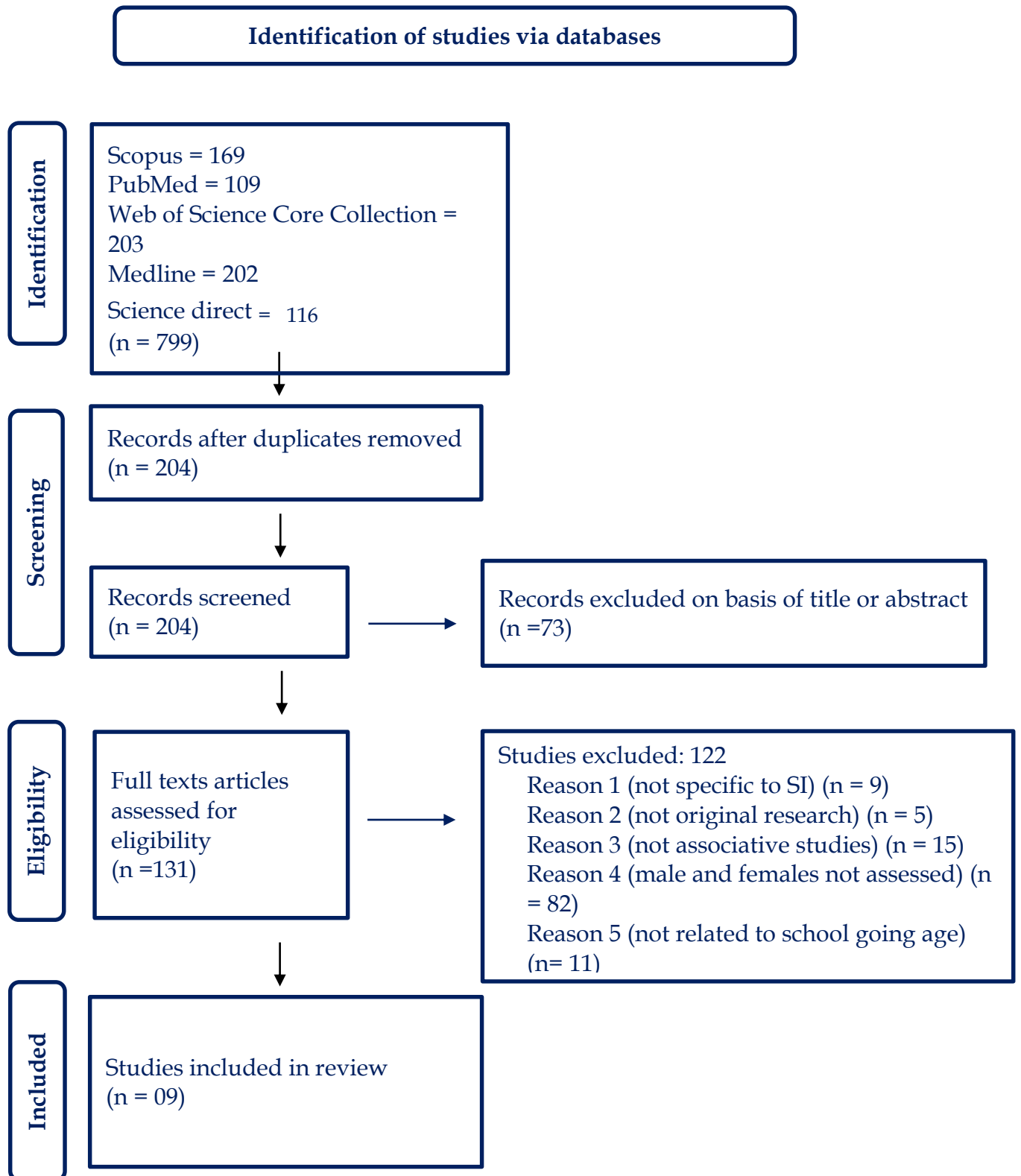


Figure 1: Flow chart showing identification of studies selected for systematic review.

Quality Check

Overall quality assessments of the studies included in the review using the Critical Review Form - Quantitative Studies (Law, 1998) ²⁹are summarized in Table 1. Of 09 studies, 4 had good and 5 had high methodological quality. Of 6 studies concerning sports injuries of both genders, 4 had high and 2 had good methodological quality. Of 3 studies concerning about sports injuries in males' students, 2 had high and 1 had good methodological quality. The most notable results are as follows: Of 09 studies, 8 studies did not justify sample size (item 5), and 6 did not report drop-outs (item 13). For the 1st, 2nd, 3rd, 6th, 10th, 11th, 12th, and 14th items, all studies met the criteria and got 1 point. For the 7th item, 9 studies met the criteria and got 1 point. For 16th item 7 studies did not report about the limitations of the studies. No study could get a full score from the Critical Review Form - Quantitative Studies (Law, 1998) ²⁹even though most studies had high methodological quality. Only four studies had good methodological quality and no study had low for methodological quality. All studies were published after 2012 beside S. Halbert et al 2011³⁰

Author (year)*	Question Number ^b																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
E.Ritzer et al. (2021)	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	14
S. Halbert et al. (2011)	1	1	1	1	0	1	N/A	1	1	1	1	1	1	1	1	0	13
A. E. Valasek et al. (2019)	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	15
G.S. Rice et al. (2008)	1	1	1	1	0	1	N/A	1	1	1	1	1	0	1	1	0	12
A. C. Sollerhed et al. (2020)	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	0	13
A. Riasanen et al. (2018)	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	15
J. McGowan et al. (2019)	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	15
L. Costa et al. (2022)	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	15
E.J. Street et al. (2013)	1	1	1	1	0	1	N/A	1	1	1	0	1	0	1	1	0	11

Summary of Included Studies

A description of each study included in the review is given in [Table 2](#) together with details on the author, country, sample, sports injuries, kinds, and gender, the length of the intervention, the assessment method, and the results. Four of the nine investigations were conducted in the United States, while the other six were in Italy, New Zealand, Portugal, Finland, and Sweden. There were 9 studies total, all of which were associative studies; no other kinds of research investigations were included in the comprehensive evaluation.

Analysis of the sample characteristics of the studies revealed that only 09 of them focused on sports-related injuries among children of school age. E. Ritzer et al. (2021)³¹ had the most participants—54235 students—with sports injuries out of the nine research, whereas Lara Costa et al. (2022)³⁸ had the fewest—651 kids. A Christin . Sollerhed et al. (2020)³⁵ had the oldest participants, who were between the ages of 15 and 16, while Amy Elizabeth. Valasek et al. (2019)⁴¹ the youngest participants, who ranged in age from 5 to 18. Of the nine studies, five were carried out in classrooms, three in hospitals, and one in play environments. Of the nine investigations, six were completed in more than five years, and three.

The primary conclusions of the research that were part of the evaluation highlighted some important problems relating to sports injuries in young boys and girls. The majority of the papers examined in the review supported the finding that male children experience sports injuries more frequently than female children. For instance, S. Halbert et al. (2011)³⁰ found that more than half of the male patients engaged in ball sports like basketball, handball, and soccer (1311 patients total) (168 patients). Girls engaged in gymnastic activities, dance, and skiing (156 patients total) (123patients). However, 175 girls played handball or were injured while participating in school activities (16 patients). Male patients experienced head injuries more frequently than female patients (2:1), compared to the general distribution of male and female patients (21:1). Boys outnumbered girls 4:1 in injuries to the shoulders, hands, and lower legs. We discovered a 5:4 boy-to-girl distribution of back, elbow, and knee issues.



Author / Country	Study design	Sample	duration	Intervention type	settings	Findings	Age
E. Ritzer et al. (2021) USA	Associative study	54235	13 years	Injuries categorized as acute and over used.	schools	Among all sports, the likelihood of medical disqualification from acute injury was higher than that from overuse injury for girls' basketball (IPR: 2.85, 95 % CI: 1.35–5.98), girls' softball (IPR: 2.64, 95 % CI: 1.05–6.62), and girls' soccer (IPR: 2.18, 95 % CI: 1.21–3.90). All other sports demonstrated no difference in the proportion of medical disqualification from acute versus overuse injury.	6 to 17 y
S. Halberlt et al. (2011) CH	Associative study	4468	10 years	Sports injuries of locomotor system in children .	Sports clinics	Compared to the overall distribution of male and female patients (2:1) head injuries were seen more often in male patients than in female patients (21:1). Shoulder, hand and lower leg injuries showed a boy-girl distribution of 4:1. We found a boy-girl distribution of 5:4 of spine, elbow and knee problems	6 to 16 y
A.C. Valasek et al. (2019) USA	Associative study	10291	5 years	Overuse injuries evaluation by age &sex	hospitals	.The average age of this pediatric cohort was 13.4 years, including 2895 males (43.1%) and 3698 females (56.9%). The most frequent overuse diagnosis was patellofemoral pain syndrome (20.4%), followed by tibia tubercle apophysitis (11.8%), calcaneal apophysitis (10.7%),	5 to 18 y

						rotator cuff tendonitis (5.6%), and iliac crest apophysitis.	
G.S. Rice et al. (2008) USA	Associative study	2133	10 years	Overuse injuries compared to traumatic injuries	Children hospitals	Overall, female athletes had a higher percentage of overuse injuries (62.5%) compared with traumatic injuries (37.5%); the opposite was seen in male athletes (41.9% vs 58.2%, respectively; $P < .001$). Looking at specific areas of injury, female athletes sustained more injuries to the lower extremity (65.8%) and spine (11.3%) as compared with male athletes (53.7% and 8.2%, respectively).	5 to 17 y
A. C. Sollerhed et al. (2020) SE	Associative study	1011	5 years	Relationship b/w school physical education and leisure time sports injuries	schools	A total of 645 (65%) students ($n = 993 \times 0.65$) reported injury from participation in leisure-time sports. The most common injury locations were the knee (8% of injuries), foot (5%), arm (4%), hand (3%) and head (2%). Injury in school PE was reported by 519 (52%) adolescents ($n = 981 \times 0.52$)	15 to 16 y
A. Riasanen et al. (2018) FI	Associative study	8406	3 years	Association of sports injuries prevalence and age	schools	The injury prevalence was higher in sports club activities (46%, 95% CI 44.8–47.8) than in leisure time PA (30%, 95% CI, 28.5–30.5, $p < 0.001$) and school-based PA (18%, 95% CI, 17.4–19.1, ($p < 0.001$)). In leisure time PA, the injury prevalence was higher than in school-based PA ($p < 0.001$)	11 to 15 y



<p>J. McGowan et al. (2019) NZ</p>	<p>Associative study</p>	<p>914</p>	<p>01 year</p>	<p>Relationship b/w highly specialized and low specialized sports injuries</p>	<p>Playing settings</p>	<p>A total of 1536 unique sport-related injuries were reported as occurring over the previous 12 months. Acute injuries accounted for 78% (n = 1204) and gradual onset injuries accounted for 22% (n = 332). Overall, the lower limb was injured more frequently (62%) than the upper limb (26%) or the head and torso (12%) After adjusting for the relevant confounding variables, neither high nor moderately specialized children had significantly increased odds of reporting a history of injury compared with children having low specialization</p>	<p>10 to 13 y</p>
<p>L. Costa et al (2022) PT</p>	<p>Associative study</p>	<p>651</p>	<p>6 months</p>	<p>Association of types of sports injuries and age</p>	<p>schools</p>	<p>Regarding injury type predictors recreative boys had more chances of having a sprain or a fracture than a strain. Also, recreative and scholar girls had more chances of having a sprain than a strain. As MO decreased, the chances of girls having a strain or a fracture when compared to sprains were higher. For body area location boys with 10–11 years were more likely to have upper limbs injuries than boys of other ages. This was also confirmed by MO. Spine and trunk injuries were more likely to occur in federate and no sports participation girls.</p>	<p>10 to 18 y</p>

Erica .J Street et all (2013) USA	Associative study	46922	5 years	Prevalence of serious sports injuries among both gender	schools	The overall proportion of all students, injured and non-injured, reporting a serious sport-related injury in the past year was consistently greater among boys than among girls Among students with sports injuries in the 20 countries with high participation rates, 13–62 % of boys (with a median of 28%) and 10–86% of girls (with a median of 25%) reported that the most serious injury was a broken bone or dislocated joint.	13 to 15 y
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Table 2. Summary table of studies included for the review.

Amy Elizabeth Valasek et al. (2019)⁴¹ examined children's sports-related overuse injuries. Over a 6-year period, 6593 overuse injuries in total were considered. This pediatric cohort's average age was 13.4 years, with 3698 females and 2895 males (43.1%). (56.9 percent). The lower extremities (72.9%) was the site of the greatest injuries, and the knee accounted for more than half of these (60.2 percent). 1056 (16.0%) of all injuries were to the upper extremities, with the shoulder accounting for more than two thirds of them (69.1 percent). Females showed higher pelvic and lower extremity overuse injuries compared to males, and a considerably lower percentage of upper extremities overuse injuries. Additionally, >80% of athletes of both sexes continued to play sports despite discomfort and injury before receiving a clinical evaluation in the office.

Results from Stephen G. Rice (2008) et al.³³ were presented. There were somewhat more female athletes in the study population of 2133 patients than male athletes (54 percent and 46 percent, respectively). A quarter of the patients were between the ages of 5 and 12. In the cohort of 2133 instances, slightly more than half of the patients (53.0 percent) were treated for overuse injuries. Overuse injuries were mostly handled on female patients (62.5 percent). In contrast, men received more medical attention for severe injuries (58.2%) than for overuse injuries.



Males and females in the total cohort saw the majority of patients for lower extremity injuries (60.2 percent). Females were more likely than males to incur lower extremities injuries (65.7%), upper extremity injuries (15.1%), hip/pelvic injuries (6.7%), and spine injuries (11.3%). Comparatively, among the males, 53.7% suffered lower extremities injuries, 29.8% upper extremity injuries, 3.7% hip/pelvic injuries, and 8.2% spine injuries.

Ann Christin Sollerhed³⁵ and others According to the study, 14% of participants (n = 998*0.12) reported significant injuries from school-sponsored physical education that required medical attention. There were no discernible variations in the occurrence of injuries between boys and girls, or between recreational sports and physical education.

According to Ann Christin Sollerhed et al, study's³⁵ injury prevalence was higher in sports club activities (46 percent, 95 percent CI 44.8-47.8) than in leisure time PA (30 percent, 95 percent CI, 28.5- 30.5, p 0.001) and school-based PA (18 percent, 95 percent CI, 17.4-19.1, (p 0.001), which was also found to be true. Injury prevalence was greater during leisure-time PA than during school-based PA (p 0.001). In leisure time PA (OR 1.49, 95 percent CI, 1.35-1.64, p 0.001) and sports club activities (OR 1.31, 95 percent CI, 1.17-1.46, p 0.001), boys sustained injuries substantially more frequently than girls. There was no discernible difference in injury prevalence between males and girls in school-based PA.

Lara Costa³⁸ and others The sample consisted of 651 adolescents between the ages of 10 and 18 (mean: 13.7; SD: 1.8 years), with 343 boys (52.7%) and 308 girls (47.3 percent). A total of 247 participants (37.9 percent; 95 percent CI 34.2–41.7 percent) reported suffering a sports injury in the previous six months. Taking into account the analyses by sex, 104 of 308 girls and 143 of 343 boys (41.6 percent) reported injuries, respectively (33.8 percent).

According to Erica J. Street et al.⁴⁰ boys were substantially more likely than girls to sustain injuries. Boys who reported one or more significant injuries in the previous year were more likely to say that the most serious injury was caused by sports, with this percentage ranging from 25 to 60 percent (with a median of 35 percent). This range was 12-56 percent for females (with a median of 24 percent). Due to the fact that the question about sports injuries only included the one most significant injury suffered in the preceding twelve months, these percentages are likely to be an underestimation of the overall proportion of students who had a sports-related injury in the previous year. Even if they suffered a major sports-related injury as

one or more of their past-year ailments, students who were hurt twice or more may not have identified a sporting event as the cause of the most serious injury.

Sports were the most frequently cited activity for boys in all 25 countries that resulted in the most severe injury in the previous year. Sports were the most often injured activity for girls in 20 of the 25 countries. (The exceptions for females were in Thailand, where injuries from motor vehicle accidents were most frequent, Jordan, St. Vincent and the Grenadines, where injuries from walking or running were most frequent, and Myanmar, Yemen, where injuries from work-related activities were most frequent.) Sports were the primary source of injury for both sexes, even though in 18 of the 25 nations the proportion of most serious injuries related by sports activities was much higher among boys than girls.

DISCUSSION

In this study, sports-related injuries among school-age children were compared by gender. The final analysis included nine studies. The following are the review's main conclusions: (1) Both male and female school-aged children who participate in structured sports training have a marked decline in sports-related injuries. (2) Appropriate counseling about the duration and forms of sport has a good impact on both genders. Additionally, when examining the results of the investigations, the overall methodological quality of the studies should be taken into account because, according to the Critical Review Form - Quantitative Studies, 6 of the 9 studies had good methodological quality (Law, 1998)²⁹

Researchers have recently become interested in comparing sports injuries between male and female athletes because concentrating simply on the sports injuries among male students won't help with prevention. It's important to address female sports injuries as well. In the past, research tended to focus on male athletes while neglecting female athletes. If there has been research on female athletes, it has only examined female sports injuries, not those that affect both males and females equally.

Sports-related injuries to children's and adolescents' locomotor systems are not well understood. However, due to their continual movement, these groups are the ones that are most susceptible to suffer accidents. This is unquestionably a good enough reason to collect epidemiological information to talk about the fundamentals of their ailments.

Teenagers who are still in school experience a lot of tensions, strains, and injuries. It has been observed that there are more injuries now. 1,4 Sports-related injuries among school-aged children cost the US economy more than 1.8 billion dollars annually. Due to inadequate proprioception, weak muscles, and inappropriate technique, children and adolescents may be especially vulnerable to sports-related injuries. Girls are injured half as often as boys.

There is a wealth of literature comparing gender disparities in sports injuries. The statistics that are now available mainly concern older athletes. Injuries among teenage female soccer players were studied by Kucera et al.³⁹ They discovered that girls suffered injuries more frequently than males did, and that relatively older adolescents suffered injuries more frequently than younger adolescents. Overuse injuries in children occur frequently when they participate in sports. While the overuse injury patterns in children, both male and female, have been extensively studied. We also looked at overuse injuries from current sports activity by age and sex.

Sports participation and physical education were closely related. Additionally, there was a significant link between injuries sustained during leisure activities and those sustained during physical activity. As a result of their higher PA exposure, adolescents who reported PA more frequently than three times per week were substantially more likely to have an injury than sedentary students. These results are not unexpected given that increased activity in each environment is linked to an increased risk of injury. It is important to highlight that there was a significant overlap in injury prevalence between the most and least active teenagers in PE. Teenagers who spent the greatest time participating in PE had a similar injury prevalence to those who spent the last time participating in PE.

The results of this study revealed that, during the course of the previous 12 months, half of the teenagers who took part had sustained an injury while PA at a sports club, one in three during PA during free time, and one in five during PA at school. The increase in injury prevalence across all three PA settings was the most concerning finding. Boys sustained significantly more injuries than girls did in both leisure-time PA and sports club accidents.

The setting affected the relationship between age and injury risk. Only in leisure time PA did we find a relationship between age and injury risk among boys; those who were 15 years old had a lower risk than those who were 11 years old. These findings are in line with those of our earlier investigation. Girls aged 13 and under were most at risk of sports club injuries. This is

in line with the findings of Sorensen et al.³⁷ who claimed that among girls, the breaking point in the incidence of sports injuries is achieved at the age of 13, and that the incidence was lower both before and after this. The growth spurt is probably one of the causes of the breaking point. This study was unable to show the guys' breaking point, though.

Limitations

The limitations of this systematic review are numerous. The review was limited to research that were conducted in English and the bulk of the studies were carried out in Europe and the United States. Age-related restrictions were also imposed on the samples. It is necessary to conduct more research on the gender differences in sports injury prevalence. More thorough research with larger sample sizes, a suitable sports training dose, and well defined outcome metrics are needed before broad recommendations can be given. Additionally, research on the causes and trends of sports injuries has implications for certain sports.

IMPLICATIONS

These results do, however, indicate a need for increased sports safety and injury prevention.²³ Community health partnerships can evaluate risks in their own communities, create and implement culturally-sensitive health promotion initiatives catered to local needs, assess the results of those programs, and decide what next steps will be most beneficial for enhancing and protecting health in the target population by understanding global trends in the health risks for various population groups.²⁴

For those who develop public health policies, these findings offer useful information. Due to a lack of pertinent data, there is a lack of public health policy for the prevention of PA-related injuries. However, research on the detrimental effects of PA injuries and the socioeconomic costs of injuries is currently available.²² high-injury-incidence activities 25 effective ways for preventing injuries, the financial viability of preventive initiatives, and the positive effects injury training initiatives have on health.²⁶

In order to promote youth sports participation and teach active adolescents how to avoid injuries, adults such as teachers, coaches, referees, and other sports officials who uphold fair and safe play have a crucial role to play (as well as how to identify, report and rehabilitate them). Teenagers who are taught injury avoidance techniques may be better equipped to safeguard themselves throughout their secondary education and into life.²⁷



However, reducing the frequency of injuries shouldn't be limited to changing the laws and equipment. Preventive medical examinations, monitoring of sport-specific requirements for each unique sport, observation of training techniques and required levels of physical fitness, and evaluation of coaches' education are all essential. Each pediatrician or family physician interested in sports medicine has a critical responsibility here.²⁸

CONCLUSION

Even though there is a chance of getting hurt while watching sports, young children and teenagers shouldn't be discouraged from participating in strenuous physical activity. It is commonly acknowledged that one of the most crucial health behaviors that should be promoted among adolescents is physical activity. The findings reveal a concerning rise in injury prevalence over the past few years. To stop this trend, there is an urgent need to invest in injury prevention from the perspective of public health. The greatest effort should be focused there because athletic club activities are becoming more popular and over half of teenagers who participate in them suffer an injury. In all age groups, prevention measures are required for both boys and girls equally.



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