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**IMPACT OF FIRST AID TRAINING UPON MANAGEMENT SKILLS OF
SPORTS INJURIES IN FEMALE VOLLEYBALL PLAYERS**

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ABSTRACT

As compared to other games, volleyball is taken as more secure game, for example, football, handball, and basketball, in which handling and contacting with adversaries are frequently found in the game. Despite of isolating the two groups by net and having property of being nonphysical and non-contact game, various kind of mild to severe injuries are frequently seen in the players of volleyball. The objective of this study was to determine whether first aid training impacts the helping behavior of female players of Volleyball and managing abilities of sports injuries among female players of Volleyball the pre-post experimental research design was used to conduct this research, where female players of Volleyball ranging 18-25 years of age were participant. Before giving first aid training, for the measurement of current level of knowledge and skills, pre assessment was done through a questionnaire as a tool consisting of open ended and closed ended questions in female players of volleyball. After that a training programme was followed for 8 weeks by the female volleyball players of experimental group. There were total 25 female players of volleyball who underwent the First aid's training program. Post assessment was done

after giving 8 week First aid training, significantly positive association, was found through post training results, between post training skills and providing help to others ($r=0.95$, $p=0.001$). The results of ANOVA indicated significant differences between experimental group in the management of injuries ($p=0.000$).

INTRODUCTION

For the promotion of health, certain level of physical activity (PA) is of vital importance to cope with continuously rising level of stress in the world of today. The importance of sports is increasing day by day for promoting physical, mental and social health. To some extent, the interest of sports is developing in young students as well (Aicale et al., 2018). During sports activities, players face various kind of sports injury and trauma, which may occur in consequence of intensive sporting activities, varying from mild to severe (Andersen et al., 2016). Special skills and experience is required to deal with sports injuries that range from mild to severe in intensity. Sports injuries are broadly categories into two divisions, acute injury occurs suddenly which can be severe in intensity, whereas chronic injuries occur through long term overuse injuries of low intensity at the same joint or muscle (Bhat et al., 2017). Sports participation improves the quality of life by improving the level of person's fitness and wellness, but the increasing rate of sports injuries keeps the people away from participating in PA (Bisseling et al., 2018).

Volleyball is a non-contact team game where the rate of sports injuries is comparatively lower than other team sports such as hockey, soccer, basketball and handball because in these games contacting with adversaries are observed more frequently (Bohn et al., 2015). In spite of that, due to explicit brandishing assignments such as hopping, skipping and hiding the ball, the players of volleyball are also constantly under the danger having injury (Boreham, 2017). Volleyball is a games with no physical contact, in this game isolation of two opposite groups is done through a net, in spite of having separation of players, they suffer from extreme wounds such as hyper-extended lower legs while arriving at the blocker's foot (Dawes et al., 2020).

Restricting assailants, or an accomplice, finger hyper-extend occurs in the players playing closer to net while contacting rapidly with ball (Difioriet al., 2017). Inconvenience can be felt in shoulder through rehashed fits especially in tossing competitors, knee distress is seen in players due to hopping and during serving and high hopping, tedious tension in lower back results (Eerkes, 2015). Management of sports injuries at appropriate time is of vital importance. When an injured athlete is provided with physical therapy for the purpose of rehabilitation, it is referred as medical treatment. The main element which is required for speedy recovery of any sportsperson is to take adequate rest. The severity of trauma defines the duration of rest (Ericson et al., 2019).

For the improvement of by and large execution of game, the medical expert performs work with competitors straightforwardly by keeping in view the clinical, remedial and handy parts of physical activity (Gonellet et al., 2015). First aid is characterized by the immediate care provided to the athlete suffering from acute injury before the arrival of qualified health care personnel, to save the life of athlete by stopping further deterioration (Harris et al., 2016). It is a very common thing for athlete to have injury of ligaments, tendon and muscles during competition. When the muscle or tendon becomes injured it is referred as strain whereas when the injury happens on ligament it is referred as sprain. It is of significant importance to control swelling as soon as possible by providing appropriate first aid at right time. Swelling reduction is compulsory for wound healing

(Tyremanet al.,2017). Rehabilitation becomes possible as early as the injury is managed according to the requirements of wound or injury(Weltin et al.,2016).

LITERATURE REVIEW

Active movements and efficient aerobic level are the important parts for performing the sports of volleyball. In the game of volleyball, active thrill along with endurance is required which itself enhances the endurance of player. Because, in this game of volleyball there is need for rapid movements along with high intensity, so, the player is supposed to have less body fat as whole (Satyawan, 2020). As in this game, the player is supposed to have better jumping ability to execute tactics successfully, for this purpose having minimum fat is more favorable because it improves the ability to jump vertically and move quickly. And in this way player can avoid unnecessary injuries (Paterno et al.,2015).

The fundamental techniques of volleyball game are three: block, pass and serve. For the accomplishment of these three techniques efficiently, the player needs to develop correct techniques of right hand and correct footwork (Whiteley, 2018). Right fundamental techniques will be helpful throughout the succession of the rally. 90-degree ought to be the point between chest and upper arm while the left arm is stretched completely when the ball is in hand for service. For corresponding, the right arm should cross the head near right ear while expanding it completely. From half feet away from his head, the player has to throw the ball from left hand.

Bounce serve sequences the standing serve. For acquiring force, there is need for different advanced movements for leap serve. The step of game in which the player plants his step and throws the ball simultaneously, this process of throwing and contacting simultaneously is referred as leap (Bhat, 2016). For the purpose of putting focus on opponent, the game is accelerated by the speedy performance through hop serving. As reported by Kobayashi, (2016) that serving doesn't result in intense wound but wrong techniques and repeated abuse results in injury such as wounds in lower legs and shoulder from standing and hop serve.

The basic technique of guarded player is to handle the ball when it is crossing the net's plane.

By fastening the hands, the arms are stretched out in opposite direction at the second stage.

It should be made the angle of 90 degree by the arms. The ball is pushed ahead by from shoulders and the body of the player should be lower slightly than the normal posture (Munro, 2016). The setter faces the slightly dropped shoulder towards the point, for lifting the ball the crouched position is chosen by using legs when the player's foundation is hit by the ball.

Assaulting. Wounds in volleyball are associated with various positions line first line aggressors and hitters (Smith et al., 2018). The arrangements for the start of aggressor is that net should be at least 12 feet away from her. The most elevated level of injuries is found in the players who are obstructing the ball (Maffioletti, 2016). As demonstrated by Venckunas, (2016) the basic job of obstructor is to adjust the position of her body according to the aggressor to avoid the fall of ball after the intersection the net's plane. The net confronts it to finish, standing near by at the distance of a step. The blocker will burden arms and flex's knee to block the ball when the opponent assailant attacks the ball. When rehashed power is used over bones and connective tissues, it leads to wound formation (Aicale, 2018). On the basis of site and composition of injured area, the wound has been classified into two groups; delicate tissue injury and hard tissue injury (Quatrehomme, 2019). A shut crack and an open break are fundamentally equivalent to the simply mean a messed up bone (Mebert, 2018).

In sports, injury results from the consequence of dangerous elements and stages which involve the unpredictable interaction, from which it is difficult to distinguish a part. In the late of 1990s, Meowus presented a unique model. How various elements cause injury collectively has been shown in this model.

The FA training is the composite of steps of straightforward, lifesaving, clinical strategies, which an individual, either with or without formal clinical foundation can be prepared to perform with negligible hardware (Stodolka, 2020). Thus, FA applies to an expansive scope of clinical circumstances and comprises both of explicit information and abilities.

OBJECTIVES

The objectives of the following are:

1. To find out whether first aid training enhances the helping behavior of women Volleyball players
2. To find out the impact of First Aid training upon management of sports injuries among women Volleyball players

MATERIAL AND METHODS

The research design which has been used in this study is pre-post experimental design, where the female players of volleyball from University of Narowal, within age range of 18-25 years, participated. Yamane (1967) formula has been used to calculate the sample size.

$$n = \frac{N}{1+Ne^2}$$

Where n = Sample Size = Total Population = 120, e = sampling error = 0.05.

And Sample Size = 50 Volleyball players.

Random number generator has been used for simple random sampling. Volleyball female players of 18-25 years of age who gave consent were included in this study. A questionnaire consisting of a part of open ended and the other part of closed ended questions, has been used to measure the dependent variables used in this study. An equal number of participants were randomly assigned to the experimental group (n=25) and the control group (n=25) after the pre-assessment, experimental group followed a training plan. The first aid training was independent variable whereas injury management was the dependent variable.

DATA ANALYSIS PROCEDURE

SPSS version 23.0 has been used for the analysis of data. Descriptive statistical analyses was used for demographic data along with mean and standard deviation scores. Pearson Correlation Coefficients was used to measure the relationship between first aid training and services provided. ANOVA was used to find the differences in the first aid training of Volleyball players in developing skills to manage injuries of other players.

RESULTS

Participants		Management
Exp	Mean	1.6000
	N	25
	Std. Deviation	.57735

Control	Mean	.8000
	N	25
	Std. Deviation	0.8
Total	Mean	.8000
	N	50
	Std. Deviation	.90351

In Experimental group to provide management of injuries (Mean=1.6) as compared to the control group to provide management of injuries (Mean=0.8) significant mean difference were found.

PROVIDING HELP

		Post Skills	Prevention
Post Skills	Pearson Correlation	1	950**
	Sig. (2-tailed)		.000
	N	50	50
Providing Help	Pearson Correlation	950**	1
	Sig. (2-tailed)	.000	
	N	50	50

A significantly positive association was found between post training skills and providing help to others ($r=0.95$, $p=0.001$)

MANAGEMENT OF INJURIES

		Sum of Squares	Df	Mean Square	F	Sig.
Management	Between Groups	32.000	1	32.000	192.000	.000
	Within Groups	8.000	48	.167		
	Total	40.000	49			

The results of ANOVA indicated significant differences between experimental group in the management of injuries ($p=0.000$).

FINDINGS

- The participants were the 50 volleyball female players, 18 is the minimum and 25 is the maximum age of participants with 21.80 mean age.
- It was found that 8% players had been playing for one year, 44% players had been playing for last two years whereas 48% players had been playing for last three years.
- It was found that only 6% of the total participants had experience of some sort of first aid training whereas rest of the 94% of the participants, did not attend first aid training ever before.

- It was found at pretest that some knowledge of first aid was possessed by only 6% players whereas 94% players did not know anything about first aid training.
- It was found at pre-test that the skill of providing first aid services was possessed by only 6% players and there was no skill of providing first aid service in rest of 94% players.

- It was found at pre-test that none of the participants had any kind of first aid training certificate.
- It was found at post- training assessment that there was an improved level of first aid knowledge reported by 50% of the participants.
- It was found at post-training assessment that there was good level of first aid knowledge reported by 50% of the participants.
- It was found at post-training assessment that skills of first aid services were demonstrated, over other players of volleyball, by 50% of the participants.
- In post training skills and providing help to others a significantly positive correlation was found($r=0.95$, $p=0.001$).
- Significant differences between experimental group in preventing injuries ($p=0.000$) and in the management of injuries ($p=0.000$) were indicated by the results of ANOVA.

DISCUSSION

Wounds is a vital elements that influence volleyball players, it is viewed as the reason for handicaps and demise among understudies. Quick organization of FA and essential life support following injury may limit dismalness and death rate that outcomes from it. Hence this examination was led to evaluate the impact of preparing program on volleyball players' ability to prevent and manage injuries. The examination results uncovered that the two fifth of the understudies were in the age bunch (18-25) years of age. Notwithstanding around three quarter from the understudies have no past information about FA and essential life support. This outcomes were in concurrence with Buckley,(2016) who said that the greater part of the subjects were 18 years old (58%) and a large portion of them were females (56.2%) having a place with the overall position (68.6%). Yet, (95.2%) of them had never been presented to any kind of FA and fundamental life support. Furthermore, the 4.8% who had gotten preparing had done so basically from guardians and companions. Concerning information about importance, destinations, safety measures and sack of FA among school understudies from pre, followed by one-month post preparing program, the examination results uncovered that there were huge improvement in the degree of information among understudies post program.

Clearly, the FA environment in the university infers that FA doesn't acquire the due consideration of the EI network the board, yet. Furthermore, this is additionally demonstrated by some of the instructive parts, including the players, and most likely the instructors and different partners who are not satisfactorily ready for managing FA and BLS consistently. This impression would be additionally increased by the more extensive acknowledgment that FA learning isn't obligatory as reported by Joseph, (2014). Additionally maybe this clarifies why just around 33% of the understudies perceive the presence of any FA materials in their learning program (Marshall, 2018). In any case the presence or nonappearance of FA and BLS in the EI main subjects, the examination uncovered a huge number of positive effects of FA preparing measures among the considered understudy populace. For example, the degree of FA commonality and abilities taking care of fundamental undertakings, for example, managing basic cases or

estimating heartbeat and BP was altogether more unmistakable in the FA-prepared understudies than the undeveloped partners as reported by Mejia, (2011).

Further investigates are expected to evaluate the abilities of the prepared understudies on leading the wide cluster FA including BLS, injury, injury, and significant foundational wellbeing crises. In equal, accentuation ought to be put on the FA messages conveyed through broad communications, and make advantage of the doctors in this field as they, as per this investigation and different examinations, are overwhelmingly the most trustable for the understudies to give these messages(Salsbery et al., 2018). Further, very much prepared understudies who have moved on from such all-around organized FA preparing projects likely could be critical helper in communicating the acquired FA information and abilities to their understudy local area, their families, and the whole populace(Petrinet al.,2018).

CONCLUSION

This study is innovative in that it is the first to explore the potential for FA training to be protective for volleyball players. More so, this thesis is the first research to evaluate a FA training intervention that is combined with peer support for volleyball players to provide FA knowledge and skills in injury prevention; injury management and to assess whether FA training increases helping behavior of female volleyball players or not. Compared to previous studies, this study was carried out using experimental design.

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