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The Most Common Sports Injuries Among The Athletes Of Jumping In Athletics In Amman

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Abstract: This study aimed at identifying the most common sports injuries among the athletes of jumping in athletics in Amman as well as identifying the most common body sites that are exposed to sports injuries and the causes leading to sports injuries among the athletes of jumping in athletics in Amman. The researcher used the descriptive approach due to its compatibility to the study nature. The study also used the questionnaire as the study instrument for data collection. The study sample consisted of (23) athletes who were selected purposively. The researcher used (SPSS) to analyze the study data. The results revealed that the most common sports injuries among the athletes of jumping in athletics in Amman are myorrhexis, the most common anatomical sites of sports injuries among the jumping athletes in athletics are the knee joints and the most common causes for the occurrence of sports injuries among the jumping athletes are related to overtraining.

The researcher recommended the necessity of conducting further studies that include the athletes of throwing and other events, especially the hammer throw.

Key words: injuries, sports injuries, jumping athletes, athletics, Amman.

Introduction:

The world witnessed a rapid development in all the domains. The sports domain is considered as one of those domains that witnessed a noticeable development in the latest period. This development included all the types of sports games by Inserting several mechanical, physical, physiological and psychological sciences that address all the factors that affect reaching the highest performance and achievement in all the sports games. Despite the scientific development in the domain of training, further studies and researches should be conducted to recognize the various scientific facts in order to identify the best ways to develop each sports event in the optimal way and invest in the ultimate limits of human power. The sports training is considered as a method for raising the level of athletes physically and mentally in order to be able to practice sports games and events effectively and achieve the best results at the level of individual and team games.

The sport of athletics is considered as one of the basic elements in the sports domain, where this sport includes a large set of events that are characterized by certain physical exercises which raise the students' efficacy and show their physical abilities. Athletic competitions play a prominent role in constructing the elements of physical fitness, including speed, power and tolerance which, in turn, raise the efficacy of the body internal organs and promote the student's health status. The sport of athletics with its various branches is considered as a sport that is appropriate to each age and gender, where each bodily composition finds a certain domain that is compatible to it. Each individual can satisfy his depositions and desires. Also, athletics promotes the individual's self-confidence, enables him to afford responsibility and show his individual efficacy, and the team competitions promote the soul of cooperation and leadership as

well as the love of the whole group (Abdullah, 2008).

Sports injuries are considered amongst the most common risks that face athletes, and the developed sports related to health and sports domain aim to reduce sports injuries due to their negative effects on athletes and sports results, in addition to the cost of treatment that may exceed the financial ability of many athletes and reduce their sports achievement (Al-Shatnawi, 2016).

Sports injuries are also considered amongst the most important factors that contribute to excluding athletes from commitment to sports training and competitions. Since they are considered among the most important problems in the sports domain, it was necessary to identify the factors that contribute to the emergence of sports injuries, their causes and sites (Mojali, et al, 2010).

Athletics, also called the mother of games, is considered very important in all the international and Olympic events due to their increased effectiveness and the numbers of athletes participating in them, where many countries participate in the Olympic competitions in order to obtain as many medals as possible which, in turn, contribute to promoting the country's name among the other countries in the world; we noticed that some countries, such as the United States of America and China dominated most Olympic competitions, especially the last Olympic competition in Britain in 2012. Athletics is also considered as one of the best sports, in terms of excitement, fun and competition. Since athletics is considered as an individual game that includes (46) events for males and females, major countries, such as the United States of America, Europe and some poor countries in Africa are concerned about obtaining Olympic medals in the Olympic competitions (Al-Abbas, 2014).

The study problem:

With the increased interest in all the sciences related to sports domain and the various training programs, more interest is being paid to the problem of sports injuries, which have been considered as the most prominent problems facing workers in the sports domain. Such increased attention isn't only attributed to their role in hindering the possibility of achieving the main objectives of practicing physical activities that mainly focus on promoting social, psychological and physical abilities, but also to their adverse effect related to depriving athletes from practicing physical activities as a healthy, competitive and recreational method (Mojali, Adeeb, 2004).

Those interested in the sports domain suggested that is difficult to find a certain sport whose athletes don't suffer from the various types of sports injuries. (Mojali, 2008) confirmed the diversity of sports injuries among athletes, where those injuries may take place in the different sites of the body with varying intensity based on the event type and other influential factors. Indeed, those injuries may take place in muscles, tendons, joints, ligaments or soft tissues in the bones. Also, injuries in athletics may result from overtraining or to the occurrence of shocks related to internal or external factors. Based on the researcher's experience as a specialist in sports medicine and sports injuries and his attentive pursuit to athletes in Amman, he conducted this study to identify the most important injuries experienced by athletes and reduce them in order to achieve the highest possible performance.

The study importance:

The study importance lies in the following:

1- Addressing the topic of sports injuries.
2- Demonstrating the causes of sports injuries among athletes in Amman.

The study objectives:

This study aimed at:

1- Identifying the most common types of sports injuries among jumping athletes in the sport of athletics in Amman.
2- Identifying the most common anatomical sites exposed to sports injuries among jumping athletes in the sport of athletics in Amman .
3- Identifying the most common causes leading to sports injuries among jumping athletes in the sport of athletics in Amman.

The study questions:

The study sought to answer the following questions:

1- What are the most common types of sports injuries among jumping athletes in the sport of athletics in Amman?
2- What are the most common anatomical sites exposed to sports injuries among jumping athletes in the sport of athletics in Amman?
3- What are the most common causes leading to sports injuries among jumping athletes in the sport of athletics in Amman?

The study terms:

The study addressed the following terms:

Sports injuries: the body tissues' exposure to internal or external influential factors during training or competitions which, in turn, results in physiological and anatomical changes in the injury site as well as a dysfunction of the function of the affected tissues, either temporarily or permanently (Al-Shatnawi, 2016).

Athletics: all the games practiced in the field, including running, throwing, pushing, and jumping, and are governed by a specific law for each event (Al-Soaidyin, 2017).

The study limits: the study was limited to the following:

1- The geographical limit: the study was conducted in the Hashemite Kingdom of Jordan.
2- The temporal limit: the study was conducted during (4/4/2022 – 30/4/2022).
3- The spatial limit: the study was conducted in training locations and athletics clubs in Amman.
4- The human limit: the study was conducted on jumping athletes in athletics in the Hashemite Kingdom of Jordan.

Procedures and methodology:

The study approach:

The researcher used the descriptive approach with its survey image due to its compatibility to the study nature and objectives.

The study population:

The study population consisted of the athletes of long, high and triple jump in athletics in Amman with a total of (50) athletes.

The study sample:

The study sample consisted of the athletes of jumping in the different athletics clubs in Amman, where the study was conducted on the injured athletes with a total of (23) athletes who were selected purposively. Table (1) shows a description of the study sample individuals.

Table (1) A description of the study sample individuals according to the study variable

Variables	Type	Number	Percentage
Jumping	Long	11	47.9
	High	5	21.7
	Triple	7	30.4
	Total	23	100.0

The study instrument:

The researcher used an instrument that is previously developed by (Khawela, 1993) about sports injuries, and made advantage of several studies in this domain, including (Al-Aqra', 2018), (Al-Thiabat, 2016), (Al-Sa'idyin, 2016), (Nada, 2014) and (Al-Domour, 2013).

The study variables: the study addressed several variables, including:

The independent variable:

1- The type of injury
2- The site of injury

3- The causes leading to injury.

The dependent variable:
The athletes' response to the questionnaire.

The statistical processing:
The researcher used (SPSS) to answer the study questions, where the statistical methods included**:**
1- Frequencies and percentages.

Displaying the results:

The results of the first question:
In order to answer the first question which states: What are the most common types of sports injuries among jumping athletes in the sport of athletics in Amman?
The researcher calculated the percentages and frequencies for the responses of jump athletes in Amman. Table (2) shows the results.

Table (2) The percentages and frequencies according to the type of sports injuries

Injury type	Frequency	Percentage
Myorrhexis	15	28.7
ligament rupture	9	17.0
muscle bruises	5	9.8
tendon rupture	1	1.9

Table (2) shows that the percentage of **myorrhexis** was the highest one with (28.7%) among the total injuries to which jumping athletes in Amman are exposed, followed by ligament rupture (17%), muscle bruises (9.8%), and finally tendon rupture (1.9%), while there were no significant differences for the other types of injuries.
The researcher attributed this finding to the high physical effort exerted by the athletes of high, long and triple jump, in addition to the specification of the event type in which the jumping athlete train as well as the nature and technique of each jump. This finding was asserted by (Al-Thiabat, 2016) who suggested that the causes of muscle cramps could be attributed to the high physical forward movement among athletes, in addition to the wrong performance and the sudden movements. (Nouri, 2004) suggested that the most important causes of muscle injuries are the unsuitable performance of the skill. Also, (Sayid, 2003) suggested that the most important causes of muscle cramps are related to the activity of the blood circle that feeds the muscle as well as fatigue during training or competitions due to wasting salt and the accumulation of acids in the muscle. The results showed a rise in the percentage of **myorrhexis** and muscle bruises, where muscle ruptures are considered as an advanced stage of muscle cramps which take place in case muscles don't have sufficient rest. This finding agreed with (Mojali, Halawa, and Al-Rahahla, 2008), which revealed that there is a prevalence of sports injuries among Arab athletes and that the most exposed types of competitions are the throwing events followed by jumping.

The results of the second question:
In order to answer the second question, which states: What are the most common anatomical sites exposed to sports injuries among jumping athletes in the sport of athletics in Amman?
The researcher calculated the percentages and frequencies for the anatomical sites to which jumping athletes in Amman were exposed, in order to identify the significance of differences in the percentages of the anatomical sites of injuries among the study sample individuals. Table (3) shows the results.

Table (3) The percentages and frequencies according to the anatomical sites of injuries to which jumping athletes in Amman were exposed

Site	Frequency	Percentage

knee joints	22	40.6
Hip joints	12	22.2
Head	4	7.5
Thigh	9	16.7
Arm	2	3.8
elbow joints	2	3.8
shoulder joints	2	3.8
Wrist joints	1	1.9

Table (3) showed that the most common anatomical sites that are exposed to sports injuries among jumping athletes in Amman are knee joints (40.6%), followed by hip joint (22.2%), thigh (16.7%) and finally the wrist joints (1.9%).

The researcher attributed this result to the motion nature andsite of the knee joint while changing from one motion to another. Also, the knee joint is the site where several ligaments and tendons exist; therefore, it was ranked in the first place. The hip joint was ranked second, since it has a joint work with the thigh joint. This result disagreed with (Al-Aqra', 2018) who suggested that the phalanges of the foot are the most exposed anatomical sites to injury.

The results of the third question:

In order to answer the second question, which states: What are the most common causes leading to sports injuries among jumping athletes in the sport of athletics in Amman?

The researcher calculated the percentages and frequencies for the anatomical sites to which jumping athletes in Amman were exposed, in order to identify the significance of differences in the percentages of the anatomical sites of injuries among the study sample individuals. Table (4) shows the results.

Table (4) The percentages and frequencies for the causes of sports injuries

Number	Causes	Frequency	Percentage
1	Overtraining	18	40.9
2	the continuity of training after the occurrence of injury	8	18.2
3	unsuitable training ground	6	13.7
4	Bad skilled preparation (technique)	5	11.3
5	Bad athletes' behavior	4	9.1
6	Insufficient warm up	3	6.8

Table (4) showed the most common causes leading to sports injuries among jumping athletes in Jordan, where overtraining in the first place with a percentage of (40.9%), followed by the continuity of training after the occurrence of injury with a percentage of (18.2%), the unsuitable training ground with a percentage of (13.7%), and finally the insufficient warm up with a percentage of (6.8%).

The researcher attributed this finding to the case that the intensive and overload training may result in various accumulative injuries. This finding agreed with (Al-Aqra', 2018) which revealed that the most common causes of sports injuries are the insufficient provision of equipment, followed by overtraining.

The results:

This study concluded with the following results:

1- The most common types of sports injuries among jumping athletes in Amman are myorrhexis.

2- The most common anatomical sites that are exposed to injury among athletes in Amman are knee joints.
3- The most common causes leading to sports injuries among athletes in Amman are related to overtraining.

Recommendations:

In the light of the results, the study recommended the following:

1- The necessity of determining the intensity of training in accordance with the athlete's capability.
2- The necessity of suspending training in case of injury and continuing the training after the complete recovery from injury.
3- Conducting further studies on throwing athletes and other events' athletes, especially the athletes of hammer throw.

References:

A: Arabic references:

1) Al-Thiabat, Hussein Sweilim (2017), the most common sports injuries among the athletes of school teams for team games in the governorates of the South of Jordan, Master thesis, Mu'tah university.
2) Al-Sa'idyin, Omar Salem (2017), the obstacle of teaching athletics in the schools of Al-Karak governorate from the perspective of male and female teachers of physical education, unpublished Master Thesis, Mu'tah university.
3) Al-Aqra', Mohammad Saleh (2017): An analytical study of common sports injuries among young female athletes in middle- and long-distance events in the Jordan Valley, unpublished master thesis, Mutah University, the Faculty of Physical Education, Jordan.
4) Al-Shatnawi, Mo'tasim (2016), Encyclopedia of Sports Injuries, first Edition, National Library Department, Irbid - Jordan.
5) Al-Shatnawi, Mo'tasim Mahmoud (2004). Sports injuries among students of the Faculty of Sports Sciences at Mutah University, Mutah University Journal, Issue. 50.
6) Al-Shatnawi, Mo'tasim Mahmoud (2016). Encyclopedia of Sports Injuries, first Edition, Arwa press, Amman, Jordan.
7) Al-Dmour, Amal (2013). The most common sports injuries among the students of the Faculty of Sports Sciences at Mutah University in gymnastics courses, unpublished master thesis, Mutah University.
8) Al-Tweisi, Saddam (2015) Common sports injuries among the students of school teams in the Governorate of Amman, unpublished master thesis, the University of Jordan - Amman.
9) Al-Abbas, Murad Hussein (2014). Problems facing the affiliation of the Northern Region sports clubs to the Athletics Federation from the perspective of administrators, master thesis, the Faculty of Physical Education, Yarmouk University.
10) Abdullah, Al-Tayeb Haj Ibrahim (2008). The effect of a proposed educational training program on improving the skilled and digital level in discussing the throwing on a selected group of the Faculty of Physical Education and Sports, PhD, the University of Sudan.
11) Atiya, Hassan Hadi, Abdul-Khaleq, Ahmed Mohammad (2014) A comparative study of ankle joint injuries among football players for outdoor arenas and indoor halls, the Journal of the Faculty of Physical Education, the University of Baghdad, Vol. 27.
12) Mojali, Majid, Halawa, Rami, Rahala, Walid (2008) Common Injuries in Athletics, Al-Najah University Journal for Research (Humanities), Vol. 22, Nablus, Palestine.
13) Mojali, Majed Fayiz, Al-Saleh, Majid Salim (2007). An analytical study of the causes of sports injuries among national team players according to the period of the sports season in Jordan, the Faculty of Physical Education, the University of Jordan, Vol. 34, Issue 2.
14) Mojali, Majid and Adib, Soha Issa (2004). An analytical study of sports injuries among male and female swimmers in Jordan. the Journal of Studies, Conference on Physical Education, Sports as a Model for Contemporary Life, Special Issue, p. 274-288.

15) Mojalli, Majid and Bakir, Mohammad and Al-Hendawi, Mohammad (2010). An analytical study of sports injuries among football goalkeepers in Jordan, Al-Najah University Journal for Research (Humanities), Vol. 24, Issue 4.
16) Mojali, Majed, Atiyat, Khalid (2006). An analytical study of sports injuries among fencing players in Jordan, the Journal of Scientific Conference Research, the faculty of Physical Education, the University of Jordan, Issue. 5, p. 95-112.
17) Nada, Ala' Majid Hussein (2014). Sports injuries among the students of physical education in the Palestinian universities, published Master thesis, Al-Najah National University for Research and Human Sciences.
18) Nouri, Awaz Hamma (2004). Sports injuries among the female students of the Faculty of Physical Education, Salah Al-Din University, the Faculty of Physical Education, the Journal of the College of Basic Education, Vol. 2, Issue 4.