

Beach Volleyball

Men and Women Comparative Study - 2015



2015

Beach Volleyball

Picture of the Game



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COORDINATED BY

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Statistic study Sampling

(Sampling: 12 Women Beach Volleyball matches – The Netherlands Beach WCHs 2015)

Team A	Team B	Res	Set 1	Set 2	Set 3	Time
Wang/Yue CHN	vs Menegatti/Orsi Toth ITA	1-2	21-16	14-21	12-15	55:50
van Gestel/van der Vlist NED	vs Holtwick/Semmler GER	0-2	17-21	21-23	-	40:26
Meppelink/Van Iersel NED	vs Bawden/Clancy AUS	1-2	22-24	21-16	12-15	65:31
Lima/Fernanda BRA	vs Liliana/Baquerizo ESP	2-0	21-17	21-19	-	42:48
Ross/Walsh USA	vs Wang/Yue CHN	1-2	19-21	21-17	13-15	57:51
Antonelli/Juliana BRA	vs Larissa/Talita BRA	2-1	19-21	21-18	15-13	65:45
Bawden/Clancy AUS	vs Lima/Fernanda BRA	1-2	21-15	16-21	16-18	57:46
Wang/Yue CHN	vs Barbara/Agatha BRA	0-2	18-21	21-23	-	47:29
Bansley/Pavan CAN	vs Antonelli/Juliana BRA	0-2	23-25	18-21	-	50:06
Barbara/Agatha BRA	vs Antonelli/Juliana BRA	2-0	24-22	21-19	-	52:15
Holtwick/Semmler GER	vs Antonelli/Juliana BRA	1-2	25-23	18-21	9-15	64:49
Lima/Fernanda BRA	vs Barbara/Agatha BRA	0-2	18-21	20-22	-	46:11

(Sampling: 12 Men Beach Volleyball matches – The Netherlands Beach WCHs 2015)

Team A	Team B	Res	Set 1	Set 2	Set 3	Time
Gibb/Patterson USA	vs Marco/García ESP	2-1	18-21	22-20	15-10	59:54
Nicolai/Lupo ITA	vs Brouwer/Meeuwssen NED	0-2	20-22	18-21	-	45:13
Krou/Rowlandson FRA	vs Goldschmidt/Williams RSA	2-0	21-18	21-16	-	38:28
Nummerdor/Varenhorst NED	vs Semenov/Krasilnikov RUS	2-1	21-17	22-24	15-12	62:31
Álvaro Filho/Vitor Felipe BRA	vs Virgen/Ontiveros MEX	2-1	21-19	19-21	20-18	68:58
Gonzalez/Nivaldo CUB	vs Pedro Solberg/Evandro BRA	1-2	19-21	21-19	11-15	57:39
Nummerdor/Varenhorst NED	vs Hyden/Bourne USA	2-0	23-21	23-21	-	46:51
Lucena/Brunner USA	vs Jefferson/Cherif QAT	2-0	21-19	21-19	-	43:49
Nummerdor/Varenhorst NED	vs Pedro Solberg/Evandro BRA	2-1	21-18	21-23	15-12	55:54
Alison/Bruno Schmidt BRA	vs Lucena/Brunner USA	2-0	21-17	21-15	-	39:19
Pedro Solberg/Evandro BRA	vs Lucena/Brunner USA	2-0	22-20	21-13	-	39:55
Nummerdor/Varenhorst NED	vs Alison/Bruno Schmidt BRA	1-2	21-12	14-21	20-22	58:49

Study Questions

- 🤖 How is the game and what defines it?
- 🤖 What actions are used and in which situations?
- 🤖 What are the durations of the various moments of the game?
- 🤖 Which gender best incorporates the slogan "keep the ball flying"?
- 🤖 What distinguishes the women's from men's game?
- 🤖 How can we make the game more spectacular?

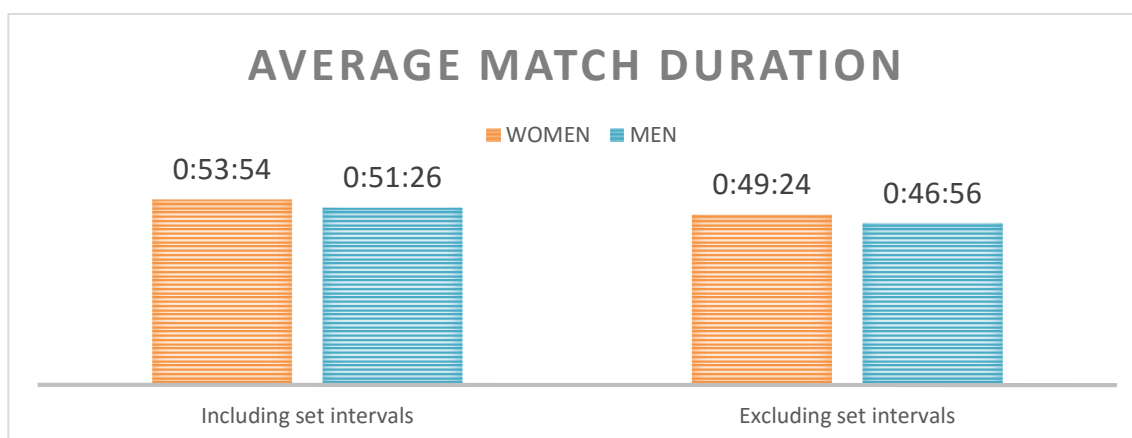
Complementary Notes

- 🤖 The ranking average of the teams observed is 10.8 for the Women and 27.4 for the Men, with 8 out of the 13 women teams and 5 out of the 16 men teams being among the respective top 10;
- 🤖 The average match duration for the total 103 Women matches played in the World Championships has been 42 min 28 sec (41 min 12 sec excluding the set intervals) while for the total 104 Men matches the average has been 43 min 48 sec (42 min 29 sec excluding the set intervals).

Duration Statistics

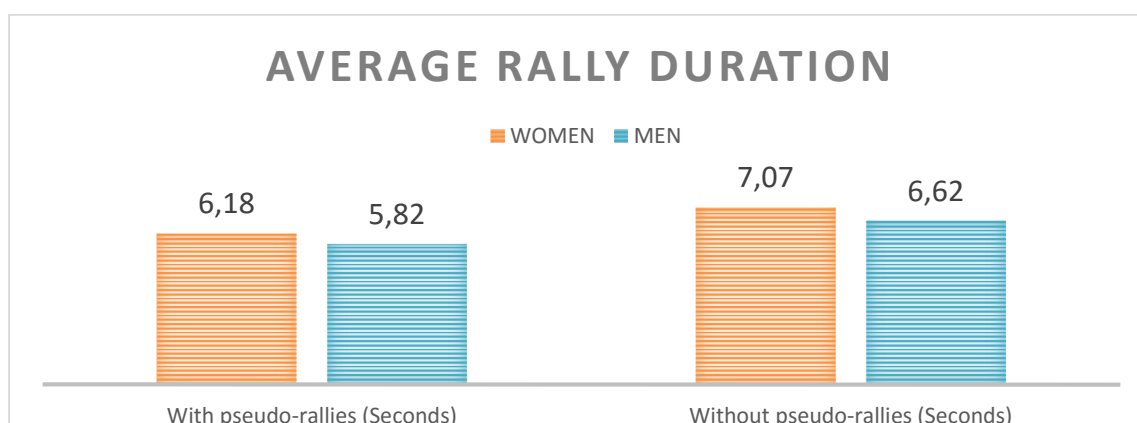
Match Duration

Match Duration	Women	Men
Average match duration including set intervals (h:m:s)	00:53:54	00:51:26
Average match duration excluding set intervals (h:m:s)	00:49:24	00:46:56



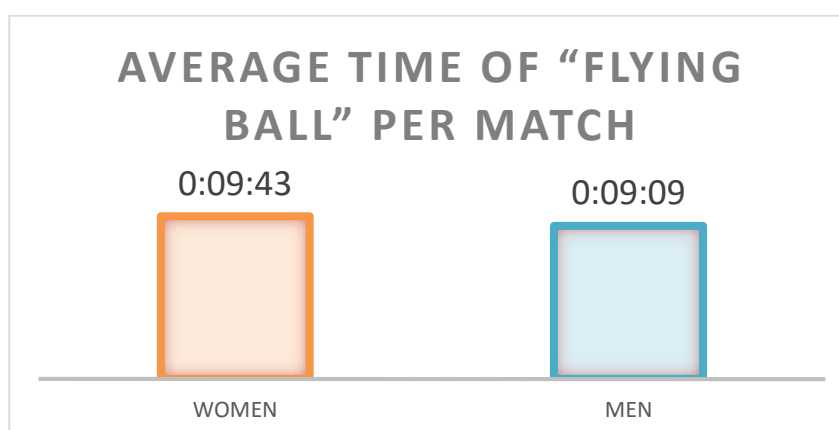
Rally Duration

Rally Duration	Women	Men
Average rally duration with pseudo-rallies	6,18 sec.	5,82 sec.
Average rally duration without pseudo-rallies	7,07 sec.	6,62 sec.
Longest Rally	39 sec.	25 sec.

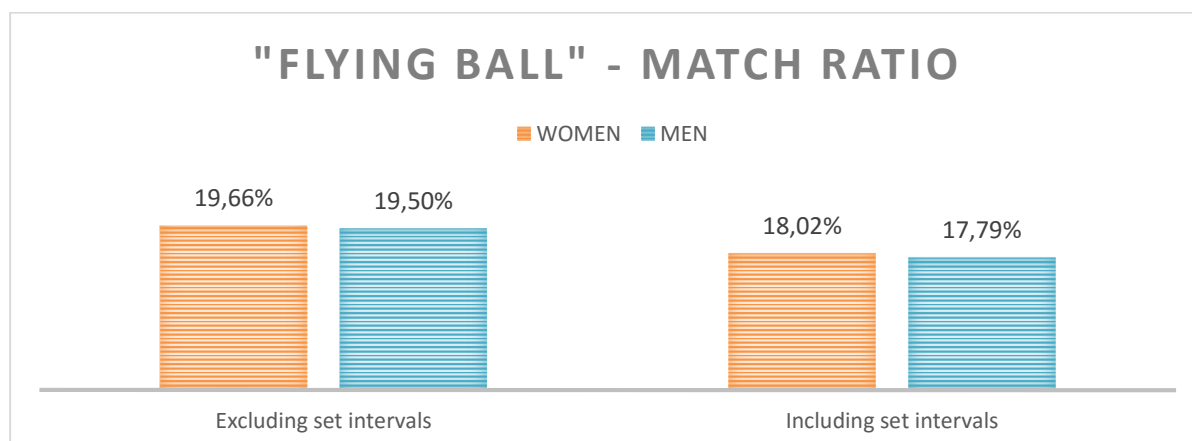


Flying Ball

"Flying Ball"	Women	Men
Average time of "Flying Ball" per match (h:m:s)	00:09:43	00:09:09

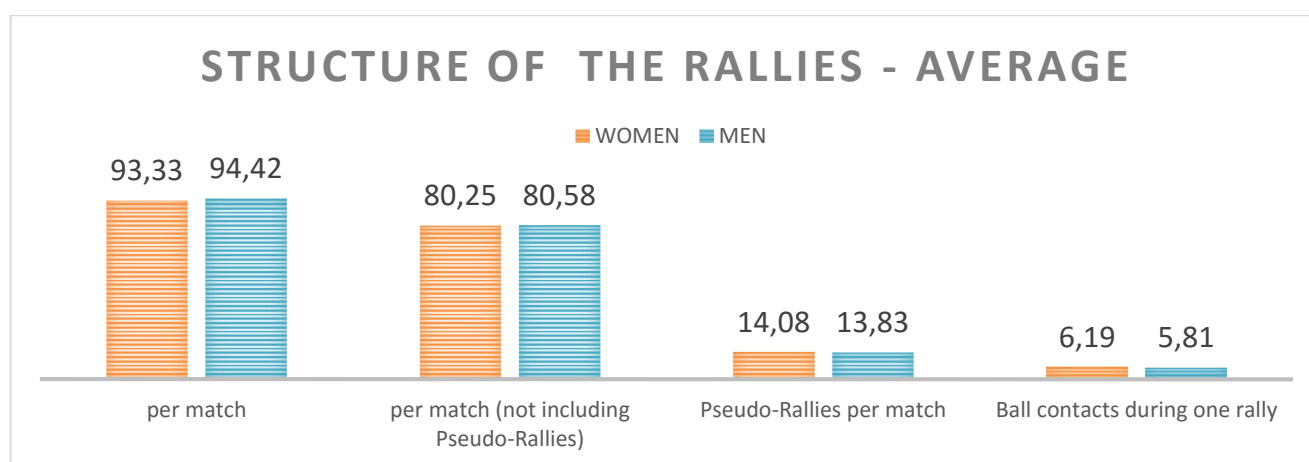


"Flying Ball" - Percentage of "Flying ball" per match	Women	Men
Excluding set intervals	19,66%	19,50%
Including set intervals	18,02%	17,79%

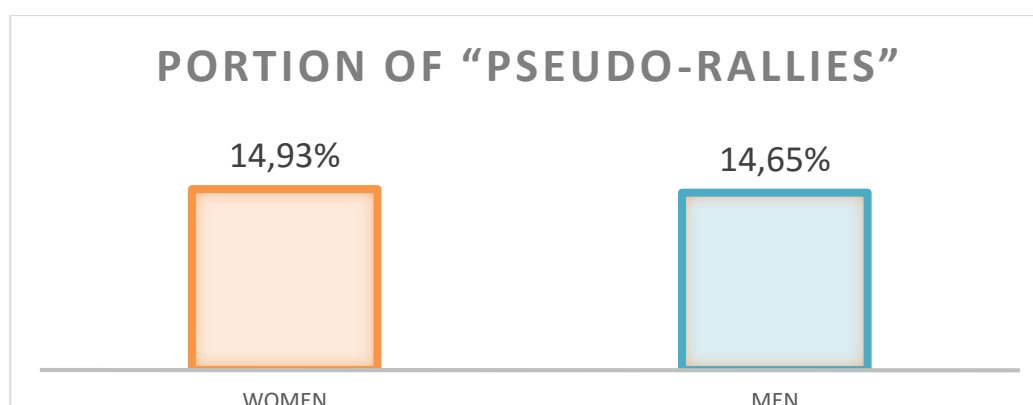


Structure of the Rallies

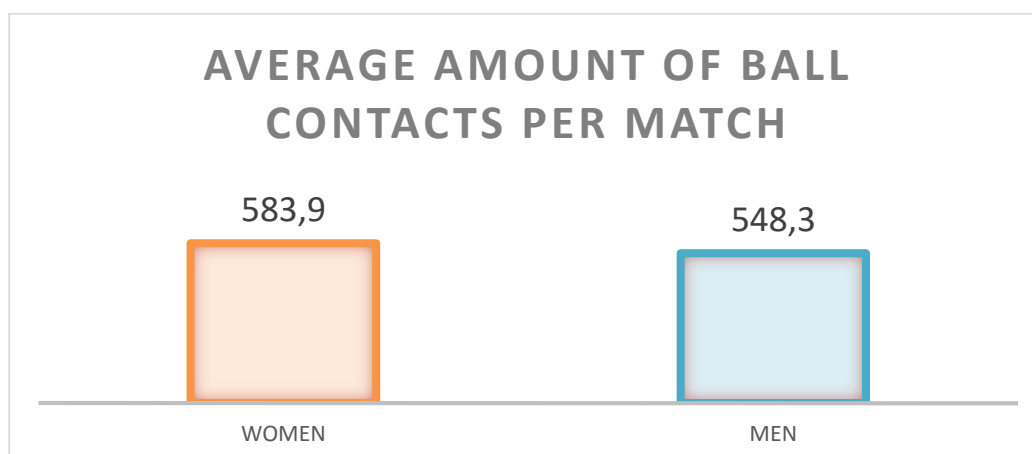
Structure of the Rallies	Women	Men
Average number of Rallies per match	93,33	94,42
Average number of Rallies per match (not including Pseudo-Rallies)	80,25	80,58
Average number of Pseudo-Rallies per match	14,08	13,83
Average amount of ball contacts during one rally	6,19	5,81



Structure of the Rallies	Women	Men
Portion of "pseudo-rallies"	14,93%	14,65%

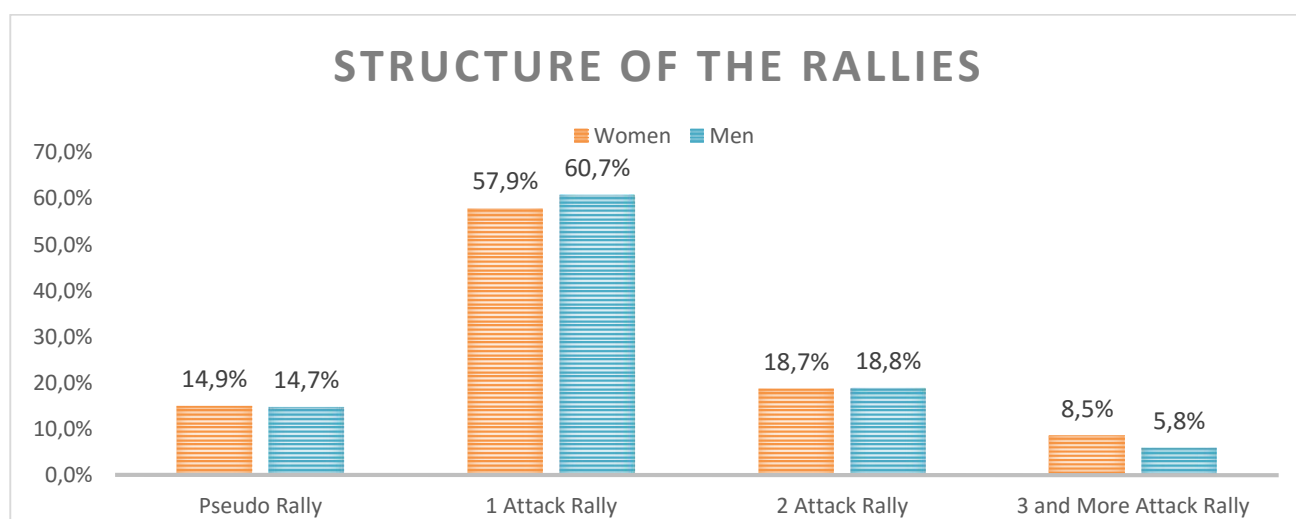
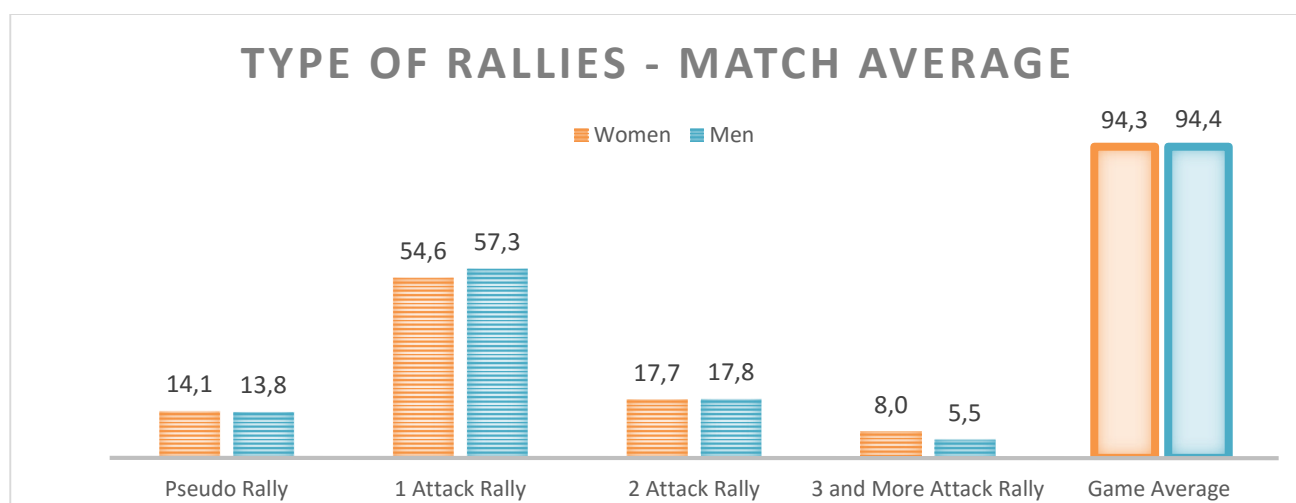


Structure of the Rallies	Women	Men
Average amount of ball contacts per match	583,9	548,3



Type of Rallies

TYPE OF RALLIES – Match Average	Women	Men
Pseudo Rally	14,1	13,8
1 Attack Rally	54,6	57,3
2 Attack Rally	17,7	17,8
3 and more Attack Rally	8,0	5,5



Conclusions

The above information indicates:

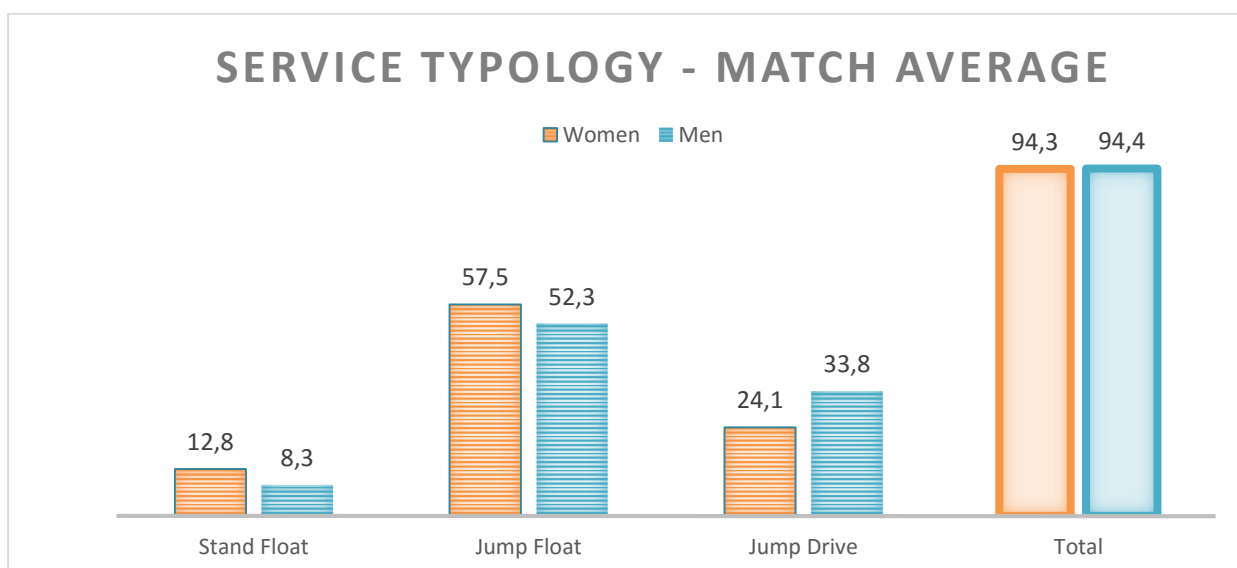
- 🏐 The Women's game:
 - 🏐 Has longer rallies;
 - 🏐 Has an average of more contacts per rally;
 - 🏐 Has more "flying ball" time;
 - 🏐 Has a higher percentage of rallies with 3 or more exchanges than the male's
- 🏐 The Men's game:
 - 🏐 It has more rallies per game, although they are shorter;
 - 🏐 It has a high percentage of rallies which end at the first attack.

Specific Game Actions Analyses

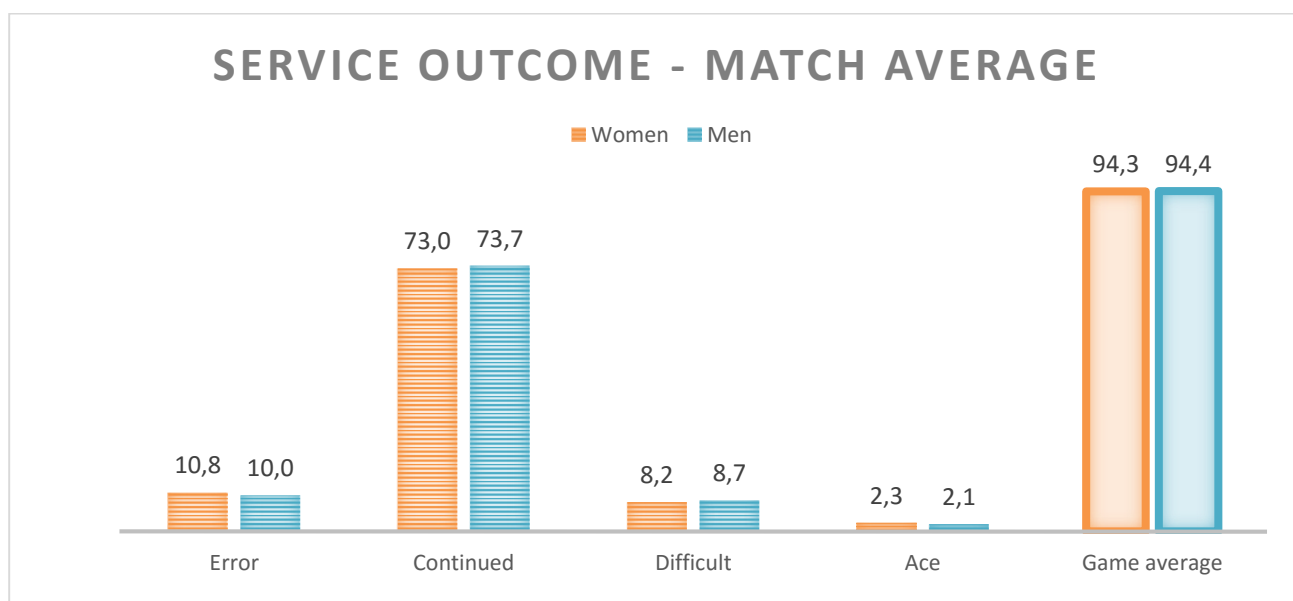
Service Analyses

Averages

SERVICE TYPOLOGY – Match Average	Women	Men
Stand Float	12,8	8,3
Jump Float	57,5	52,3
Jump Drive	24,1	33,8
Total	94,3	94,4

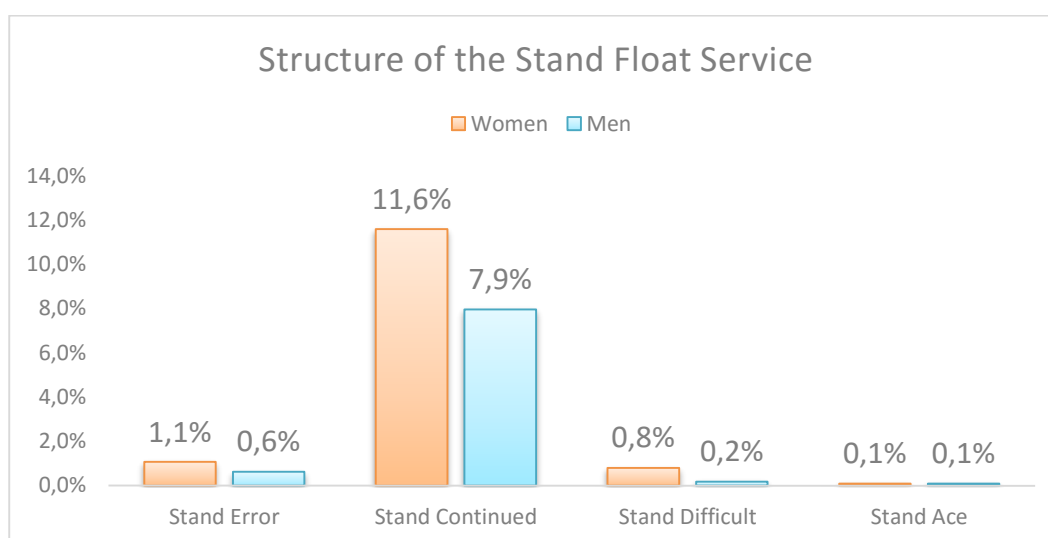
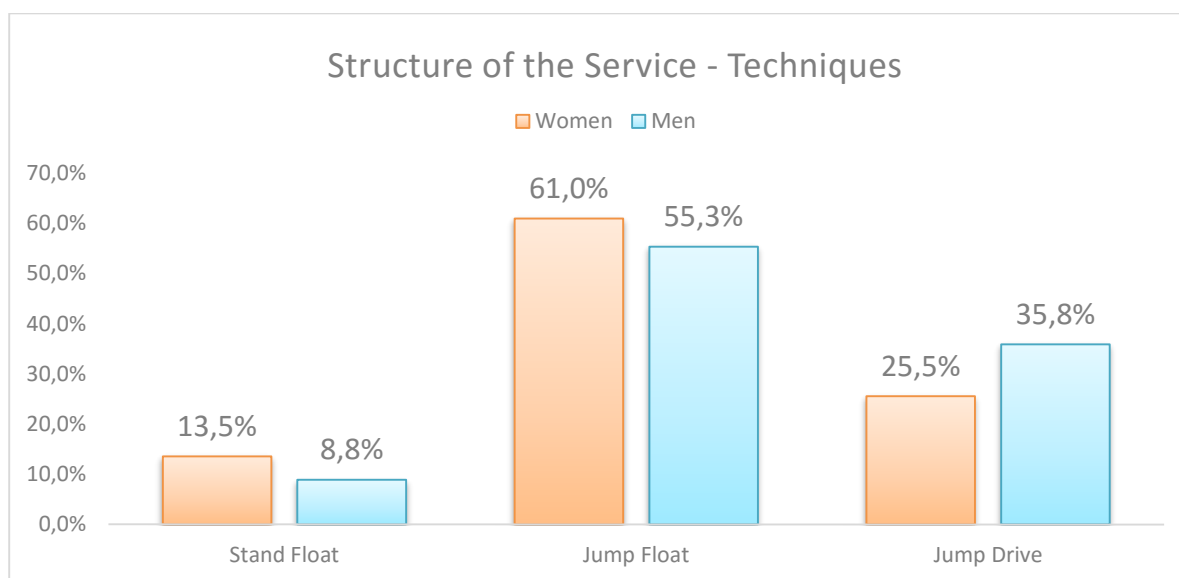


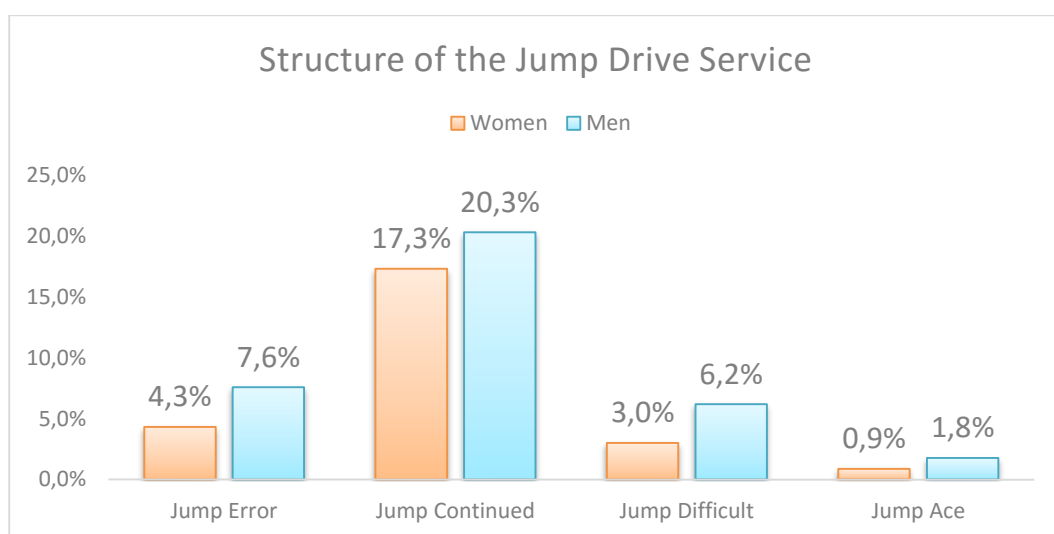
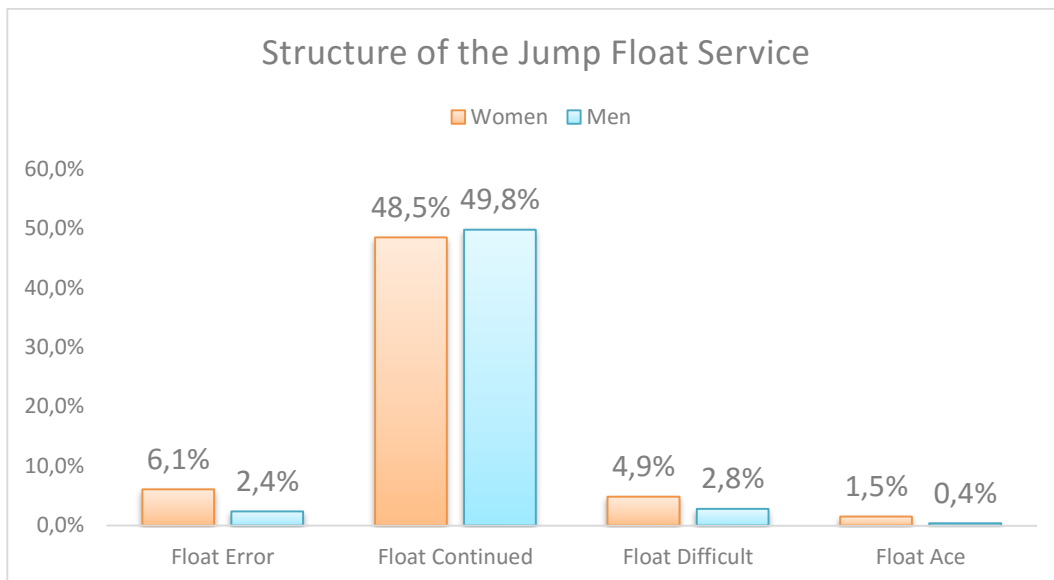
SERVICE OUTCOME – Match Average	Women	Men
Service Error	10,8	10,0
Service Continued	73,0	73,7
Service Difficult	8,2	8,7
Service Ace	2,3	2,1
Total (Game Average)	94,3	94,4



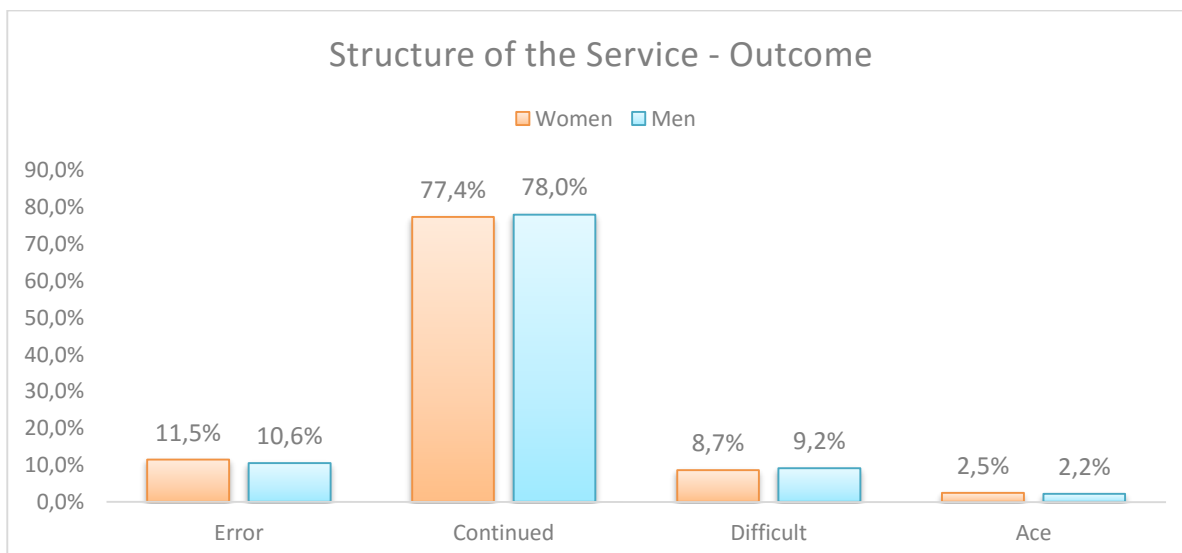
SERVICE TECHNIQUES STRUCTURE

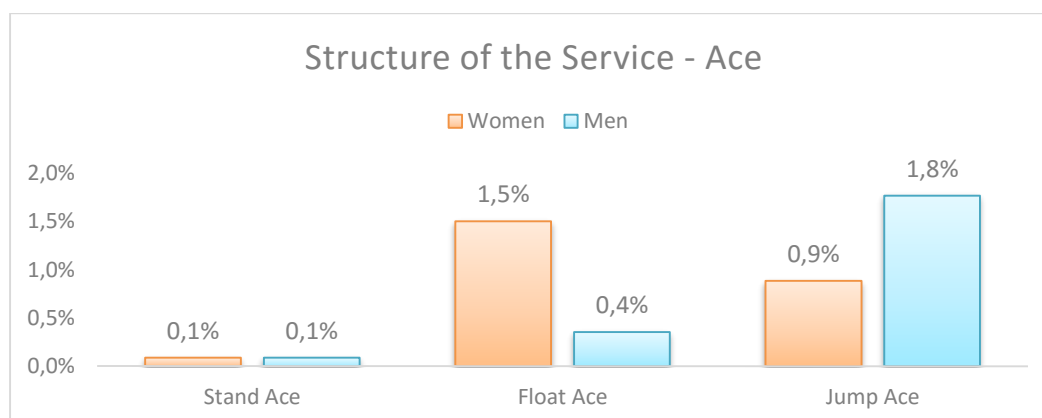
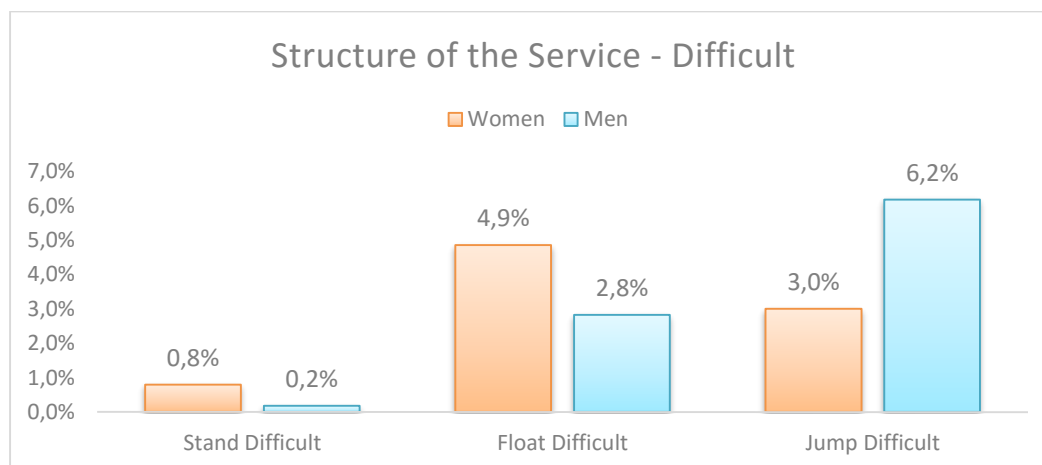
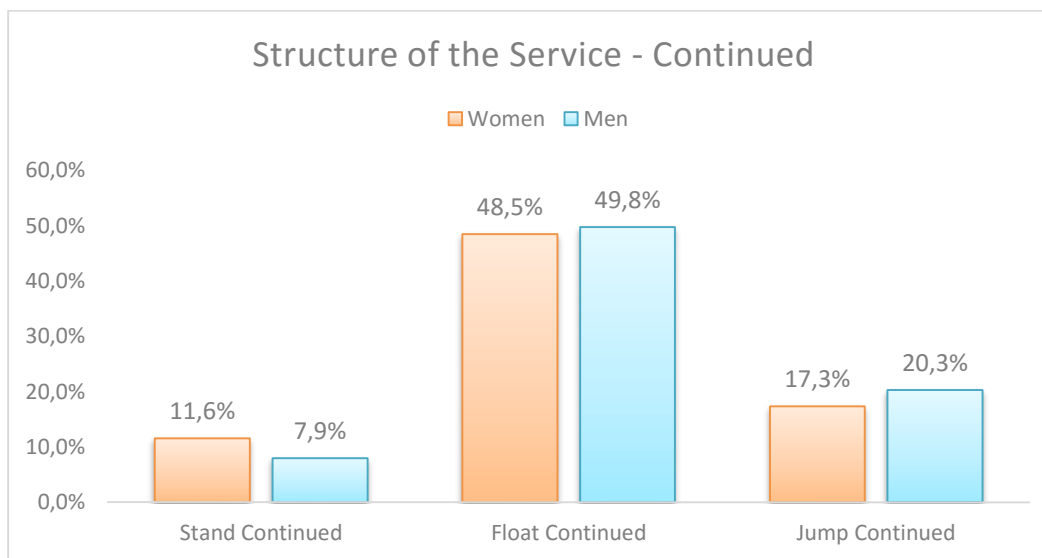
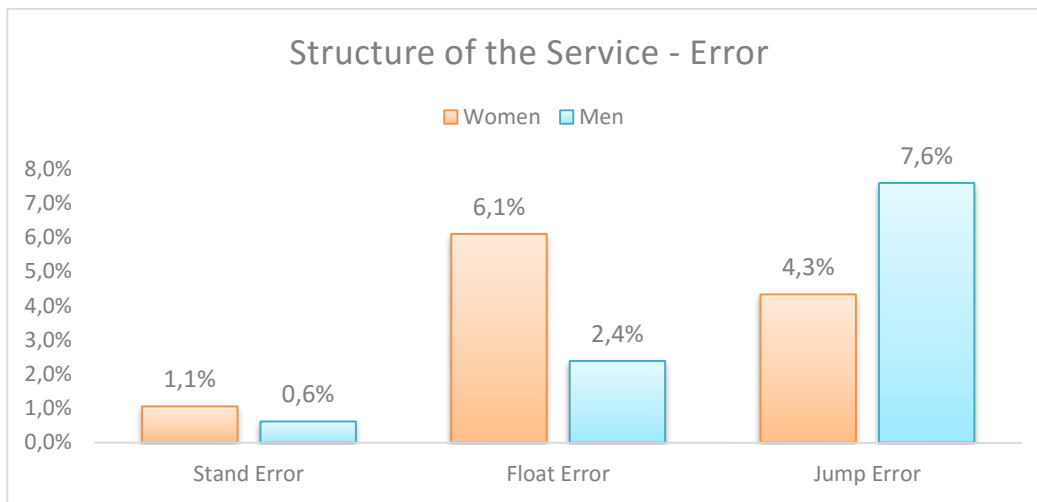
TYOLOGY	OUTCOME	Women		Men	
Stand Float	Error	1,1 %	13,5 %	0,6 %	8,8 %
	Continued	11,6 %		7,9%	
	Difficult	0,8 %		0,2 %	
	Ace	0,1 %		0,1 %	
Jump Float	Error	6,1%	61,0 %	2,4%	55,3 %
	Continued	48,5%		49,8%	
	Difficult	4,9%		2,8%	
	Ace	1,5%		0,4%	
Jump Drive	Error	4,3%	25,5 %	7,6%	35,8 %
	Continued	17,3%		20,3%	
	Difficult	3,0%		6,2%	
	Ace	0,9%		1,8%	





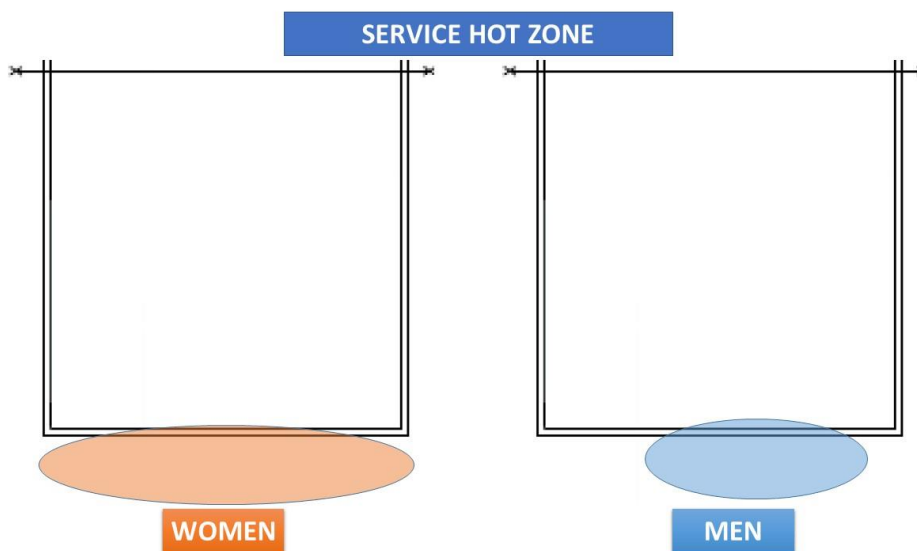
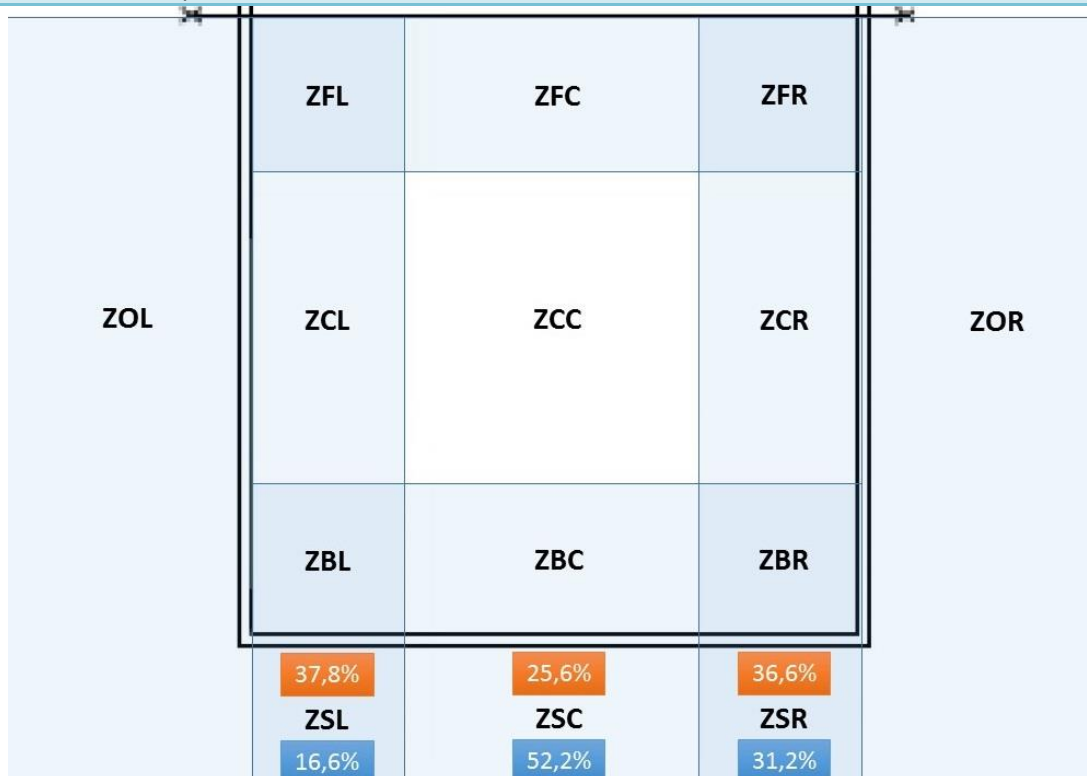
SERVICE OUTCOME STRUCTURE	Women	Men
Error	11,5%	10,6%
Continued	77,4%	78,0%
Difficult	8,7%	9,2%
Ace	2,5%	2,2%





Action Zones

SERVICE ACTION ZONES	Women	Men
ZSL (Left Service Zone)	37,8 %	16,6 %
ZSC (Center Back Zone)	25,6 %	52,2 %
ZSR (Right Service Zone)	36,6 %	31,2 %



Conclusions

Regarding the Service we note:

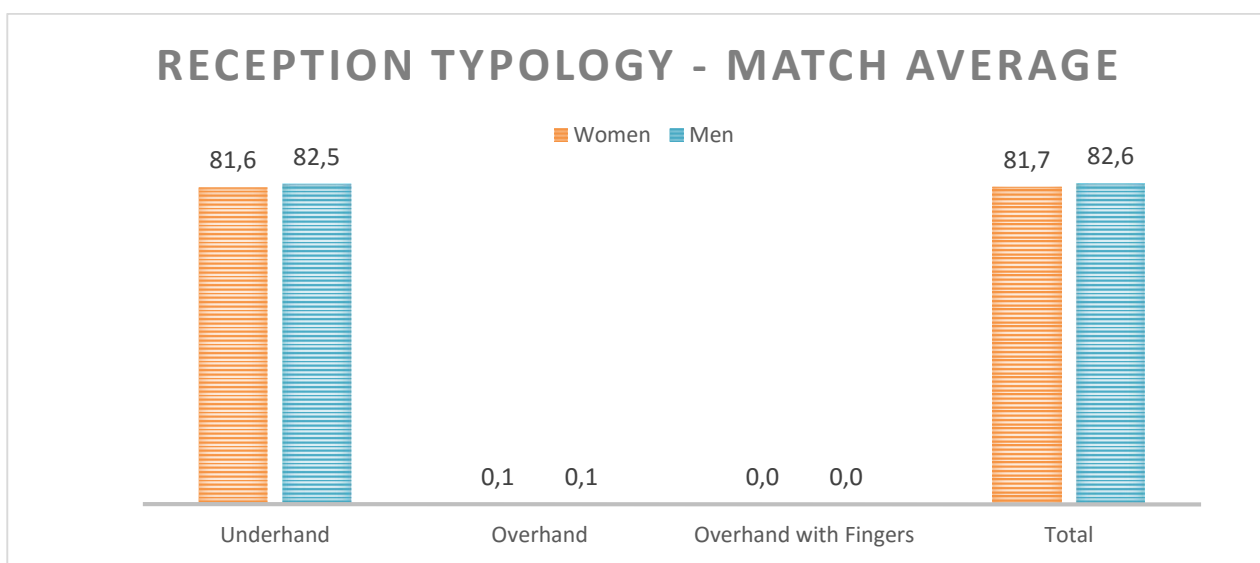
- 🏐 In both genders half of the service actions, are:
 - 🏐 Float Continued
- 🏐 Differences between Men and Women:
 - 🏐 In the female's game the Stand Service and the Jump Float are used more often than in the male's;
 - 🏐 In the male's game the Jump Drive Service is used more than in the female's;

- 🏐 The data indicates that in the Men's game there is more risk in the service than in the Women's;
- 🏐 The data indicates that women vary their service position over the entire service zone, while the men tend to use more the center of the service zone.

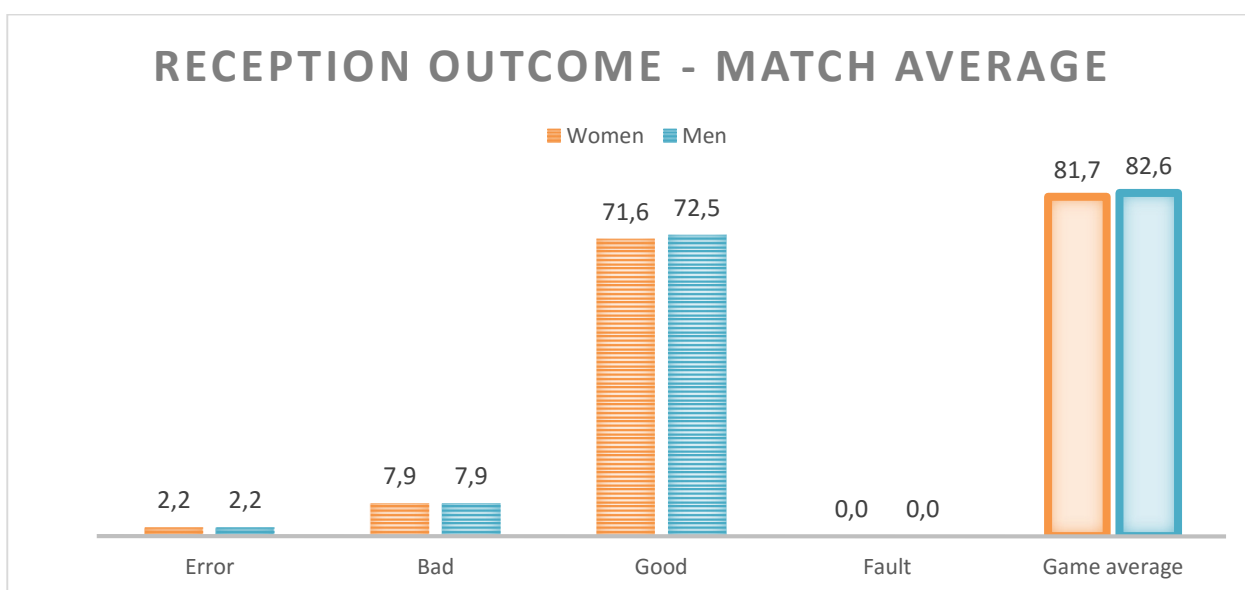
Reception Analyses

Averages

RECEPTION TYPOLOGY – Match Average	Women	Men
Underhand	81,6	82,5
Overhand	0,1	0,1
Overhand with Fingers	0,0	0,0
Total	81,7	82,6



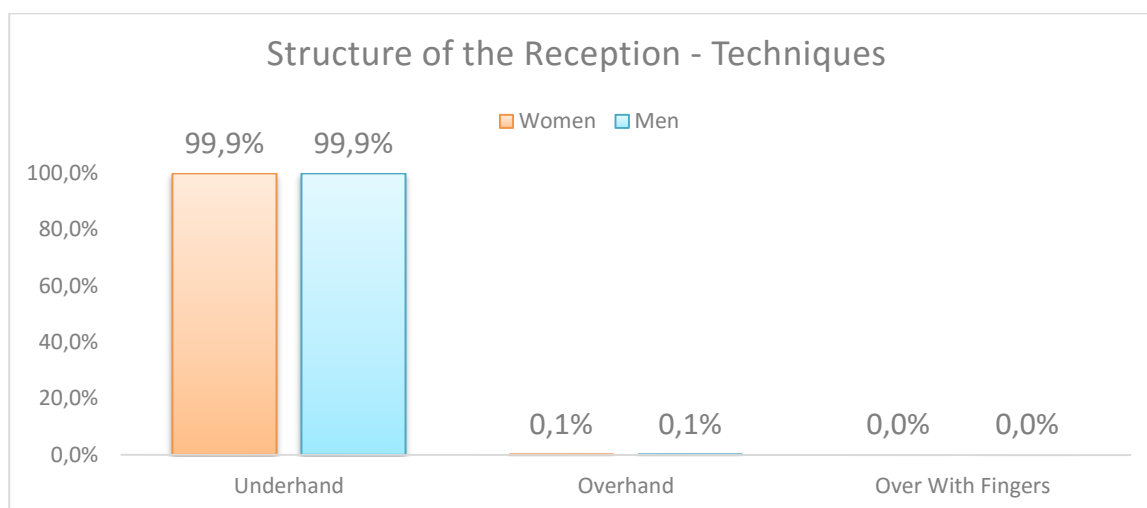
RECEPTION OUTCOME – Match Average	Women	Men
Error	2,2	2,2
Bad	7,9	7,9
Good	71,6	72,5
Fault	0,0	0,0
Total (Game Average)	81,7	82,6



Structure

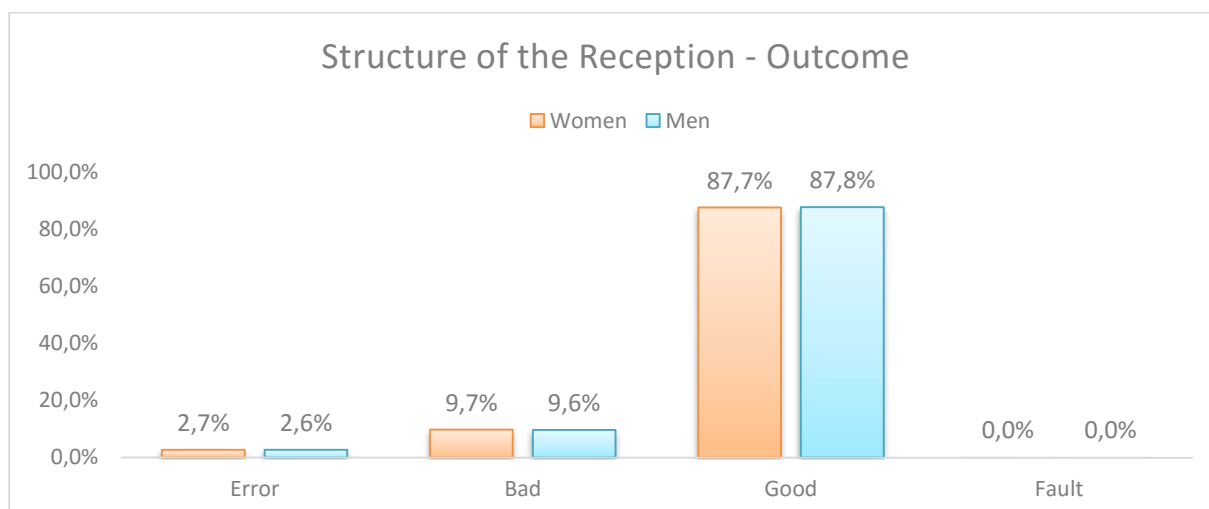
RECEPTION TECHNIQUES STRUCTURE

TYOLOGY	OUTCOME	Women		Men	
Underhand	Error	2,7%	99,9 %	2,6%	99,9 %
	Bad	9,7%		9,5%	
	Good	87,6%		87,8%	
	Fault	0,0%		0,0%	
Overhand	Error	0,0%	0,1 %	0,0%	0,1 %
	Bad	0,0%		0,1%	
	Good	0,1%		0,0%	
	Fault	0,0%		0,0%	
Overhand with Fingers	Error	0,0%	0,0 %	0,0%	0,0 %
	Bad	0,0%		0,0%	
	Good	0,0%		0,0%	
	Fault	0,0%		0,0%	



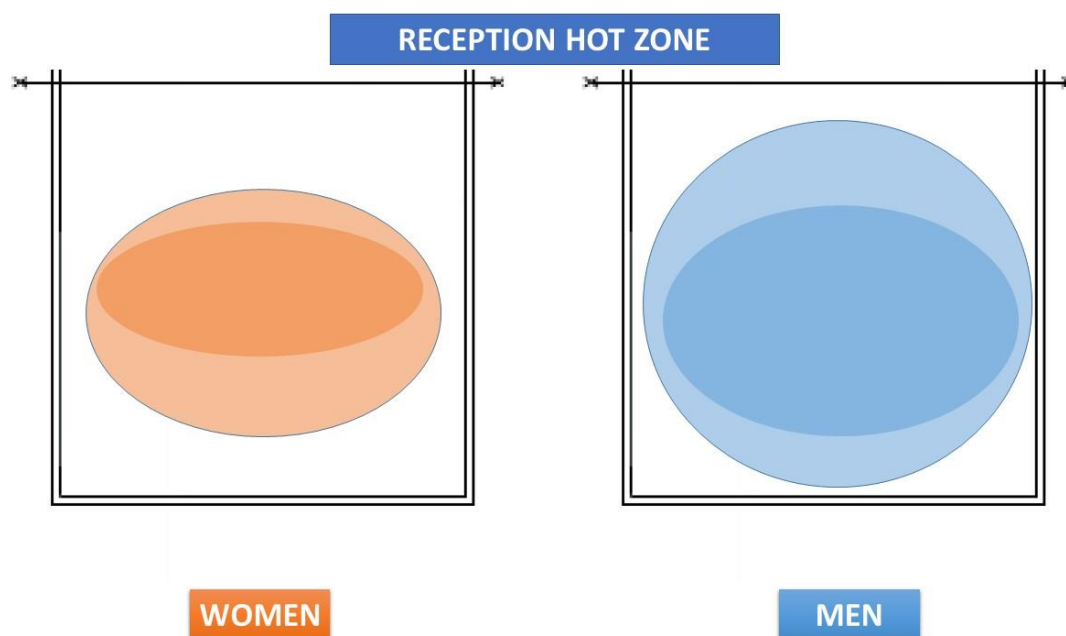
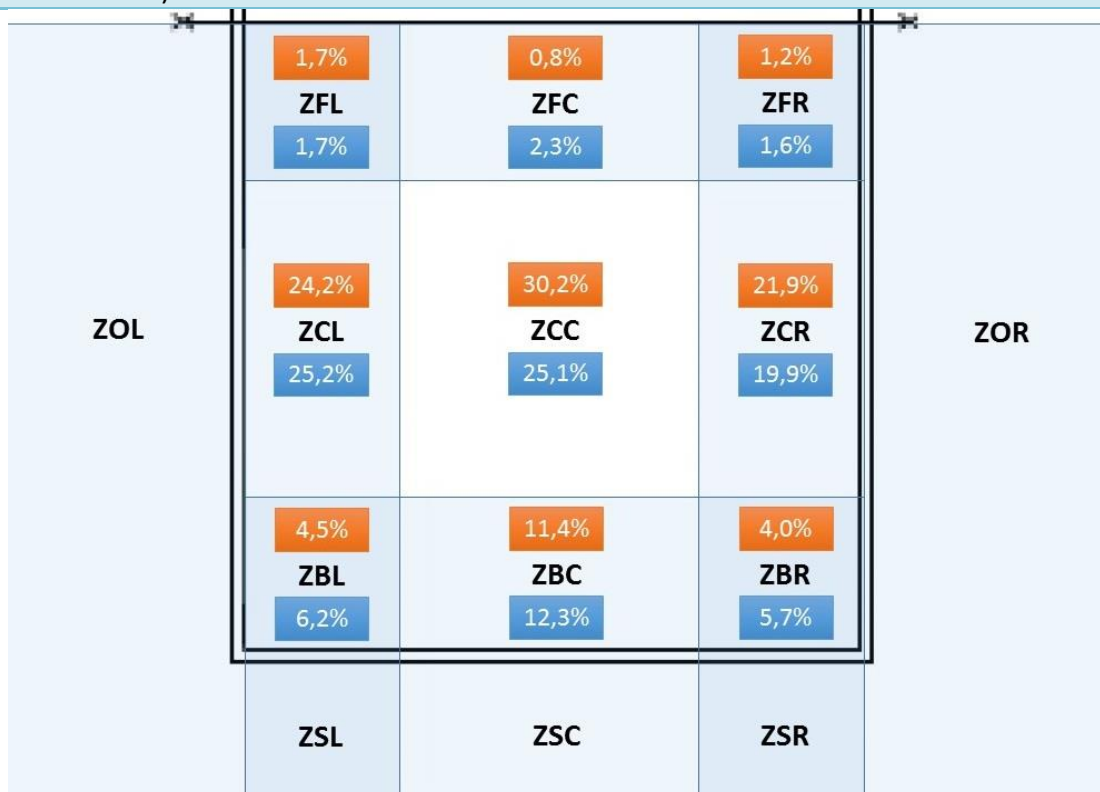
RECEPTION OUTCOME STRUCTURE

	Women	Men
Error	2,7 %	2,6 %
Bad	9,7 %	9,6 %
Good	87,7 %	87,8 %
Fault	0,0 %	0,0 %



Action Zones

RECEPTION ACTION ZONES		Women	Men
ZFL (Left Front Zone)		1,7 %	1,7 %
ZFC (Center Front Zone)		0,8 %	2,3 %
ZFR (Right Front Zone)		1,2 %	1,6 %
ZCL (Left Center Zone)		24,2 %	25,2 %
ZCC (Center Center Zone)		30,2 %	25,1 %
ZCR (Right Center Zone)		21,9 %	19,9 %
ZBL (Left Back Zone)		4,5 %	6,2 %
ZBC (Center Back Zone)		11,4 %	12,3 %
ZBR (Right Back Zone)		4,0 %	5,7 %



Conclusions

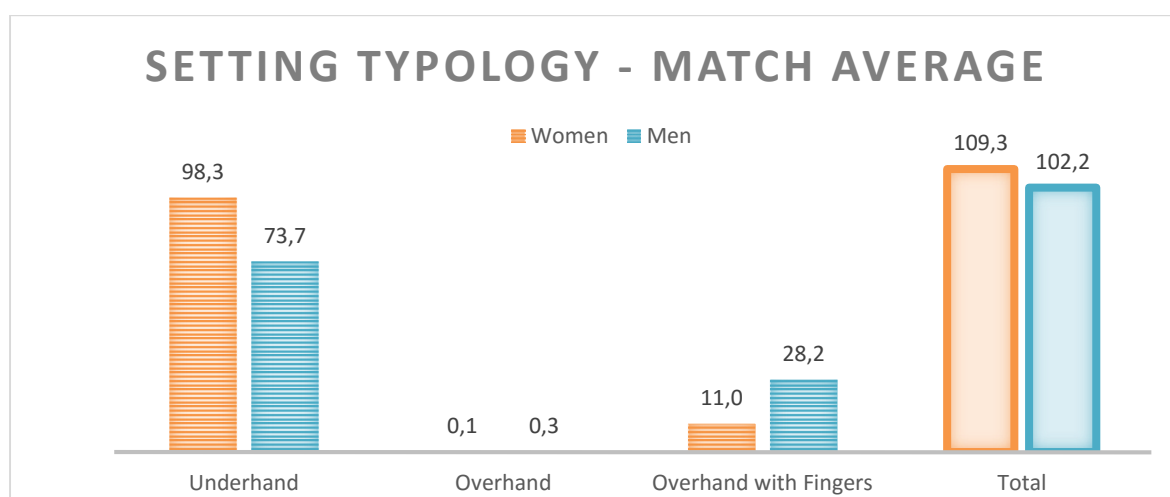
Regarding the Reception we note:

- Both genders have very similar values with Underhand reception being almost exclusively and successfully used.
- The data indicates that the Men's game has more dispersed reception actions in the field of play, which is a consequence of the service targeting a more varied range of court areas.

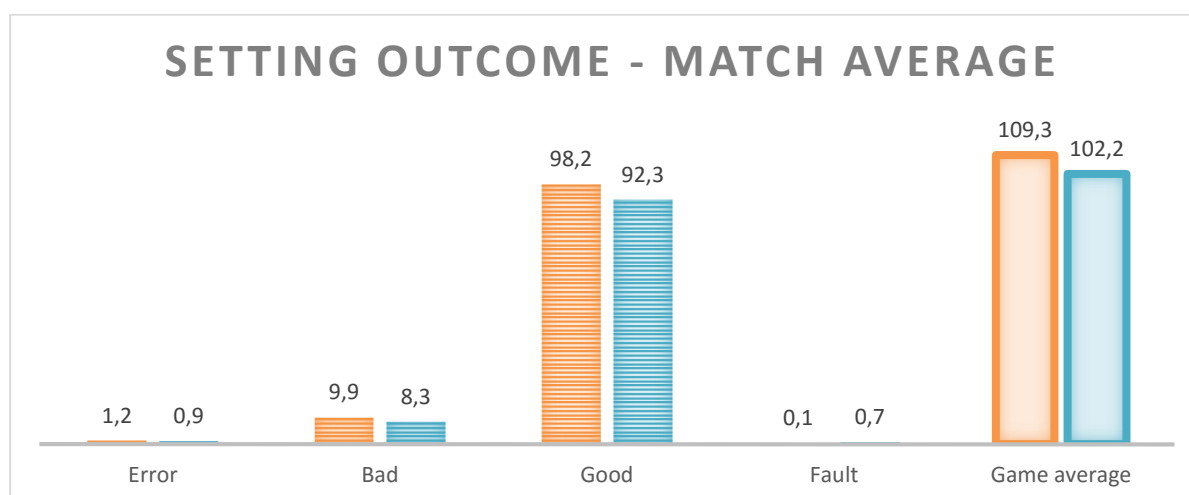
Setting Analyses

Averages

SETTING TYPOLOGY – Match Average	Women	Men
Underhand	98,3	73,7
Overhand (no Fingers)	0,1	0,3
Overhand with Fingers	11,0	28,2
Total	109,3	102,2

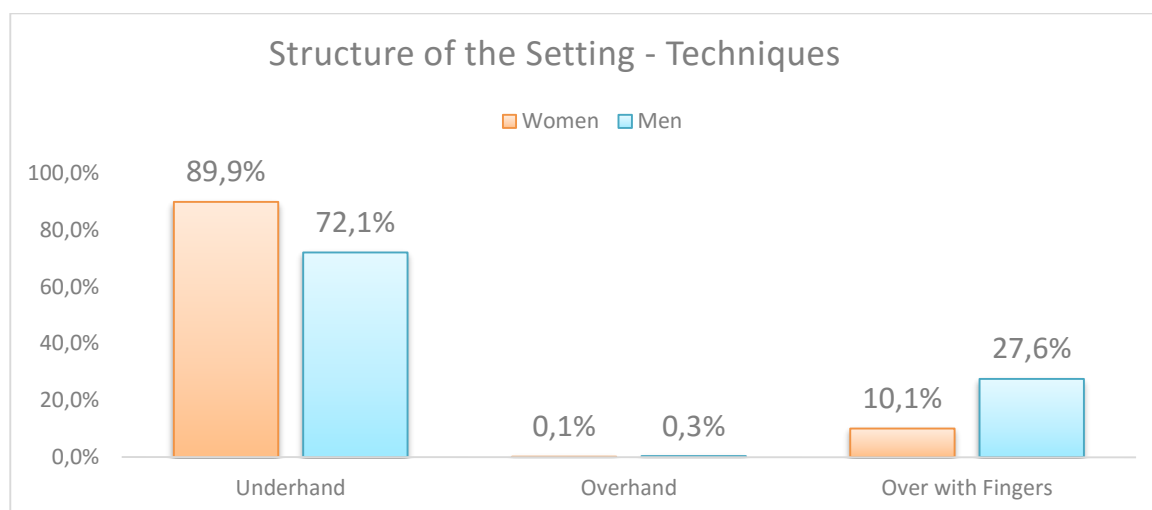


SETTING OUTCOME – Match Average	Women	Men
Error	1,2	0,9
Bad	9,9	8,3
Good	98,2	92,3
Fault	0,1	0,7
Total (Game Average)	109,3	102,2

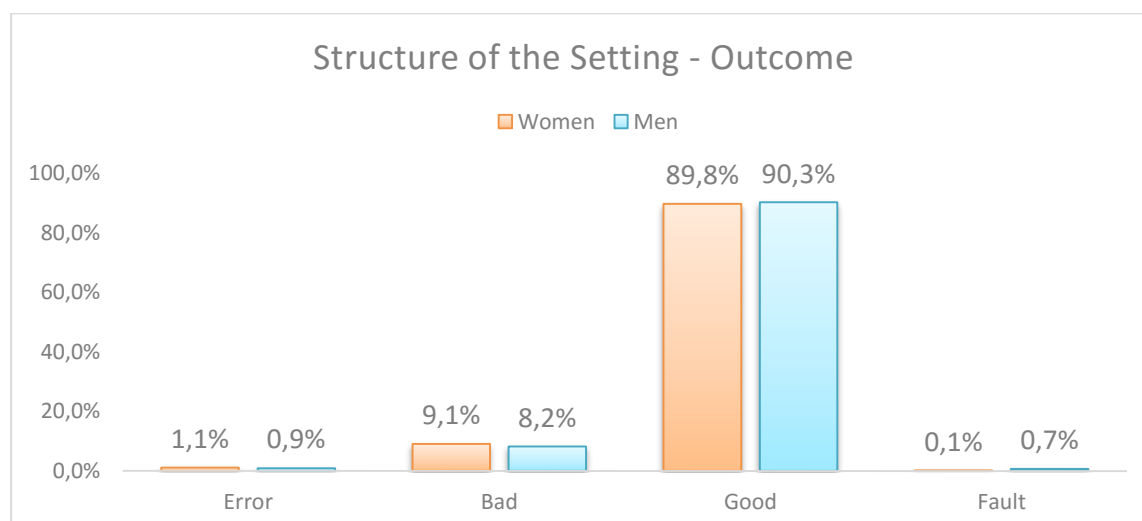


SETTING TECHNIQUES STRUCTURE

TYOLOGY	OUTCOME	Women		Men	
Underhand	Error	1,1%	89,9 %	0,9%	72,1 %
	Bad	8,8%		7,5%	
	Good	80,0%		63,5%	
	Fault	0,0%		0,2%	
Overhand (no Fingers)	Error	0,0%	0,1 %	0,0%	0,3 %
	Bad	0,1%		0,2%	
	Good	0,0%		0,2%	
	Fault	0,0%		0,0%	
Over with Fingers	Error	0,0%	10,1 %	0,0%	27,6 %
	Bad	0,2%		0,5%	
	Good	9,8%		26,7%	
	Fault	0,1%		0,4%	

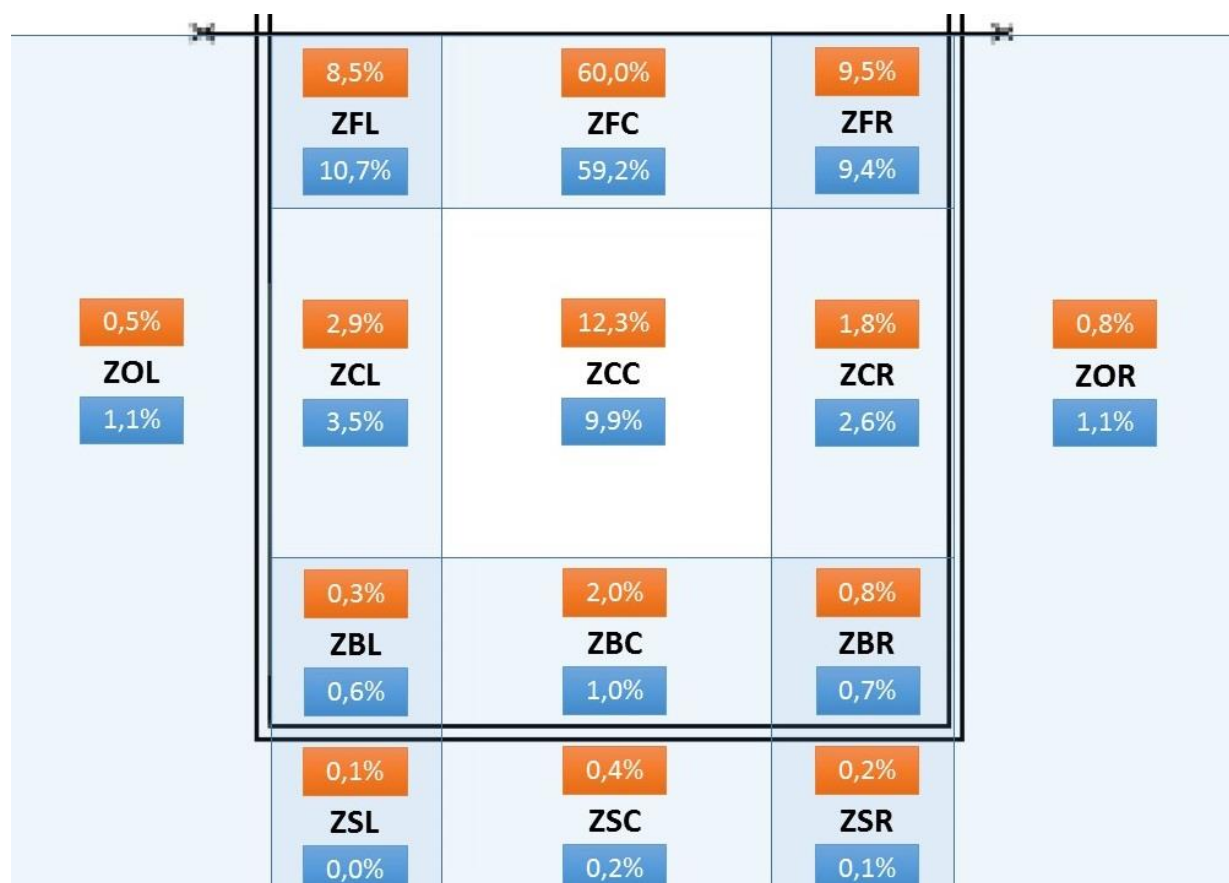


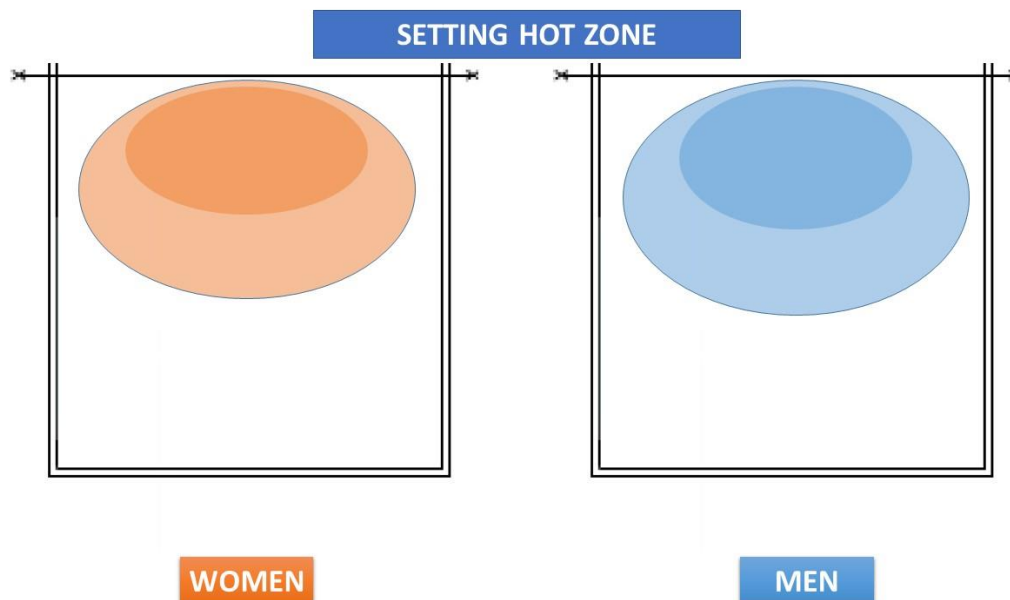
SETTING OUTCOME STRUCTURE	Women	Men
Error	1,1 %	0,9 %
Bad	9,1 %	8,2 %
Good	89,8 %	90,3 %
Fault	0,1 %	0,7 %



Action Zones

SETTING ACTION ZONES	Women	Men
ZFL (Left Front Zone)	8,5%	10,7 %
ZFC (Center Front Zone)	60,0 %	59,2 %
ZFR (Right Front Zone)	9,5 %	9,4 %
ZCL (Left Center Zone)	2,9 %	3,5 %
ZCC (Center Center Zone)	12,3 %	9,9 %
ZCR (Right Center Zone)	1,8 %	2,6 %
ZBL (Left Back Zone)	0,3 %	0,6 %
ZBC (Center Back Zone)	2,0 %	0,1 %
ZBR (Right Back Zone)	0,8 %	0,7 %
ZSL (Left Service Zone)	0,1 %	0,0 %
ZSC (Center Back Zone)	0,4 %	0,2 %
ZSR (Right Service Zone)	0,2 %	0,1 %
ZOL (Left Outside Zone)	0,5%	1,1 %
ZOR (Right Outside Zone)	0,8%	1,1 %





Conclusions

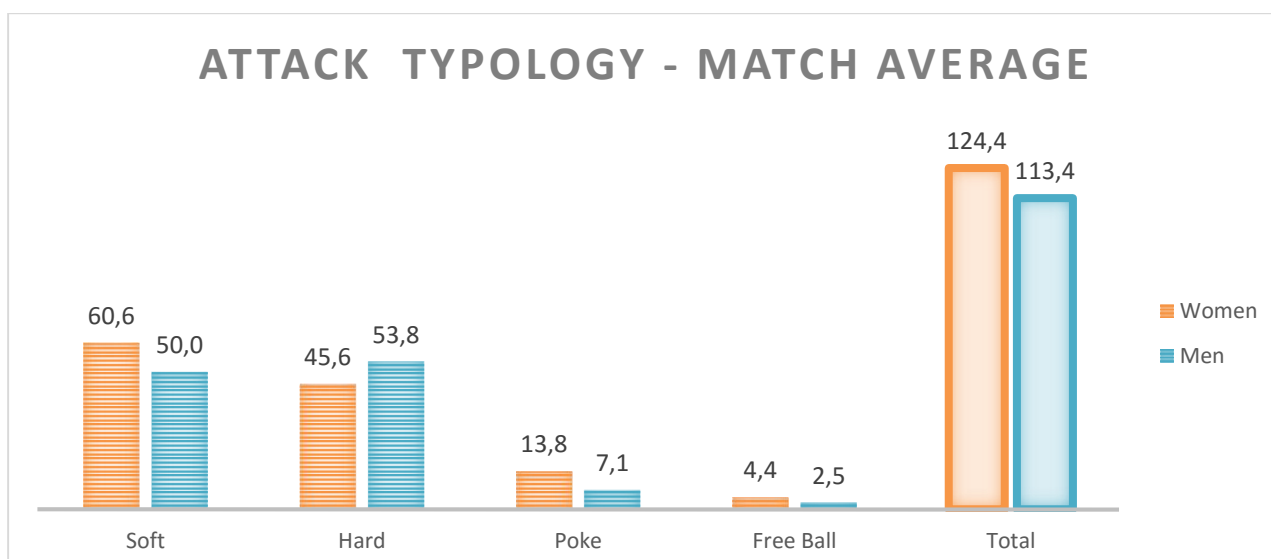
Regarding the Setting we note:

- 🏐 The Women's game displays an almost exclusive use of the Underhand technique;
- 🏐 In the Men's game 3 out of 4 actions use the Underhand technique with the remaining displaying the use of the Overhand with Fingers technique;
- 🏐 In both genders the quality of the Setting is good, being executed in the front center zone of the court.

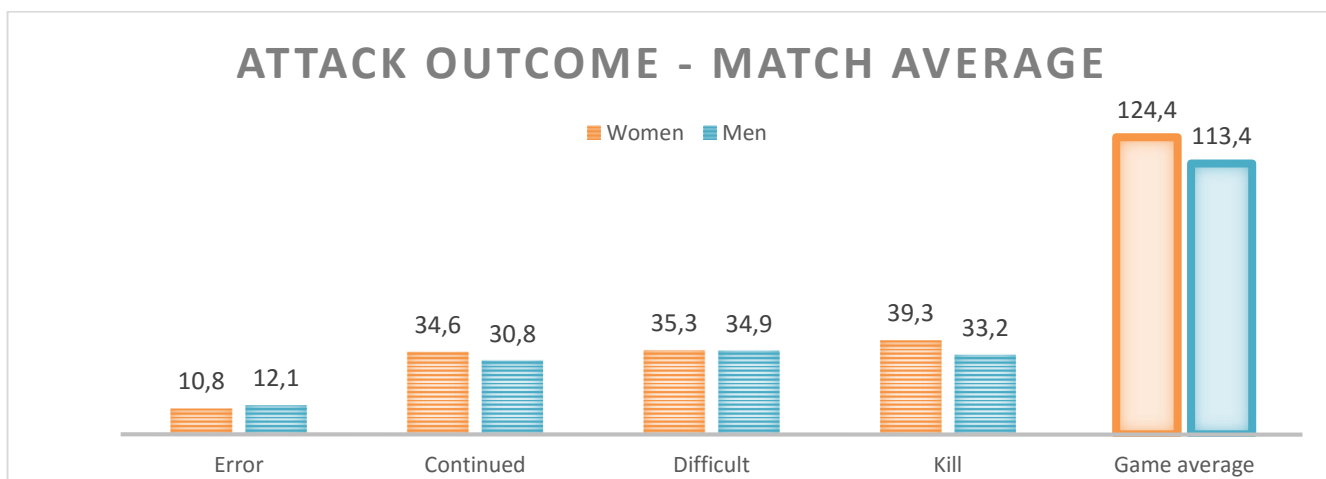
Attack Analyses

Averages

ATTACK TYPOLOGY – Match Average	Women	Men
Soft	60,6	50,0
Hard	45,6	53,8
Poke	13,8	7,1
Free Ball	4,4	2,5
Total	124,4	113,4

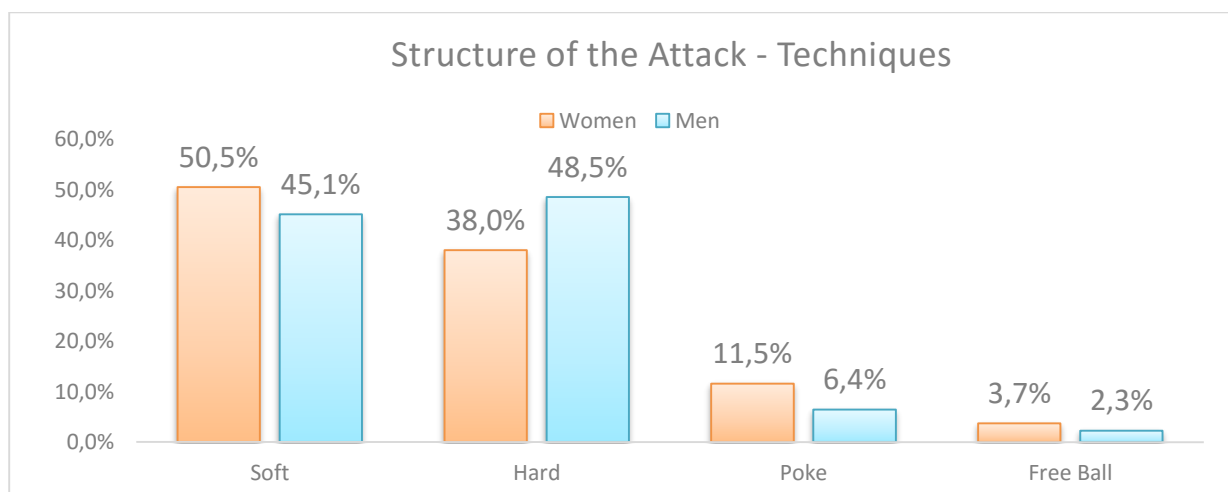


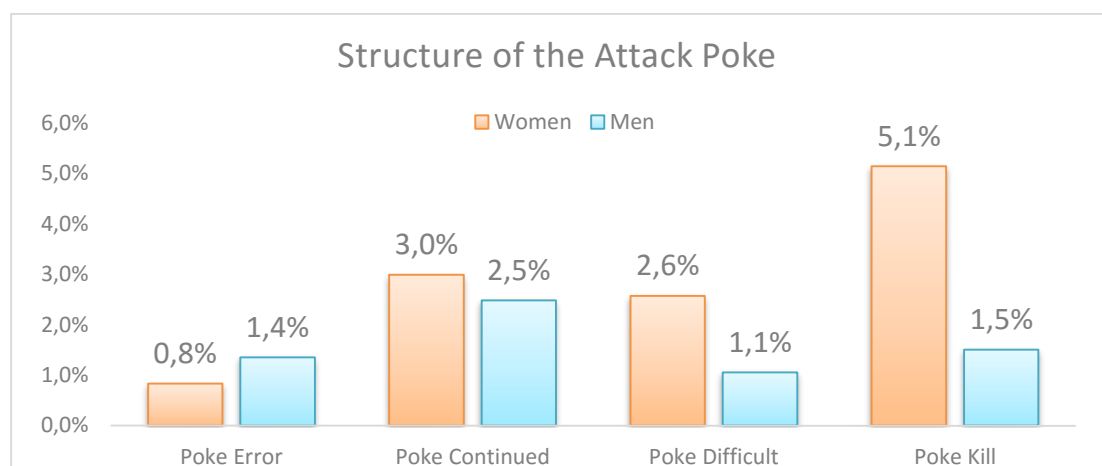
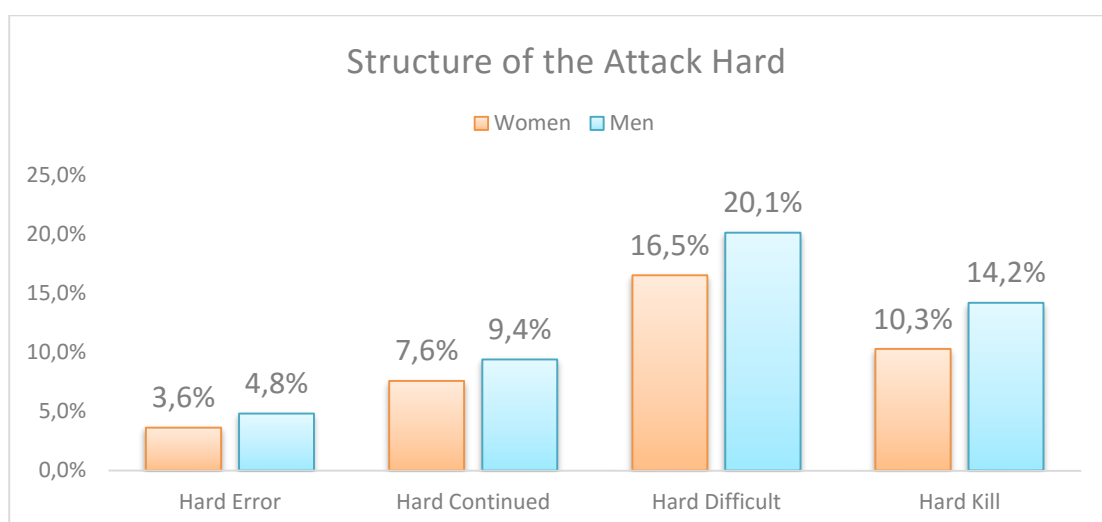
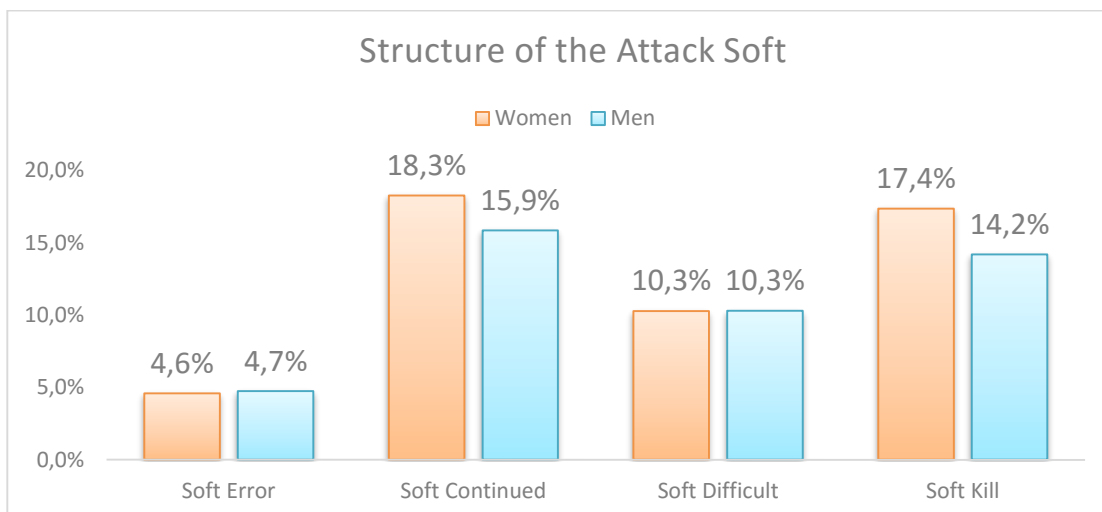
ATTACK OUTCOME – Match Average	Women	Men
Error	10,8	12,1
Continued	34,6	30,8
Difficult	35,3	34,9
Kill	39,3	33,2
Total (Game Average)	124,4	113,4



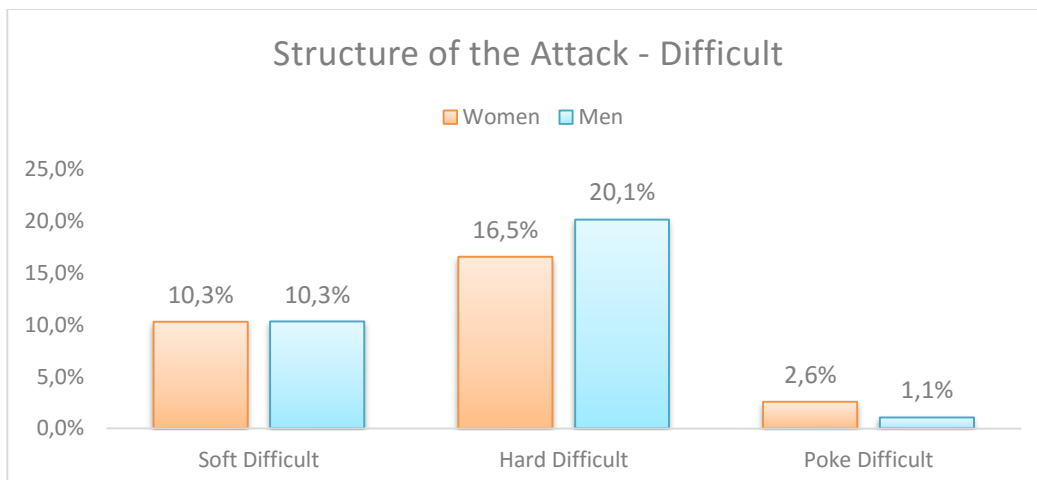
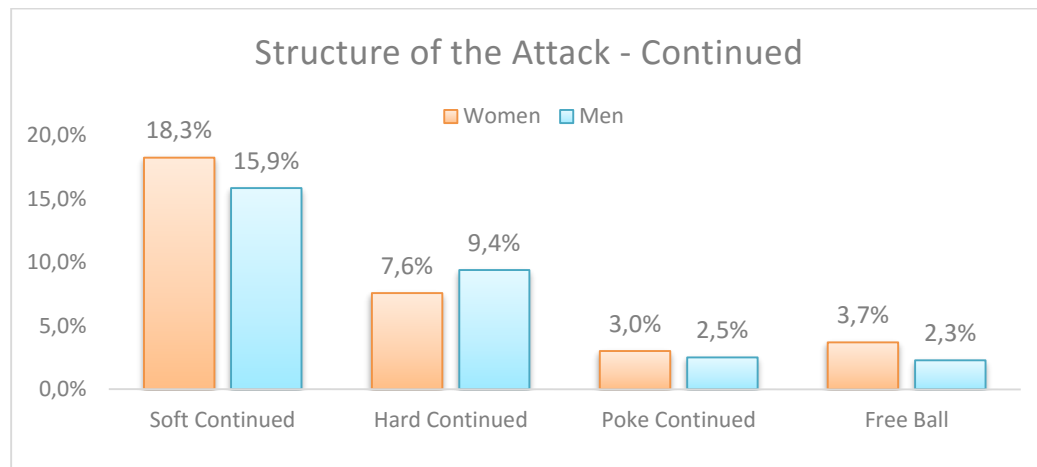
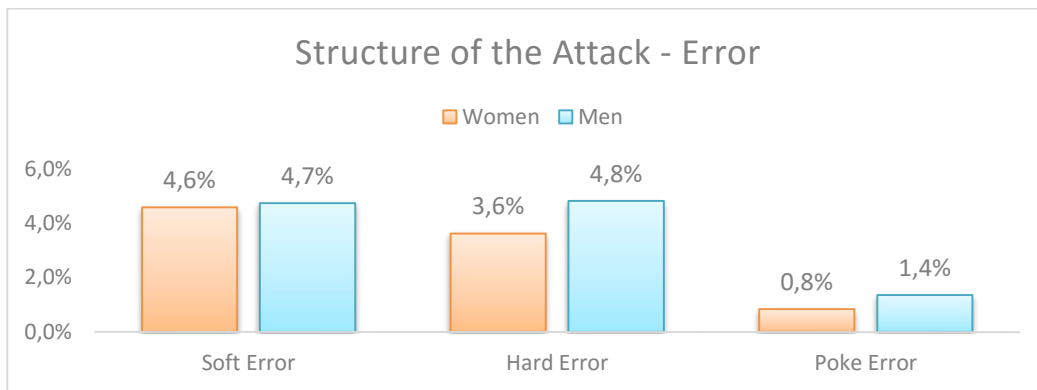
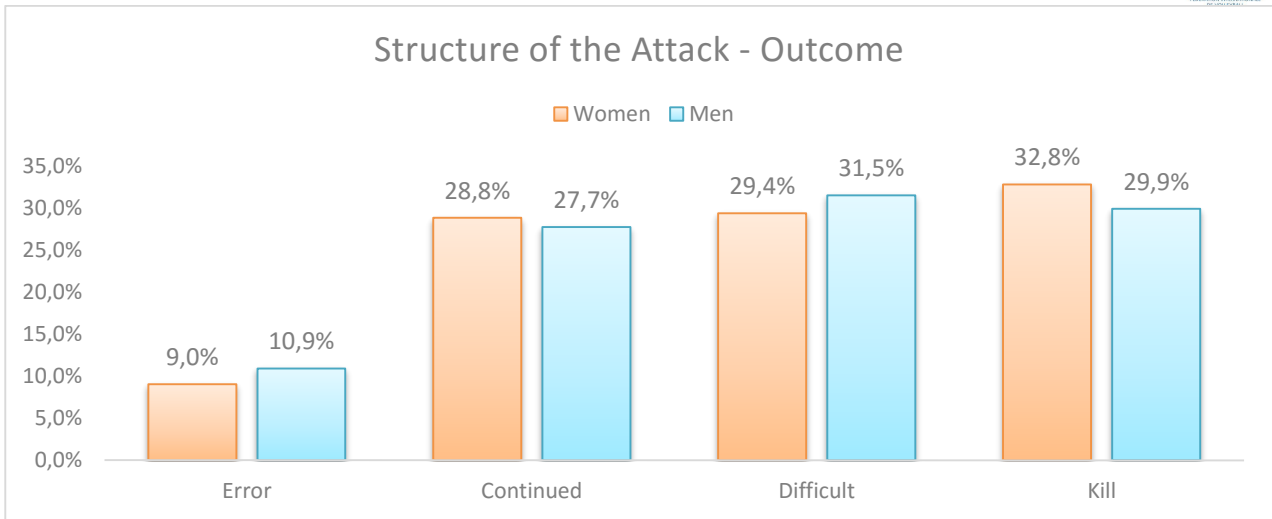
Structure

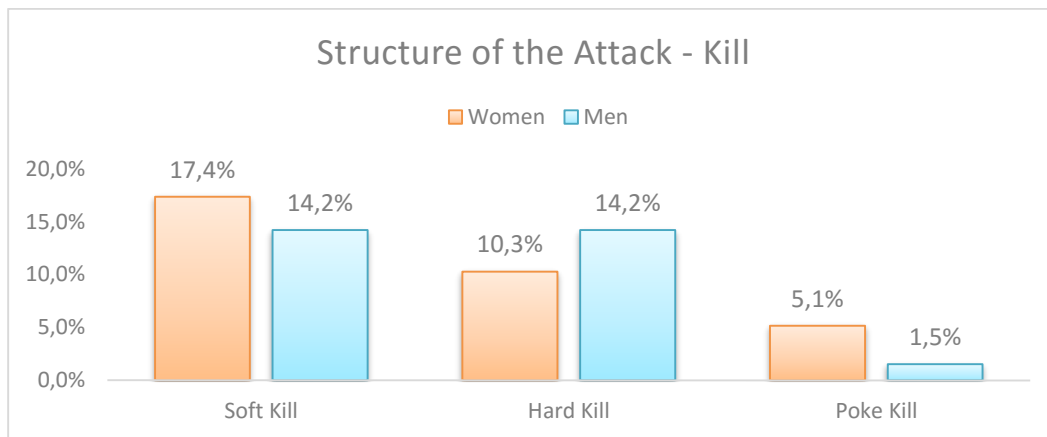
ATTACK TECHNIQUES STRUCTURE					
TYOLOGY	OUTCOME	Women		Men	
Soft	Error	4,6%	50,5 %	4,7%	45,1 %
	Continued	18,3%		15,9%	
	Difficult	10,3%		10,3%	
	Kill	17,4%		14,2%	
Hard	Error	3,6%	38,0 %	4,8%	48,5 %
	Continued	7,6%		9,4%	
	Difficult	16,5%		20,1%	
	Kill	10,3%		14,2%	
Poke Shot	Error	0,8%	11,5 %	1,4%	6,4 %
	Continued	3,0%		2,5%	
	Difficult	2,6%		1,1%	
	Kill	5,1%		1,5%	
Free Ball		3,7%		2,3 %	





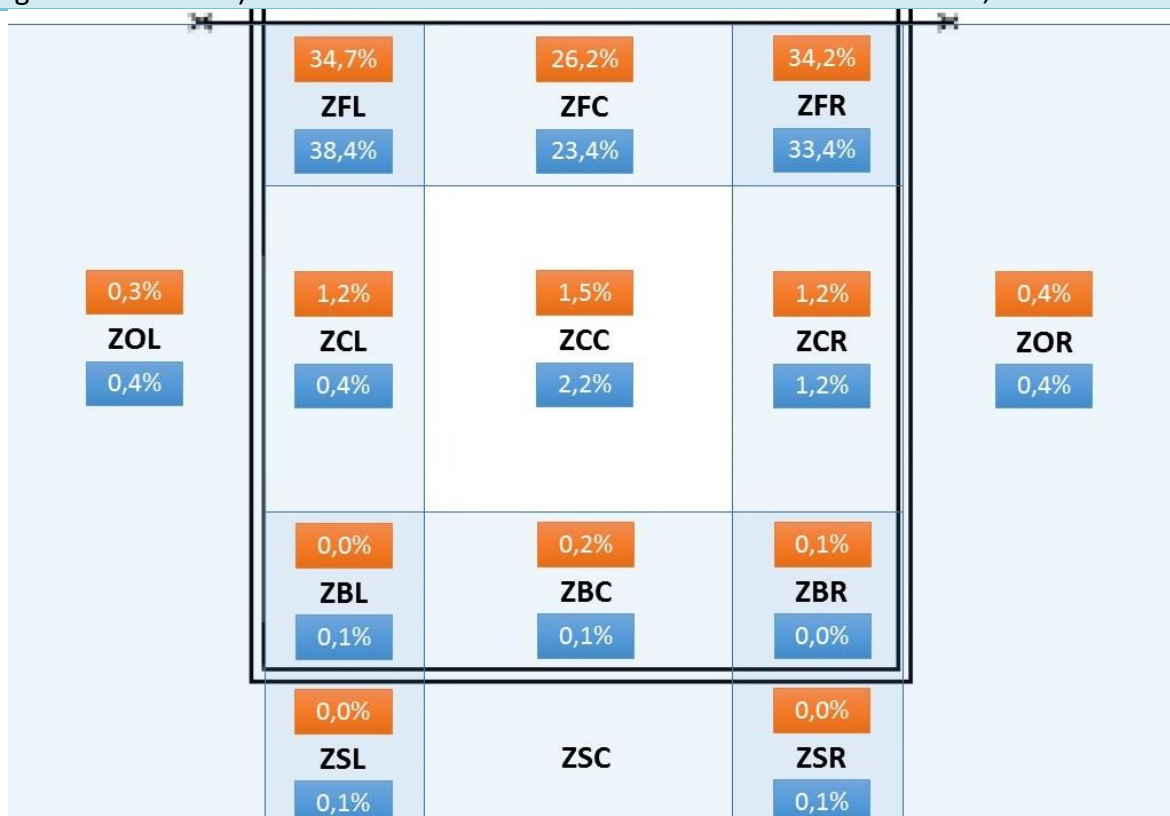
ATTACK OUTCOME STRUCTURE	Women	Men
Error	9,0 %	10,9 %
Continued	28,8 %	27,7 %
Difficult	29,4 %	31,5 %
Kill	32,8 %	29,9 %

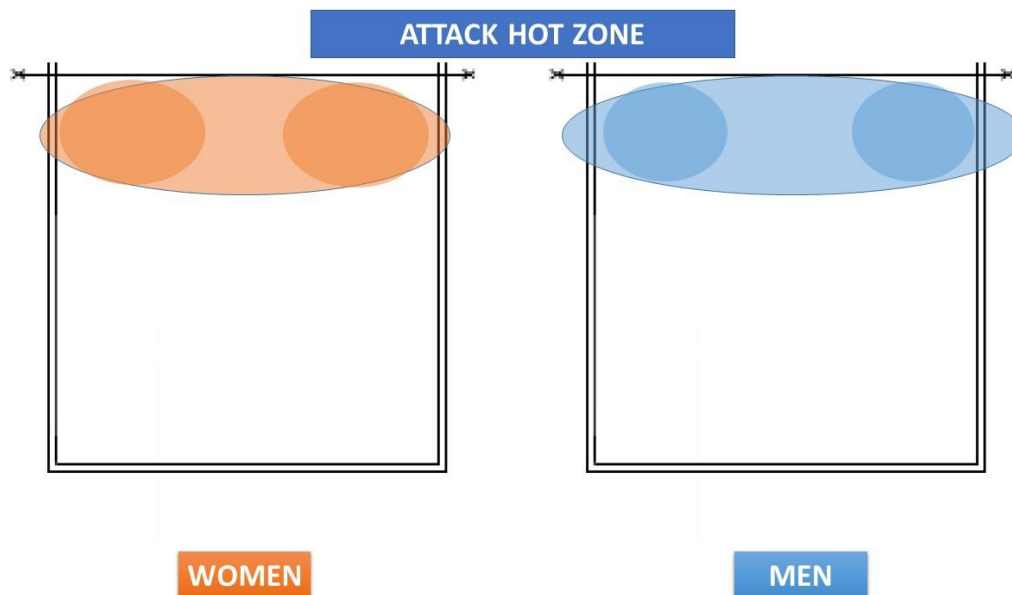




Action Zones

ATTACK ACTION ZONES	Women	Men
ZFL (Left Front Zone)	34,7 %	38,4 %
ZFC (Center Front Zone)	26,2 %	23,4 %
ZFR (Right Front Zone)	34,2 %	33,4 %
ZCL (Left Center Zone)	1,2 %	0,4 %
ZCC (Center Center Zone)	1,5 %	2,2 %
ZCR (Right Center Zone)	1,2 %	1,2 %
ZBL (Left Back Zone)	0,0 %	0,1 %
ZBC (Center Back Zone)	0,2 %	0,1 %
ZBR (Right Back Zone)	0,1 %	0,0 %
ZSL (Left Service Zone)	0,0 %	0,1 %
ZSR (Right Service Zone)	0,0 %	0,1 %
ZOL (Left Outside Zone)	0,3 %	0,4 %
ZOR (Right Outside Zone)	0,4 %	0,4 %





Conclusions

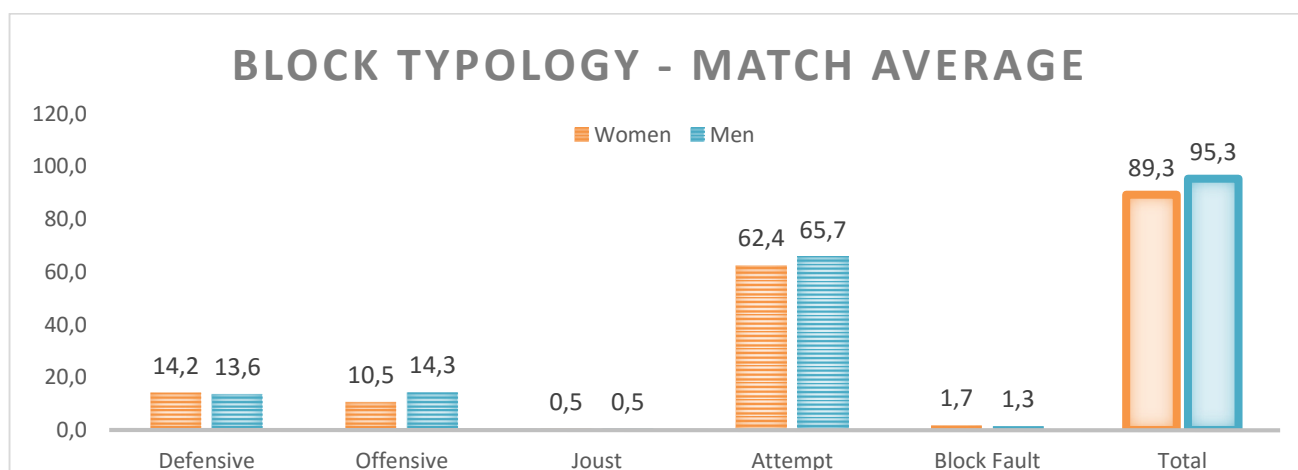
Regarding the Attack, we note:

- 🏐 In both genders 60% of the time, Attack prevails over defense;
- 🏐 For both genders, only 10% of the Attacks are error;
- 🏐 Differences between Men and Women:
 - 🏐 In the Women’s game, teams try to finish the rally more times in controlled attacks through the use of the Soft or the Poke technique;
 - 🏐 In the Men’s game teams use more power and try to finish the rally more often using the Hard attack technique.

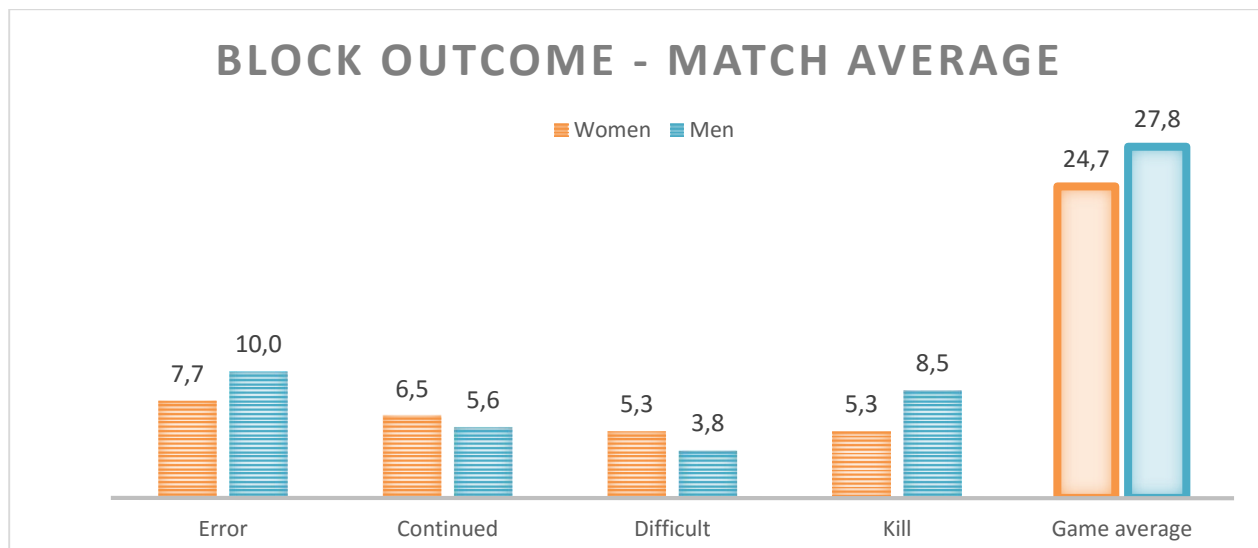
Block Analyses

Averages

BLOCK TYPOLOGY – Match Average	Women	Men
Defensive	14,2	13,6
Offensive	10,5	14,3
Joust	0,5	0,5
Attempt	62,4	65,7
Block Fault	1,7	1,3
Total	89,3	95,3

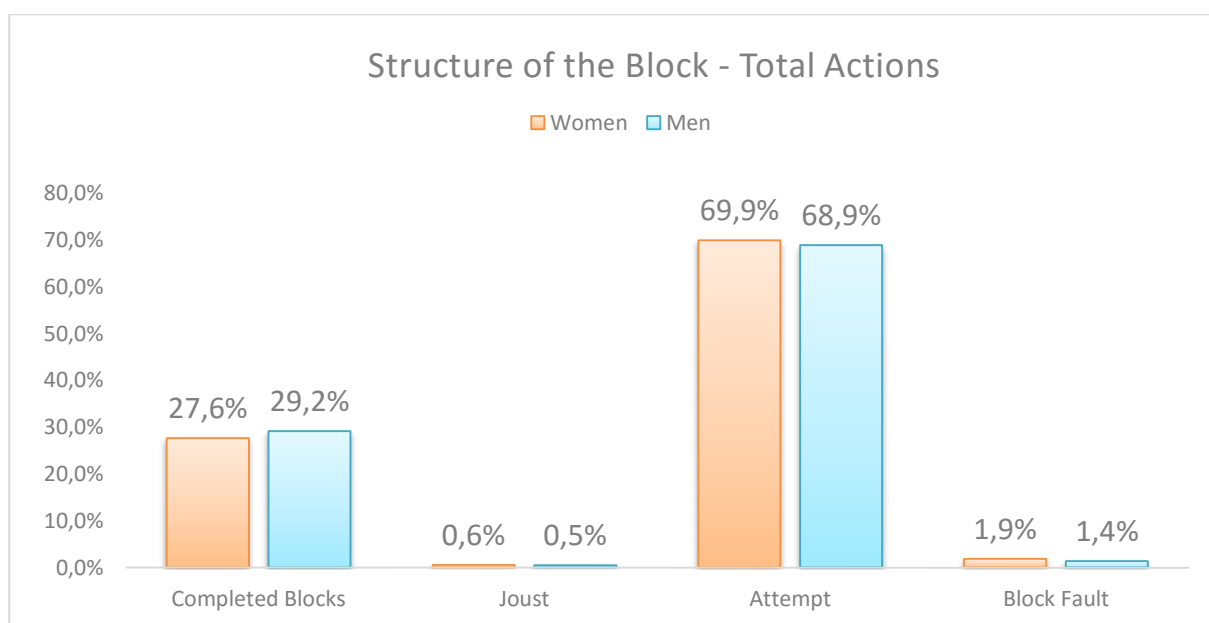


BLOCK OUTCOME – Match Average	Women	Men
Error	7,7	10,0
Continued	6,5	5,6
Difficult	5,3	3,8
Kill	5,3	8,5
Total	24,7	27,8



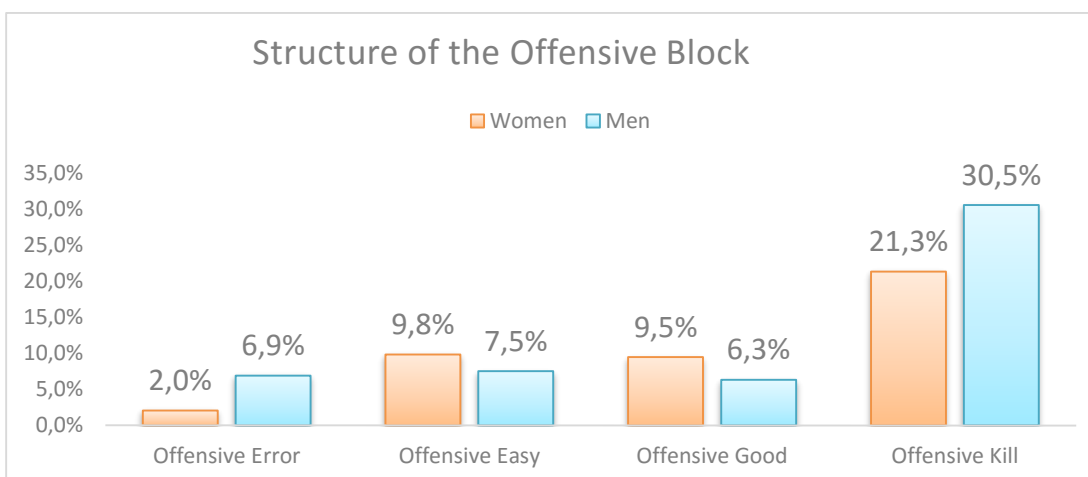
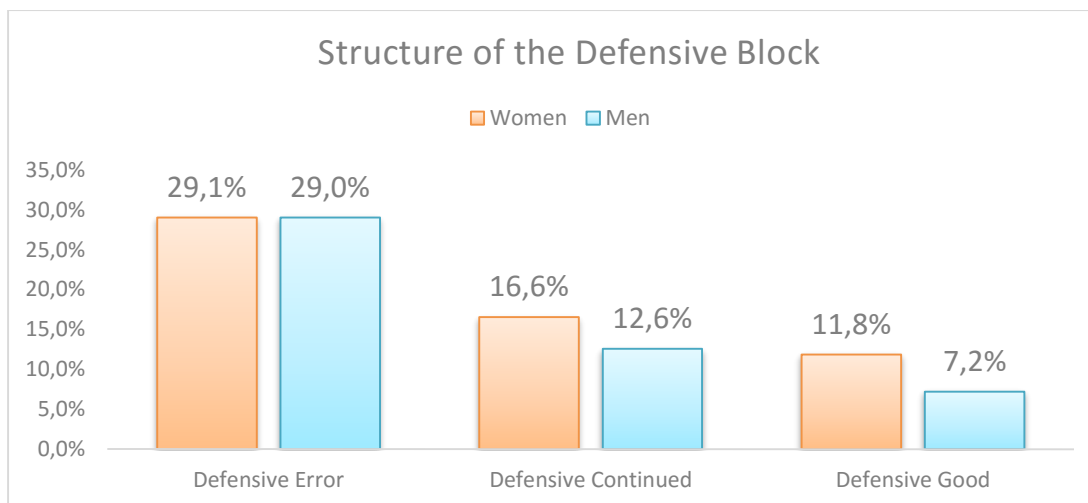
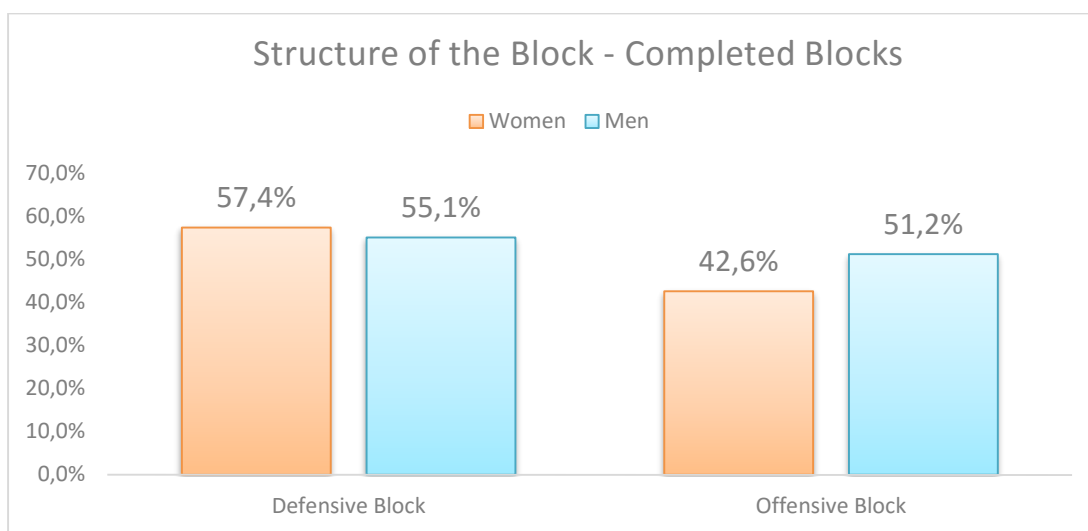
Structure

BLOCK STRUCTURE	Women	Men
Completed Blocks	27,6 %	29,2 %
Joust	0,6 %	0,5 %
Attempt	69,9 %	68,9 %
Block Fault	1,9 %	1,4 %

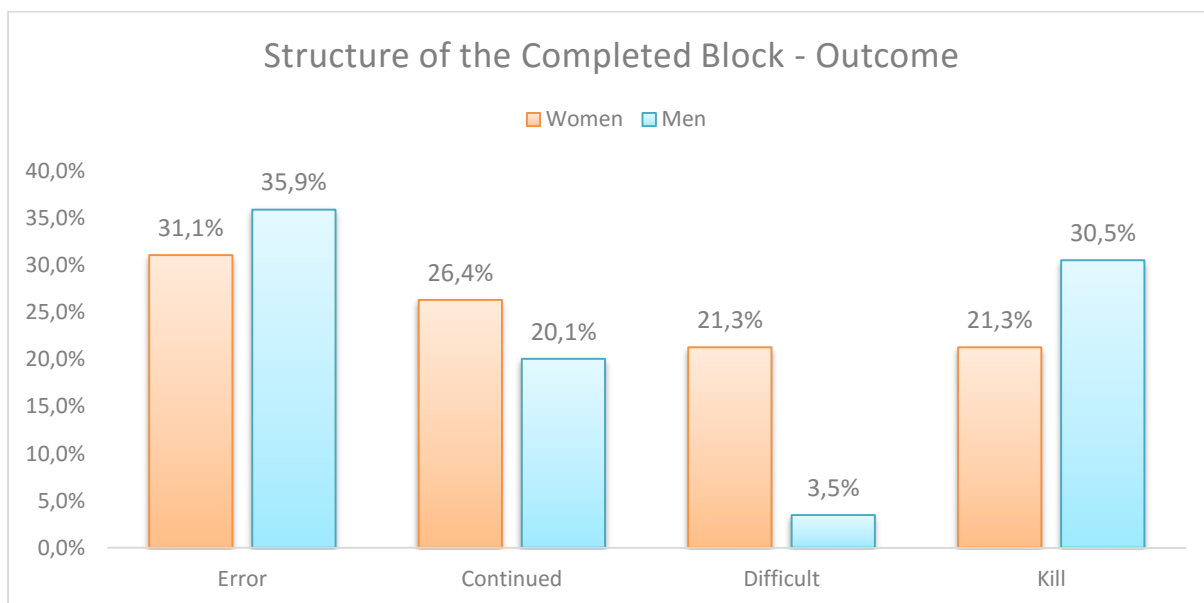


COMPLETED BLOCK TECHNIQUES STRUCTURE

TYOLOGY	OUTCOME	Women		Men	
Defensive	Error	29,1%	57,4 %	29,0%	55,1 %
	Continued	16,6%		12,6%	
	Good	11,8%		7,2%	
Offensive	Error	2,0%	42,6 %	6,9%	51,2 %
	Easy	9,8%		7,5%	
	Good	9,5%		6,3%	
	Kill	21,3%		30,5%	

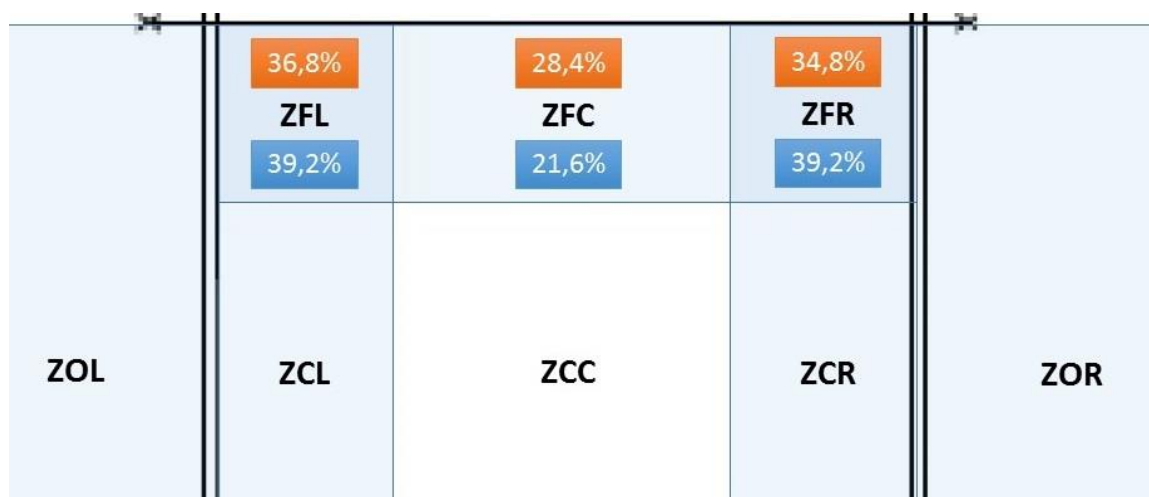


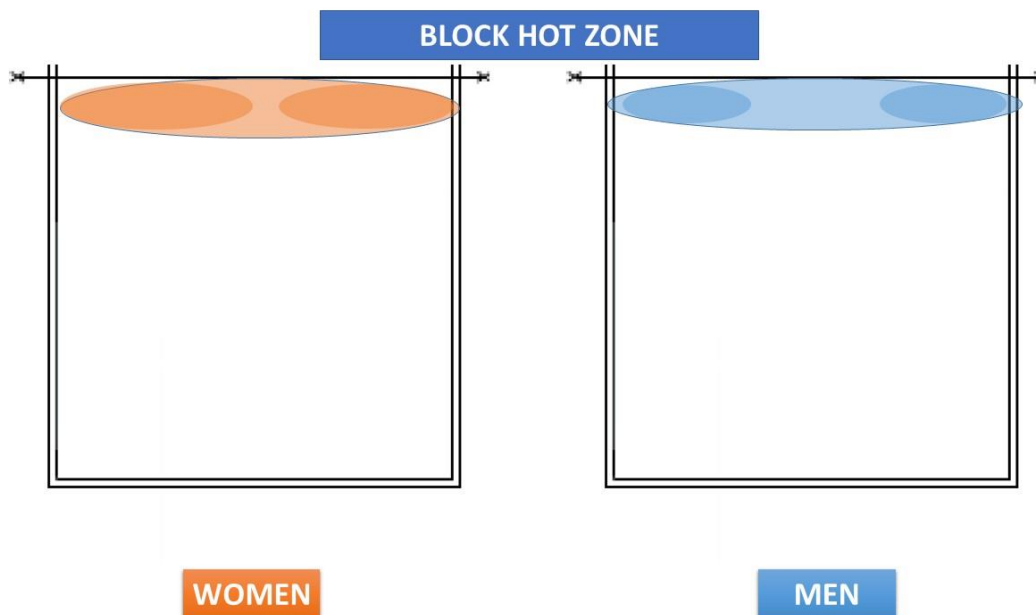
BLOCK OUTCOME STRUCTURE	Women	Men
Error	31,1 %	35,9 %
Continued	26,4 %	20,1 %
Difficult	21,3 %	3,5 %
Kill	21,3 %	30,5 %



Action Zones

COMPLETED BLOCK ACTION ZONES	Women	Men
ZFL (Left Front Zone)	36,8 %	39,2 %
ZFC (Center Front Zone)	28,4 %	21,6 %
ZFR (Right Front Zone)	34,8 %	39,2 %





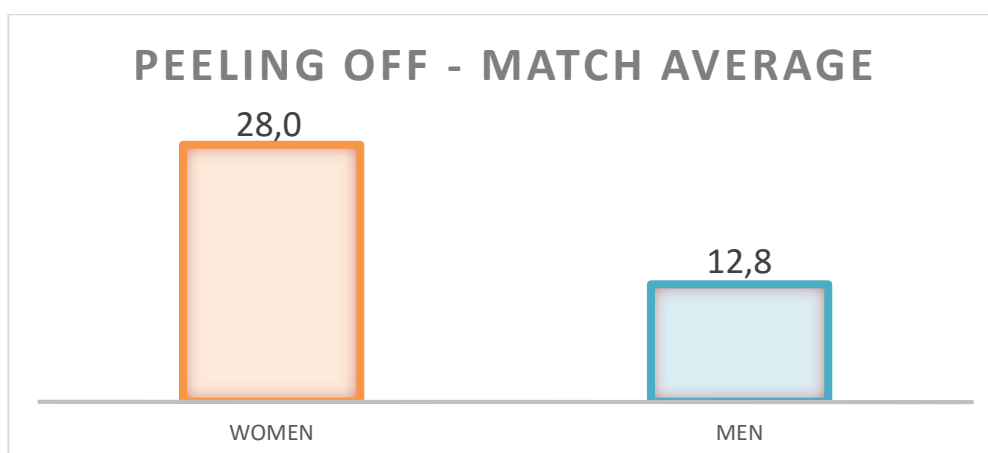
Conclusions

Regarding the Block, we note:

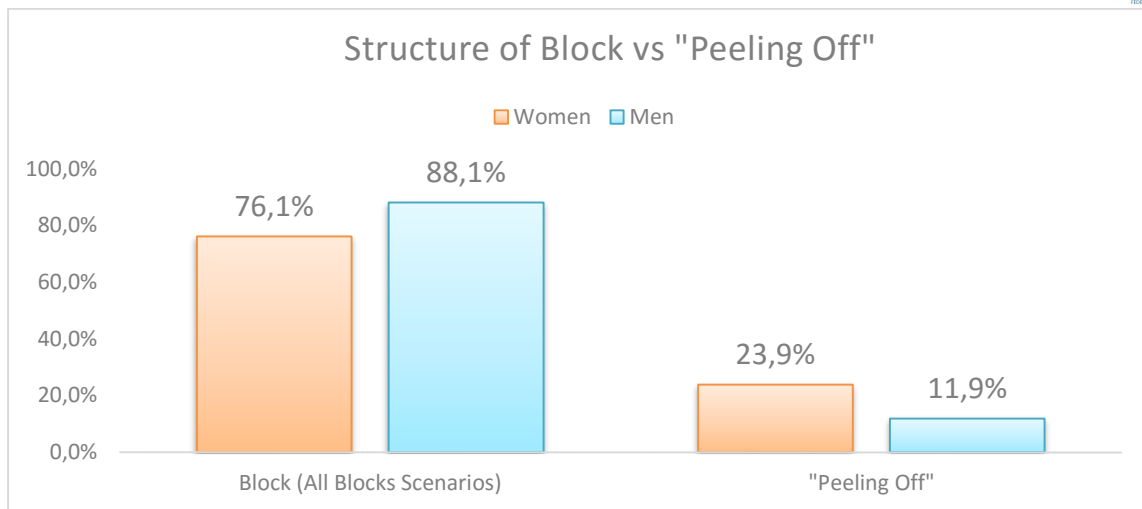
- 🏐 Women's game
 - 🏐 27,6% of the attempts become Completed Blocks;
 - 🏐 The Completed Blocks are distributed much more within the Outcome options (error; continued; etc.) than with the Men.
- 🏐 Men's game
 - 🏐 29,2% of the attempts become Completed Blocks;
 - 🏐 For the same reason there are clearly more Block Kills and Block Errors than Continued blocks after Completed (block contacts the ball);
 - 🏐 There are more Offensive Blocks in the Men's game than in the Women's.

"Peeling Off"

"PEELING OFF" – Match Average	Women	Men
"Peeling Off"	28,0	12,8



"PEELING OFF" AND BLOCK STRUCTURE	Women	Men
Block (All Block Scenarios)	76,1 %	23,9 %
"Peeling Off"	23,9 %	11,9 %



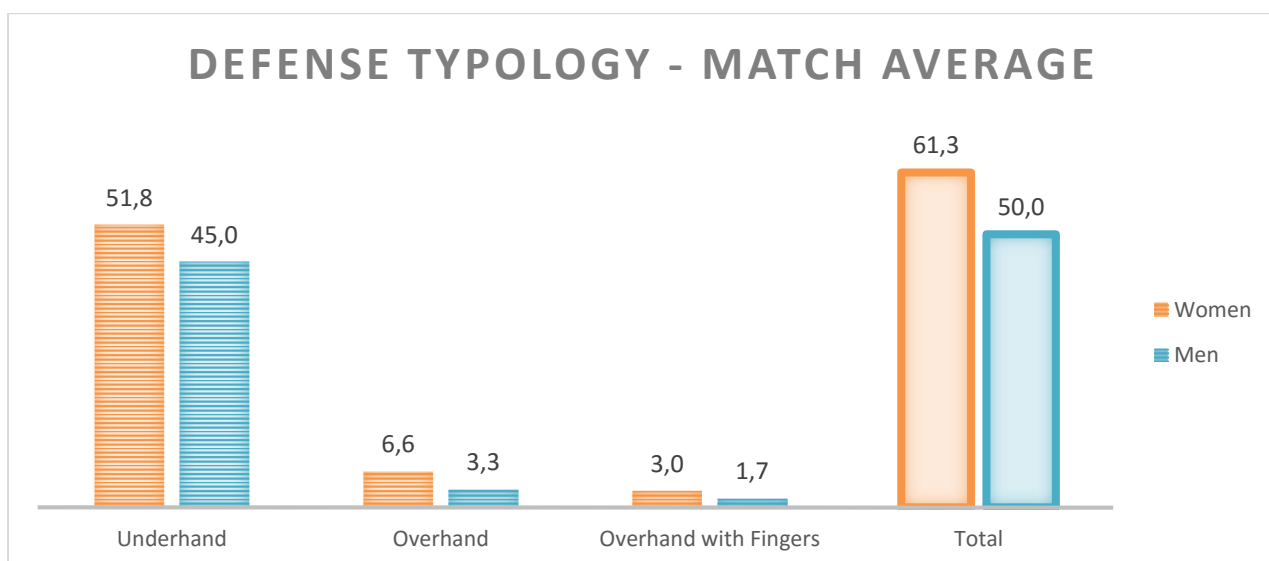
Regarding the "Peeling off", we note:

- 🏐 Women's game
 - 🏐 Obvious bigger trend for "peeling off" the block than with the men, most likely because of the game style where the Attack hit is more often Soft than Hard;
- 🏐 Men's game
 - 🏐 Men do not use so often the "peeling off" the block technique: on the contrary, the trend is always to jump for a block, most likely because of the game style where the Attack uses a lot of power;

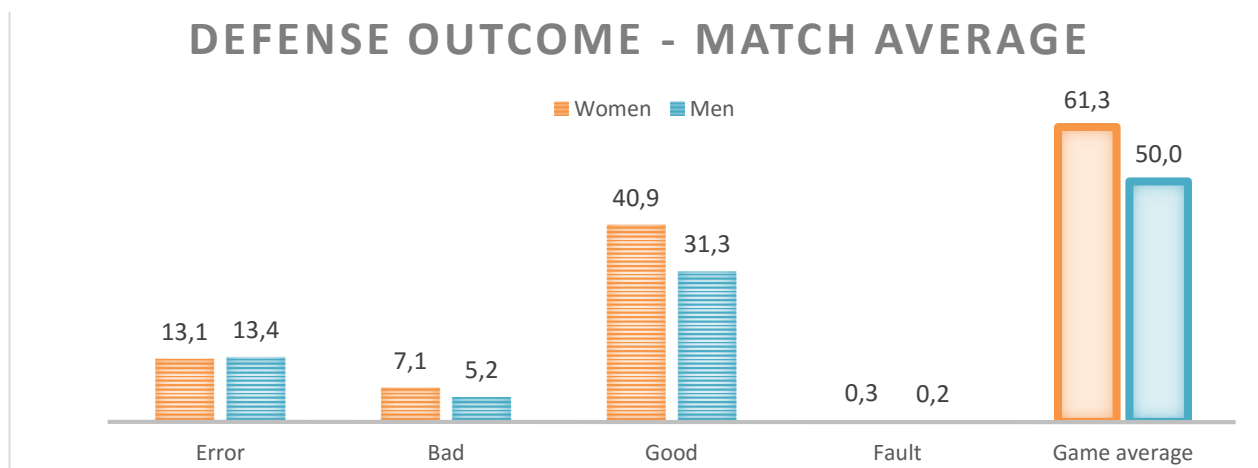
Defense Analyses

Averages

DEFENSE TYPOLOGY – Match Average	Women	Men
Underhand	51,8	45,0
Overhand (no Fingers)	6,6	3,3
Overhand with Fingers	3,0	1,7
Total	61,3	50,0

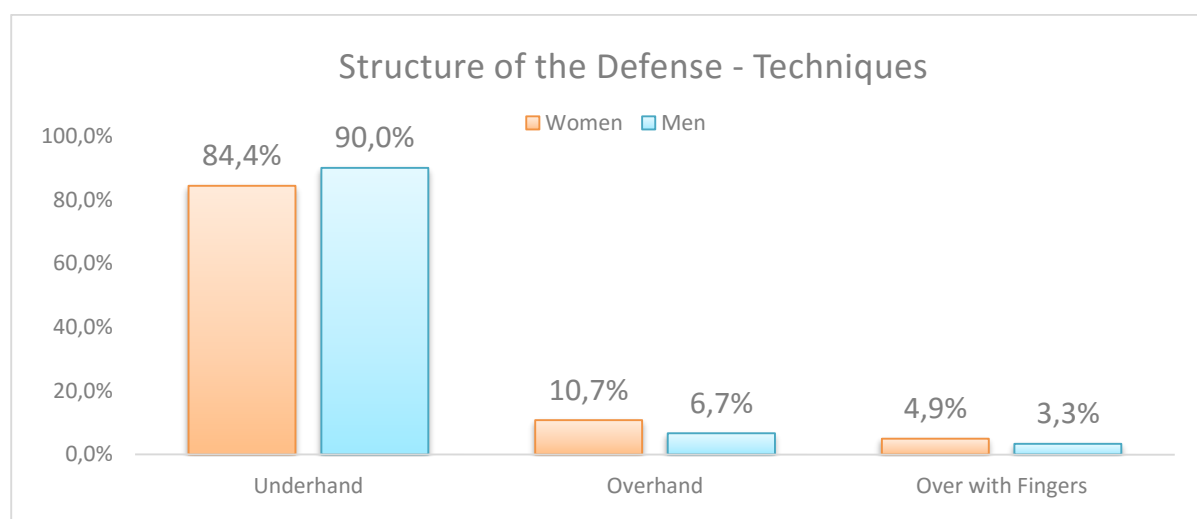


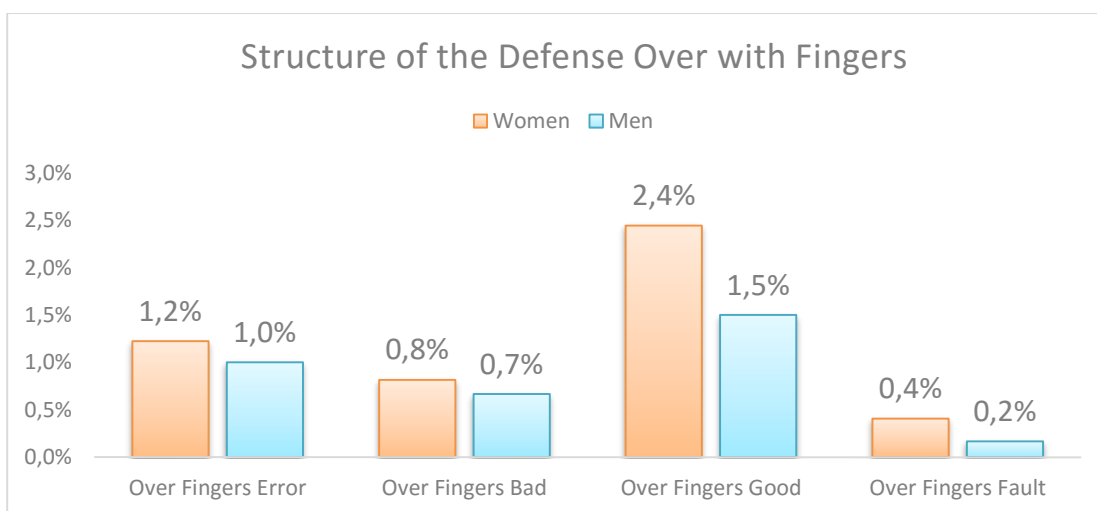
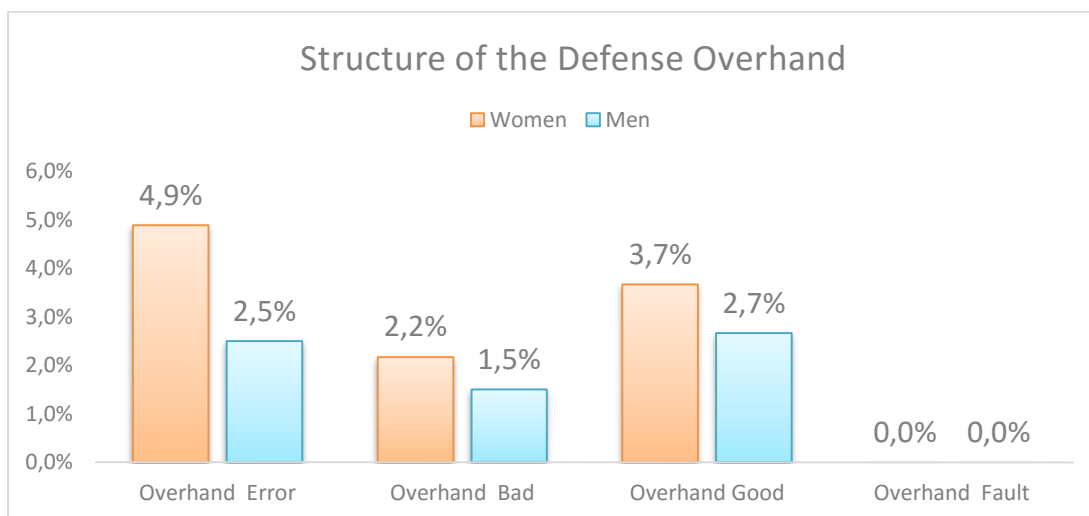
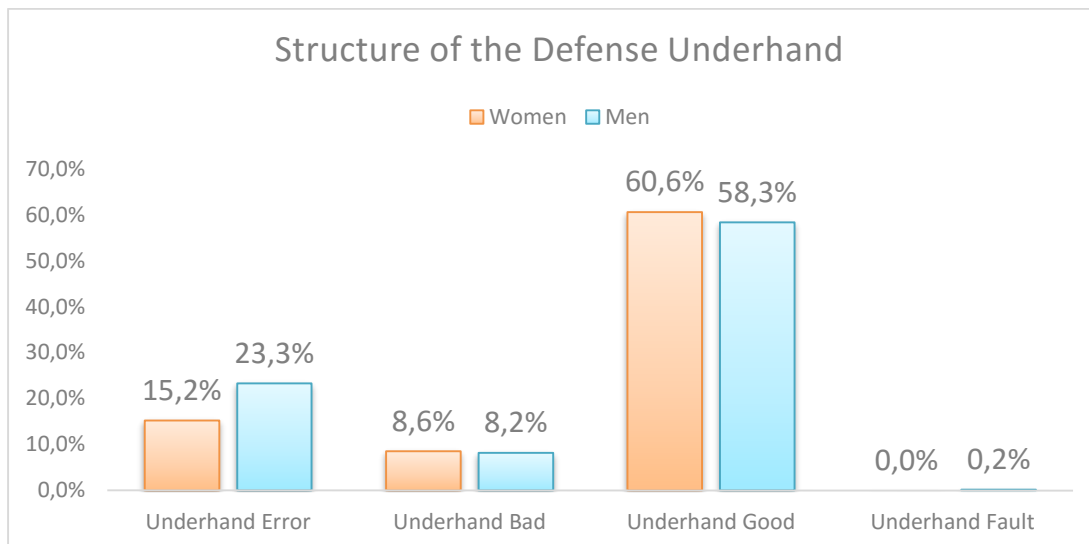
DEFENSE OUTCOME – Match Average	Women	Men
Error	13,1	13,4
Bad	7,1	5,2
Good	40,9	31,3
Fault	0,3	0,2
Total	61,3	50,0



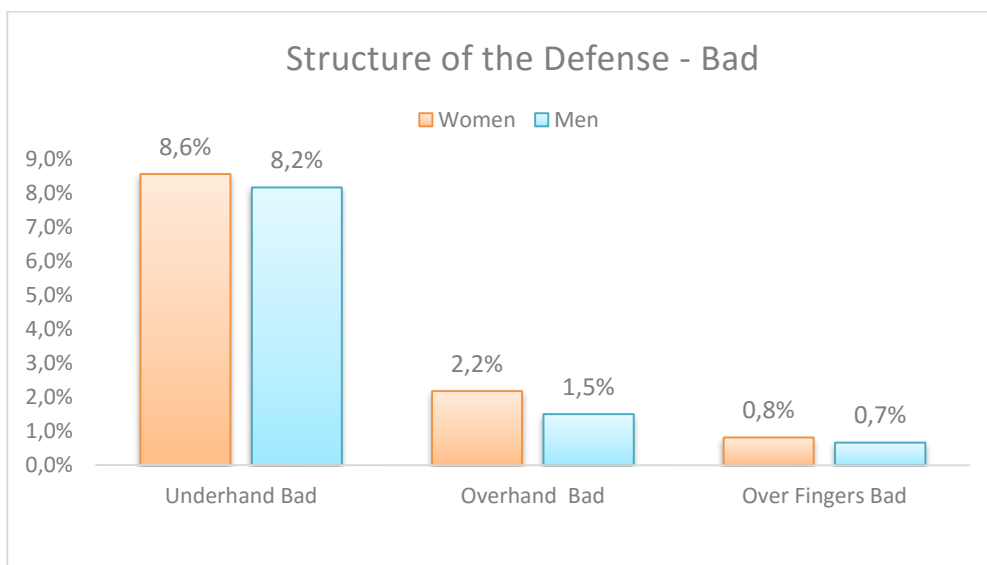
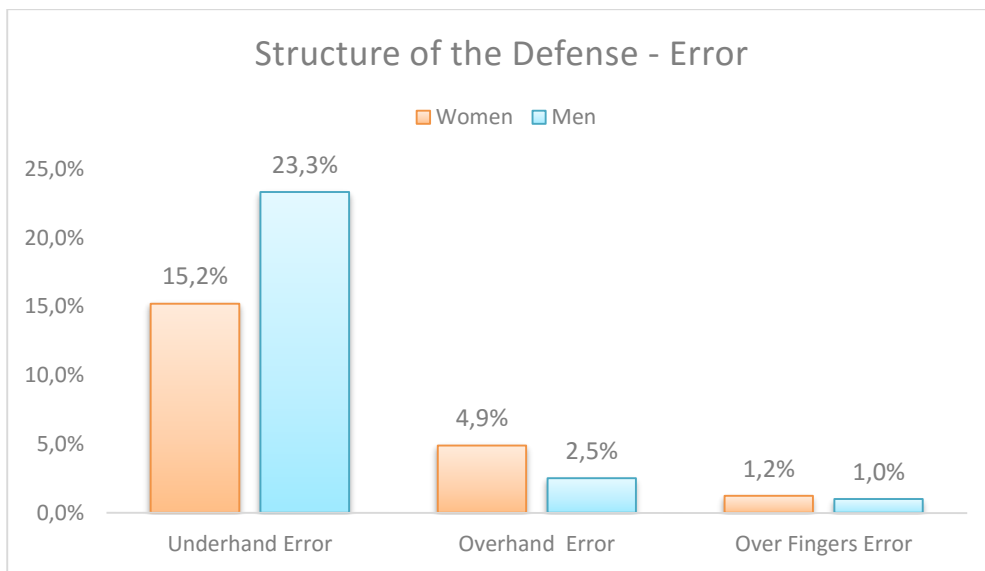
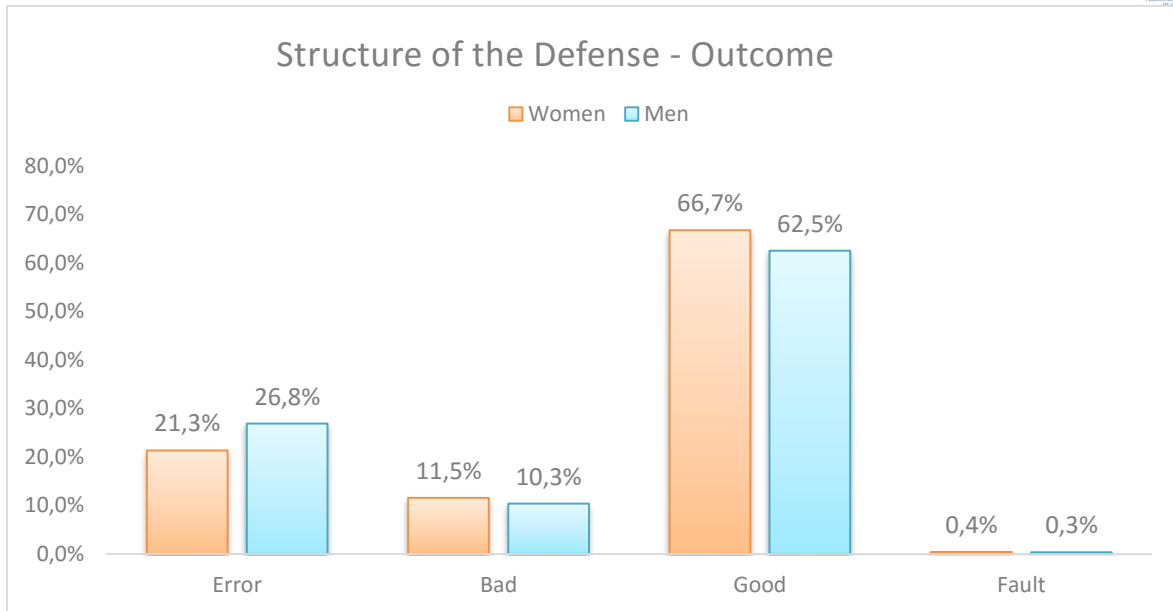
Structure

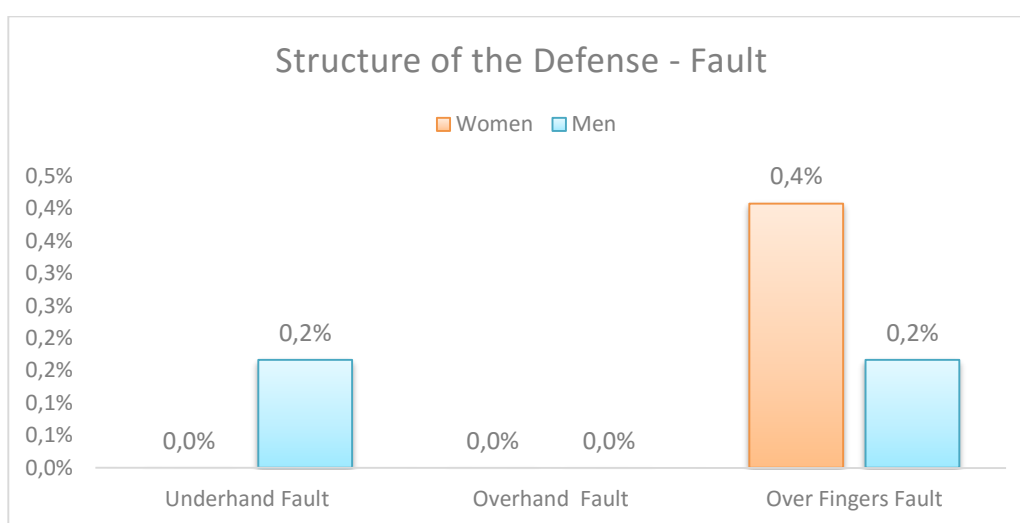
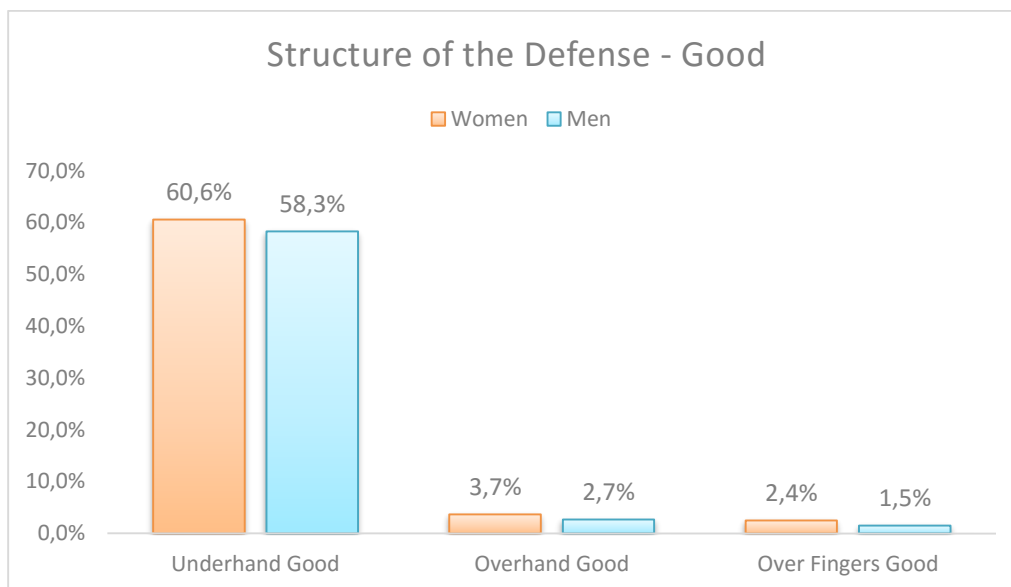
DEFENSE TECHNIQUES STRUCTURE				
TYOLOGY	OUTCOME	Women		Men
Underhand	Error	15,2 %	84,4 %	23,3 %
	Bad	8,6 %		8,2 %
	Good	60,6 %		58,3 %
	Fault	0,0 %		0,2 %
Overhand (no Fingers)	Error	4,9 %	10,7 %	2,5 %
	Bad	2,2 %		1,5 %
	Good	3,7 %		2,7 %
	Fault	0,0 %		0,0 %
Over with Fingers	Error	1,2 %	4,9 %	1,0 %
	Bad	0,8 %		0,7 %
	Good	2,4 %		1,5 %
	Fault	0,4 %		0,2 %





DEFENSE OUTCOME STRUCTURE	Women	Men
Error	21,3 %	26,8 %
Bad	11,5 %	10,3 %
Good	66,7 %	62,5 %
Fault	0,4 %	0,3 %

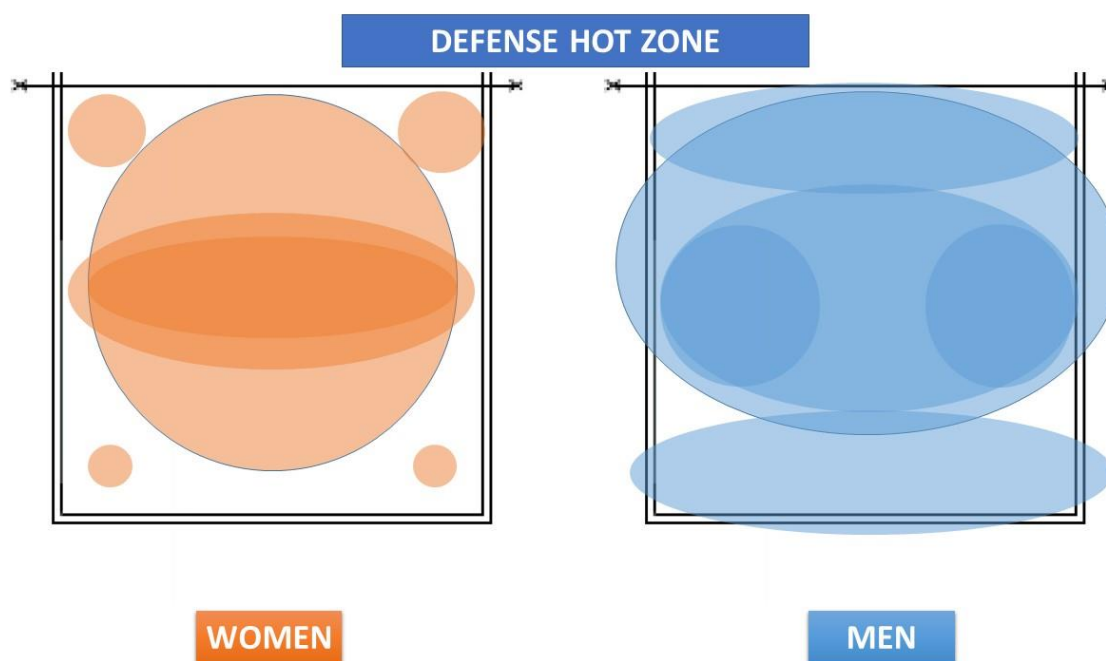




Action Zones

DEFENSE ACTION ZONES	Women	Men
ZFL (Left Front Zone)	8,0 %	9,5 %
ZFC (Center Front Zone)	8,7 %	7,7 %
ZFR (Right Front Zone)	8,7 %	7,3 %
ZCL (Left Center Zone)	21,9 %	23,5 %
ZCC (Center Center Zone)	23,1 %	17,0 %
ZCR (Right Center Zone)	18,6 %	20,7 %
ZBL (Left Back Zone)	3,0 %	3,2 %
ZBC (Center Back Zone)	4,6 %	4,8 %
ZBR (Right Back Zone)	3,3 %	5,8 %
ZOL (Left Outside Zone)	0,1 %	0,2 %
ZOR (Right Outside Zone)	0,0 %	0,3 %

	8,0% ZFL 9,5%	8,7% ZFC 7,7%	8,7% ZFR 7,3%	
0,1% ZOL 0,2%	21,9% ZCL 23,5%	23,1% ZCC 17,0%	18,6% ZCR 20,7%	0,0% ZOR 0,3%
	3,0% ZBL 3,2%	4,6% ZBC 4,8%	3,3% ZBR 5,8%	
	ZSL	ZSC	ZSR	



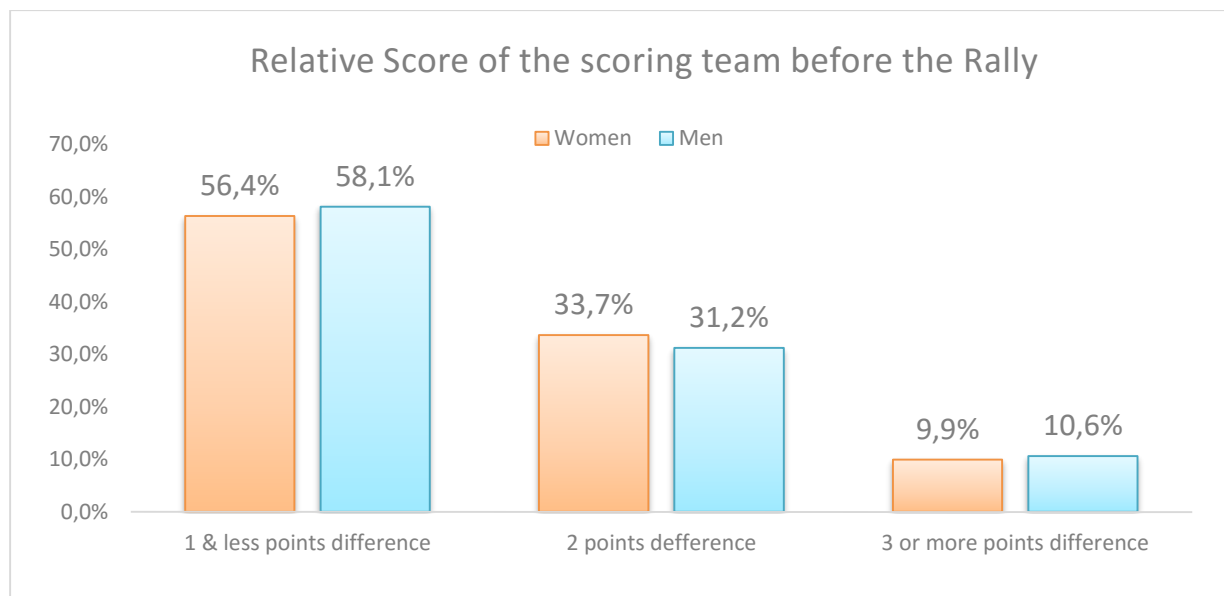
Conclusions

Regarding the Defense, we note:

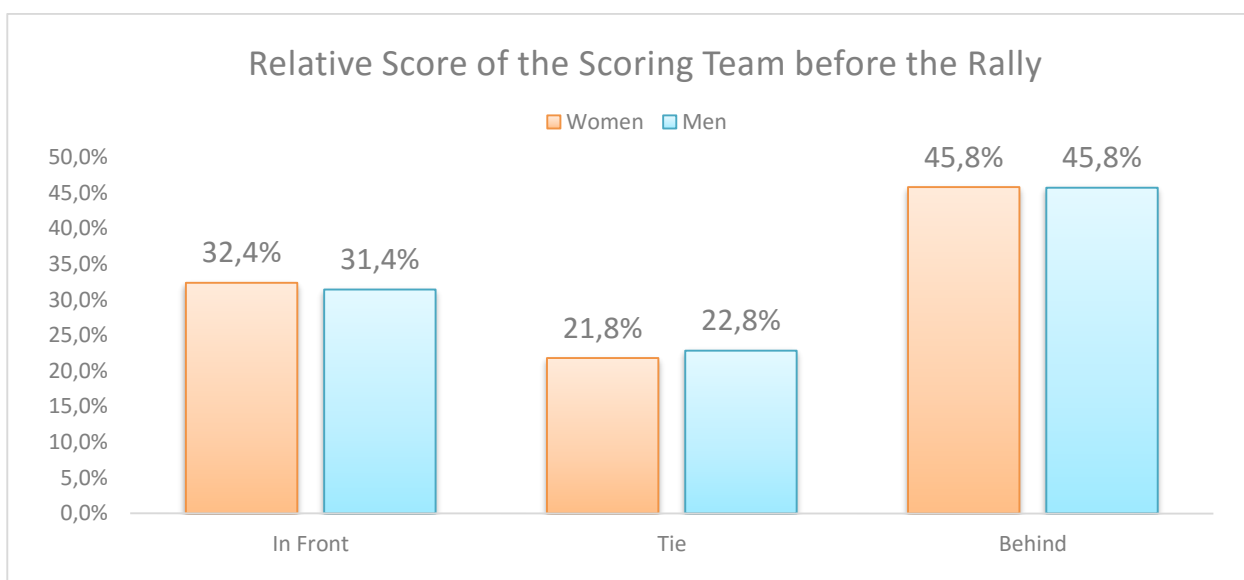
- 🏐 Women's game
 - 🏐 It has on average more 10 defenses per match than the Men's
 - 🏐 Uses more of the Overhand action compared to the male;
- 🏐 Men's game
 - 🏐 The technique used is mostly the Underhand
 - 🏐 There are more defenses around the core of the court than in the women's game

Scoring

Relative Score of the Scoring Team before the Rally	Women	Men
1 & less points difference	56,4 %	58,1 %
2 points difference	33,7 %	31,2 %
3 or more points difference	9,9 %	10,6 %



Relative Score of the Scoring Team before the Rally	Women	Men
In Front	32,4 %	31,4 %
Tie	21,8 %	22,8 %
Behind	45,8%	45,8 %

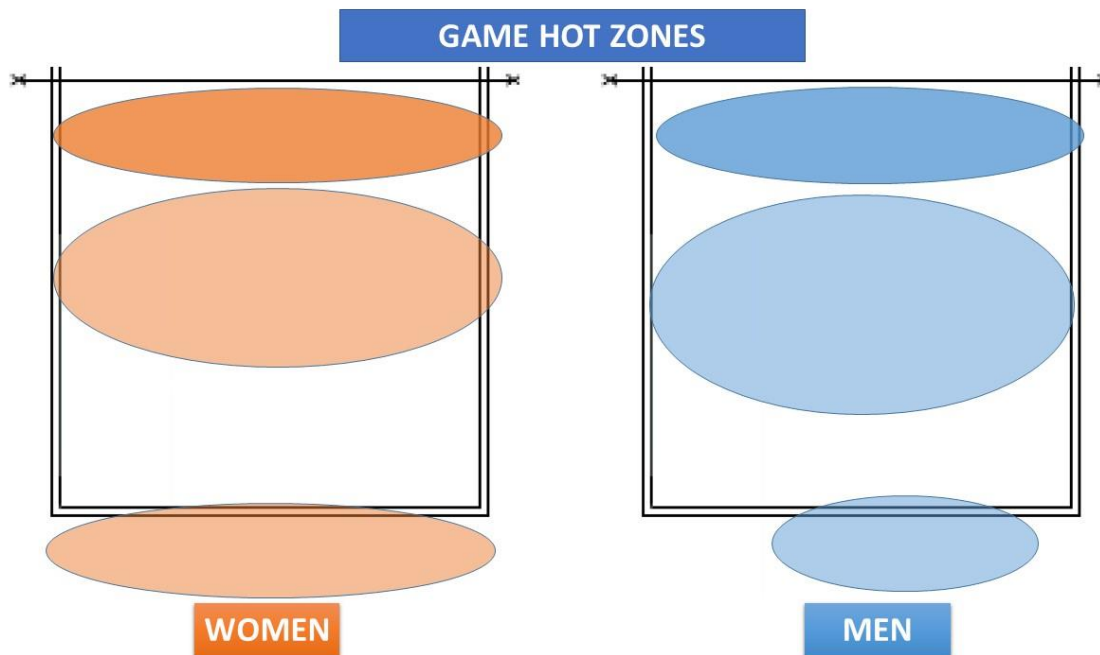


At this level of play, the game is played mostly with balanced scoring in both genders. The available data – even if this may look strange – shows that most of the points are won by the team that lags behind (has a point's disadvantage at the time of scoring).

Field of Play

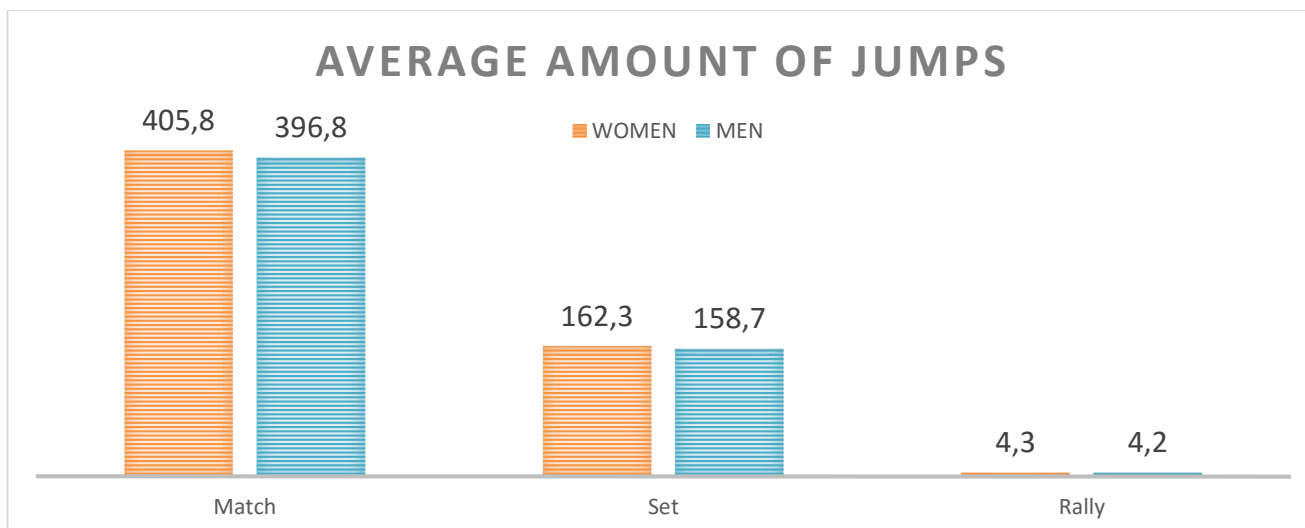
GAME ACTION ZONES	Women	Men
ZFL (Left Front Zone)	14,1%	15,1%
ZFC (Center Front Zone)	15,1%	14,6%
ZFR (Right Front Zone)	13,9%	13,6%
ZCL (Left Center Zone)	8,7%	8,6%
ZCC (Center Center Zone)	11,9%	9,6%
ZCR (Right Center Zone)	7,5%	7,4%
ZBL (Left Back Zone)	1,3%	1,8%
ZBC (Center Back Zone)	3,3%	3,3%
ZBR (Right Back Zone)	1,6%	2,0%
ZSL (Left Service Zone)	8,3%	3,9%
ZSC (Center Back Zone)	5,7%	12,1%
ZSR (Right Service Zone)	8,0%	7,3%
ZOL (Left Outside Zone)	0,2%	0,4%
ZOR (Right Outside Zone)	0,3%	0,4%





Jumps per Match

Average amount of Jumps	Women	Men
Per Match	405,8	396,8
Per Set	162,3	158,7
Per Rally	4,3	4,2



General Conclusions

Facts

- 🏐 The women's game has more long rallies in general;
- 🏐 There are more defenses, and consequently more counterattacks in the female than in the male's game;
- 🏐 In the women's game there are more ball contacts per game and rally, and consequently more exchanges;
- 🏐 The setting is made primarily with the Underhand technique. However, in the men's game, 25% of the time setting is performed with the technique of Overhand with Fingers;
- 🏐 The men's game takes more risk and power in the service, the attack and the block;
- 🏐 The women's game favors the control, in the service, the attack and the block;
- 🏐 60% of the time, the attack prevails over the defense;
- 🏐 In the men's game there are more block errors and block kills;
- 🏐 In the women's game there is a greater tendency for using the "peel off" at the block;
- 🏐 For the various actions of the men's game there is a greater use of all areas of the field of play, unlike the women's which concentrates the play largely to a more central area of the court.

Key Words

Palavras Chave	
WOMEN	MEN
<ul style="list-style-type: none"> 🏐 Control; 🏐 Long Rallies; 🏐 Float Service 🏐 Underhand Set; 🏐 Attack Soft and Poke; 🏐 "Peel Off"; 	<ul style="list-style-type: none"> 🏐 Power; 🏐 1 Attack Rallies; 🏐 Jump Drive Service; 🏐 Setting Overhand with Fingers; 🏐 Attack Hard; 🏐 Block Kill and Error;

Possibilities


- 🏐 The Women's game is longer because of the relation of the Attack versus the Defense;
- 🏐 The Attack in the Men's game is more often made with power and accuracy, therefore the rallies end more quickly;
- 🏐 The male's physical capacity enables a higher risk in the game actions, a larger displacement capability and power (even with a higher net than the women's). This causes the game to display different characteristics for the respective genders.


Final Teaser

- 🏐 Is the game more Spectacular just because the Rallies are longer? Is extended length in the rallies the main determinant for the Spectacular, or can we also find spectacular in a series of quick powerful and very plastic (esthetic) actions which can thrill the audience?

(* followed by showing two videos demonstrating the reality above "the various faces of the spectacular").

Side Notes, by the FIVB Rules of the Game President

-  To answer our own question, we can take guidance from other competitions and from our sister form of the sport, Volleyball: “long rallies” can mean boring; “dig-set-spike” can be boring too. What we need is variety in attack and defense, service and block, front court and back, powerful hitting mixed with delicate cut shots or pokes – all of these add to the charm of the game. We need instability in the rally to reduce the impact of first attack – hence the underhand reception is vital to maintain as the norm. In turn this makes the set less accurate, and so the first spike is less decisive – but it does create the scrambled defense which has the audience on its feet! We have all the elements for the perfect game. We need to cherish what we have in order to celebrate the special nature of the sport.

-  There are many aspects to a successful and spectacular match – some have to do with the techniques and some have to do with the relative strength of the teams in their respective skill areas, and some have to do with the players and how they interact with each other and with the spectators in the venue. And we must not forget the driving force of the DJ. There can be a lot of style and little substance yet we still can have a match which is remembered – but where we have style and substance then we have a truly great match experience. The substance comes from having rules which create the instabilities described above – we need to have the strong service to create the slightly imperfect dig reception, to create the strong but not necessarily decisive spike past the partly effective (but completed) block; this sets up the second phase or counter-attack, which is also not decisive. So we need to monitor the sport constantly to maintain a drift towards a less than 60% attack-dominated game, to give the serving team opportunities to win their own service – and thus move into 2nd and third phase rallies which we can proclaim on the web-sites as the strongest advert for our sport.

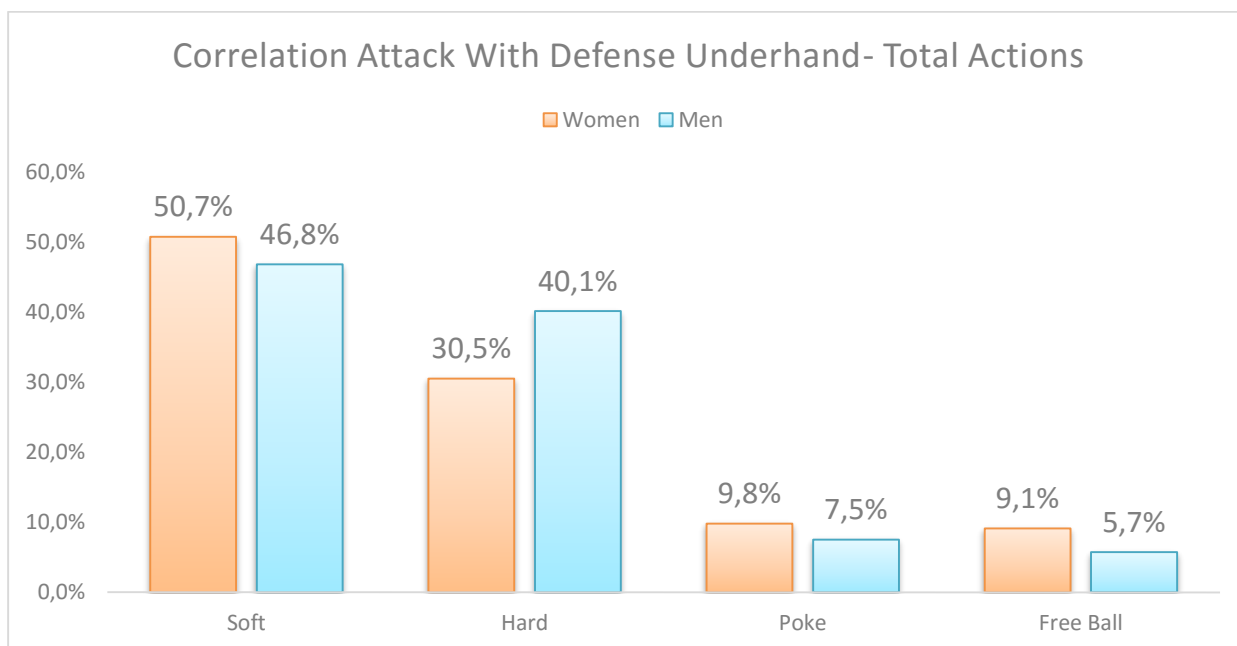
Eventual Future Approaches

Correlation Attack – Defense

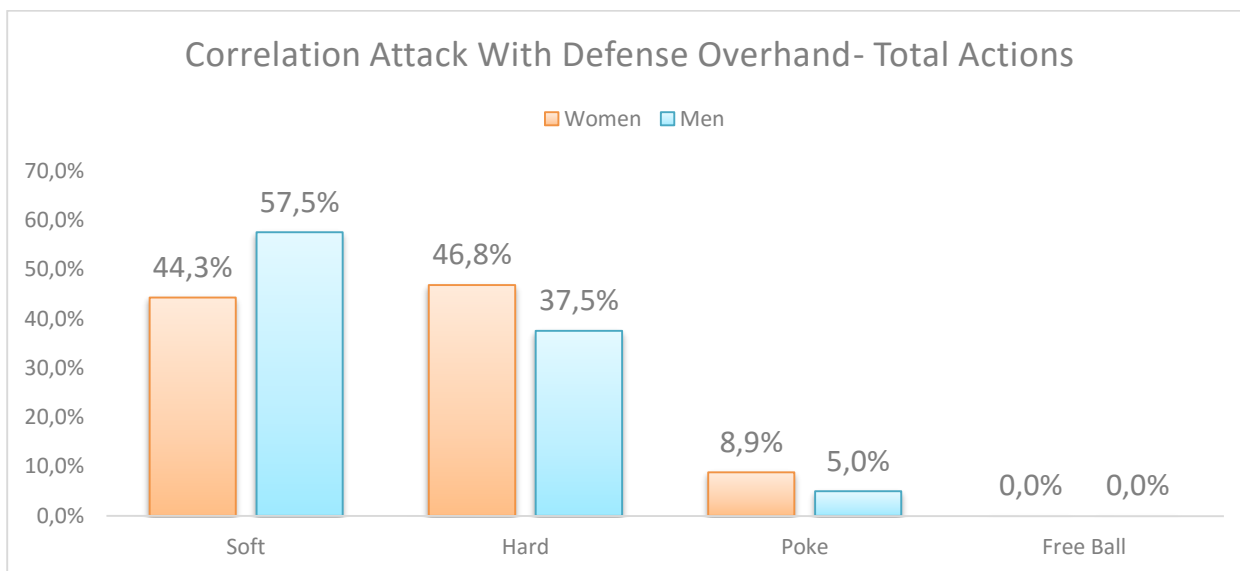
This correlation tells us the average amount of times that a particular defensive action takes place after a certain type of attack. Note that this percentage assessment is carried out based on a universe of "completed defenses," that is, we exclude all error and kill attack actions, as well as all completed block actions that could interfere in the analysis. In a future study we may be able to further address this correlations as well as the triad attack-block-defense, but this was not the case of the analysis here carried out.

Attack – Defense Analysis

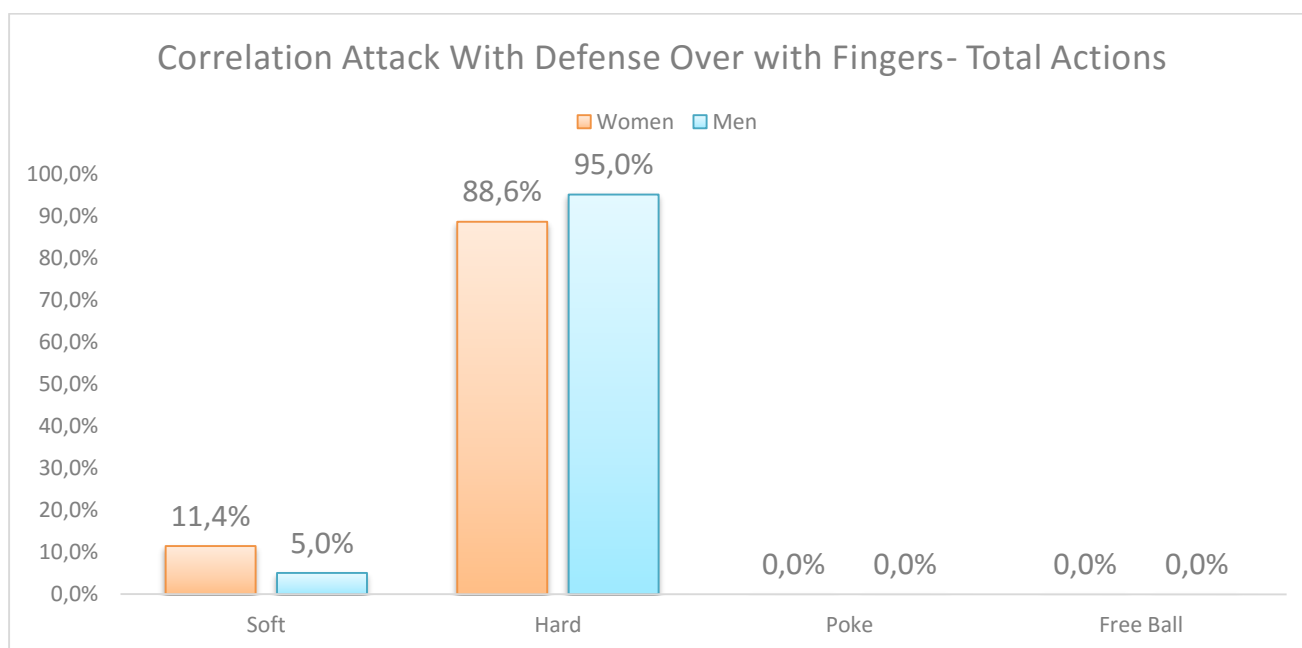
Correlation Attack – Defense Underhand	Women	Men
Attack Soft	50,7 %	9,1 %
Attack Hard	30,5 %	46,8 %
Attack Poke	9,8 %	7,5 %
Free Ball	9,1 %	5,7 %



Correlation Attack – Defense Overhand	Women	Men
Attack Soft	44,3 %	57,5 %
Attack Hard	46,8 %	37,5 %
Attack Poke	8,9 %	5,0 %
Free Ball	0,0 %	0,0 %



Correlation Attack – Defense Overhand with Fingers	Women	Men
Attack Soft	11,4 %	5,0 %
Attack Hard	88,6 %	95,0 %
Attack Poke	0,0 %	0,0 %
Free Ball	0,0 %	0,0 %



Attack – Defense all Actions Graphic

