Common basketball injuries and their remedial measures among inter university and inter college basketball players

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Basketball has evolved over the past 25 years from an inadvertent contact sport to today's highly physical game. Dramatic rule changes, including the count of the "slam dunk" and the three pointer shot, have contributed to the sport's dramatic rise in popularity. Basketball is now played throughout the world and is a featured Olympic sport. In the past 15 years women's basketball has also grown in popularity. Women's division and professional league game are now regularly televised. Wheelchair basketball has emerged as a featured sport in the Para Olympics. At the youth and high school levels, there is greater opportunity for participation by both boys and girls than ever before. Rule changes have changed not only the game but also the player. Today's basketball players are taller, stronger, and faster with more agile athletes and physical play, the sports physician must be aware of the athlete's injury risk at each level of competition, from youth leagues to professional. Coaches and teams increasingly look to athletic trainers and team physician not only for diagnosis and treatment but also for efficient rehabilitation and fast return to play. The sports medicine team must possess knowledge of the utility and safety of ergogenic and prophylactic devices, as well as sport specific training regimens being touted as helpful in preventing injury. Physical activity, by its very nature, invites injury. Each year, millions of participants in recreational and organized sports sustain an injury to the musculoskeletal system. Professional and intercollegiate athletes receive comprehensive sports medicine services from a team of professionals that include a team physician, an athletic trainer, and a host of other medical specialist and allied health care providers. Unfortunately, the majority of participants in interscholastic sports do not receive comprehensive sports medicine care, yet the number of the injuries sustained by athletes at this level is outstanding. The National Athletic Trainer's Association (NATA) began a three-year injury surveillance study in 1995 to determine the trends of high school

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injuries in eight sports. The study includes football, basketball, wrestling and baseball for boys and basketball, field hockey, volleyball and softball for girls. Results from the first phase of this research have revealed that 39% of varsity high school football players were injured during the 1995 season. More than 23% of high school soccer players, regardless of gender, sustained an injury during the 1997 season. Two players on every high school basketball team in country, regardless of gender, were likely to be injured during the 1996 to 1997 season. Unfortunately, high school athletes do not have the same comprehensive medical coverage enjoyed by professional and collegiate athletes. This same NATA study documents that fewer than 42% of U.S. high school athletic programs have certified athletic trainers.

Sports injury occurs as a result of physical activities carried out either for general recreational purposes or with more professional goals in mind. They may be caused by accidents or by overuse and they do not necessarily differ from injuries sustained in non- supporting activities.

Most sports injuries are minor and would not prevent the average athletes from continuing his daily work, but as people become more seriously committed to sporting activities, continuing daily work is no longer the only consideration. The injury must be treated effectively so that leisure activity can be treated at the earliest opportunity.

Statement of the problem

The purpose of the study was to find out the common basketball injuries and their remedial measures among Inter University and Inter College basketball players.

Delimitations

The following was the delimitations of the study: -

- The study was delimited to the S.P. University and Inter College basketball players of the affiliated Colleges, who participated in West-zone and Inter-Colleges basketball tournament.
- The study was delimited to age group of 18 to 25 years male subjects.
- This study was further delimited to the questionnaire method.

Selection of Subject

The subjects for the purpose of the study were selected from Sardar Patel University and Inter-College basketball players of affiliated colleges. The total respondent of the study were 100 basketball players. 20 Students participated in inter university tournament and 80 Students participated in inter collegiate.

Tools of the Study

Survey method was used in conducting the study. Essential information was collected through questionnaire, which was administered individually on the basketball players.

Construction of Questionnaire

The researcher framed and prepared the questionnaire in consultation with many experts. Enough care was taken in preparing the questionnaire to ensure maximum coverage of the area of field study so as to obtain maximum, worthwhile and meaningful responses from the respondents. The construction and arrangement of questions were made in such a manner that the response can be obtained in an orderly fashion.

Sincere efforts were devoted while constructing the questionnaire so that ambiguity can be avoided. The responses to the questions were in the form of "YES" or "No" which were to be answered by the respondents by tick mark ( ). The questionnaire also contained statements in the form of fill in the blanks. The choice for each blank was provided at the end of statement. All the necessary steps applicable for the development of questionnaire were followed.

Initial writing

In the initial endeavor, various questions which required several respondents were formulated. The questions were modified and reframed from time to time according to the recommendations of the experts and the guide before the final draft was made.

Trial run

Initially the questionnaire was administered on a small group of people as a trial run. The purpose of the trial was to find whether the meaning of all the statements in the questionnaire was clear to the respondents and whether the questions were adequate to obtain the information desired. During the trial respondents were encouraged to criticize the questionnaire in terms of adequacy and clarity of the questions. After the approval of experts, the questionnaire was finalized.

Administration of questionnaire

The questionnaire was administered personally by the researcher. The respondents were asked to answer the questionnaire without consulting others. They were also requested to give their free and frank answers.

Statistical Procedure

After collecting the questionnaire, the responses were analyzed manually and the

required statistical tools were employed in the analysis.

Statistical Analysis of Data

The analysis of the data, which was collected through the administration of the questionnaire, has been described. The questionnaire comprising of 21 statements and questions' covering the various aspects of basketball injuries was circulated to 100 basketball players of Inter-university and inter college levels. The filled questionnaires were taken up for assessment of the present study.

Discussion of Findings

The findings revealed that 72% of the basketball players had got some kind of injury in their sports career. It was observed that 46% of injuries were joint injuries and 28% were muscle injuries. Among the nature and type of major injuries 46% were sprains, 39% strains, and 01% was contusions. The survey also reveals that 35% of the players got injured by collision and 25% by over exhaustion. The findings have shown that the prevalence of injuries was more during competition i.e. 37% as compared to training. The basketball players reported that 75% of them were given first aid by the coaches whereas 25% were not attended to. Regarding the immediate way of handling an injury, 33% of the players did it by the application of Ice. It was observed that after the occurrence of an injury 32% of the players had consulted the physiotherapist, 18% consulted the sports medicine expert, and 50% consulted general doctors. The therapeutic modalities most commonly used by the consultant doctors were 33% infra-red therapy followed by 29% ultra sound therapy. The survey revealed that 74% of the injured basketball players re-entered training or competition without prior testing of the injured part. The basketball players having injury also reported that 58% of their coaches emphasized on training before complete rehabilitation of the injured part. Majority of the basketball players reported having proper warm-up exercises, limbering down, and preventive conditioning exercises and strength training with external resistance in their training programmes. All the basketball players reported that they did flexibility and stretching exercises in their training programmes. Regarding the problems faced by basketball players in the treatment of their injuries, a good majority of 40% opined the availability of lesser number of sports medicine experts. Other reasons given were lack of advanced therapeutic modalities, poor consultation and diagnosis of the injury and rehabilitation of injuries, improper guidance from coaches and too much time consumption in the treatment of injuries.

None of the players were satisfied with the facilities available in the country for the treatment of basketball injuries. Forty two percentage of the players

also felt that they did not get adequate diet for the recovery from the training and competition. All the coaches responded that their players used sufficient protective gears during training and competition.

Basketball, the game with worldwide appeal, attracting large number of participants tends to be associated with a high incidence of injuries due to the body contact nature of the game. These have been very clearly obvious in the present study with 72% of the surveyed players having reported incidence of injuries. The highly competitive nature of the game is a major reason for the occurrence of injuries, as 37 % of the injuries of the surveyed players resulted during the competition. The present survey revealed that a good majority of the injured players were not taking regular treatment following an injury. It was also found that though the majority of the consultant doctors prescribed rehabilitative exercises, they were mostly done unsupervised.

Some the reasons for the large occurrence of injuries are improper selection of shoes and socks. Well cushioned ankle shoes are the major requirement in the game of basketball. This game requires a lot of running, stopping and jumping. The possible reason of so many sports injuries could be lack of knowledge regarding the selection of proper shoes.

Coaches in their over enthusiasm to prepare the teams force the players to continue training even though they have not recovered from their injuries. This in turn aggravates the injury and makes it chronic.

In India modern facilities are not available for the treatment of basketball injuries, which is a drawback. Even where the facilities are available they are not being put to good use.

Conclusions

On the basis of the findings of the present study the following conclusions can be drawn.

- The study indicates that 72% of the basketball players are found to have injuries in their playing career.
- The results of the study shows that 37% of the injury of the basketball players took place during competition and 63% of the injury took place during training sessions.
- The most commonly injured parts of basketball players are joints and muscles.
- The study indicates that the majority of Inter-university and Inter-

Collegiate basketball players do not take regular treatment for recovery from injuries.

Recommendations

- Preventive conditioning exercises should be administrated on basketball players in order to prevent injuries.
- The training programme for basketball players should be planned in a systematic and scientific way so that the total training load can be controlled.
- More sports medicine experts and advanced therapeutic modalities to be made available to Inter-university basketball players for their better treatment and rehabilitation of injuries.
- Basketball coaches may also be tested to enable them to handle injuries in a better way.
- The basketball players should use proper protective gears to prevent injuries.

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