

Sports Injuries and Their Impact On the Overall Performance of Handball Players

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Abstract

The study aimed to identify some of the injuries that handball players are exposed to (shoulder joint injuries) as well as trying to improve the performance of handball players, by providing some basic information within the framework of the player's health that he needs throughout his sports career, as well as focusing on strengthening the muscles of the shoulder joint ligaments by focusing on sports training based on scientific foundations, without forgetting to focus on physical preparation and good warm-up to avoid injuries. Given the importance of the topic that we are studying, which is: shoulder joint injuries and their impact on the performance of handball players, we had to study the phenomenon as it is, treat it, diagnose it and list it for reading, using the "descriptive-analytical" approach to clarify concepts and terms, analyze variables and provide the results reached based on the questionnaire. In our field study that we conducted in the state of Bouira, we used the questionnaire because it helps to collect new information derived directly from the source, as the questionnaire included several questions and each group of questions serves a specific axis related to the topic and each axis serves a specific hypothesis.

Keywords: *Injuries, Shoulder Joint, Handball.*

1. INTRODUCTION AND PROBLEM OF THE STUDY

Group sports in all their different types and forms are one of the most important sports activities, such as football, basketball, volleyball, and handball. The latter has been in constant change and development since its inception, so that it has become competitive with other sports that preceded it by hundreds of years.

The idea of handball, despite its modernity, has occupied a great position in sports circles and has become very popular and has gained a wide audience. (Imad al-Din Abbas Abu Zaid and Samby Muhammad Ali, 1998, p. 06) Handball has moved to modernity in play with speed and skill in technical and tactical performance, which requires the player to have high physical fitness, which can be developed through sports training represented in educational and developmental educational processes that aim to raise and prepare players, both male and female, and sports teams through planning and field applied leadership with the aim of achieving the highest possible level and results in specialized sports and maintaining them for the longest possible period (Mufti Ibrahim Hammad, 2001, p. 22), and for sports training A strategy that reflects its general long-term goal, which is to achieve the players' athletic form

at the times that suit the competitive seasons in the specialized sport and to work on remaining in it for the longest possible period. (Mufti Ibrahim Hammad, 2001, p. 22)

It is recognized that sports training planned according to scientific foundations and principles has great importance that is evident in bringing players to high athletic levels, as the level of performance in handball in its various aspects depends on the precise planning of the sports training process, with the aim of developing and improving performance. Sports training also aims to develop and improve the physical qualities of handball players and focus on strengthening the muscles of the joints and muscles of the body, as this has a direct impact on the level of skillful and tactical performance of the player, especially during matches. Therefore, training to develop and improve physical qualities is also through training on motor skills and technical skills, including the skill of shooting in handball, as the latter is related to the extent of the safety of the shoulder joint, and therefore it is necessary to focus on good training for this joint and strengthening the muscles of its muscle ligaments by doing exercises that are related to strengthening the ligaments of the shoulder joint muscles.

Handball is a team game in which the movement behavior is characterized by diversity and multiplicity due to the presence of a player, an opponent and a tool in continuous and uninterrupted interaction of playing situations, which requires friction between the players and great physical effort. Despite the internationally stipulated laws for handball, which were established to protect the player, injuries are common, which affects the health of the players in general and their level of performance in particular. Sports injuries are one of the most important factors that hinder the player's performance and greatly affect his physical, technical and skill abilities to the point of completely excluding him from playing. Since injuries are likely to occur in any area of the body in handball, we find that the most common injury to which the player is exposed is the shoulder joint injury "and this is confirmed by some international statistics on field injuries conducted in Italy 1971-1979, and France 1975". (Osama Riad, 1998, p. 170)

It is necessary to pay attention to the aspect of modern sports training and muscle strengthening for this joint, which is considered more than just the meeting of the arm with the trunk, because the only real articulation between the trunk and the upper limb is through the shoulder girdle, because the back part of this girdle consisting of the shoulder bone is connected to the thoracic vertebrae by muscles only, and the movement of the shoulder increases with the movement of the sternoclavicular joint, because the clavicle and shoulder bones move in harmony due to the connection between them by strong ligaments and muscle anchors, and because the movement of the shoulder must be natural, a sports injury to any area of the shoulder causes a deficit in the motor performance of the entire area. (Kamounah Team, 1999, p. 259)

That is why the shoulder joint is considered the greatest anatomical structure in the human body and the most complex in structure, and given the importance of this joint for handball players in shooting, for example, or passing, which is one of the basic skills in handball, the level of performance and athletic achievement of a handball player depends on the extent of the safety of this joint, and what can be said is that the shoulder joint has a close relationship with the performance of handball players, Therefore, his injury has a direct impact on the performance of handball players. This is what makes us, based on the above, reach the general pivotal question: Do shoulder joint injuries have an impact on the performance of handball players?

Sub-questions:

- Does lack of interest in physical preparation lead to shoulder joint injury and affect the performance of handball players?
- Does poor warm-up lead to shoulder joint injury and affect the performance of handball players?
- Does relaxation skill play a role in preventing shoulder joint injury and affecting the performance of handball players?

2. STUDY HYPOTHESES**2.1 General hypothesis:**

Shoulder joint injuries have an impact on the performance of handball players.

2.2 Partial hypothesis:

- Lack of interest in physical preparation leads to shoulder joint injury and affects the performance of handball players.
- Poor warm-up leads to shoulder joint injury and affects the performance of handball players.
- Relaxation skill plays a role in preventing shoulder joint injury and affecting the performance of handball players.

3. STUDY OBJECTIVES:

Athletes in general and handball players in particular are often exposed to sports injuries during competitions or sports preparations that may lead to the player being completely disabled or completely removed from the fields, which affects the performance of handball players. The aim of our research is: - Identify some of the injuries that handball players are exposed to (shoulder joint injuries).

- Improve the performance of handball players.
- Provide some basic information in the context of the player's health that he needs throughout his sports career.
- Focus on strengthening the muscles of the shoulder joint ligaments by focusing on sports training based on scientific foundations.
- Focus on physical preparation and good warm-up to avoid injuries.

The applied aspect:**Chapter One:****Research Methodology:****1- The method used:**

Given the importance of the topic we are studying, which is: shoulder joint injuries and their impact on the performance of handball players, we had to study the phenomenon as it is, treat it, diagnose it and narrate it for reading, using the "descriptive analytical" method to clarify concepts and terms, analyze variables and provide the results reached based on the

questionnaire. The descriptive approach is defined as: "Every investigation that includes a text on a phenomenon as it is at the present time with the aim of diagnosing it, revealing its aspects and determining the relationship between its elements. This is done by collecting, organizing and analyzing data, then drawing conclusions. The most important tools of this approach are: observation, interview, questionnaire. (Mohamed Awad Basyouni, 1992, p. 206)

2- Field application procedures:

On the first day 03/07/2016, the study sample was determined and some interviews were conducted with sample members. This is as a prelude to the study that we are about to implement. On the second day 03/14/2016, the questionnaire questions were determined, in which we addressed three axes: the first axis is related to physical preparation, while the second axis is related to warming up, while the third axis is related to relaxation skills. After designing a questionnaire form and formulating it in its final form, we distributed it to the members of the selected sample in the period from 04/25/2016 to 05/09/2016.

After retrieving it, sorting it and examining the answers, a discussion and analysis of the results of the questions we asked were presented in the questionnaire form, we have put tables for these questions that include the number of answers and the percentages that agree with them. Finally, we present the conclusion and explain the validity of the hypotheses included in the study.

3-Study areas:

Spatial field:

We conducted our field study at the level of Bouira State for handball clubs (seniors) and the number of clubs was: 03 clubs.

Temporal field:

The beginning of this field study was from: April 25 to May 09, 2016. During this period, we distributed the forms and analyzed the results obtained. Human field: Handball clubs of Bouira State (Etoile Sportive de Chabab Taqdidt, Chabab Sportive Ain Turk, Association Al-Hashemia).

3.1 Controlling the study variables:

The independent variable:

The one whose change in value leads to an impact on the values of other variables related to it. In this study, the independent variable is: shoulder joint injuries.

Dependent variable:

Its value depends on the values of other variables. In this research, the dependent variable is: the performance of handball players.

3.2 Research sample and how to choose it:

In order to reach more accurate, objective and realistic results, we chose our research sample in a simple random way.

3 teams were chosen out of 10 possible, i.e. 33.33 percent, and 42 players were also chosen out of 140 players in these teams (Al-Najm Al-Riyadi for the Youth of Taqaddit, Al-Shabab Al-Riyadi Ain Al-Turk, Al-Hashemiyya Association).

The sample number was 42 players and 05 coaches.

3.3 Adjusting the variables for the sample members:

Table No (01): shows the age for handball coaches

Total	Handball Coaches	Age
40%	02	from25 to 35
60%	03	from35 to 45
00%	00	from45 and above
100%	05	Total

3- Study limits:

We conducted our study at the level of senior handball sports teams in order to know shoulder joint injuries and their impact on the performance of handball players We decided that our research sample would be within the borders of Bouira State due to its participation through its clubs (handball sports teams) similar to its counterparts in the country, and that the results obtained theoretically and in the field can be generalized to the handball sports teams present at the national level. Chapter Two: Presentation and analysis of the results of the study

***We take examples from each part:**

***Analysis of the results for coaches:**

***Question Seven:**

Does lack of interest in special physical preparation lead to shoulder joint injury for handball players and affect their performance?

Purpose of the question: To know whether lack of interest in special physical preparation leads to shoulder joint injury for handball players.

Table No. (10): Shows whether lack of interest in special physical preparation leads to shoulder joint injury for handball players or not

Percentage%	Frequency	Answer
100%	05	yes
00%	00	no
100%	05	total

Figure No. (07): Shows the lack of interest in special physical preparation and its relationship to shoulder joint injury.

Analysis:

We note from Table No. (10) that 100% answered: "Yes", meaning that handball coaches believe that lack of interest in physical preparation leads to shoulder joint injury and affects the performance of handball players. We conclude that lack of interest in physical preparation leads to shoulder joint injury and affects the performance of handball players, and this is due to the importance of physical preparation in preparing and equipping players. Discussion of the results of the study in light of the research hypotheses: Through the theoretical and applied data and based on the results of the field study through which we reached the effect of shoulder joint injury on the performance of handball players, we relied in our research study on 03 partial hypotheses in addition to the general hypothesis. The first hypothesis indicates that lack of interest in physical preparation leads to shoulder joint injury and affects the performance of handball players. By presenting and analyzing the results of the tables for the first axis, and by

referring to the analysis of the results of Table No. (01) from the players' questionnaire, we find that the majority of handball sports teams do not have all the material and human resources that allow for good physical preparation, which hinders work and does not provide all the conditions that help with good physical preparation. By also referring to the results of Tables (06) and (07) from the coaches' questionnaire and Tables (05) and (08) from the players' questionnaire, the researcher concluded that lack of interest in physical preparation leads to various injuries, including shoulder joint injury, which affects the performance of handball players.

The validity and truth of the first hypothesis, which indicates that lack of interest in physical preparation leads to shoulder joint injury and affects the performance of handball players, has been proven through 100% of the answers of the study sample members who believe that lack of interest in physical preparation leads to shoulder joint injury and its effect on the performance of handball players. In the second hypothesis, we assumed that poor warm-up leads to shoulder joint injury and affects the performance of handball players. This hypothesis explains that not focusing on warming up well during the training session leads to shoulder joint injury, through the results of Tables No. (09) and (10) of the players' questionnaire form, which shows that the time period in the warm-up process is not sufficient to perform a good warm-up for all parts of the body. The validity of the second hypothesis was proven through a percentage of 100% of the study sample members' answers through Table No. (13) of the players' questionnaire, and Tables (11) and (12) of the handball coaches' questionnaire, which indicate that poor warm-up leads to shoulder joint injury and affects the performance of handball players. As for the third hypothesis, which shows the role of relaxation skill in protecting handball players from shoulder joint injury, after presenting the results of the tables related to the third axis and analyzing them, it became clear to us that the third hypothesis has been achieved, and this is what the results of Tables (18) and (19) from the handball coaches' questionnaire show, as well as Tables (16) and (17) from the handball players' questionnaire, which indicate that relaxation skill has a role in protecting handball players from shoulder joint injury, by restoring all physical, muscular and skill capabilities, as well as maintaining the level of physical fitness. Through the results reached by the researcher, we conclude that shoulder joint injuries affect the performance of handball players.

General summary:

Sports are the main concern of different peoples of the world at the present time, and there are those who breathe sports, and for sports to succeed and reach the goal, the latest medical devices and means must be available, and the person responsible for all of this is the human element. In general, our research has great importance in the sports field, which is evident in shedding light on some sports injuries that handball players are exposed to (shoulder joint injuries) and diagnosing and preventing them from occurring, as well as opening the field for research and studies in the future, so it is necessary to pay attention to this topic in which we focused on shoulder joint injuries and their relationship to the performance of handball players, so we went to study handball coaches and know their opinions about the effect of shoulder joint injury on the performance of handball players, and we found that lack of attention to physical preparation as well as poor warm-up during the training session are factors that contribute to shoulder joint injury, and in contrast, we found that relaxation skill plays a role in preventing handball players from being exposed to shoulder joint injury. Through the results obtained, we can prove the hypotheses of the study, which are: General hypothesis: Shoulder joint injuries affect the performance of handball players. Partial hypotheses: - Lack of attention

to physical preparation leads to shoulder joint injury and affects the performance of handball players. - Poor warm-up leads to shoulder joint injury and affects the performance of handball players. - Relaxation skill plays a role in preventing shoulder joint injury and affecting the performance of handball players. Suggestions and recommendations: Based on all of the above in the theoretical chapters and in light of the results we reached in the applied chapter, and through our completion of this research, several suggestions became clear to us:

- The need for handball coaches to be competent and experienced in their field of specialization.
- The need for a doctor or sports medicine specialist for each sports team.
- The need for special sports medicine centers for handball sports teams and their generalization at the national and regional levels.

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