

65 - COOPERATIVE GAMES, BODY AND SCHOOL PHYSICAL EDUCATION

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Introduction

In the last century, as a result of the habits of modern life, man became more and more "technological" and sedentary, contrary to the habits of our ancestors who went about 20 to 40 km a day hunting, fishing and the gathering. An important fact is that in the past the diseases that led to the death of most people were infectious diseases, with this change in lifestyle, the prevalence of diseases changed, evidencing chronic-degenerative diseases, such as circulatory diseases and cancer. Incorporation of a physical exercise program into life becomes important for the development and maintenance of quality of life and health. With this, the number of practitioners of some form of exercise has grown in recent years, and when we talk about running, besides the practicality presented by the modality, there has also been a great increase in the incentive and promotion of its practice, a fact that can be observed by increasing its number of practitioners and organized events. Among the benefits of this modality are: body weight control, increased bone mineral density, blood pressure control, improved lipid and insulin profile, and improved self-esteem of practitioners, thus causing a general well-being to those who practice (GUEDES and GUEDES, 1995).

Many begin in the modality with aesthetic aim, looking for the slimming, but as soon as they begin to train, they like and they identify with the modality, happening until, often, to participate of events, arriving to train like true amateur athletes, with volumes and intensities of larger training, either to complete the tests in a shorter time, or to cover longer distances, such as a half marathon (21km), or even a marathon (42km). Because it is a cyclical modality with great impact on the joints, the adoption of more intense and bulky training programs increases the risk of musculoskeletal injuries. Race-related injuries are quite common in amateur runners, with prevalence varying between 14 and 50% per year (MANTOVANI et al., 2007; PAZIN et al., 2008). Running is one of the most common activities that causes overuse injuries to the lower extremities of individuals. In an epidemiological study on professional and recreational runners, it was estimated that 70% of runners had overuse injuries during the 12-month period (HRELJAC, 2004).

Therefore, an investigative study about the number of cases of injuries, seeking a better understanding of the associated risk factors and the main injuries in corridors, is important for the physical education professional, aiming to enable during the elaboration and monitoring of the this incidence will decrease. The relevance of the theme is emphasized in that race training is also used as a basis in the training of various modalities, such as in athletics. According to Hino et al. (2009), although several studies point to an increasing number of sports injuries, especially among runners, there is still some divergence about factors that may influence the occurrence of these injuries. To this need, we add the relative lack of similar surveys performed in corridors in Brazil, so this study was carried out to identify the incidence of injuries in corridors of the city of Fortaleza / CE.

Methodology

It was a descriptive, cross-sectional study with a predominantly quantitative approach (RAUEN, 2002). The place chosen for the study was the city of Fortaleza / CE, which was carried out in race training centers and sports advisory services that offered the practice of the sport. The sample consisted of 77 subjects of both genders, over 18 years of age, who trained in the backcourt (characterized as a test with more than 3 km), in Fortaleza / CE. Probabilistic sampling technique was used, where all components of the population had equal opportunity to participate in the selection. All volunteers signed a free and informed consent form, and all research procedures complied with the recommendations contained in National Health Council (NHS) Resolution 466/12 for research involving human subjects. We used a direct and closed classification questionnaire, applied through an interview, containing 3 questions regarding the occurrence or non-occurrence of the lesion in the last 12 months, and if so, we questioned the location and type of lesion. The data obtained were tabulated in the program Excel 2011, presented in the form of tables.

Results and discussion

The understanding of the incidence of injuries in a sports modality is important, considering that this is the first step in the development of strategies and measures to prevent the occurrence of injuries. Thus, the study sought to identify the incidence of injuries in runners. According to the data shown in table 1, it can be verified that of the total of participants, the majority (50.6%) stated that they had not presented lesions in the last 12 months. However, the results were similar in relation to the number of participants who reported the occurrence of injuries (49.6%). Our findings are similar to the results found in other studies on the incidence of sports injuries. In a telephone survey, Pazim et al. (2008), interviewed 6,596 individuals, and only (32.5%) of the participants reported having suffered some type of injury in the last month due to participation in sports or physical exercises. Considering our results, similarities were also observed when compared to studies that investigated only the prevalence of injuries in amateur racing practitioners. In a study conducted by Mantovani et al. (2007), the results showed a prevalence of injuries among amateur runners varying between 14 and 50% per year. Van Middelkoop et al. (2008) observed in their study, with 725 participants of the Rotterdam Marathon, a prevalence of lesions in the last 12 months of 54.8%. However, there is a study that shows different results, such as that carried out by Bastos (2003), where the author found an incidence of lesions of approximately 77% among the participants.

Table 1: Distribution of subjects in relation to the occurrence of injuries in the last 12 months.

Varíavel	Categoy	F	%
Occurrence of injuries	Yes	38	49,4
	No	39	50,6
	Total	77	100

Tables 2 and 3 show the distribution of results concerning the type and site of injury involvement, respectively, among

the participants who reported having suffered some type of injury in the period related in the study. Considering the results, it can be verified that the type of lesion with the highest prevalence was muscle distension (11.7%), followed by chondromalacia patellar and canelitis, which were pointed out by 7.8% of the interviewees. According to Laurino (2010), muscle strains are among the musculoskeletal injuries that are most often recorded in sports, especially in the lower limbs, and result in pain, withdrawal from training, functional limitation and reduction of sports performance.

In relation to the site most affected by injuries in the research subjects, a higher incidence of knee joint injuries was found (20.8%). Another anatomic segment reported frequently by the interviewees was the foot (7.8%). These results are similar to those of Feitoza and Junior (2000), where the knee also appeared as the anatomical segment with the highest incidence of lesions (14.3%). The results found in the studies by Laurino et al. (2000); Bastos (2003); Vital et al. (2007), where the knee appeared as the site most affected by injuries, which can prove the great exposure that this region of the body suffers in the practice of the race, which demands an even greater attention in the care of the whole complex of muscles, tendons, cartilages and ligaments that surround the region.

Table 2: Distribution of the subjects in relation to the type of injury.

Variable	Category	F	%
Type of injury	Muscle Strain	9	11,7
	Sprains	5	6,5
	Treatment of tibial syndrome	4	5,2
	Chondromalacia Patellar	6	7,8
	Plantar fasciitis	4	5,2
	Tendinopathies	5	6,5
	Canelitis	6	7,8
	Others	6	7,8

* In this question the subject could mark more than one option, so one does not have the total of 100%.

Table 3: Distribution of the subjects in relation to the injury site.

Injury site	Category	F	%
Injury site	Hip	4	5,2
	Knee	16	20,8
	Ankle	3	3,9
	Foot	6	7,8
	Post. thigh	5	6,5
	Ant. thigh	2	2,6
	Post. leg	3	3,9
	Ant. leg	5	6,5

* In this question the subject could mark more than one option, so one does not have the total of 100%.

Conclusion

This study had as objective to verify the incidence of injuries in runners of Fortaleza/CE. For this, we interviewed 77 city runners seeking to know the prevalence, type and location of injury. From the results found it can be concluded that no significant difference was found regarding the occurrence of lesions in the sample evaluated. Regarding the type of lesion, the one that presented the highest prevalence was muscle distension, and as to the site of major injury, the results showed that it was the knee region. With the current levels of sedentarism, it is known the importance of the incentive to practice sports, aiming to combat the problems related to this issue, ranging from the increase of chronic degenerative diseases, growth of obesity, as well as diseases related to the locomotor system and mental. However, in addition to the practice of physical exercise, preventive care should be taken to reduce the risks arising from sports practices, so that exercise cannot become a villain by generating more problems and disorders in the lives of its practitioners. One of the first steps in this direction is to carry out studies of this nature, which aim to know both the incidence of injuries in each sport modality and the factors that lead to an increase in the risk of injuries among sportsmen, and from a better understanding of these variables involved to elaborate strategies aiming at minimizing these factors.

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INCIDENCE OF INJURIES IN RUNNERS OF THE CITY OF FORTALEZA/CE

The objective of this study was to evaluate the incidence of injuries in runners of the city of Fortaleza/CE. The sample consisted of 77 individuals older than 18 years. A questionnaire with 3 questions was used to measure the incidence, type and location of the injury in the participants during the last year. The results were tabulated in Excel 2011 and presented in the form of tables. The results showed that 50.6% of the sample participants did not suffer injuries in the last 12 months, while 49.4% reported having suffered some type of injury. According to these statements, the type of lesion that presented the highest prevalence was muscle distension (11.7%), followed by chondromalacia patellar and cannellitis, both cited by 7.8% of the interviewees. In relation to the site most affected by injuries, first appeared the knee (20.8%), then the foot (7.8%). Based on these results, and considering the limitations of the study, it can be affirmed that no significant difference was found regarding the occurrence of lesions in the sample evaluated. Regarding the type of lesion, the one that presented the highest prevalence was muscle distension, and as to the site of major injury, the results showed that it was the knee region. One of the first steps in this direction is to carry out studies of this nature, which aim to know both the incidence of injuries in each sport modality and the factors that lead to an increase in the risk of injuries among sportsmen, and from a better understanding of these variables involved to elaborate strategies aiming at minimizing these factors.

Keywords: Incidence; Injuries; Runners.

INCIDENCE DES LÉSIONS DANS LES CORRIDORS DE LA VILLE DE FORTALEZA/CE

L'étude avait pour objectif d'évaluer l'incidence des blessures dans les corridors de Fortaleza / CE. L'échantillon comprenait 77 personnes de plus de 18 ans. Un questionnaire avec 3 questions a été utilisé pour mesurer l'incidence, le type et l'emplacement de la blessure chez les participants au cours de l'année dernière. Les résultats ont été compilés dans Excel 2011 et présentés sous forme de tableaux. Les résultats ont montré que 50,6% des participants à l'échantillon n'ont pas subi de blessures au cours des 12 derniers mois, tandis que 49,4% ont déclaré avoir subi un type de blessure. Selon ces déclarations, le type de lésion présentant la prévalence la plus élevée était la distension musculaire (11,7%), suivie par la chondromalacie patellaire et la canellite, toutes deux citées par 7,8% des personnes interrogées. En ce qui concerne le site le plus touché par les blessures, d'abord apparut le genou (20,8%), puis le pied (7,8%). Sur la base de ces résultats, et compte tenu des limites de l'étude, on peut affirmer qu'aucune différence significative n'a été trouvée concernant l'occurrence des lésions dans l'échantillon évalué. En ce qui concerne le type de lésion, celui qui présentait la prévalence la plus élevée était la distension musculaire, et quant au site de lésion majeure, les résultats ont montré qu'ils agissaient de la région du genou. L'une des premières étapes dans cette direction consiste à mener des études de ce type, visant à connaître à la fois l'incidence des blessures dans chaque discipline sportive et les facteurs conduisant à une augmentation du risque de blessures chez les sportifs, et d'une meilleure compréhension de ces variables pour élaborer des stratégies visant à minimiser ces facteurs.

Mots-clés: Incidence; Lesions; Corridors.

INCIDENCIA DE LESIONES EN CORREDORES DE LA CIUDAD DE FORTALEZA/CE

El estudio tuvo como objetivo evaluar la incidencia de lesiones en corredores de Fortaleza / CE. La muestra fue formada por 77 individuos mayores de 18 años. Se utilizó un cuestionario con 3 preguntas para medir la incidencia, el tipo y el lugar del acometimiento de las lesiones en los participantes durante el último año. Los resultados se tabularon en Excel 2011 y se mostraron en forma de tablas. Los resultados mostraron que el 50,6% de la muestra participantes no sufrieron lesiones en los últimos 12 meses, mientras que el 49,4% afirmó haber sufrido algún tipo de lesión. De acuerdo con estas afirmaciones, el tipo de lesión que presentó mayor prevalencia fue la distensión muscular (11,7%), luego se encontró la condromalacia patelar y la canelitis, ambas citadas por el 7,8% de los entrevistados. En relación al lugar más acometido por lesiones, en primer lugar apareció la rodilla (20,8%), luego el pie (7,8%). Con base en estos resultados, y considerando las limitaciones del estudio, se puede afirmar que no se encontró diferencia significativa en cuanto a la ocurrencia de lesiones en la muestra evaluada. En cuanto al tipo de lesión, aquella que presentó mayor prevalencia fue la distensión muscular, y en cuanto al lugar de mayor acometimiento de lesiones los resultados mostraron que fue la región de la rodilla. Uno de los primeros pasos en esa dirección es la realización de estudios de esa naturaleza, que se proponen a conocer tanto la incidencia de las lesiones en cada modalidad deportiva, como los factores que acarrearán un aumento en los riesgos de lesiones entre los deportistas, ya partir de un mejor entendimiento de esas variables involucradas elaborar estrategias para minimizar esos factores.

Contraseñas: Incidencia; Lesiones; Corredores.

INCIDÊNCIA DE LESÕES EM CORREDORES DA CIDADE DE FORTALEZA/CE

O estudo teve como objetivo avaliar a incidência de lesões em corredores de Fortaleza/CE. A amostra foi formada por 77 indivíduos maiores de 18 anos. Utilizou-se um questionário com 3 perguntas para mensurar a incidência, o tipo e o local do acometimento das lesões nos participantes durante o último ano. Os resultados foram tabulados no Excel 2011 e apresentados na forma de tabelas. Os resultados mostraram que 50,6% da amostra participantes não sofreram lesões nos últimos 12 meses, enquanto 49,4% afirmaram ter sofrido algum tipo de lesão. De acordo com estas afirmações, o tipo de lesão que apresentou maior prevalência foi a distensão muscular (11,7%), em seguida encontrou-se a condromalácia patelar e a canelite, ambas citadas por 7,8% dos entrevistados. Em relação ao local mais acometido por lesões, em primeiro lugar apareceu o joelho (20,8%), em seguida o pé (7,8%). Com base nestes resultados, e considerando as limitações do estudo, pode-se afirmar que não se encontrou diferença significativa quanto à ocorrência de lesões na amostra avaliada. Em relação ao tipo de lesão, aquela que apresentou maior prevalência foi a distensão muscular, e quanto ao local de maior acometimento de lesões os resultados mostraram que foi a região do joelho. Um dos primeiros passos nessa direção é a realização de estudos dessa natureza, que se proponham a conhecer tanto a incidência das lesões em cada modalidade esportiva, quanto os fatores que acarretam um aumento nos riscos de lesões entre os esportistas, e a partir de um melhor entendimento dessas variáveis envolvidas elaborar estratégias visando minimizar esses fatores.

Palavras-Chave: Incidência; Lesões; Corredores.