



INJURY VARIANCES AND REASONS OF TRADITIONAL TURKISH FOLK DANCE PLAYERS

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Abstract:

The aim of this study was to investigation of injury variances and reasons of Traditional Turkish Folk Dancers. Totally three hundred sixty dancers who were 180 male and 180 female, participated in the study. The all subjects were elite dancer and were dance in Karşılama, Zeybek, Kaşık, Horon, Bar, and Halay regions. The survey form used for determining injury regions, variances and reasons. Obtained data were analyzed from frequencies and percentages. As a result, some internal and external factors that are effective in injuries reveal that the trainers should be in a more systematic approach under the training light. According to obtained data, it is observed that there is a wide range of injury risk to unsystematic loading and rest periods from pre-warming and cooling. In this sense, applying the training principles correctly will prevent the injuries of the players with a great extent. Nonetheless, the treatment process of injuries is also important in term of returning to the exercise on time. It is also one of the important roles of the trainer to persuade the player to go to the physician's control after the injury, to provide physiological support during treatment process and to strengthen the injured region with exercises.

Keywords: dance, Turkish folk dance, injury, traditional

Introduction

Turkish Folk Dance is evaluated in certain rules depending on stage, game, costume and music technique by taking out of their natural environment presentation. This means that it is the evaluation of player in terms of place, playing time, personal

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abilities and group sync. It is form the parts of the training objectives of the trainers to provide equal movement integrity and to provide them necessary playing power, condition and physiological performance by moving at the same time at the same speed. In addition to being an artist, a dancer must have physical and condition features that an athlete must have. It should be like an athlete with biomotoric features suitable such as strength (Biçer et al, 2015) in respiratory muscles (Özdal, 2016a; Özdal, 2016b, Özdal, 2016c, Özdal, 2015), speed, and agility as well as important features such as rhythm coordination, balance and flexibility in dance (Nalçakan, 2011). Trainers work in unsuitable places from time to time in order to reach their goals. The dancing floor must be soft enough to provide proper suspension for the players on dropping after the bouncing movement using in dance. But, they should be careful as too soft floors may create early fatigue in the muscle of the players (Dizdar, 2006). *“If the floor is unable to provide sufficient suspension the increased floor reaction forces can cause injuries such as stress fractures. At the same time, soft tissue problems can occur due to increased shear forces on the knee joints during turning movements on floor that surface friction are high”* (Hardeker et al., 1985, Hardeker, 1989). In addition to these, the players are faced with some injuries due to climatic condition, unsuitable dress or due to the fact that they are not ready for highly complicated movements at the level of motor skills and physiological difficulty and by the effect of unconscious and unscheduled training exercises.

During the study, a number of injuries which occur due to internal or external factors are affecting the performance and game power of the players negatively. *“It is necessary to display the folk dances that based on skill and high degree of difficulty to have the condition and to keep this condition at the highest level”* (Aydın, 1992; Mis, 2011). In this environment where the physiological capacity and sportive capacity are not well analyzed and interpreted in training system, the same features which are not developed with training are also factors that caused the injuries of players. *“The players carry a risk of injury because the dancing training and rehearsals are based on recurrence. When a movement is repeated continuously, especially if there is fatigue or biomechanical problem and if not given the necessary time for rest the body is exposed to micro traumas leading to injuries”* (Dizdar, 2006; Ayvazoğlu, 2012). There is lack of suitable dress that the players wear during the work, the presence of behaviors contrary to sport physiological and psychological preparation are not being made, all of these are internal and external factors which lead to directly or indirectly effect the injury. *“As in all sport branches, it is imperative to perform stretching movement at the end of the training in Turkish Folk Dance. Stretching movements reduce muscle fatigue depending on the lactic acid in blood and muscle tissue after the training, and prevent fatigue”* (Mis, 2001).

In the activities of Turkish Folk Dance, it is the most important goals to educate a dynamic youth in order to introduce the traditional games to citizens and to the

universal culture and the necessity of people to act together as a physical education activity and create a harmonious society through introducing and teaching sport ethics. In this sense, knowing which factors cause player injury to reach targets in a healthier and more scientific way will help to trainer to organize more systematic programs.

Method

In this study, it was tried to find out the ratios and causes of the injury according to regions during the folk dance activities of the players who are in the elite level which rises up to the group level in the folk dance competitions (association, public education centers, and institution – organization). This study was conducted on a total of 360 players, 180 female and 180 male, selected randomly among the teams that participating in group competitions. To determine the rates, regions and causes of injuries the questionnaires were applied to all players participating in this study. When the study was conducted, it was tried to obtained safe results by interviewing the players who answered the questionnaire one by one. In this sense, the specific disorders such as tendon injuries, meniscus, patella fractures and bruises, waist shift and waist gland, joint lock, pain in the muscle and the cramps are accepted as a physician diagnosis. The results of evaluating the data are as fallows.

Result

One hundred eighty (50.0%) male and one hundred eighty (50.0%) female participated in this study. A total of 360 players, 30 (8.4%) female and 30 (8.4%) male were selected from every region “Karsilama, Zeybek, Kasik, Bar and Halay regions. Players participating in this study were selected from elite levels, which are considered to have been using the pace structure for a long time. It is thought that deformities may occur from in some parts of the body for a long period of the time and these detects will reveal the specific injuries according to folk dance regions. Accordingly; 147 (40.8%) at the players participated in this study have “4-6 years”, 94 (26%) “1-3 years”, 85 (23.6%) “10 years”, 18 (5.1%) “11 years and over”, 16 (4.4%) “less than 1 year” training days.

It was found that 163 (45.3%) of the players participating in the study were “pre-warming up” 115 (31.9%) were doing “fatigue work”, and 82 (22.8%) were playing the region from beginning to end. The other regions have fewer choices by “pre-warming up” this indicated that they are the cause of the injury while the “Kasilama” region (70.0% male and 40.0%), “Horon” region (60.0% male, 66.3% female) and “Halay” region (50.0% male, 73.3% female) players start the training with “pre-warming up”. Besides, the players who started to training by “playing the region from beginning to

end” started to play in Halay region %33.3 % male, in Zeybek region 23.3% male and 20.0% female, in Bar region 23.3% male and 53.3% female, in Zeybek region 23.3% male and 20.0% female are exposed to heavy loads without “pre-warming up” and risk further injury. ,

The majority of all the players in the study (203, 56.4%) evaluated the time break by sitting, while the second majority (75, 20.8%) evaluated by smoking. It is certain that smoking will affect the health of the players, long term in the worst way, in the rest between training that, overloads are made and oxygen barrows are fairly much.

It is remarkable that the majority of the players 219 (60.8%) who participated in the research, ended the training without, “doing anything”. It is seen that this option is predominantly preferred by all region players. This situation that contrary to training principles will cause the problems after the body has cool down and lactic acid accumulation will make it difficult for players to turn to normal position and cause cramping. While 208 (58.7%) of all players participated in this study used “sport shoes” during the training, the second majority of the players 62 (7.2%) used “leather shoes”. This is important thing in terms of foot health and risk of injury. Male players (63.3 % of the Zeybek region and male players (53.7%) of the Horon region participated in the training with “local shoes”. But it is possible that the local shoes without orthopedic features can cause the damage to player’s foot health. In addition, 30.0% of the female players of the Karsilama region, 33.3% of the male players of the Kasik region, 46% of the female players of the Horon region and 36.7% of the male players of the Bar region used the local leather or crochet shoes in the training. This method, which is usually applied to the local shoes to be used, should be applied 1 – 2 weeks before the competition or even should prefer to use for stage training and rehearsals before each training.

While the majority players 220 (61.1%) of all the players participated in the study with appropriate “sweatpants – tights”, the second majority of the players 138 (38.3%) participated in the study with “jean, sweat-t-shirt” which is not suitable for physical activity. This shows that players who participated in the study did not change their clothes after the training. While 195 (54.2%) of all players changed their clothes, the other 165 (45.8%) did not. It is the fact that 251 (69.7%) of the players did not take a shower after the training. This situation reveals the stress and tension that emerged in the body and it is also reveals the number of skin disorders. These disorders can cause by stay in sweaty clothes for a long time. But, only one player participating in the study was diagnosed with mushroom skin irritation by doctor.

Only 186 (51.7%) of the players were injured during the folk dance training. It is observed that the injuries that occurring in the foot area are concentrated with 21.5%. In 51.3% of these who injured in the foot were found “sprained”, in 19.2% of the player

were found “base collapse” and in 11.5% of the player were found “baseline stretching disorders”. In 31.1% of the players who were injured in the knee were found a locking in the knee, in 25.9% had “dizziness”, in 24.1% had “menus” and in 16.7 % had “crushed”. It was determined that the 86.3 % of the players who were injured in the torso had “low back pain” and 11.8% of them had mainly complaining of “back pain”. In addition the percentage of players who have injuries from several body region is as follow: 5.4% of them had foot-knee-crotch and lower leg regions, 5.4% of them had “foot- upper leg and lower leg regions and 5.4% of them had knee-torso and upper leg regions.

If we look at the injuries rates during the folk dance training, according to research data: 48 of the 60 players of the Horon region and 48 of the 60 players of the Halay region were injured. While 30 of the 60 players of the Karsilama region were injured, only 27 of the 60 players of the Kasik region were injured. While 20 of the 60 players of the Zeybek region were injured, only 13 of the 60 players of the Bar region were injured and this region have at least risk injury. Besides being effective in the case of injuries, the training conditions of the region’s game and loads imposed of them also increased the risk of the injury.

While the 98 (54.78%) of the players who injured went to health center after injury, the 81 (45.3%) of the players did not go to the health center after the injury. The 34.6% of the players who did not go to the health center after injury were only rest one day, the 12.3% of them applied hot “water and massage”, 8.6% of them “continued massage and training”, 8.6% of them were “rest one week and have bandage”, 7.4% of them had “applied cold water and massage” and 7.4 % of them had “rest and scrub”. The player marked these choices. In this, players who marked “only rest (one day)” applied a suitable treatment method, while 12.3% of them have made an unconscious approach by marking “applied hot water and massage” choice. 8.6% of the players marked “Massage and continuing to training and 7.4% of them marked” slushing applications. These are non-healthful measures. Besides of these, 3.7% of the players which applied the most appropriate treatment method, marked “rest and ice application” choice.

Discussion and Conclusion

When all regions were taken into account, the 51.7% of the total players have injured. “Dizdar who made research about dancers found that 17 (40.5%) players had only one injury, 7 (16.7%) players had two and 3 (7.1%) players had three injuries” (Dizdar, 2006). He showed that the injury rate increased by 64.3 %. In addition according to by Washington (1978) who a 4-year study carried out 1662 musculoskeletal injuries were

detected (Washington, 1978). The distribution of injuries according to anatomical regions was reported as knee (29.7%), ankle (19.4%), foot (18.9%), spine (12.6%) and hip (7.2%) (6-9). In a similar study, Garrick was found the injuries rate as knee (22.3%), foot (21.6%), ankle (3.8%), leg (11.4%), hip (9.7%), spine (9.0%) and upper extremity (3.8 %) (Garric, 1986). These studies show that lower extremity injuries are more seen than upper extremity injuries in dance training.

It is seen that the players from Karsilama, Zeybek, Horon and Halay regions performed pre-warming in a most correct way by mainly "running and gymnastics. But, it is observed that the injuries are mostly seen in Horon and Halay region. It is thought that the injuries in these regions are not caused by pre-warming but rather the lack of technical skills and physical performance. Dizdar also found that there is a correlation between injury and pre-warming, stretching and cooling habits but rehearsal and pre-presentational warming habits are not associated with injury (Dizdar, 2006).

76.7% of the players who injured from upper leg region have suffered from "cramp". The fact that all regions' players have such a complaint after training shows how important the cooling section which necessary at the end of the training.

While 78 of the 360 players are injured from the foot region, the 40 players of them are exposed to "sprained". Dizdar found that the injuries on foot and ankles emerged by 35.0% (Dizdar, 2006). In our study, while 19.2% of the players who were injured from the foot were diagnosed with "base collapse", 11.5% of them had "foot floor tension". The data suggest that these injuries are most likely due to participation in the study with inappropriate shoes.

The players (28.3%) who exposed to sprain, muscle injuries in upper and lower legs did not go to the health center and they applied some treatment method. These methods are the wrong or late treatment methods that will make the injury even worse. These irrelevant attitudes towards current injuries have led to many more serious injuries, longer recovery time and perhaps new injuries (Clarkson et al., 1984).

The injury rates in Horon and Halay regions in which difficulty of movement is high, the use of all motoric features at the top level is needed, are higher than others. The rate of injuries is also high in the game of Karsilama region where bumps, jumps and bouncing are mostly used.

As a result, some internal and external factors that are effective in injuries reveal that the trainers should be in a more systematic approach under the training light. According to obtained data, it is observed that there is a wide range of injury risk to unsystematic loading and rest periods from pre-warming and cooling. In this sense, applying the training principles correctly will prevent the injuries of the players with a great extent. Nonetheless, the treatment process of injuries is also important in term of

returning to the exercise on time. It is also one of the important roles of the trainer to persuade the player to go to the physician's control after the injury, to provide physiological support during treatment process and to strengthen the injured region with exercises.

References

1. Aydın, C, (1992). Halk Oyunlarında Toplumsal Yapılanma. EÜ Publishing, İzmir, p: 37.
2. Ayvazoğlu, S, (2012). Türkiye'de Klasik Bale Dansçısının Aktif Dans Yaşamı Sonrasındaki Sorunları Ve Çözüm Önerileri. Doctoral Thesis, Dokuz Eylül University, Arts Institute, İzmir.
3. Biçer, M, Özdal, M, Akcan, F, Mendeş, B, Patlar, S, (2015). Effect of strength training program with elastic band on strength parameters. Journal of Biology of Exercise, 11(2), 111-122.
4. Clarkson, PM, Freedson, PS, Keller, B, (1984). Maximal oxygen uptake, nutritional patterns and body composition of adolescent female ballet dancers. Research Quarterly for Exercise and Sports, 56: 180-184.
5. Dizdar, G, (2006). Profesyonel Dansçılarda Kas İskelet Sistemi Yaralanmaları. Master Thesis, Dokuz Eylül University, Health Sciences Institute, İzmir.
6. Garric, JG, (1986). Ballet injuries. Medical Problems of Performing Artists, 1: 123-127.
7. Hardeker, WT (1989). Foot and ankle injuries in classical dancers. Orthopedic Clinics on North America, 20: 621-627.
8. Hardeker, WT, Margello, S, Goldner, JL, (1985). Foot and ankle injuries in theatrical dancers. Foot & Ankle, 6: 59-69.
9. Mis, MA, (2001). Türk halk oyunlarında biyomotorsal özelliklerin gelişimi. Master Thesis, Ege University, Social Sciences Institute, Turkish Folk Dance Department, İzmir.
10. Mis, MA, (2011). Türk halk oyunlarında antrenman. EÜ Devlet Türk Musikisi Konservatuvar Dergisi, 1: 123-128..
11. Nalçakan, M, (2011). Dansçı sağlığı-dans hekimliği. EÜ Devlet Türk Musikisi Konservatuvar Dergisi, 1: 75-82.
12. Özdal, M, (2016a). Acute effects of inspiratory muscle warm-up on pulmonary function in healthy subjects. Respiratory Physiology & Neurobiology, 227: 23-26.

13. Özdal, M, (2016b). Influence of an eight-week core strength training program on respiratory muscle fatigue following incremental exercise. *Isokinetics and Exercise Science*, 24(3): 225-230.
14. Özdal, M, (2016c). Effect of core training on inspiratory muscle strength in well-trained men. *Journal of Biology of Exercise*, 12(1), 23-32.
15. Özdal, M, (2015). Acute effects of aerobic and two different anaerobic exercises on respiratory muscle strength of well-trained men. *European Journal of Sport and Exercise Science*, 4(4), 7-12.
16. Washington, EL, (1978). Musculoskeletal injuries in theatrical dancers: site frequency and severity. *American Journal of Sports Medicine*, 6: 75-98.

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