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PREVALENCE OF INJURIES IN AMATEUR SOCCER PLAYERS IN THE CITY OF GURUPI – TO

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ABSTRACT

Introduction: Football is one of the most widespread sports worldwide, being practiced by different audiences in different age groups, but as a consequence, it is the sport as the largest number of sports injuries in the world. Objectives: To verify the prevalence of injuries in 22 amateur soccer athletes who participated in a championship in the city of Gurupi -TO. Methodology: This is a descriptive observational cross-sectional study. Thus, a statistical survey was made of the prevalence of injuries in amateur soccer players living in the city of Gurupi - TO. Results: The studied group had a high prevalence rate of lesions (100%), where a significant portion of the sample (54,55%) reported seeking medical and/or physiotherapeutic help. Through the mean calculation, it was observed that the athletes had been in practice for 5 years and most athletes reported symptoms after matches. The position that suffered the most with injuries was that of midfield and defender and the main mechanism of injury was the sprain. In this sense, it was also possible to report that players older than 25 years had a higher number of injuries, and the most affected follow-ups were the thigh, knee, and ankle. Conclusion: From the study presented, it was possible to notice that the prevalence of injuries in amateur soccer is high and significant for the studied region, requiring further studies in the area for better development of the theme.

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INTRODUCTION

Football is one of the most widespread sports worldwide, being practiced by different audiences in different age groups, but as a consequence, it is the sport as the largest number of sports injuries in the world. The tendency is that over time these injuries worsen, if not treated correctly, and can lead to the withdrawal from the sport. The fame of football, added to the high incidence of musculoskeletal injuries, has aroused a greater interest in developing studies that identify the causes of these injuries and the best way to treat them [1]. Thus, musculoskeletal injuries are the most prevalent sports injuries, resulting from training or the game itself, within the sports modalities involved, and attributed to a varied interaction of intrinsic and extrinsic risk factors [2]. Injuries are considered physical harm caused by injury, impact or disease, and are common to occur in bones, muscles, and joints. These injuries can range from mild muscle strain, distension, and/or ligament disruption, joint dislocation, partial or total rupture of muscle tendons, among others [3]. Many amateur players do not have a suitable physical condition for the sport and due to the same require repetitive movements, it turns out that most often generating a greater overload in some limbs or some ligament and muscle weakness [4]. Usually, these lesions, when treated correctly recover in the short or long term, depending on the condition of the clinic, although it is still a slow and painful process [3]. Any aggression that prevents the player from returning to the championship for at least one day after the injury occurred, receives a classification according to the degree of impossibility, in Taking - when the absence is seven days; Moderate - from eight to twenty-one days and Severe - over twenty-one days [5]. The practice of football has high-intensity physical movements, such as jumps, supports, sudden runs, and instant stops, thus causing injuries mainly in the knee that has a more vulnerable joint in these situations. The result of these contusions can cause serious orthopedic problems, because depending on the degree and level of injury, the player

may be left with a motor, sensory and proprioceptive deficit [6]. Amateur and weekend players are candidates likely to have muscle and ligament injuries, because they do not pay attention to the importance of stretching or warm-up before the match, harming healthy knee conditions. Because it is a very popular sport with fans in various nationalities, social classes, and age groups, football has been the target of interest in many studies in the health area. However, while several studies are willing to trace the occurrence of musculoskeletal injuries in soccer players, there are still few studies that bring this information to amateur practitioners of this modality [7]. The severity of the injury is determinant for the athlete's recovery, and in some cases, surgical treatment is needed to improve the integrity and functionality of the ligaments, in addition to a physiotherapeutic intervention as well, which at first aims to relieve pain at first and then seek to maintain joint/ligament functionality, accompanied by muscle strengthening. And for this protocol to be successful, it is important to have a good evaluation of the athlete such as age, sports practices, what is the severity of the injury, and whether the patient is willing to comply with a physiotherapeutic program [3]. To perform adequate treatment, it is initially indicated the withdrawal from sports activities, to avoid aggravating and harming the injury. The most used treatments range from immobilization, manual therapy protocols, mobilizations, stretching, and strengthening. Within physiotherapy there is a diversity of methods related to rehabilitation and among these methods are hydrotherapy, manual therapy, and electrophototherm therapy [8]. Given the above, the general objective of the study is to verify the prevalence of injuries in amateur soccer athletes who participated in a championship in the city of Gurupi - TO.

MATERIALS AND METHODS

This is a descriptive observational cross-sectional study. Thus, a statistical survey was made of the prevalence of injuries in amateur soccer players living in the city of Gurupi - TO. Data collection was performed in February 2020 and the development and organization of the findings in the following months, with their completion in May 2020. There are 18 teams composed of 23 players, totaling 414 athletes participating in the championship. Twenty-two players were selected so that the prevalence of injuries can be studied. Thus, they were part of the study group of male players, who practice amateur football and who competed in the championship. The players who will be part of the study were cast in the Crack Cup Championship held in November 2019 to February 2020 in the Aerovilla field of the Airport Sector in Gurupi- TO. Amateur male players were included, aged 18 to 30 years, without physical limitation, who did not have a chronic injury before the championship, who participated in the Crack Cup championship and who agreed to participate in the research by signing the Free and Informed Consent Form (FICF). Professional soccer players, those who do not fit the indicated age group (Master Category), because they are an age group most commonly injured by factors related to physical age, athletes with recurrent chronic injuries, and those who do not agree to sign the Informed Consent Form were excluded. To investigate the prevalence of injuries and characterization of the participants, a questionnaire developed at the University of Gurupi - UnirG was used, with questions about the characterization of the athlete and his training and also about the investigation of injuries, form, and repercussions in sports practice. The questionnaire was given to the participants, who answered individually, and at the end of the completion, they delivered it to the researchers. The questionnaire was composed of 12 questions divided or not into sub-items, seven of which were about the characterization of the athlete and his training, and five were of investigation of injuries, a form of treatment, and repercussions in sports practice. For data analysis, descriptive statistics were used. In the descriptive statistical presentation, frequency, percentage, and average were used with the help of Microsoft Excel®.

RESULTS AND DISCUSSION

The present study had a sample of 22 amateur players, with a minimum age of 18 years and a maximum of 30 years, with a minimum weight of 62 kg and a maximum of 87 kg, with a minimum height of 1,62 cm and a maximum of 1,94 cm. About the games, 68,18% (n= 15) performed weekly training with a frequency of two to three days. For 31,82% (n= 7) of the interviewees, the training varied from one to two times a week. Table 1 presents the socio-demographic profile of the practitioners who participated in the study. Physicians of BMI classified in the normal ranges (77,27%) and overweight (22,73%). Only 4 of the practitioners in the sample (18,18%) reported that he has been playing football for over 10 years.

Table 1. Anthropometric data

Features	Total (n=22)
Age, years	25
Weight, Kg	80
Height/cm	167
BMI, kg/m²	24
Practice time	5

Values expressed in Average. BMI: Body Mass Index

The tactical position in which the sportsmen positioned themselves was also observed. In this sample, the practitioners were included in 02 goalkeepers, 04 laterals, 06 defenders, 06 midfielders, and 04 attackers. Regarding the relationship between the position on the field and the higher occurrence of injury, a higher number of injuries was observed in players whose positions are from midfield (27,27%), defenders (27,27%), forward (18,18%), lateral (18,18%) and goalkeepers (9,09%) (Figure 1).

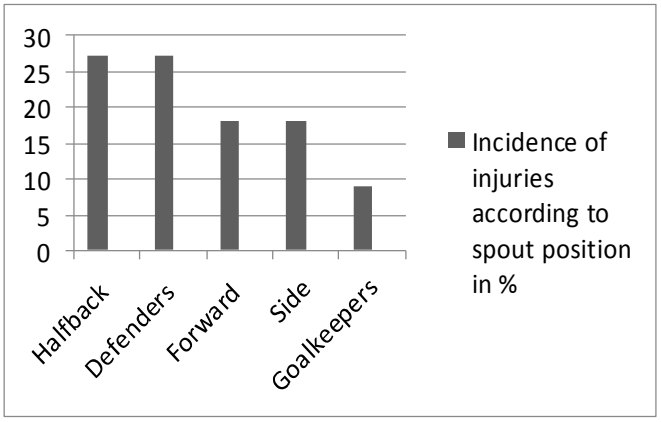

Figure 1. Incidence of injuries according to players' position

When age was analyzed about the occurrence of injury, players who had been younger than 25 years (31,82%) reported a lower frequency of injury, while practitioners aged older than 25 years (68,18%) reported a higher occurrence of injury (Figure 2).

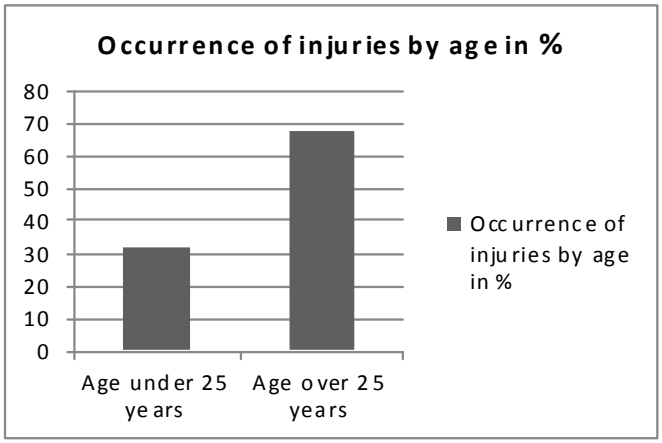

Figure 2. Occurrence of injuries by age

From the analysis of the questionnaires, it was possible to conclude that all players were injured due to amateur football, it was also reported that 3 of the practitioners were injured in 2014. The most common musculoskeletal injuries found in amateur football were sprains, followed by contusions, strains, and dislocations. The sites most affected by injuries were thigh (45,45%) and the knee (22,73%), followed by the ankle (18,18%). Table 2 shows the sites of the injuries, according to the affected body segment, with the thigh and knee being the sites with the highest number of injuries. As a result, lower limb injuries totaled 90,91% of all injuries.

Table 2. Lesion sites according to the body segment

Site of injury	N	%
Thigh	10	45,45
Knee	5	22,73
Ankle	4	18,18
Shoulder	1	4,55
Groin	1	4,55
Calf	1	4,55
Total	22	100

100% of the practitioners reported not wearing protective equipment at the time of the game. Of the 22 participants, 12 (54,55%) of the practitioners reported that they sought medical or physiotherapeutic treatment. However, the pain remained for a few weeks. According to the interviewees, the most important variables for the occurrence of injuries were the number of games, the physical condition of the player, and also the conditions of the lawn, which are precarious. The current literature has several epidemiological studies on injuries in amateur football, however, they present several methodological divergences, especially about samples, materials, and methods applied is very large, which makes the comparison between them more difficult. Nevertheless, describing the occurrence of lesions is of paramount importance for further comparisons to be made, showing specific and relevant points in the groups that were part of the samples; thus, contributions can also be considered for further studies. Thus, this study aimed to describe the prevalence of injury in amateur soccer in the city of Gurupi - TO, as well as describe anthropometric data, whether the injury occurred in training or in the soccer game itself, the most affected segment, whether there was a follow-up of professionals to recover from injuries, the occurrence about age and the position of the athlete on the field. Regarding the injury, this study showed a prevalence of 5,31%, although all players who participated in the study were affected by muscle injuries.

However, reported a prevalence of less than 70% in the four groups participating in the study and was shown to be in a higher percentage in athletes who participated in soccer match occasions three times a week (64%), those who reported only once (56%) came in second place [7]. The group with the highest percentage of lesions (G3) has a mean height (cm), mass (kg) and age similar to the present study, while the other groups have lower mean age. Regarding the most affected position in the field, the present study presented the midfield and defender (27,27%) positions that suffer the most injuries. These results corroborate those found in the study by [9], who presented athletes with an under-21 soccer championship, where players who occupied the midfield position (42,4%) were the majority about the number of lesions. Differently from the study by [10], where the incidence of injuries in this study was prevalent in players who occupied the position of the attacker. According to [11], sports injuries are the result of strenuous and inappropriate exercises, with underestimated the prevalence and incidence, either at the beginning of the practice of the modalities or at high levels of competition.

The most affected body follow-ups were the thigh, knee, and ankle. In the study by [12], there were similar results with the thigh and ankle as the most affected sites and trauma and sprain tied as the mechanisms that generated the most injuries. In Pedrinelli's study, it was possible to obtain relevant findings on the epidemiological quantification of injuries in soccer, so it was possible to conclude that the largest number of injuries were present in the lower limbs, especially in the thigh and knee. In his theory about the causes of sports injuries, points out that the inability or lack of knowledge in the execution of sports technique is an important factor [13]. In addition, there are not many studies in the scientific literature that have investigated the relationship between the player's position and the risk of injury. Studies on this topic did not find very consistent results. In this continuity,[14] report that in Brazil, the practice of amateur soccer is growing and developing every day, studies that identify the prevalence of injuries in sports practice become extremely relevant, encouraging other studies to investigate more about physiological and biomechanical aspects, improving training methodologies and prevention methods, to outline a specific training program and thus reflecting on the end of the performance of amateur athletes. Regarding age and the occurrence of injuries, players over 25 years of age had a significant prevalence of this issue (68,18%). [15] report that this percentage difference is not statistically significant (p-value = 0,180), that is, it cannot be affirmed that the older the athlete, the more likely the occurrence of injuries, within the sample studied. Nevertheless, national studies show a direct association between age and frequency of injuries in professional soccer athletes, a result similar to what was presented in the present study.

The most common musculoskeletal injuries found in amateur football were sprains, followed by contusions, strains, and dislocations. [16] in a descriptive exploratory study reports that muscle strains and contractures were the most occurred. Of the 22 participants, 12 (54,55%) of the practitioners reported that they sought medical or physiotherapeutic treatment. However, the pain remained for a few weeks. Therefore, the diagnosis is essential for the treatment of the lesion, thus it becomes a primordial step for the recovery of the patient. [17] states the number of lesions diagnosed in this study was equal to 27, reaching 82,81% of the lesions. In the

athlete's recovery, the return of patients to sports practice was due to the percentage of cases in which there were no symptoms of the injury after returning to sports activities, equal to 42,42%, showing that despite the diagnosis made in most of the injuries, the return to the sport happens mostly, still with symptoms. According to the interviewees, the most important variables for the occurrence of injuries were the number of games, the physical condition of the player, and also the conditions of the lawn, which are precarious; thus, it is possible to conclude that the injuries were caused during the games. In the study by [18], conducted with professional athletes from the state of Sergipe, 45% said they had suffered the injury during the game, 42% in tactical training and 13% during physical training, corroborating the findings presented here.

DISCUSSION

From the study presented here, it was possible to conclude that the studied group had a prevalence of lesions of 5,31%; where a significant portion of the sample (54,55%) reported seeking medical and/or physiotherapeutic help. Through the mean calculation, it was observed that the athletes had been in practice for 5 years and most athletes reported symptoms after matches. In this sense, findings were found that are extremely relevant, because it was to identify the prevalence of musculoskeletal injuries in amateur soccer players, making it possible to seek professional help and remedy the problem in question. Thus, studies on this subject are still scarce, since there is a great difficulty in using instruments that have validation to perform a specific and accurate evaluation. Therefore, further studies are needed to deepen the theme. Also, it is of paramount importance to share information for the community, so it will be possible to develop prevention mechanisms for these athletes to recover and so that the injuries do not reign.

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