International Journal of Engineering, Management and Humanities (IJEMH)
Volume 7, Issue 1, Jan.-Feb., 2026 pp: 26-29 ISSN: 2584-2145 www.ijemh.com

Assessment of Physical Activity in Medium School Female Soccer Teams

Esmeralda Beshi
[1]*Physical Education Teacher "Iliria" School Tiane, Albania*
Corresponding Author: esmeralda_beshi@yahoo.com

Date of Submission: 01-01-2026 Date of Acceptance: 08-01-2026

ABSTRACT: There are no studies for the identification and measurement of sports performance and physical skills in women's football in Albania. Women's football in Albania has started to develop in recent years. Women's football is also being developed in secondary schools. More than 700 girls of different age groups who play football today have been identified. Methods; the subjects are 2 groups of girls from two high schools who practice soccer in Tirana, Albania. School "Iliria" No. 17 players and school "Qemal Stafa" No. 17 female players who will be evaluated according to their specified positions. Measurements: BH, BW, BMI kg/m2, CMJ and Flexibility in the roles of Goalkeeper, Defender, Midfielder and Attacker. Results; the obtained data will show the differences between the roles of the female soccer players. For the CMJ test, the offensive players have resulted in a higher jump than the "Iliria" team even between the specific roles of the two teams. It is shown that the attackers "Q. Stafa" had a value of 30.4 cm and the female goalkeepers 29.2 cm. Conclusions: The obtained data showed that the physical activity profiles of the female soccer players of the secondary schools in Tirana, Albania differ from the specific positions of the game. The results showed that female soccer players present low values in the physical activity profiles compared to the references of female soccer players in different countries.

KEYWORDS: girl's football, countermovement jump, flexibility, performance

I. INTRODUCTION

Football in the world has been widespread for many years as a very passionate sport for men, but we are now seeing that women are also very passionate about this sport. This sport is being noticed even in recent years in Albania as a novelty for our country. The first women's football team in Albania was created in 2005 in the village of Juban in Shkodra and was named "Juban Danja". From the official data of the ALF of the Women's Football Sector, it turns out that 197 female footballers participate in the National Championship. So far, we have identified over 700 girls of different age groups who are playing football today. There are 11 Women's Football Associations in the Albanian National Championship. The AFL, in promoting women's football in Albania, also organizes various school championships in different age groups. However, the number of women who play football in Albania is relatively small compared to the number of men, as well as in Europe or the world. There are no studies to identify and measure the sports performance and physical skills that are essential for elite women's soccer and that would provide benchmarks and baselines for future coaches, players and researchers. There are many studies on women's football specifically related to the topics of player characteristics in the game, due to the increasing popularity of the women's game worldwide, although they are not yet as numerous as scientific investigations on men's football [1]. As with other sports, soccer is not a science, but science can help improve performance [2]. Typically, soccer players are classified into four groups: goalkeepers, defenders, midfielders and forwards [1] & [3], although another classification system has been used, grouping players into goalkeepers, central defenders, full backs, central midfielders, wide midfielders and strikers [4]. Although information about the physical fitness and anthropometric characteristics of female soccer players have been widely studied by several authors [5; 6; 7] in different teams in the world, it has been reported that the strength aerobic capacity, running ability, flexibility, muscle strength, body height, mass and body fat percentage vary significantly from one playing position to another of female players according to the authors. It has been shown that defenders possess a better aerobic capacity than goalkeepers from running speed to anaerobic threshold [8]. A group of authors [9] have reported in a study, that in the first Tunisian women's football league, anthropometric profiles differ from one playing position to another. According to them, defensive players had exceptional physical characteristics that distinguished them from outfield

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 7, Issue 1, Jan.-Feb., 2026 pp: 26-29 ISSN: 2584-2145 www.ijemh.com

players. While according to a study among Brazilian female soccer
players, it was reported by the authors [10] that the different positions of the game had significant differences in physical capacity and anthropometric parameters.
Therefore, our goal is to evaluate the physical fitness of female soccer players in high school in Tirana, Albania according to the specified game profiles.

II. MATERILA AND METHOD

The subjects are female players in 2 high schools in Tirana, Albania who practice the sport of football. Players no. 17 of the "Iliria" school and players no. 17 of the "Q. Stafa" school will be evaluated according to their specified positions. The female football groups will be evaluated based on anthropometric characteristics; Body Height cm, Body Weight kg, BMI kg/m^2. Goalkeeper, Defender, Midfielder and Attacker.

Testet Protocol

Flexibility Test and Countermovement Jump Test – CMJ

To ensure safe and appropriate preparation for the fitness tests, the players participated in uniform for approximately 15 minutes of warm-up and dynamic stretching exercises. The tests were completed in the following order, with 3 minutes of passive rest time between tests. Each player performed 3 trials of the test. The best performance for each test was recorded for data analysis as follows. Each participant was encouraged to perform maximally during the 2 tests.

Instrument Used

The "Opto Jump" Platform, which is located in the laboratory at the Tirana University of Sports, was used. It is a platform with an optical measurement system consisting of a transmitter and receiver bar. Based on these basic data, the dedicated software makes it possible to obtain a series of parameters related to the performance of athletes with maximum accuracy and in real time.

III. RESULTS

Below we will present by means of graphs the obtained data of the anthropometric measurements of the female soccer players of the two teams participating in the study. The table will clearly show us the changes and differences between the specific roles that the female players of both "Iliria" and “Q. Stafa" teams have in Goalkeeping, Defence, Midfield and Attack.

According to the data presented in tables 1 and 2, the results show that the female soccer players in the role of Goalkeeper are relatively old and were older than the players in all other positions. But it turned out that only the attackers of the "Iliria" team were older than the attacking footballers of the "Q. Stafa" team. According to the data, we see that female footballers in the role of goalkeeper of the "Q. Stafa" team are taller compared to any other specified role of footballers. But we noticed that the female footballers of the "Iliria" team were taller in the team average. The data show that the female soccer players in the study have an approximate Body Weight but not an approximate Body Mass BMI% kg/m2 according to playing roles. No significant differences in BMI% were observed between off-field playing positions.

Tab.1 Anthropometric data of "Iliria" football players according to playing position

“Iliria”	Goalkeeper	Defensive	Midfielder	Attacking
Age	17.6 ± 2.2	17.8 ± 2*	17.3 ± 2.3*	17.6 ± 2.1*
Body Height (cm)	169.3 ± 1.7	167.8 ± 1.2*	166.6 ± 1.7*	168.5 ± 2.4*
Body Weight (kg)	67.3 ± 1.4	64.5 ± 2.5*	63.6 ± 2.2*	61 ± 2.9*
BMI (kg/m^2%)	21 ± 2.6	20.7 ± 2.1*	21.6 ± 3.3*	18.8 ± 1.7**

Table 2. Anthropometric data of "Q. Stafa" football players according to playing position

“Q. Stafa”	Goalkeeper	Defensive	Midfielder	Attacking
Age	17.2 ± 1.2	17.8 ± 2*	17.3 ± 2.3*	17.6 ± 2.1*
Body Height (cm)	170.3 ± 1.7	165.8 ± 1.2*	161.6 ± 1.7*	167.5 ± 2.4*
Body Weight (kg)	69.3 ± 2.5	61.5 ± 1.5*	60.6 ± 3.2*	63 ± 1.9*
BMI (kg/m^2%)	20 ± 2.6	19.7 ± 3.1*	19.5 ± 3.3*	19.3 ± 1.7**

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 7, Issue 1, Jan.-Feb., 2026 pp: 26-29 ISSN: 2584-2145 www.ijemh.com

Table.3. The data of physical tests of football "Iliria" according to roles

Iliria	Goalkeeper	Defensive	Midfielder	Attacking
CMJ (cm)	26.8 cm	25.9cm	26.3cm	27.5 cm
Flexibility	14.4	25.8	24.3	19.1

Table.4. The data of physical tests of football "Q. Stafa" according to roles

Q.Stafa	Goalkeeper	Defensive	Midfielder	Attacking
CMJ (cm)	29.2cm	28.1 cm	27.6 cm	30.4 cm
Flexibility	21.6	17.7	18.3	17.1

The data in Table 3 and 4 are the Flexibility test as well as the Countermovement Jump (CMJ) test without the assistance of the arms. This CMJ test was developed on the Opto Jump platform in the Biomechanics Laboratory at UST. For the CMJ test, the offensive players of "Iliria" resulted in a higher jump than the team of "Iliria" even between the specific roles of the two teams. As shown in graph 5, "Q. Stafa" attackers had a value of 30.4 cm and female goalkeepers 29.2 cm. So female goalkeepers and female strikers showed the best performance of all positions. Regarding the presented data of the Flexibility test presented as above, we see that the defensive footballers of the team of "Iliria" have a better performance in values than the team of "Q. Stafa" 25.8> 17.7 cm. From the obtained data, we see that even the midfielders of the "Iliria" team have a better result than the "Q. Stafa" team, 24.3>18.3cm.

IV. DISCUSSIONS

Previous studies have evaluated anthropometric measurements and physical ability profiles of female soccer players in different countries. As we have shown at the beginning of this study, the main goal was to evaluate the anthropometric and physical fitness profiles of female players according to the specified playing roles in two groups of the 2024-2025. Various studies have shown that female goalkeepers are taller than other players in specific positions. This data also resulted in our two teams included in the study, where the goalkeepers are 167.2 cm from the "Iliria" team and 170.3 cm from the "Q. Stafa" team. According to the data, there are no significant differences in body mass BMI% between playing positions on the field, so the BMI% difference between the two women's soccer teams according to playing roles was ±1.5%. While the Body Weight is distinct according to graph 3, the goalkeepers of the "Q. Stafa" team had a greater weight than the goalkeepers of the "Tirana Female" team in values of 57.5 kg < 69.3 kg. When we compare our results of female soccer players with those data published in different studies within women's soccer, the results in our study were lower than those reported by Norwegian studies according to [11] and Australian [12]. We evaluated jumping in female soccer players in Albania through the Countermovement Jump (CMJ) test tool without the help of the arms together with the Flexibility test, as we explained in the methodology part of the study.

For the CMJ test, the offensive players of "Q. Stafa" resulted in a higher jump than the team of "Iliria" even between the specific roles of the two teams. As shown in graph 5, "Q. Stafa" attackers had a value of 30.4 cm and female goalkeepers 29.2 cm. So female goalkeepers and female strikers showed the best performance of all positions. However, there was no significant difference between the female defenders and female midfielders of the two participating teams in the study. It has previously been reported that the CMJ scores for female goalkeepers and female forwards were 40.9 ± 4.4 cm and 42.7 ± 5.5 cm, respectively, for a Japanese college female soccer according to [13] i.e. approximately 11 cm higher than our female football players in Albania. Regarding the presented data of the Flexibility test, according to graph 6 presented above, we see that the defensive footballers of the "Iliria" team have a better performance in terms of values than the "Q. Stafa" team 25.8> 17.7 cm. From the obtained data and from the presentation in graph 6, we see that even the midfielders of the "Iliria " team have a better result than the "Q. Stafa" team 24.3>18.3cm. However, there are few studies on the

flexibility of women's football, especially in Albania. It is important to note that muscle flexibility in the lower limbs of soccer players has important practical implications: higher muscle elasticity increases movement efficiency and lack of muscle elasticity increases the incidence of muscle injuries.

V. CONCLUSION & RECOMMENDATIONS

However, comparisons of female and male players in Albania, especially in terms of physical fitness and anthropometric characteristics, are still quite limited and not reported in scientific journals. Soccer is a dynamic sport, although efforts are made to select and manage soccer players in specific playing positions, based on their physical ability profile.

At the end of this study, the obtained data showed that the physical activity profiles of the female soccer players of the school in Albania differ from the specific positions of the game. The results showed that female soccer players in Albania present low values in the physical activity profiles compared to the references of female soccer players in different countries.

These data can be used and serve coaches to improve their training programs in function of the physical activity of female soccer players according to game profiles.

I think this is the first study that reports data on the physical activity profiles of female soccer players in Albania using laboratory methods and, therefore, these data can serve in future research.

REFERENCES

[1]. Ingebrigtsen J., Dillern T., Shalfawi S.A.,(2011). Aerobic capacities and anthropometric characteristics of elite female soccer players. J Strength Cond Res, 25 (12), p. 3352– 3357,doi: 10.1519/JSC.0b013e318215f763

[2]. Albert M. (1983). Descriptive three-year data study of outdoor and indoor a professional soccer injuries. Athl Train. 18:p.218-20.

[3]. Vescovi J.D., (2014).Motion Characteristics of Youth Women Soccer Matches: Female Athletes in Motion (FAM) Study. Int J Sports Med, 35 (2), p.110–117. doi: 10.1055/s-0033 - 1345134.

[4]. Bradley P.S., Bendiksen M., Dellal A., Mohr M., Wilkie A., Datson N. et al., (2014). The application of the Yo-Yo intermittent endurance level 2 test to elite female soccer populations. Scand J Med Sci Sports, 24 (1), p.43–54. doi: 10.1111/ j.1600-0838.2012.01483

[5]. Davis, J. A., & Brewer, J. (1993). Applied physiology of female soccer players. Sports Medicine, 16, p.180–189

[6]. Haugen, T. A., Tønnessen, E., Hem, E., Leirstein, S., & Sei- ler, S. (2014). VO2max characteristics of elite female soccer players, 1989–2007. International Journal of Sports Physiol-ogy and Performance, 9, p.515–521.

[7]. Jensen, K., & Larsson, B. (1992). Variations in physical capacity among the Danish national soccer team for women during a period of supplemental training. Journal of Sports Sciences, 10, p.114–117.

[8]. Manson SA, Brughelli M, Harris NK.(2014). Physiological characteristics of international female soccer players. J Strength Cond Res. 28:p.308e18.

[9]. Mohamed Moncef Kammoun1, Omar Trabelsi1, Adnene Gharbi1,2*, Liwa Masmoudi1, Sleh Ghorbel1, Zouhair Tabka2, and Karim Chamari .(2020). “Anthropometric and physical fitness profiles of Tunisian female soccer players: Associations with field position .Acta Gymnica, vol. 50, no. 3, , p.130–137. doi: 10.5507/ag.2020.013.

[10]. Paulo R. Santos-Silva1*, Andre Pedrinelli1, Bruna B. Osorio, Thais P. Aquino, Julia Maria D’A Greve, Arnaldo Jose Hernandez, Guilherme Veiga Guimaraes.(2021) “Physiological, Morphological Characteristics and Blood Profile of Female Elite Brazilian Soccer Players According to Position” Open Science Journal 6(2).

[11]. Haugen, T. A., Tønnessen, E., & Seiler, S. (2012). Speedand countermovement-jump characteristics of elite female soccer players, 1995–2010. International Journal of Sports Physiology and Performance, 7, p.340–349.

[12]. Tumilty, D., & Darby, S. (1992). Physiological characteristicsof Australian female soccer players. Journal of Sports Sciences,10, 145p.91–96.

[13]. Vescovi, J. D., Brown, T. D., & Murray, T. M. (2006). Positional characteristics of physical performance in DivisionI college female soccer players. Journal of Sports Medicine and Physical Fitness, 46, p.221