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RESEARCH ARTICLE

KNOWLEDGE ABOUT SPORTS PHYSIOTHERAPY AMONG UNIVERSITY PROFESSIONAL SPORTS PLAYERS

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ABSTRACT

Background: Sports physiotherapy is a specialized area of physiotherapy that deals with the injuries related to sports people. Those are different from everyday injuries. The sports physiotherapists work closely with the coach and the player or athlete in terms for the performance enhancement by the unique combination of the knowledge that includes, anatomy, physiology, biomechanics, exercise therapy, kinesiology. The study aimed to determine the association between the knowledge about factors such as having a sports physiotherapist in team, equipment used by the physiotherapist and having benefited personally from physiotherapy. **Objective:** To find out the awareness about sports physiotherapy knowledge among university professional players. **Methodology:** 100 professional non-contact sports players were selected and a self-administered English questionnaire was distributed. **Results:** 86.17% of the players have good knowledge about the physiotherapy regarding the prevention, rehabilitation, types of injuries and equipment used by the physiotherapist. **Conclusion:** The university level professional players have good knowledge about basic physiotherapy.

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INTRODUCTION

Sports physiotherapy is a specialized area under physiotherapy that deals with the injuries related to sports people which are different from everyday injuries. Sports physiotherapy is defined as: "A recognized professional who demonstrates advanced competencies in the promotion of safe physical activity participation, provision of advice, and adaptation of rehabilitation and training interventions, for preventing injury, restoring optimal function, and contributing the enhancement of sports performance, in athletes of all ages and abilities, while ensuring a high standard of professional and ethical practice."¹ The sports therapists work closely with the coach and the player or athlete in terms for the performance enhancement by the unique combination of the knowledge that includes, anatomy, physiology, biomechanics, exercise therapy, kinesiology.² Physiotherapists are always under pressure to keep athletes on the field and to improve their performance as well as allow the athlete to return to play after injury in the minimal amount of time.³ The pressure from the coaches, team members, and even from parents and the team managers is increased. The coach may expect the athlete to come back to play in less time, and the athletes on the other hand pass the

pressure on the medical professional. And sometimes the management tends to replace the medical professional. So the physiotherapist must consider all these things in mind and explain clearly about the injury and time take for recovery to the team managers, coaches, and the players.⁴ Professional players choose their sports as an occupation. They have achieved top standard in their chosen field through years of training in high school, college, and clubs. Those who have attended the state and national level competitions. They are people with natural stamina and competitive drive. Every professional player must have superior skills, extensive training and dedication towards the sports they chose. Apart from all these skills some soft skills are also needed for the professional player, interpersonal skills, concentration, decision making, hand eye coordination, physical stamina. Professional players can sustain injuries, which are not taken into consideration and that may lead to severe deformity and lead them to quit the sport. Overall, injury incidence in sports is within a range of one to ten per thousand hours. 20 per cent of all the injuries are recurrences.⁵ Professional Players require high level performance which stresses their muscles, joints, and bones to a certain limit. Most of the injuries were musculoskeletal and were not that severe and could have been

avoided or the severity could have been reduced through proper education, specific training skills in particular sport, and acquisition of the pre-requisite physical, motor and physiological attributes by players.⁵ The primary concerns for lacking adequate knowledge among players include but not limited to improper rehabilitation of injuries and increased recurrence of injuries. The awareness about the sports physiotherapy among the university professional players must be enhanced because they chose the carrier as professional players. After the degree they may play in international level or represent their state or country, so they need to know how severe the injury is and their ability to perform after an injury. So they need to know that the role of physiotherapy is critical. The study aimed to determine the association between the knowledge about factors such as age, gender, qualification, having a sports physiotherapist in team, equipment used by the physiotherapist and having benefited personally from physiotherapy. Literature on the knowledge about sports physiotherapy among university professional players is limited, where the level of knowledge among the sports coaches, team managers were done. It is not very clear that the professional players in university level understand the importance of fully rehabilitating the injury but they tend to return to the game very soon. The literature suggests that the professional players often play with the injury where they are not aware about the risk of re-injury

NEED OF THE STUDY

Generally, there is lack of awareness about physiotherapy and its role in the community. People must have some knowledge about physiotherapy by virtue of their position. Literature shows the benefits of physiotherapy with regards to health, injury prevention and treatment in sports. Injury prevention, the enhancement of the performance and the prevention and management of acute injuries and the rehabilitation process are the most important role of a physiotherapist. Players tend to ignore their injury and the rehabilitation process which may lead to re-injury or disability and treat themselves without consulting the physiotherapist. There is lack of literature to find out the knowledge about physiotherapy among university level professional players. The study is to determine the knowledge level of players about sports physiotherapy.

METHODOLOGY

The study design is non experimental study and study type is observational study. Both men and women were included. Only university professional players and non-contact sports players were included. Amateur players and non-university players were excluded. The sampling type was convenient and 100 samples were included in the study. The study was conducted in SRM institute of science technology sports complex. The participants were selected based upon the inclusion and exclusion criteria. A self-administered English questionnaire was distributed to the participants. The purpose of the study was clearly explained to the participants and the informed consent was obtained. The questionnaire consists of 4 sections. Section A, B, C, D consists of demographic data, type of sport, prevention and treatment of injuries, type of injuries and the equipment used by the physiotherapist respectively. About 10 minutes is required to answer these questions. After collection of the data, coding was done. The correct answer was rated as (1) and the incorrect answer as (0). These were totaled and percentage was obtained from excel sheet. The highest

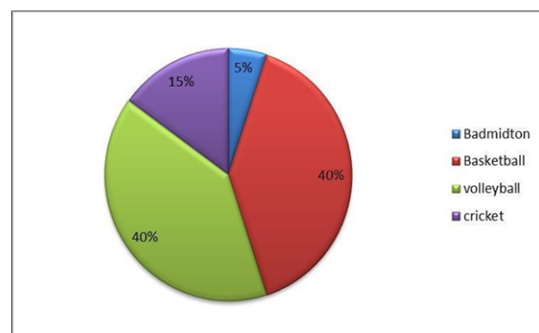
score was 21 and score was converted into percentages. The knowledge of the players was differentiated into 3 categories, poor, fair and good. Where the poor was determined by the score equal to or less than the 40%, fair knowledge was determined by the score 41- 60% and the good was determined by the score 61-100%. The questionnaire was derived from the study conducted in Africa validated by the content validity by the research committee.

STATISTICAL ANALYSIS: The data collected was scored and converted into percentages in excel spreadsheet.

Table I. Demographic information of the players

(n) = 100		
GENDER	NUMBER OF PARTICIPANTS (n)	PERCENTAGE
MALE	51	51%
FEMALE	49	49%

PIE CHART I



TYPE OF SPORT

The Table I represents the gender of the players; number of males and number of females and the percentages respectively.

Table II. Frequency of The Meetings With Medical Staffs

FREQUENCY OF MEETINGS	N	%
Weekly	0	0
Monthly	19	19
Other	81	81

Table II represents the frequency of the meetings with medical staffs and percentages respectively. Bar diagram I Orientation with the medical staff

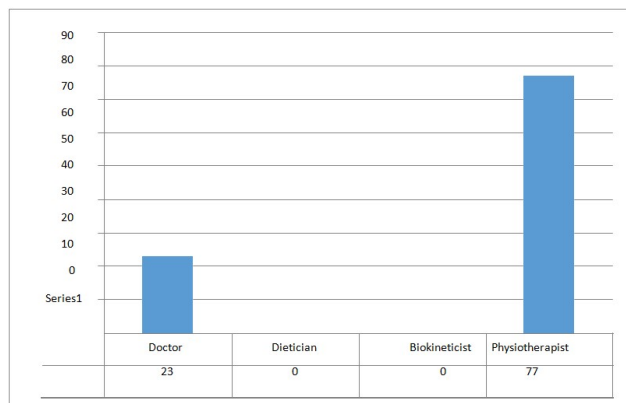
Table III. Knowledge About The Prevention Of Injuries, Treatment Of Injuries, Types Of Injuries Physiotherapist Treat

	RESPONSES			
	Correct answer		Incorrect answer	
Role and strategies of prevention	N	%	N	%
Q1	100	100	0	0
Q2	100	100	0	0
Q3	100	100	0	0
Q4	97	97	3	3
Q5	92	92	8	8
Q6	65	65	35	35
Methods of treatment				
Q7	100	100	0	0
Q8	100	100	0	0
Q9	9	9	91	91
Q10	100	100	0	0
Q11	100	100	0	0
Types of injuries				
Q12	100	100	0	0
Q13	98	98	2	2
Q14	80	80	20	20
Q15	92	92	8	8
Q16	100	100	0	0
Q17	100	100	0	0
Q18	80	80	20	20

Table IV. Type of equipment's physiotherapist use

Equipment	N	%
Cryotherapy	100	100
Treatment plinth	90	90
Exercise modalities	99	99
Braces	22	22
Electrical machine	58	58

The table IV represents the equipment's used by the physiotherapist and their responses and the percentages respectively.

**BAR DIAGRAM I. RIENTATION WITH THE MEDICAL STAFF**

RESULTS

DEMOGRAPHIC INFORMATION: Totally 100 participants were selected and data was collected from them. In which 51% were males and 49% were females. Table I. The pie chart I shows the percentage of the sport. Where 40% volleyball, 40% basketball, 15% cricket and 5% badminton. 100% of the players had more than 2 years of experience. The result shows that all teams did not have a physiotherapist in their team. Table II shows that the players orient with 23% of the doctors and 77% of the physiotherapist.

PREVENTION AND TREATMENT: Table III reveals the knowledge of the players about the prevention and treatment used by the physiotherapist. The results show that 100% of them know that the warm up, cool down and strapping before and after injury prevents the risk of injury. 97% of them know that returning to game immediately after injury results in re-injury. 92% of them know that playing with injury leads to disability. 65% of them agreed that the physiotherapist can conduct training sessions.

TYPES OF INJURIES: About 100% of them know that the physiotherapist treats muscle pain and will not treat stomach pain and heart pain. Table IV shows the knowledge about the equipment's used by the physiotherapist. Where 100% of the players know that physiotherapist uses ice and 99% of them knows exercise machines. The total score of all the participants is 2300, the score obtained was 1982. The score obtained was divided to the total score and was multiply by hundred ($1982/2300 \times 100 = 86.17\%$). The sports physiotherapy knowledge among the university professional players is 86.17%. The results reveal that the players have good knowledge about the sports physiotherapy regarding the

prevention, treatment and the equipment's used by the physiotherapist.

DISCUSSION

The present study was conducted to find out the awareness about sports physiotherapy knowledge among university professional sports players. There is a lack in the literature about the knowledge among university level professional players. The study started due to the lack in the literature, because there are studies where the knowledge is calculated among the sports coaches, physical directors and even the team managers. The university level professional players must have knowledge about the basic physiotherapy interventions, rehabilitation and the importance of the injury prevention. The non-contact sports players were selected for this study. Where, 51% males and 49% were females. And the sport selected was volleyball, basketball, cricket and badminton. All of them were qualified because they're university players. And all of them had more than 2 years of experience. All the teams did not a physiotherapist in their team. 81% of them meet the physiotherapist 6 months once and 19% of them meet monthly. Knowledge about prevention of injuries. All the players require physiotherapist to treat and prevent further complications of the injury during matches. All the players are aware that the warming up, cool down and strapping before and after the game or training session reduces the risk of injuries. These results were supported by Hagglund, Walden, Atroschi (2009), they conducted a study to determine the prevention of injuries in female football players, the results revealed that warm up reduce the risk of injury from occurring.

Only 65% of them agree that the physiotherapist can conduct training session. These results might have been influenced by their experience in their sports. 100% of the players have knowledge that the physiotherapist use exercise and massage as an intervention. And 91% are unaware that the physiotherapist can educate regarding the injury prevention and the biomechanical strategies. It is good to see that the majority of the players know that the playing with injury can lead to disability and recurrence of injury. This might be due to the experience in their past matches. The result shows that the players have good knowledge about the prevention of injuries. Leaman and Simpson (1998) stated that early return to sports leads to severe disability in the future. Knowledge about the type of injuries. Almost all the players know that the physiotherapist treats muscle pain. And there are 20% of them are unaware that the physiotherapist treats broken bones and ligament injury. Knowledge about the equipment used by the physiotherapist 100% of them are aware about the basic treatment ice therapy as an intervention used by the physiotherapist. And it's disappointing that only 22% of them are aware that the physiotherapist uses the braces as equipment. And 58% of them are aware about the use of electrical machines, because the electrical modalities are used only post-operative and during rehabilitation process, not on field management. Jarit *et al*; (2003) their study indicates that home IFT may reduce pain and the swelling post-operative rehabilitation. On the whole the university professional players have good knowledge about the sports physiotherapy that is 86.17%. A similar study was done by Sergeant Given Motha in the year 2009 among the team managers' in the South African soccer team in the premier soccer league where, the knowledge

about the prevention of injuries, intervention and types of injuries is 79%

CONCLUSION

The study concludes that the university level players are aware that the physiotherapy plays a major role in the prevention of injuries, treatment, types of injuries and also the equipment's used by the physiotherapist. About 86.17% of the players are aware about the sports physiotherapy and have a good knowledge.

LIMITATIONS AND RECOMMENDATIONS

LIMITATIONS: Only non-contact sports players were included in the study. The study was done in a smaller population as this was the first study in university level professional players. As the data collection was on season time, it was difficult to collect the data because most of the times the players were busy in their matches.

RECOMMENDATIONS

All type of sports players can be included and the study can be done in larger population. The data collection can be done in particular time where the players will be free and can give their full support to the study.

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