

A comparative study of some the offensive and defensive performances for the African teams and the best international teams in the 26Th men's Handball World Championship2019

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Abstract

The aim of the Research is to compare some of the offensive and defensive performances of the African teams participating in the 26Th men's Handball World Championship2019with the best international teams. Description method used is appropriate for the nature of this Research. The sample of the Research has included all the African National Teams (Egypt – Tunisia – Angola) participated in the Handball world championship 2019 in 22 matches. In addition to the International Teams (Denmark – Norway – France) which have achieved the first three positions, and their total matches are 23. This technical analysis used cumulative statistics from the International Handball Federation .The most important results of the Research is that there was a weakness in the basic offensive (Wing shot- 6-M shots- 9-M shots-7-M shots-Fast break-Breakthroughs-Total successful shots) and defense (blocking and steal the ball) skills in the African teams compared to the best three international teams, which had a negative impact on the results of the African teams and their final ranking in the World Handball Championship.

Keywords: Handball, analysis, world Championship, offensive and defensive skills

Introduction:

Team-handball is an Olympic sport ball game that is characterized by fast paced defensive and offensive action during the game with the objective of the game to score goals. To score goals, the offensive players attempt to establish an optimal position for the throwing player by fast movements over short distances performing powerful changes in direction (with and without the ball), one-on-one action against defensive players and passing the ball using different offensive tactics. (14).

The basic element to win is the right use for basic motor skills, and individual capabilities that include bodily, physical skill, tactics and psychological aspects of the players. The untrained player cannot control neither the ball nor his movements. (2) (8)

Handball depends on varied and changing game situations as performance conditions are not stable due to its connection with the opponent's performance and changing court situations. These situations oblige players to use complex motor patterns with the ball that include performing consecutive complex motor skills so, it is important for training to be very similar to game situations. The player should acquire various forms of performance to choose the best form according to actual game situations. This increases the player's ability to feint and

maneuver without being surprised by situations that he\she was not trained on. There are clear differences among the international teams in the quality and quantity of performance skills which provide them with abilities to achieve high levels in world championship. (6).

These skills are the outcome of all the skills that the players learned as they were young and the continuous training made their performance, whether in sequence or in parallel, achieves the objective quickly and with minimal efforts, so the high performance of the modern team handball sports game depends on what the players do during the game. The types of skills are one of these important aspects for handball players, which require players to have well developed basic and specific motor skill abilities. As a result, it was necessary to search for the best ways to improve the performance of skills for the players at a young age. (8) (13)

Match analysis is one of the measures that allows the levels to be measured quantitatively according to a specific standard, this gives a chance for collecting data about the number of players and their levels which help in establishing a comparison between the individual and himself or the individual and his mate which means evaluating the differences between different teams (group differences) it's worthy to note that match analysis is an

educational method for monitoring teams and showing ways of developing them in a scientific way. This helps achieve success and reach the aims of the teams (15).

Performance parameters are, as a rule, collected at major competitions by means of either the existing methods of registration during a match and/or a competition (the International Handball Federation, IHF, or the European Handball Federation, EHF, prescribed parameters, that is, the outcomes of play actions), or in any time after the match or competition by reviewing video recordings. (3)

International events have to be studied on a scientific basis. Match analysis is one of the best ways to measure the players' levels. The handball world championship is a suitable opportunity to know the recent developments of the game; all teams come with their best shape and trainers are very keen to raise their teams' abilities because this event is the best opportunity for both trainers and players to show their abilities physically, skillfully or tactically (10)

Monitoring and observation have extreme importance. They take the shape of video films and match analysis which are based on the methods of analysis, the aim of analysis, case study, number of observed items, data size and type, tools and equipment, number of analyzed individuals and proficiency of analysis conductors (4).

technical exploration is one of the effective methods characterized by modernity in measuring each team effectiveness level and reduces the incidence of registry errors and helps to collect and dump data that is recorded at first hand and calculate the effectiveness automatically to get statistical report (1) ,This goes with the new trends of handball training in the now a days that includes player's individual performance study Whether in defensive or offensive positions, team performance analysis and those of video films in learning and monitoring handball motor skills.

Through the analysis and viewing of many national and international championships and the results of the 25th World Handball Championship held in France 2017, the researcher noted that the African teams could not occupy advanced positions in the final standings of the championship as in the 2001 and 2005 championships. This raises many questions about the performance of the African teams in handball compared to the best international teams. The problem of the study can be determined by the following question: What is the reality of the skilled performance (defensive and offensive) in handball of the African teams compared to the skilled performance of the best international teams? Through the observations of the researcher of the clear decline for the African teams in recent competitions, He rushed to conduct this

study to determine the general level of the African teams compared to the levels of the international teams. In reference to previous studies (5), (6), (7), (10), (1), the researcher defined the search variables (Total shots, Total successful shots, Breakthroughs, Breakthroughs successful, Fast break successful, Fast breaks, technical faults, Steal, Blocked, , 6M shots, 6M successful shots, Wing shots, Wing successful shots, 9M shots, 9M successful shots, 7M shots, 7M successful shots) . The researcher chose these variables for their importance and because they have an important role in the match results.

Research objectives: The aim of this research is to identify the differences between the African teams and the teams that have won the first to third positions in the 26th World Handball Championship

Research queries:

1. What is the correlation between the level of offensive technical faults and the overall ranking between the African teams and the international teams?
2. What is the Blocked and Steals rates between the African teams and the international teams?
3. What is the Percentage value for variables between the African teams and the international teams?

The study Constraints:

1. The study was restricted to analyze performance of African teams compared to that of international teams in the 2019 handball world championship.
2. The study was restricted to the following offensive skills (Technical faults rat, shots from different corners, Fast break, Breakthroughs) .
3. The study was restricted to Defensive skill (Blocked, Steals).

Research Methodology:

The researcher used the scanning descriptive approach due to its relevance to research nature.

Research community:

Research community was matches of World Cup Men's Handball Championship, Germany/ Denmark, 2019, which was held in the period from Jan 10th to Jan 27th 2019.

Research sample:

Research sample included (23) matches – selected intentionally- for winning teams with first three ranks in men's world handball championship in Germany/ Denmark, 2019 which are (Denmark – Norway – France) plus African Team's (Egypt – Tunisia – Angola) matches; (22) matches noting that there were common matches for teams in sample.

Table 1. Sample matches

No	Match	Round	No	Match	Round	No	Match	Round	NO	Match	Round
1	EGY-SWE	PR	13	ANG-SWE	PR	25	FRA-GER	PR	37	FRA-ISL	MR
2	EGY-QAT	PR	14	ANG-ARG	PR	26	FRA-RUS	PR	38	FRA-CRO	MR
3	EGY-ARG	PR	15	DEN-CHI	PR	27	EGY-NOR	MR	39	ANG-KSA	CL21-24
4	EGY-HUN	PR	16	DEN-KSA	PR	28	EGY-DEN	MR	40	ANG-JPN	CL23-24
5	EGY-ANG	PR	17	DEN-AUT	PR	29	EGY-TUN	MR	41	EGY-ESP	CL7-8
6	TUN-NOR	PR	18	DEN-NOR	PR	30	TUN-SWE	MR	42	NRO-GER	SF
7	TUN-DEN	PR	19	NOR-KSA	PR	31	TUN-HUN	MR	43	DEN-FRA	SF
8	TUN-CHI	PR	20	NOR-AUT	PR	32	DEN-HUN	MR	44	DEN-NOR	F
9	TUN-KSA	PR	21	NOR-CHI	PR	33	DEN-SWE	MR	45	FRA-GER	F
10	TUN-AUT	PR	22	FRA-BRA	PR	34	NOR-HUN	MR			
11	ANG-QAT	PR	23	FRA-SRB	PR	35	NOR-SWE	MR			
12	ANG-HUN	PR	24	FRA-COR	PR	36	FRA-ESP	MR			

Data collection tools:

All data were collecting from the official website <https://competition.ihf.info> 2019.

Results and discussion:

Table 2. The correlation between the level of offensive technical faults in handball and the overall ranking between the African teams and the international teams

Country	MP	Ranking	Average	Technical faults rat	Average	Coefficient of correlation
Egypt	9	8		9.78	11.68	0.99*
Tunisia	8	12	14.33	11.13		
Angola	7	23		14.14		
Denmark	10	1		5.5	7.7	.93
Norway	10	2	2	8.5		
France	10	3		9.1		

*The mean difference is significant at the 0.05 level

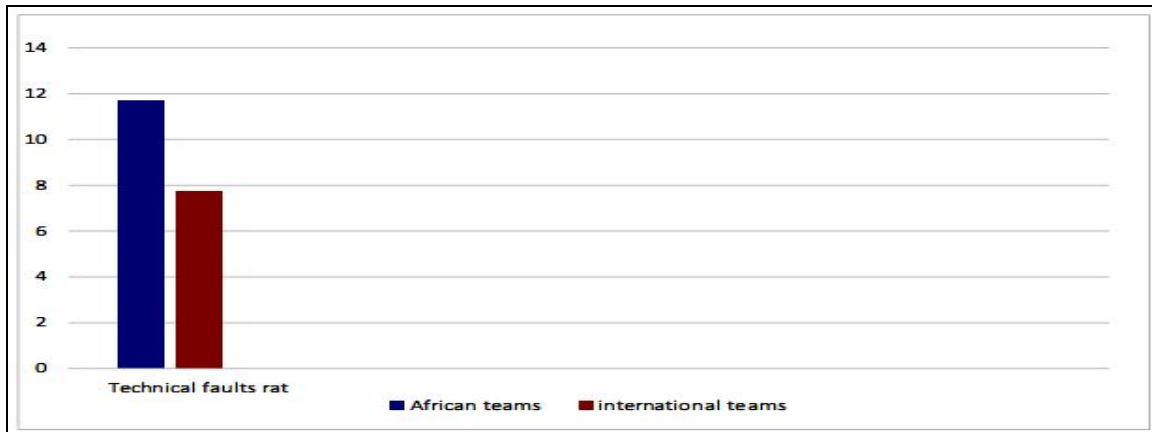


Figure 1. Technical faults rat between the African teams and the international teams

The results showed that there was a clear weakness in the African teams compared to the international teams where the rate of offensive technical faults in the African teams was higher than in the international teams: the rate of technical faults of the African teams was 11.68 and for the international teams was 7.7. It's clear that there was a clear link between the rate of offensive technical faults and the final ranking of the African teams: the correlation coefficient between the faults

rate and the overall ranking was 0.99 and the correlation coefficient between offensive faults and general ranking of international teams was 0.93. The results of the Egyptian team in this field were close to the international levels. It is known that the loss of the ball easily during the attack or during the fast break allows the opposing team to record easy and fast goals. these results is consistent with results of Mansi, T. (2007) (10)

Table 3. The Defensive skills in handball (Blocked and Steals rates) between the African teams and the international teams

Variable	African teams				International teams			
	Egypt	Tunisia	Angola	Total	Denmark	Norway	France	Total
MP	9	8	7	24	10	10	10	30
Blocked	14	18	27	59	31	21	25	77
Rate of blocked	1.56	2.25	3.86	2.56	3.1	2.1	2.5	2.57
Steals	29	31	21	81	39	48	39	126
Rate of steals	3.22	3.88	3	3.37	3.9	4.8	3.9	4.2

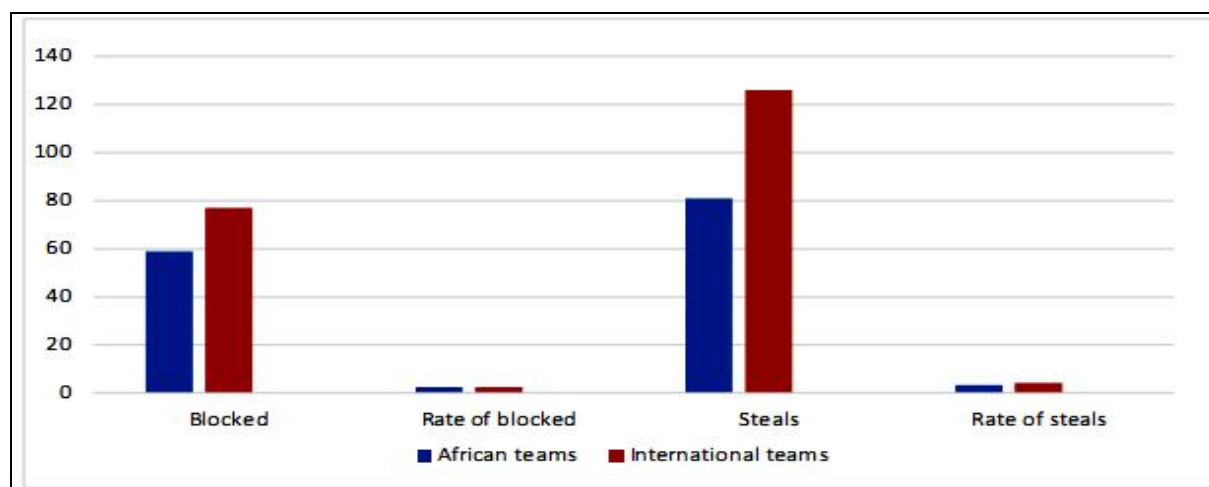


Figure 2. The Blocked and Steals rates between the African teams and the international teams

The results show that the international teams are good at repelling skill compared to the African teams, because the players of the international teams are higher than the players of the African teams and because of the reliance of some African teams on advanced defense, which does not give this skill necessary importance except the Angolan team because the Angolan players are very

high and they rely on defense formation 6-0. The international teams have also excelled in the skill on steal of the ball in comparison with the results of the African teams. This is due to the individual defense level development of the international teams, where these skills are concerned in early training stages. these results is consistent with results of Mansi, T. (2007) (10)

Table 4. Values of variables in handball (Goals – Saves – Missed – Post – Blocked - Total shots) analysis between the African teams and the international teams

Variable	African teams				International teams			
	Egypt	Tunisia	Angola	Total	Denmark	Norway	France	Total
MP	9	8	7	24	10	10	10	30
Goals	241	205	182	628	317	325	278	920
Saves	89	113	82	284	86	86	108	280
Missed	23	19	26	68	25	25	28	78
Post	28	20	14	62	26	24	20	70
Blocked	26	9	17	52	13	15	11	39
Total shots	407	366	321	1094	467	475	445	1387

Table 5. Percentage values for variables (Wing shot- 6-M shots- 9-M shots-7-M shots-Fast break-Breakthroughs) between the African teams and the international team

Variable	African teams				International teams			
	Egypt	Tunisia	Angola	Total	Denmark	Norway	France	Total
MP	9	8	7	24	10	10	10	30
	%	%	%	%	%	%	%	%
Wing shots	10.57	9.291	7.48	9.11	16.92	16.42	13.93	15.76
Wing shot successful	6.63	6.01	3.43	5.36	11.78	12.84	8.54	11.05
6-M shots	25.80	25.41	24.30	25.17	20.56	19.16	24.72	21.48
6-M shots successful	16.71	16.39	15.89	16.33	13.92	13.47	16.85	14.75
9-M shots	38.57	32.51	38.94	36.67	32.33	32.21	33.26	32.60
9-M shots successful	15.48	13.11	16.20	14.93	17.56	15.58	14.38	15.84
7-M shots	7.86	6.83	8.72	7.80	6.85	7.16	7.19	7.07
7-M shots successful	6.14	4.37	6.54	5.68	5.57	5.68	6.07	5.77
Fast break	9.09	12.02	14.64	11.92	10.71	17.26	10.56	12.84
Fast break successful	7.62	7.92	9.97	8.50	9.42	14.74	7.42	10.53
Breakthroughs	8.11	13.93	5.92	9.32	12.63	7.79	10.34	10.25
Breakthroughs successful	6.63	8.20	4.67	6.50	9.64	6.11	9.21	8.32
Total successful shots	59.21	56.00	56.70	57.30	67.89	68.42	62.47	66.26

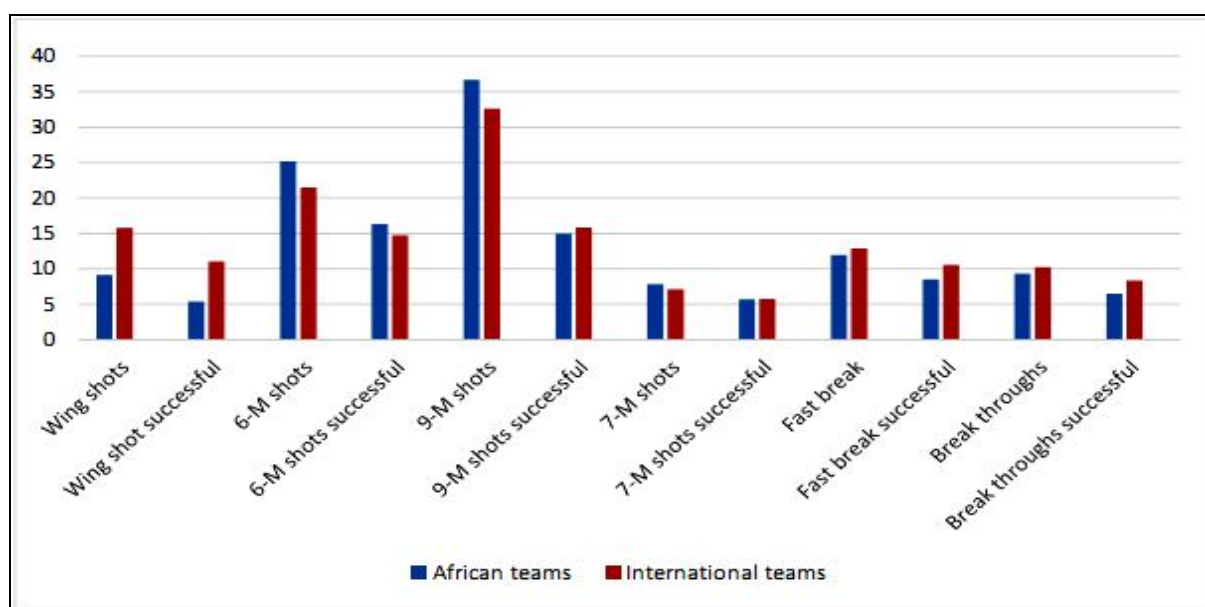


Figure 3. Percentage values for variables (Wing shot- 6-M shots- 9-M shots-7-M shots-Fast break-Breakthroughs) between the African teams and the international teams

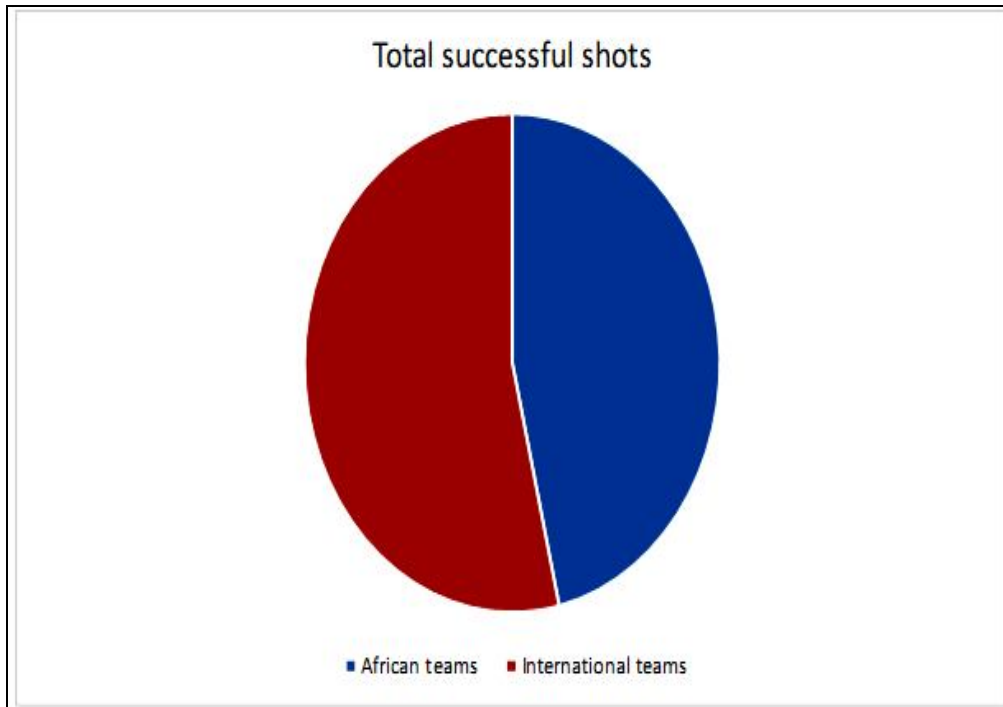


Figure 4. Percentage values for successful total shots between the African teams and the international teams

This technical analysis used cumulative statistics from the International Handball Federation revealed significant differences between the African teams and the international teams.

Wing shots: African teams showed a marked weakness compared to global levels. The African players' recording rate has dropped by 9.11% compared to the international teams which reached 15.76%. The Egyptian team was the best one in Africa by 10.57%, while Denmark's team was the best one in the international teams by 16.92%.

Wing shot successful: The success rate of Wing shots of the African teams was 5.36%, and the international teams were 11.05%. The Egyptian team achieved

the highest success rate for the African teams which was 6.63% and the Norwegian team was 12.84% which was the highest success rate. The results indicated a weak level of training on the wing position in the African teams.

6-M shots: The African teams surpassed the international teams in the 6-M shots where the percentage of the African teams' shots was 25.17% and the international teams was 21.48%, Egypt achieved the highest percentage shot by 25.8% and France achieved a rate of 24.72%.

6-M shots successful: The success rate of the 6-M shots for the African teams was 16.33% and for the international teams was 14.75%. Thus, the African teams

surpassed the international teams. The Egyptian team achieved the highest success rate for the African teams; 16.71% and the French team achieved 16.85% which was the highest success rate of the 6-M shots in the championship.

9-M shots: The African teams surpassed the international teams in the 9-M shots, where the percentage of the African teams' shots was 36.67% and the international teams was 32.60%. Angola achieved the highest shot rate; 38.94% and France achieved 33.26%.

9-M shots successful: The success rate from the 9-M shots for the African teams was 14.93% and for the international teams was 15.84%. Thus the international teams surpassed the African teams. The Angolan team achieved the highest success rate for the African teams; 16.20% and Denmark rate was 17.56% which was the highest success rate of the 9-M shots in the championship.

7-M shots: The African teams surpassed the international teams in the 7-M shots. The African teams achieved 7.80% and the international teams 7.07%. Angola achieved the highest shot rate; 8.72%. France achieved 7.19%.

7-M shots successful: The success rate of the 7-M shots for the African teams was 5.68%, and for the international teams was 5.77%. Thus, the international teams surpassed the African teams. The Angolan

team achieved the highest success rate for the African teams; 6.54% The French team achieved the highest success rate for the international teams, which was 6.07%.

Fast break: The international teams surpassed the African teams in the Fast break, where the percentage of the African teams' shots was 11.92% and the international teams 12.84%. Norway achieved the highest shot rate; 17.26%. Angola achieved 14.64%, the highest percentage for African teams.

Fast break successful: The fast break successful rate for the African teams was 8.50% and for the international teams was 10.53%. Thus, the international teams surpassed the African teams. The Angolan team achieved the highest success rate for the African teams; 9.97%. The Norwegian team achieved the highest success rate in the championship which was 14.74%.

Breakthroughs: The international teams surpassed the African teams in the Break through, where the percentage of the African teams' shots was 9.32% and the international teams 10.25%. Tunisia achieved the highest shot rate; 13.93% and Denmark achieved 12.63%, the highest percentage for the international teams.

Breakthroughs successful: The break through successful rate for the African teams was 6.50% and for the international teams was 8.32%. Thus, the international teams

surpassed the African teams. The Tunisian team achieved the highest success rate for the African teams; 8.20% Denmark team achieved the highest success rate in the championship which was 9.64%.

Total successful shots: The results showed the superiority of the international teams on Africa in the total number of shots. The total successful shots of the African teams reached 1094 and the international teams scored 1387 successful shots. The success rate for the African teams was 57.30% and for the international teams 66.26%. The Egyptian team achieved the highest success rate for the African teams; 59.21% and Norway team achieved 68.42%, the highest percentage for the international teams.

From the previous presentation, the superiority of the international teams to the African teams is evident in some offensive and defensive variables. these results is consistent with results of Mansi, T. (2007) (10), Igor Gruic Dinko Valita and Dragan Milanovic (2006) (12) , Hassan, A. (2013) (6) , Ahmed Mohamed ElKot (2015) (1) , Mohamed Gamale (2017) (11)

The researcher explains the superiority of international teams in the shots to speed factor, Because the more you prepare to shoot the goal quickly the higher the percentage of goals scored. The high level in the speed component when preparing for shots and during the shots for

international teams . As for the fast break, the researcher believes that the superiority of the international teams is due to the high rate of saves in the goalkeepers and the skill of steals the ball for the players, the researcher sees that there is superiority to the teams that have the ability to acquire the ball in all the previous methods in the speed of the shift from defense to the offensive attack and became a method of playing for some teams.

Conclusions:

1. There was a weakness in the basic offensive skills in the African teams compared to the best three international teams, which had a negative impact on the results of the African teams and their final ranking in the World Handball Championship.
2. There was a weakness in the defense skills (blocking and steal the ball) in the African teams compared to the best three international teams.
3. There was a weakness in the total percentage of scoring goals from all the attempts of shots from different offensive positions in the African teams compared to the best three international teams.
4. There was a weakness in the scoring goals percentage of the (wing - and 9 - 7 m - Fast break - Break through) in the African teams compared to the best three international teams.

5. There was an advantage in the scoring goals of the 6-M shots in the African teams compared to the best three international teams.

Recommendations:

According to the previous results, the researcher recommends the following:

1. African National Teams should focus on developing the Offensive variables (Wing shot- 9-M shots-7-M Shots-Fast Break-Breakthroughs) and Defensive variables (Blocked and Steals rates) to ensure best results and better performance
2. International Teams should focus on developing the Offensive variables (6-M shots) to ensure best results and better performance.
3. The necessity to put effective training programs for training on the shots from different offensive positions.

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دراسة مقارنة لبعض الاداءات الهجومية والدفاعية للمنتخبات الأفريقية وأفضل الفرق الدولية في بطولة العالم السادسة والعشرين لكرة اليد للرجال ٢٠٠٩

د/ رفعت عبد اللطيف مصطفى

مدرس - كلية التربية الرياضية

جامعة أسوان

ملخص البحث :

يهدف البحث الى مقارنة بعض الاداءات المهارية الهجومية والدفاعية للمنتخبات الافريقية فى بطولة العالم السادسة والعشرون للرجال ٢٠١٩ مع أفضل المنتخبات العالمية، استخدم الباحث المنهج المسحي واشتملت عينة البحث المنتخبات الافريقية (مصر - تونس - انجولا) والمنتخبات العالمية (الدانمارك - النرويج - فرنسا) وتم الاعتماد على تحليلات الاتحاد الدولي لكرة اليد، وكانت من اهم النتائج تفوق المنتخبات العالمية على المنتخبات الافريقية فى المهارات الهجومية (التصويب من مركز الجناح، التصويب من على خط الـ ٦ أمتار، التصويب من على خط الـ ٩ أمتار، التصويب من على خط الـ ٧ أمتار) وكذلك الهجوم الخاطف والاختراق، كما أظهرت النتائج وجود فروق بين المنتخبات الأفريقية والعالمية فى مهارة القطع ومهارة حائط الصد لصالح المنتخبات العالمية.