



THE REPORT AND ANALYSIS OF THE FIRST U21 EUROPEAN DEAF FOOTBALL CHAMPIONSHIP MEN, WROCLAW, POLAND 2016

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ABSTRACT

Purpose. The First U21 European Deaf Football Championship Men was played in August 2016 in Wrocław, Poland. No studies have documented or analysed sporting events for deaf players at the elite level. The aim of the study was to bring deaf football closer to the reader and analyse selected offensive actions recorded during the U21 Championship.

Methods. Analyses were performed on the basis of video recordings from the stadium. Eight national teams participated in the Championship. Sixteen matches were analysed with reference to the number of goals, shots on target, shots missed, crosses, and corners.

Results. The mean number of goals scored per match during the U21 Championship was 1.81 ± 1.53 . The number of shots on target was 246, with 194 shots missed and 191 corners. The shooting efficiency of the four best teams was: 14.81% for Poland, 14.29% for Turkey, 13.89% for Sweden, and 13.25% for Russia. The highest efficiency of crosses for the best four equalled: 34.57% for Poland, 28.00% for Sweden, 26.22% for Turkey, and 23% for Russia.

Conclusions. The winner of the tournament was the team with the highest shooting efficiency and highest efficiency of crosses in all matches. Overall, 15.25% of goals were scored after shooting from outside of the penalty area, 55.17% of goals were scored from outside of the goal area but from the penalty area, whereas 29.58% were scored from the goal area. The analyses of the U21 Championship can be useful for the organization of coaching and preparation of teams for championships.

Key words: deaf football, game analysis, shooting efficiency, crosses

Introduction

Analyses of various aspects of football at the level of European or world championships have been presented by numerous authors, e.g. Leite [1], Michailidis [2], Mitrotasios and Armatas [3]. The authors analysed the following performance indicators: number of goals and place where they were scored in each half, including the extra time; time of goals scored (0–15, 16–30, 31–45+, 46–60, 61–75, 76–90+, 1st extra time, 2nd extra time); influence of the first goal in the final score (win, drawn, loss); type of set plays (free kick, corner, penalty, throw in); shot type (instep shot, inside of the foot, header, other); impact of the distance covered by the team on the game outcome; impact of the number of passes (success passes) on the game outcome; or the actions that preceded the goal foul, corners, crosses, offsides, and area from which the goal was scored (goal box, penalty box, outside the penalty box). Sarmiento et al. [4] reviewed research papers that analysed soccer matches. The papers contained comparative analyses depending on the position of the player on the pitch, level of competition, ball

possession time, distance covered by players, number of accurate passes, number of successful 1 vs 1 dribbling actions, etc.

There are no scientific studies, reports or analyses concerning international championships for deaf people. The available official and unofficial videos and reports from sports competitions for deaf athletes do not allow for a detailed analysis of the soccer matches, e.g. the number and percentage of successful 1 vs 1 actions and passes. Transmissions from the soccer competitions for deaf people have been recorded with one video camera, which was often located at the level of the pitch. It is the first attempt to analyse soccer matches of European deaf national teams. The groups of deaf athletes compete at the senior level during European championships, world championships, and the Olympic Games. They also have federations and athletic organizations [5–7] established in separation from those for healthy people. The regulations applied during football tournaments for deaf people are the same as in the case of hearing people. The only difference is additional signals used by the referee simultaneously with the whistle, by raising a small

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flag. The matches of the national team can be played by athletes qualified on the basis of the current audiogram that indicates bilateral hearing loss at the level of at least 55 dB.

During the U21 Championship, European and Polish football organisations were represented by the European Deaf Sport Organization (EDSO) and the Polish Deaf Sport Association (PDSA). EDSO representatives were Iosif Stavrakakis and André Brändel. The president of the organizational committee was Maciej Jacyna and the PDSA was represented by Jarosław Janiec, president of the Association. All the matches were supervised by Polish referees: Łukasz Skotnicki, Rafał Świerczek, Marek Michalak, Adam Karasewicz, Adam Józefiak, Michał Dzikoiń, and Eryk Buraczewski.

No studies have documented or analysed sporting events for deaf players at the elite level. The aims of the study were to bring deaf football closer to the reader, to analyse selected offensive actions recorded during the U21 Championship, and to compare the results with those obtained during the U21 European Championship in the Czech Republic in 2015 and during the European Championship in Poland and Ukraine in 2012.

Material and methods

The 1st U21 European Deaf Football Championship Men was played on August 5–13, 2016 in Wrocław, Poland. The paper presents the results of the analysis of 16 matches: 12 matches in the A and B group, 2 semi-finals, the match for the 3rd place, and the final. Analyses were based on video recordings from the stadium and concerned the following match statistics: time when goals were scored during the game for the 1st and 2nd half and for each 15-minute period of the game, number of goals scored, shots to target, shots missed. Shots on targets represent a component of shots scored with a goal or completed by the goalkeeper's or defender's action, i.e. the ball blocked or kicked out. A successful cross is understood as a cross to the penalty area which ends

with a shot towards the goal (on target or missed, i.e. outside the goal). An unsuccessful cross ends with losing the ball possession, e.g. the ball goes outside the goal line, is blocked or is kicked out of the penalty area by the opponent's defenders, or the action is continued without threatening of the opponent's goal. In order to emphasize the abilities to employ defensive playing by defenders, the analysis of offsides was presented for the opponents. The shooting efficiency of the teams was determined as the ratio of the number of shots on targets and shots missed to the number of goals scored. Table 1 presents the division into groups, number of players, and names of coaches, team managers, and medical staff members of the teams who participated in the U21 European Deaf Championships.

Results

Group A (Table 2)

The opening match was played by Poland against Ukraine. The course of the match and the final score 1:2 (61', 80', 87') showed that Ukraine was expected to be the team that leave the group and play in the final. The unexpected winner in the group phase was Sweden, the team that skilfully defended against the Ukrainians and, using the only opportunity to score a goal, won with Ukraine 1:0 (50') and drew in two matches, including the one against Poland (SWE: 26', 89' – 36', 79') and England (SWE: 35' – 67'). The final outcome was, however, caused by Poland winning over Great Britain (4:2 – 10', 31', 55', 66' : 38', 90') and Great Britain winning over Ukraine (3:1 – 46', 50', 76' : 28').

Group B (Table 3)

Despite the substantial advantage in all aspects of the game, Turkey was second. They won with the Czech Republic (6:0 – 27', 41', 49', 53', 57', 68') and Germany (3:1 – 12', 45', 89' : 3'). The first place was

Table 1. Characteristics of the teams who participated in the 1st U21 European Deaf Football Championship Men

Group	Team	Number of players	Coaching staff
A	Poland	18	Opaczewski A., Stempurski W., Rafalska K., Morawski E., Lasota K.
	Ukraine	20	Gerasymov S., Bronnikov V., Pastushenko O., Bazhura M.
	Sweden	17	Belcher R., Whale A., Bath C., Brunnbauer B., Rollven T., Lundberg J., Blomqvist J.
	England	21	Lewis R., Demenad G., Wallance M., Ramji G., Down S., Bryant L., Bridson-Vice V., Marshall M., Cain S.
B	Germany	22	Meyer T., Simon A.B., Gros J., Roth W., Brauninger A., Martens F., Haffke D.
	The Czech Republic	18	Koliska J., Vlasek P., Moucka F.
	Turkey	20	Koc M., Metin A., Erdenerin T., Karanfilci M., Kucuk M., Aldan N., Ozisik Y., Dursun M., Bulut H., Albayrak O.
	Russia	18	Ivanov D., Gutko V., Ermakov O.

Table 2. Analysis of group A matches

Team	SOT	SM	SC	UC	C	O	GS1	GS2	GSRT	PS	W/D/L	PW
Ukraine	36	32	23	100	26	18	1	2	3	3	1/0/2	4
Poland	30	14	16	32	17	16	3	4	7	4	1/1/1	2
England	29	15	13	54	22	7	1	5	6	4	1/1/1	3
Sweden	14	8	7	18	11	2	1	2	3	5	1/2/0	1

SOT – shots on target, SM – shots missed, SC – successful crosses, UC – unsuccessful crosses, C – corners, O – offsides, GS1 – goals scored in the 1st half, GS2 – goals scored in the 2nd half, GSRT – goals scored in regular time, PS – points scored; W/D/L – win/draw/loss, PW – place won by the team

Table 3. Analysis of group B matches

Team	SOT	SM	SC	UC	C	O	GS1	GS2	GSRT	PS	W/D/L	PW
Turkey	25	21	21	78	25	8	4	6	10	6	2/0/1	2
Russia	16	20	10	54	25	1	4	4	8	7	2/1/0	1
Germany	13	10	7	87	24	4	2	2	4	4	1/1/1	3
The Czech Republic	5	5	3	41	4	7	1	0	1	0	0/0/3	4

SOT – shots on target, SM – shots missed, SC – successful crosses, UC – unsuccessful crosses, C – corners, O – offsides, GS1 – goals scored in the 1st half, GS2 – goals scored in the 2nd half, GSRT – goals scored in regular time, PS – points scored; W/D/L – win/draw/loss, PW – place won by the team

won by Russia, who defeated Turkey (2:1 – 6', 40' : 21') and the Czech Republic (6:1 – 2', 13', 50', 70', 71', 87' : 17') and drew with Germans (0:0). The German team won only over the Czech Republic.

In group A of the Deaf Championships, the mean shooting efficiency was 8.75%, 13.27%, and 11.24% for the 1st half, 2nd half, and regular time, respectively. In group B, these values were: 16.18%, 25.53%, and 20.00%, respectively. The mean shooting efficiency for the whole championships equalled 12.26%, 14.03%, and 13.18%, respectively. Table 4 illustrates the shooting efficiency of individual teams during group A and group B matches.

Matches for 5/6 and 7/8 places

The winner of the match for the 5th place was the German team, winning over Great Britain (2:1 – 10', 61' : 38'). In the match for place 7/8, the Ukrainian team destroyed the Czech team (7:1 – 14', 15', 29', 36', 52', 55', 59' : 72').

Table 4. Shooting efficiency of the Championship teams during group A and group B matches

Country	SOT	SM	GSRT	SE (%)
Ukraine	36	32	3	4.41
The Czech Republic	5	5	1	10.00
England	29	15	6	13.64
Sweden	14	8	3	13.64
Poland	30	14	7	15.91
Germany	13	10	4	17.39
Turkey	25	21	10	21.74
Russia	16	20	8	22.22

SOT – shots on target, SM – shots missed, GSRT – goals scored in regular time, SE – shooting efficiency

Semi-final (Table 5)

In the first semi-final, Turkey confirmed their high offensive level and outdid the Swedish team 3:0 (37', 88', 90'). In the second semi-final, after a very equal meeting (2:2 – POL: 10', 21' : 44', 88') in regular time and 1:1 (108' : 98') in extra time, Poland defeated Russia in penalty shootout 5:3.

Table 5. Analysis of semi-finals

Team	SOT	SM	SC	UC	C	O	GS1	GS2	GSRT	PS	W/D/L
Turkey	20	18	12	32	7	2	1	2	3	3	1/0/0*
Sweden	4	2	2	10	1	0	0	0	0	0	0/0/1
Poland	13	9	6	9	3	6	2	0	2	1	0/1/0*
Russia	7	3	3	8	5	0	1	1	2	1	0/1/0

SOT – shots on target, SM – shots missed, SC – successful crosses, UC – unsuccessful crosses, C – corners, O – offsides, GS1 – goals scored in the 1st half, GS2 – goals scored in the 2nd half, GSRT – goals scored in regular time, PS – points scored; W/D/L – win/draw/loss
* advanced to the Championship final

Match for the 3rd place (Table 6)

As in other matches with Sweden, Russia dominated the whole game but the winner and bronze medalist of the U21 European Championship was Sweden (62', 90' : 28').

Table 6. Analysis of the match for the 3rd place

Team	SOT	SM	SC	UC	C	O	GS1	GS2	GSRT	Place
Russia	14	13	10	15	9	1	1	0	1	4
Sweden	4	4	5	8	1	0	0	2	2	3

SOT – shots on target, SM – shots missed, SC – successful crosses, UC – unsuccessful crosses, C – corners, O – offsides, GS1 – goals scored in the 1st half, GS2 – goals scored in the 2nd half, GSRT – goals scored in regular time

Final (Table 7)

In the final match, Turkish footballers presented a more offensive playing style than Polish athletes, dominating in shots on target, crosses, and corners. However, the gold medal was won by the Polish team. The times when goals were scored for Turkey: 10', 33'; and for Poland: 21', 47', 80'.

Table 7. Analysis of the final match (Turkey against Poland)

Team	SOT	SM	SC	UC	C	O	GS1	GS2	GSRT	Place
Turkey	11	10	10	11	8	0	2	0	2	2
Poland	5	10	6	12	3	6	1	2	3	1

SOT – shots on target, SM – shots missed, SC – successful crosses, UC – unsuccessful crosses, C – corners, O – offsides, GS1 – goals scored in the 1st half, GS2 – goals scored in the 2nd half, GSRT – goals scored in regular time

Overall, 71 goals were scored during the U21 Championship (including 1 own goal). The analysis concerned 58 goals scored in 16 matches. The mean number of goals per match was 1.81 ± 1.53 . The number of shots during the championship was 440 (24.4/match), including 246 shots on target (13.7/match). At the First Deaf Euro U21, 44.3% of the goals were scored in the 1st half of the match. The number of goals scored in the 1st quarter of all the matches was 11 (15.7%), whereas the number for the 2nd and 3rd quarter of the 1st half was 7 (10%) and 13 (18.6%), respectively. In the second half, these values were: 14 (20%), 9 (12.9%), and 14 (20%) goals, respectively. One goal was scored during the 1st extra time (1.4%) and 1 goal was scored in the 2nd extra time. The shooting efficiency during all the matches was 6.19%. Figure 1 represents the topography of the places from which shots ended in goals. In general, 15.25% of goals were scored from head shots; 15.25% of goals were scored after shooting from outside of the penalty area, 55.17% of goals were scored from outside of the goal area but

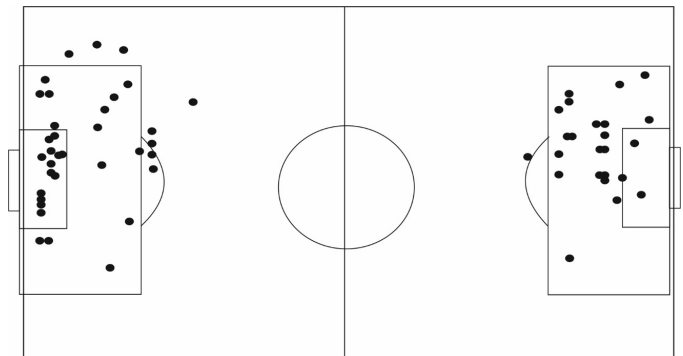


Figure 1. Goal scoring zone during the First U21 European Deaf Football Championship Men, Wroclaw, Poland 2016

from the penalty area, whereas 29.58% were scored from the goal area. The shooting efficiency of the best four teams in the whole championships was: 14.81% for Poland, 14.29% for Turkey, 13.89% for Sweden, and 13.25% for Russia.

Among the four finalists, the highest efficiency of crosses equalled: 34.57% for Poland, 28.00% for Sweden, 26.22% for Turkey, and 23% for Russia.

The first goal impact on the game outcome for the scoring team was as follows: 3 draws (17.6%), 5 losses (29.4%), and 9 wins (52.9%) (one of the matches ended in a goalless draw). The players performed 191 corners (12.7/match). Most of the corners were performed by the teams from Turkey (40, mean: 8.0/match) and Russia (39, mean: 7.8/match), followed by Poland (23, mean: 4.6/match) and Sweden (13, mean: 2.6/match). The ratios of corners to the number of goals were: 52.17% for Poland, 37.5% for Turkey, 38.46% for Sweden, 28.21% for Russia, and they reflected the order of the team ranking. The number of offsides was 78 (5.2/match). Furthermore, the number of fouls committed equalled 450. The athletes were given 31 yellow cards and 4 red cards.

The majority of the goals were scored by: Imamettin Sunmez (TUR) and Aleksander Chemin (RUS) (8 goals each), Jan Paczyński (POL) (5 goals), and Tomasz Sitek (POL) (3 goals). The youngest player in the tournament was David Listvan (CZE), the best goalkeeper – Elias Johansson (SWE), the best defender – Valeriy Makiyevskyy (GER), the best forward – Aleksandr Chemin (RUS), the most valuable player – Jan Paczyński (POL). The Fair Play title was awarded to the Ukrainian players.

Discussion and conclusions

1. The winner of the deaf tournament was the team with the highest shooting efficiency, highest efficiency of crosses, and highest ratio of corners to goals in all matches.

2. The matches played during the Men's Soccer European Championship in Poland and Ukraine (2012) were analysed in order to compare the results with those obtained during the First U21 European Deaf

Football Championship Men, Wrocław, Poland 2016 [3, 8]. In this sporting event, the teams scored 78 goals in 31 matches. The mean number of goals per match was 2.62 ± 1.42 . The number of shots during the championship equalled 822 (26.5/match), including 429 shots on target (13.8/match). In general, 42.1% of goals were scored in the 1st halves of the matches. The majority of the goals were scored in the 1st (19.7%) and 3rd (21.1%) quarters of the 2nd half; 7.9% of goals were scored after shooting from outside of the penalty area, 71% of goals were scored from outside of the goal area but from the penalty area, whereas 21% were scored from the goal area. The shooting efficiency during all the matches was 10.81%. The first goal impact on the game outcome for the scoring team: 5 draws (16.1%), 2 losses (6.5%), 19 nineteen wins (61.3%). Two matches ended with a goalless draw. The players performed 344 corners (11.1/match). The number of offsides was 131 (4.23/match). Furthermore, the number of fouls committed was 893. The players were punished with 123 yellow and 3 red cards.

An identical analysis was performed for the U21 Deaf Men's European Championship (the Czech Republic, 2015) [9, 10], where 37 goals were scored in 15 matches. The mean number of goals per match was 2.47 ± 1.33 . The number of shots during the championship equalled 399 (26.6/match), including 126 shots on target (8.4/match). The shooting efficiency during all the matches was 10.78%. The first goal impact on the game outcome for the scoring team: 5 draws (20%), 2 losses (13.3%), and 19 wins (53.3%). Two matches ended with a goalless draw. The players performed 147 corners (9.8/match). The number of offsides was 59 (3.93/match). Furthermore, the number of fouls committed equalled 406. The players were punished with 49 yellow and 4 red cards.

3. The shooting efficiency of deaf teams was 6.19%, by ca. 4.5% lower than that of the teams competing in the European Championship for hearing people in 2012 and U21 in 2015. In all three championships, the team which scored the goal first had over 50% chance of winning the match. During the analysed championship, the teams performed similar number of corners (around 10/match) and committed ca. 4 offside offences. During the European Championships in 2015, the 4 top teams (SWE, POR, GER, DEN) had the shooting efficiency of: 15.22%, 8.54%, 8.47%, and 9.26%, respectively, with the corners-goals ratio of 58.33%, 23.33%, 26.32%, and 22.73%, respectively. During the European Championships in 2012, the 4 top teams (ESP, ITA, GER, POR) demonstrated the shooting efficiency of 13.04%, 5.55%, 13.33%, and 7.5%, whereas the corners-goals ratio equalled 27.9%, 20.00%, 29.41%, and 14.63%, respectively.

4. The analysis of deaf sport competitions is very difficult owing to:

– poor quality of the video material (difficulties in detailed analysis of passes and places of actions);

– lack of scientific studies and reports in media (the lack of scientific publications reflects the lack of collaboration between the environments of the deaf and the scientific centres);

– lack of basic data about national team members, e.g. dates of birth, body height, body mass, and position on the pitch (only a few international sports federations provide access to these data on the Internet).

5. Only 8 of the 16 teams who were participants of senior European championships in 2015 in Germany were present in the 1st U21 European Men Football Championship. This fact can be caused by costs on the one hand, and lack of junior national teams on the other. The mean age of senior national teams was around 30 years. Therefore, young athletes can start their sports competition at the level of national teams much faster by participation in the U21 European Championships, which justifies their organization.

6. The reports and analyses will allow coaches of national teams to determine the playing styles of teams and athletes, which will contribute to the increase in the quality of playing and efficiency of actions during matches through eliminating ineffective actions.

7. The author's observations in the society of the deaf indicate that the successes of the Polish deaf national U21 team translate into an increased interest in sport among deaf people.

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