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Contributions Of 12 Weeks Passing, Receiving And Dribbling Drills To Agility Of Jimma University Under-13 Female Football Trainess

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Abstract

Specific football training enhance the football players physical fitness. Thus, the purpose of this study to assess the contributions of 12 weeks passing, receiving and dribbling drills to agility of Jimma University Under-13 female football trainees. Experimental research design consisting of 15 U-13 female football trainees (experimental group, EG) and other 15 U-13 female football trainees (control group, CG) was used. The subject of this study was purposively selected. Pre-and-post-test data of agility were taken from both (EG) and (CG) using Agility T-test. After pre-test, 12 weeks passing, receiving and dribbling drills were provided to the trainees, and then post-test was conducted. The data were entered into Statistical Packages for Social Sicences (SPSS) version 25. Wilcoxon Signed Rank test was used to determine the statistical significance between pre-and-post-test of agility as the result of 12 weeks passing, receiving and dribbling drills, at 0.05. The result of this study showed that Wilcoxon Signed Rank test was statistically significant ($Z = -3.408$, $p = .001$). The study concludes that the 12 weeks passing, receiving and dribbling drills significantly contributed to post-test scores of EG's agility. The study recommends that incorporating a well designed passing, receiving and dribbling drills of 12 weeks training will maximise the agility improvement of football trainees.

Keywords: Agility, drills, dribbling, football and game

Introduction

Female's soccer is one of today's most popular sports, yet not so long ago, females were forbidden to play it. In fact, until fairly recently, it was still a male-dominated game (Krustrup, Mohr, Ellingsgaard and Bangsbo, 2005; Stolen, Chamari, Castagna and Wisloff, 2005). Women's Football has become a worldwide sporting phenomenon and a key driver of the growth for the sport of football all around the world. Today, almost 30 million women and girls play football and about one in every ten football trainees on the planet is female. Women's football in Africa is a remarkably small enterprise compared to men's football (Yoliswa and David, 2013).

According to FIFA, the Grassroots Programme is "football programs in schools, clubs and communities (and) form the foundation from which trainees of the future emerge (FIFA, 2007). The Programme contained targeted campaigns to raise awareness and the image of girls' football and wanted to motivate more young female football trainees to play the beautiful game (Kluck, 2013). Sport training for youth football project is a very complex long and continuous educational process. Youth football

development program is the most important time in which trainees acquire different skills and knowledge that facilitates the development of trainees performance (FIFA, 2004).

Performance depends upon a variety of individual skills and their interaction and integration among different trainees within the team. Technical and tactical skills are considered to be predominant factors. For example, pass completion, frequency of forwarding and total passes, balls received and average touches per possession are higher among successful teams compared to less successful teams (Dellal et al., 2011). Agility had shown to be an important component of soccer play (Jukovic, 2010 ; Jullien et al., 2008) demonstrated that a short-term agility training program improved agility test results among young professional football trainees.

The Ethiopia women national football team is the national woman football team of Ethiopia and has been overseen by the Ethiopian Football Federation. As of December 2012, they are currently ranked 100th in the world (FIFA, 2012). Jimma is also well known producing women footballer at a national level with all the limitation the trainees have. This study aimed to assess the effect of 12-weeks passing, receiving and dribbling drills on the agility of Jimma University U-13 female football trainees.

Materials and methods

Study Design

The experimental research design cause and effect relationship was used in this study. Pre-and-post-test was used for this study. All 30 trainees currently participate in this training programme. The participants divided equally into two groups of 15 subjects' experimental group and 15 subjects control group. Pre-and post-test was given to both the experimental and control group. Only Experimental group was trained on selected physical exercises for 60 minutes of 3 non-consecutive days per week for 12 weeks.

Study Participants

One training station contains a maximum of 30 trainees. The researcher was taken all participants as a sampling size. Before starting a training program, the questioner was given to the participant to know their physical activity status and their health status. The trainees were assigned into two groups experimental and control group. Physical readiness questioner and health problem of the subjects were criteria to identify select and reject study subjects of Jimma University U-13 female soccer project trainees were purposively selected.

The study population of this research was Jimma University U-13 female football grassroots trainees which were trained by expense of Jimma University and Ethiopia football federation.Before testing, each participant provided an informed consent form to the researchers and received an information document which provided the details of the research study.

Inclusion and Exclusion Criteria

Depending on questioner trainees who train regularly before a study and athletes those who have not health problem and free of physical injury were included. Trainees who have recent and before physical injury, health problem, musculoskeletal problem, restricted by physician, theirparents were not volunteered, above 13 years old was not included as a participant for this study.

The procedure of data collection

Before the trainers were going to exercise training program the pretest was given to both control and experimental group and recorded by the researcher. When the trainees were started training program the pre-test was made and record, then after the intervention of the pretest, posttest was done and also recorded at the end of 12-Weeks. The primary source of data was designed by collecting data through the supervision of experimental process (recorded pre-and-post-testresult). The researcher was used quantitative data collection method to collect data from the subjects. Pre and post of agility tests data were collected and recorded by the researcher

with the help of an assistant who was get training for two days regarding how data were recorded from the subjects while the test was held.

Agility T-test

Before starting this test, the investigator collected all essential equipments for this test, such as measuring tape, marking cones, whistle, stopwatch, and score recording sheets to arrange the test and to record scores. This test is an effective way to assess the trainees' ability to change of direction at speed. Before starting the test the subjects performed warming-up exercise.

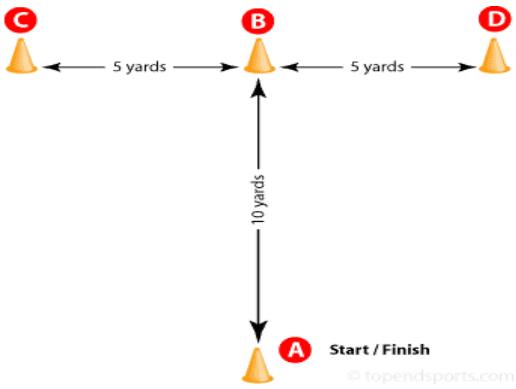

Figure 3.9. Agility T-test (Brian,2005).

This test will be administered by setting up four cones in a "T" shape. Cone Aand B was set up 10 yards (9.14 m) apart from each other. Cones B and C was set up 5 yards (4.57m) apart from each other. Cones B and D was set up 5 yards (4.57 m) from each other as well. The subject started at cone A. On the command of the assistant, the study subject will be sprinted to cone B and touch the base of the cone with their right hands, then, to the left, and shuffle sideways to cone C and touch its base, this time with their left hand, then, shuffled sideways to the right to cone D and touch the base with their right hand. Then, shuffled back to cone B touch with the left hand, and run back to cone A. The stopwatch was stopped as they passed cone A. The trials were not counted. The best time of the successful trials nearest to the 0.1 seconds was recorded as data by the researcher and by the second assistant (Pauole et al., 2000).

The Training Protocol

The training session program was performed 3 non-consecutive days of a week for 12 weeks. The training consisted of 10 minutes warm-up exercise before the main training session for 40 minutes main training session within 1 minute rest between each exercise. The training program has consisted of 2 to 3 sets of upper body, lower body and abdominal muscle exercises. At the end of training session 5 minutes cooling down and stretching exercise were performed. Exercises like Stretching exercise, Illinois cone drill run, 35m sprint run,4x10 shuttle runs, squat jump, backstretch, lateral jumps with an agility ladder, Squat out/hop in , two jumps forward one jump back, leg raise, shoulder stretch and vertical jump were performed during the training program. To control training load intensity and volume was progressively and researcher was properly supervised throughout the training session.

Methods of Data Analysis

In this study, quantitative data analysis was used. Data analysis and presentation techniques are used depending on the nature data. The data were checked for completeness and internal consistency response manually. After checking the data for completeness and consistency, data were then entered into a computer using SPSS version 25. Histogram and Related sample Wilcoxon Signed Rank non-parametric test was used to determine the significant difference between pretest and posttest of agility due to 12 weeks training was used $P< 0.5$ level of significance.

Data Quality Control

To ensure data quality, all the field test procedures, collection of data and handling information were carried out following standard protocols and measurements. And the

investigator was used as an assistant to collect data. And to avoid error, training was given for assistant data collector on how to use data collecting instruments and measurements during data collection. And regarding create awareness about each test the trainers get additional lectures beyond field practices and demonstrations. Only standardized materials were used to keep the quality of the data. Additionally, the above-mentioned tests were recorded and field into the software twice with different persons to avoid errors in data feeding.

Ethical Consideration

To collect data successfully and smoothly, the researcher was considered voluntary consent of the participants. Also, showing respect for research participants and explaining the purpose of the study, the reason why trainees were selected, the amount of time that trainees were involved and their responsibilities. Furthermore, the researcher was created a healthy report with respondents expressing that their responses were decisive for the successful accomplishment of the study. On top of that, the researcher also underlined that their responses were not used for any other purposes except for academic purpose and remains confidential. The study was conducted all action based on the university rule, code of conduct and policies concerning research ethics. The study was carried out with great ethical concerns. Ethical standards require that researcher has not imposed participants in a situation where trainees might risk at of physical harm as a result of their participation. The protocol was approved by the Jimma university guidelines.

Results and Discussion

Effect of 12-weeks training of player's agility performance

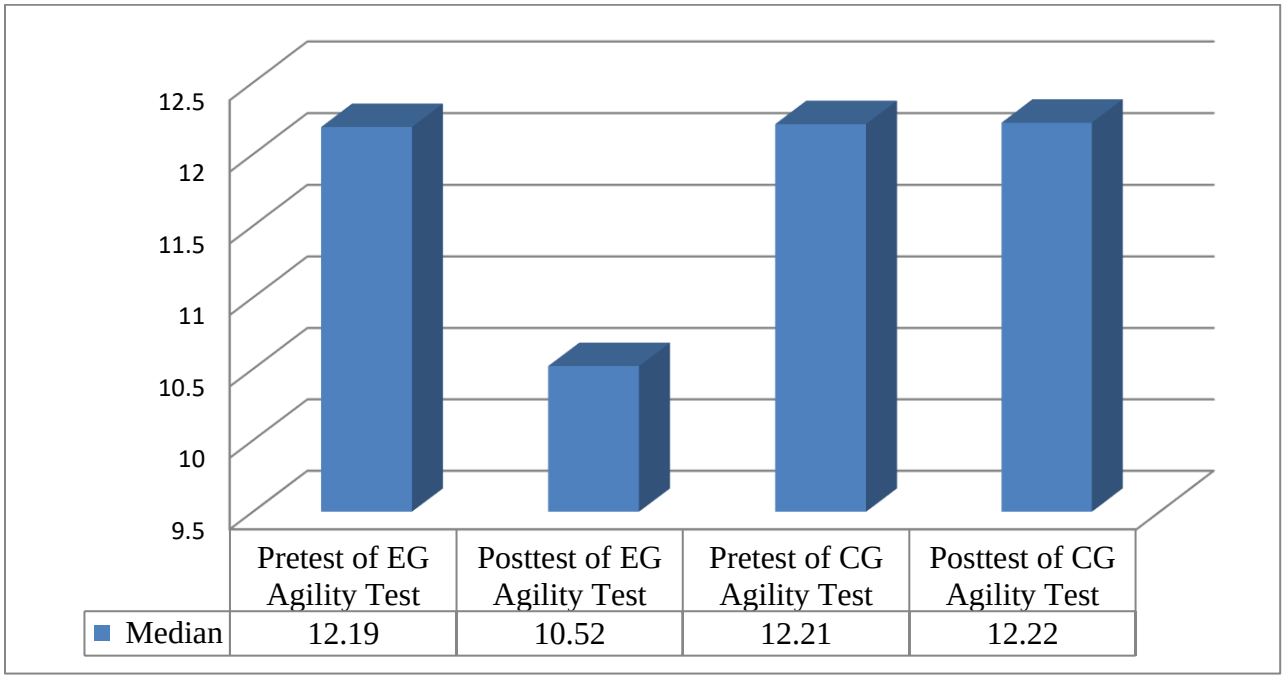

Figure 2 indicates that Illinois agility runs pretest of EG agility test median (12:19 Second) while posttest EG agility test median (10:52 Sec) respectively. While the Illinois agility run pretest of CG agility test median (12:21 Second) and posttest CG agility test median (12:22 Sec)

respectively. From this one can understand that there was a difference between pretest and Illinois agility test of EG. On the other hand, CG of U-13 female football project trainees couldn't show any improvement. Thus, 12-weeks passes, receiving and dribbling drill techniques training can improve athlete's agility of Jimma University U-13 female football project trainees.

Table 1. The agility test result of EG and CG

Variable	Tested groups	Median	Z- test	Sign
Agility	Pretest of EG Agility Test	12:19	-3.408	.001
	Posttest of EG Agility Test	10:52		
	Pretest of CG Agility Test	12:21	-1.000	.317
	Posttest of CG Agility Test	12:22		

The above test result reveals that a Wilcoxon Signed Rank test, posttest of EG Agility Test median were statistically significantly lower than Pretest of EG Agility Test median at Z = -3.408, p = .001. Since the p-value is less than p<0.01, the null hypothesis was rejected and concluded that there is significant median difference between pretest and posttest of agility test of player's agility of Jimma University U-13 female football project trainees

To the reverse, posttest of CG Agility Test median was not statistically significantly higher than Pretest of CG Agility Test median at Z = -1.000, p = .317. Since the p-value is greater than p > 0.01, the null hypothesis was accepted and concluded that there is no significant median difference between pretest and posttest of player's agility of Jimma University U-13 female football project trainees

one can suggest that 12-weeks passes, receiving and dribbling drill techniques training improved experimental group player's agility of Jimma University U-13 female football project trainees. Unfortunately, the 12 weeks selected physical exercise could not improve speed and agility performance of a control group of player's agility of Jimma University U-13 female football project trainees. Other similar finding supported this finding, a study on, it has been reported that the reduction in agility performance, which requires high-intensity sprint performance, causes significant changes young soccer trainees in balance performance (Katis and Kellis, 2009).

Similarly, quick strength training, which was applied in addition to 8 weeks, showed more improvement in experimental group agility performances than in the control group. The results from our study demonstrate the benefits quickness training can have on agility. Not only can trainees use the monotony of training, but they can also improve their strength, explosiveness while working to become more agile. The results can also be considered important in terms of agility in competitive soccer performance. Soccer coaches could apply these terms in the process of planning the in-season training (Mahmut & Barış, 2019). Another similar study suggests that speed, agility and quickness training is an effective way of improving agility, with and without the ball, for young soccer trainees and can be included in physical conditioning programs (Zoran et al., 2013).

Moreover, the effect of the small-sided game including passing, receiving and dribbling indicated higher stimulus for physical conditioning and technical improvement for training young soccer trainees (Athanasios and Eleftherios 2009). Previous literature highlighted that a reduction in the number of trainees and the size of the pitch area increases the total ball contact per player and, therefore, the number of technical actions. Moreover, the intentional modification of certain rules helps to develop some sport training fundamentals (Carlos et al ., 2020).

Furthermore, Weineck, (2000) suggested that agility along with quickness and speed represents the most significant motor ability of a soccer player. Small sided game characteristics can influence agility-training demand, which can vary considerably for individuals. Coaches should carefully consider small-sided game

design to maximize the potential to develop agility for all trainees (Davies et al., 2013).

Implication

The findings of this study suggest that 12-weeks passing, receiving and dribbling drills brought a change on agility of Jimma University U-13 female football trainees. Furthermore, game based training for consecutive weeks improves football trainees agility performance.

Conclusion

The purpose of this study was to assess the effect of 12-weeks passes, receiving and dribbling drill techniques training on agility of Jimma University U-13 female football traniess. This study confirms that of 12-weeks passes, receiving and dribbling drill techniques trainingsignificantly improved agility performance of Jimma University U-13 female football grassroots.Conditioning coaches can use this information to determine which type of profile is needed for a specific position of football trainees. Both beginner and experienced football coaches can use this information in the process of designing a training programme to maximise the agility improvement of football trainees.

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