Physical Activity and Quality of life in Shoulder Injuries among Volleyball Players

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Highlights:

- Direct contact 26(36.6%) and overuse injuries 24(33.8%) were reported for main injury causes. Competition phase 44(62.0%) were the moment for injuries reported.
- Purpose of the study to determine the physical activity and quality of life in shoulder injuries among volleyball players
- Increase in Age, height, and duration of training were factors correlated with injury occurrence in athletes.
- With the help of this research we can understand the quality of life and physical activity of injured players of volley ball.

Abstract:

One of the most popular sports in the world is volleyball. And almost 800 million people are practiced volleyball. A huge number of youngsters are included in this game and same like other games, are prone to the traumas.

Objective:

To determine the physical activity and quality of life in shoulder injuries among volleyball players.

Methodology:

Male Athletes for study selected. For the quality of life and physical activity GPAQ questionnaire also used to assess injury prevalence. Result analyzed by using 1BM SPSS version 21.0 software.

Results:

Greater age, height, and duration of training are correlated with injury occurrence in present study participants of shoulder injury are included so anatomic site is shoulder of all participants. Direct contact and overuse injuries are reported for main injury causes competition phase are the moment for injuries reported.

Conclusion:

Protection from injuries in sports is significant that's why affect on these Injuries of sports in older players need specific care This study suggest that researches for the future must focus on implementation , development and injury prevention strategies for the evaluation in volleyball athletes

Keywords:

Volleyball, quality of life, physical activity, shoulders injury.

Introduction:

One of the most popular sports in the world is volleyball.[1] And almost 800 million people are practiced volleyball with manifold features, various age group people take part. A huge number of youngsters are included in this game and same like other games, are prone to the traumas. Games traumas are concerned with multiple elements , duration of training, competition, physical and anthropometric features and gender.[2,3] there is extra issue related to virtue of physical structure of the professionals in youngsters of physical recreation.[4,5] because muscle and skeleton problems can be a threatened elements for the sportsmen due to possible traumas.[6] However, consecutive again n again muscle performances and enhance weight on skeletal joints are prone factors to injuries .some dominant injuries possible in young volleyball practitioners are showed.[7] Agel et al are observed possible

injuries in the volleyball players are: at spine (13.44), hand(13.3%), shoulder(7.9%) knee injuries (26.74%) and ankle (19.52%).[8] suggested that dominant injuries prevalence 55% found in lower extremity ankle sprains and almost 20% in upper extremity. In Brazil, instead of calculated increment in number of players in present time, inadequate medical facilities and also lack of appropriate close observation system for youths players dissimilar to what collected or observed in high level of sports games.[9] As danger associated with young players related to sport injuries, still more researches are required on international level so that can be prevented further possible injuries in sports. There is a direct relation among sports exercise and sports trauma, moreover, Brazilian researches don't have enough studies about sports injuries in young volleyball players. Inquiry about injuries in volleyball athletes can help in making good, preventive measures protocol techniques.[10] structural and motor development are in pipeline for this population[11] and too quick traumas to the motor function may damage the locomotors apparatus and threatened the consistency in player future.[12].hence this is the requirement to inquire and correlate various threat elements related to sports injuries so that to help in assessment of special procedures related trauma protection and fitness check and balance between volleyball athletes. Although volley ball athlete can be at danger for physical activity special practice like landing, jumping, spiking and fitting the ball in socket. 2 prospective and one cohort study from national level in Netherlands and Norway have presented prevalence of 3-4 traumas per thousand athletes during game and 1-2 injuries per thousand practice hours. However, volleyball is non touchable sport, because teams are divided through net, mostly possible injuries are ankle sprain, which is happened due to athlete contact when participant land on opposite attacker foot or fellow near the net.[13,14] The International Volleyball Federation (FIVB) is dedicated to saving the fitness of its players.[15] Genders, women and men and also senior and junior athletes are also available to save them from traumas. Although unlike desultory illustration rely on IOC observation programmers in Athens during Olympic sports in 2004, Beijing 2008 and London 2012[16-18] The FIVB ISS are formed to give knowledge about method and number of injuries in FIVB games and give directions for protection of injuries. The ISS presents a skeleton for evaluating long duration fluctuations in number and conditions for injuries too. The goal of study are to described the danger and mechanism of injuries between classical world athletes consist on FIVB ISS data all over major FIVB events[19] The rationale of the study to determined the physical activity and quality of life in shoulder injuries among volleyball players.

Methodology:

Study design was Retrospective. Sample size was 70.Male Athletes for study selected only. Data collected through individual interviews using a reported condition inquiry addressing the occurrence of injury and its characteristics in the current season (previous 12 months of training and/or competition).For the quality of life and physical activity GPAQ questionnaire also used to assess injury prevalence. The volunteers approached either prior to or following training sessions in order not to interfere in the normal dynamics and routine of the sport. The data collected using the Referred Condition Inquiry in the period from competition (during one month).Result analyzed by using 1BM SPSS version 21.0 software.

Results:

Mean age of the subjects was 23.73±1.90 years.27 (38.0%) out of 70 reported players with small height.43 (60.6%) out of 70 reported with as taller players.25 (35.2%) out 70 reported for three hours practice duration which was highest frequency reported for duration of players.26 (36.6%) out of 70 reported for direct contact

injury which showed for players, direct contact injury was high. Highest frequency reported,44(62.0%) out of 70 for competition as a moment of injury. Highest frequency ,24(33.8%) out of 70 reported for severe pain due to injury in shoulder.44(62.0%) out of 70 reported two days for vigorous activities. 15(21.1%) out of 70 reported with one month spend free due to injury. 22(31.0%) out of 70 reported for two month stayed free due to injury.33(46.5%) out of 70 reported for three month stayed free due to injury.

	Frequency (%)
1 Month	15(21.1)
2 Month	22(31.0)
3 Month	33(46.5)
Total	70(100)

Table 1: Demographics of how much time usually spend free due to injury

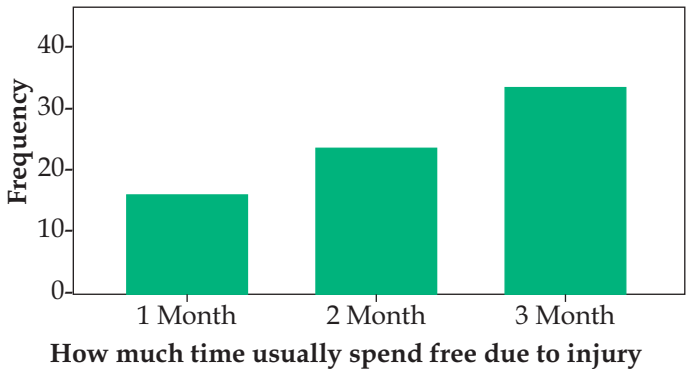

Figure 1: Graphical Representation of How Much Time Usually Spend Free Due To Injury

Height	Pain or discomfort status		
	Slight Problem	Moderate Problem	Severe Problem
Smaller	9(33.3%)	9(33.3%)	9(33.3%)
Taller	13(30.2%)	15(34.9%)	15(34.9%)
Total	22(31.4%)	24(34.3%)	24(34.3%)
Fisher,s exact test	0.133	p-value	0.9

Table 2: Demographics of Cross Tab Association of height * pain or discomfort

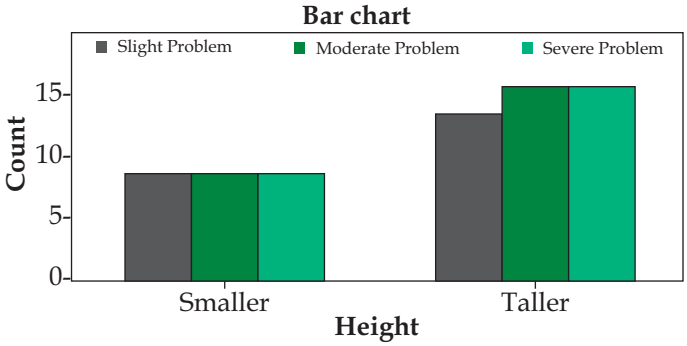

Figure 2: Graphical Representation of association between pain or discomfort status and height of player.

Discussion:

In present study we analyzed the physical activity and quality of life with shoulder injury in volleyball players. Sample size for the study is 70. Greater age, height, and duration of training are correlated with injury occurrence in present study participants of shoulder injury are included so anatomic site is shoulder of all participants. Direct contact and overuse injuries are reported for main injury causes competition phase are the moment for injuries reported. Knowles et al inquired about traumas in volleyball players described that frequency of injuries was reported 20%.Occurrence of injuries were correlated with weight ,height, BMI and age. Their study reported most affected side was ankle in taller athletes. They also observed causes of injury which were direct contact and contactless and mostly moment of injuries reported during training phase.0.23 were rate of injury reported per athlete.[20] But in current study we are finding shoulder injuries in volleyball players. We are also observed causes of injuries. In present study we analyzed the physical activity and quality of life with shoulder injury in volleyball players. Greater age, height, and duration of training are correlated with injury occurrence. Mobility status for volleyball players, 28(39.4%) out of 70 reported for moderate problem in mobility that is highest frequency reported for physical activity for players. Powell et al proposed a review their objective was to described risk of injury in most

famous 10 sports of high school, they observed that per 1000 hours of exposure in football with 8.1 rate of injury was reported high, basketball with 4.8 rate reported, anyhow least rate of injury reported for volleyball athletes with 1.7 rate. They concluded that rate of injury were based on nature and activities of games by the players, rather than competition level and practice time for sports. In one study they reported injuries risk in young players with 0.14 risk however , athletes suffering from greater injuries were high class athletes rather than young athletes, because high class athletes performed greater physical demands.[21] Bahr et al presented study they reported Direct contact was most observed mechanism of injury.[22] Aagard and Jorgensen proposed a study[23] they described that during volleyball game, players performed upward and forward attack instead of just in upward direction attack, which became the cause of touch down the net, and hence produced injury due to this contribution occurrence of injury was higher due to training rather than competition, regardless of players characteristics of training this was because players took long time during practice rather than in competition. Unlike this, Agel et al study reported volleyball injuries highly during matches because of extra energy produced in matches. Although Vanderlei et al reported that risk of injuries during matches greater because of high intensity generated in matches.[8]

Conclusion:

Protection from injuries in sports is significant that's why effect on these Injuries of sports in older players need specific care This study suggest that researches for the future must focus on implementation , development and injury prevention strategies for the evaluation in volleyball athletes which depended anthropometric values for players.

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