

EHF REFEREE CANDIDATES SEMINAR, ST. GALLEN/SUI, 11.12.-16.12.2012

Dissimilarity between Men's and Women's handball

COACHING FEMALE AND MALE HANDBALL PLAYERS

Zoltán Marczinka

EHF Lecturer



EUROPEAN HANDBALL
FEDERATION

INTRODUCTION

In today's society, there is parity between the sexes. In handball, the rules and competition schedule are the same for both men and women, so too is the technical and tactical repertoire required of the two genders.

The differences between the two genders can be noted by looking at the four major aspects of training are the following:

- **PHYSICAL ABILITIES**

(Differences in: strength, agility, endurance, flexibility, body mass, proportion of muscle and fat, proportion of trunk and limbs...)

- **CO-ORDINATIONAL ABILITIES**

(Differences in: special awareness, eye/limb and eye/ball coordination, movement coordination...)

- **COGNITIVE ABILITIES**

(Differences in: thought processes, visual perception, oral ability, communication skill, learning style, personality...)

- **EMOTIONAL FACTORS**

(Differences in: social relationships, behaviour on and off court, emotional life, pain threshold, mood swings...)

Things that are obvious...

Anthropometrical Differences:

Height: Men – on average 10 – 12 cm taller

Weight: Men – on average 10 – 13 kg heavier

Limbs: Men – on average 5 cm longer

Proportion of body parts: Women – longer trunk, shorter limbs

Circumference of body parts (eg. chest, arm, leg, hand): Men – bigger



Body shape: Women – curvier line, Men – straighter line

Bone structure: Woman – lower bone mineral content = loose weave

Men – higher bone mineral content = tight weave

Body fat: Women – higher proportion (32-28 %)
Men – wider range (42-18 %)

PHYSICAL ABILITIES

Strength

The level of testosterone is decisive:

Men - produce between 2.5 - 11 mg / day

Women - produce on average 0.1mg / day

- Average strength: **Women** have 2/3 of that of men
- Loading when weight exercise: **Women** 20-25 % less than that of men

Due to the differences in proportion of body parts:

- **Women** – longer trunk, shorter limbs, thus shorter leverage
- **Men** – shorter trunk, longer limbs, thus longer leverage

Agility

As a consequence of more muscle strength, men are faster



Endurance

*Relative VO₂ max.: Women - 50-55 ml/kg/sec
Men - 60-65 ml/kg/sec*

- Endurance training program:
Women – 10% less

Flexibility

Due to puberty, the testosterone level in boys' blood suddenly increases

- After 12-13 years of age, flexibility in boys reduces and thus they need twice as much stretching as girls after this phase
- Without special stretching exercises the flexibility of girls also reduces, but not to the same extent as boys.

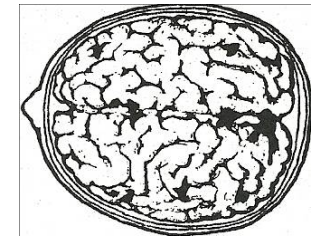
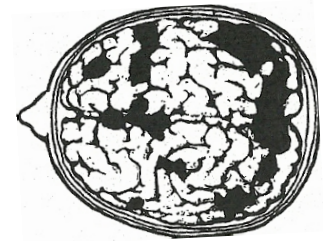


CO-ORDINATIONAL ABILITIES

Spatial vision, spatial awareness

Due to the differences in the brain function of men and women, the part of brain which is responsible for understanding connections in space (lower cortex) is larger in man. Consequently, spatial vision, spatial awareness, mathematical and logical thinking ability is better developed in men

- **Men** can better handle certain patterns, shapes, abstract connections and can read maps better.
- **Women** on the other hand are better in quickly identifying missing parts, thus better in mosaic games.



Movement co-ordination

The eye/limb and eye/ball coordination of men is more developed.

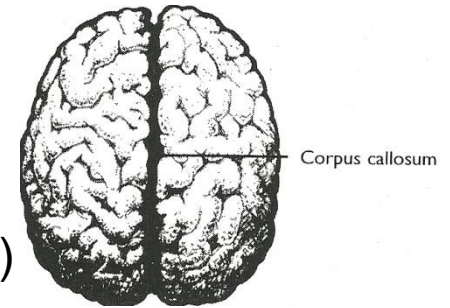
- **Men** are better skilled in ball games and learn new ball-related technical elements faster.

COGNITIVE ABILITIES

Thought processes

During evolution, the brain of the two sexes developed differently:

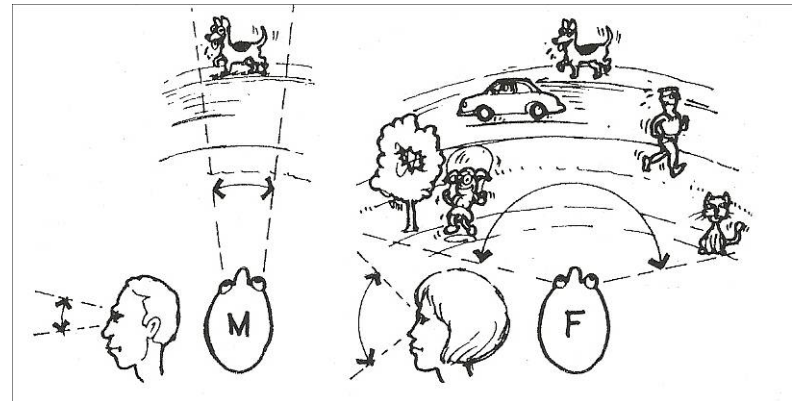
- **Men** – left half is more divided and more detailed than the right side - *extremity* (genius or retarded)
- **Women** – the connection between the two halves is better - *flexibility* (takes on the task of the other side)



Visual perception

Due to task sharing which evolved through evolution – visual perception developed differently:

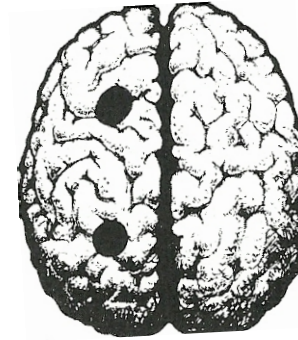
- **Women** – gathering, protecting, home making – *peripheral vision* is better
- **Men** – hunter, warrior, food provider – *tunnel vision* is better



Communication skill

A woman's brain senses hearing on both sides of the brain, while only the left side of the man's brain does this task.

- **Men** can tell the substance of the situation, focusing on the important aspects
- **Women** concentrate on details and can do different things at the same time (multitask)



(Location of vocabulary in the male brain)

Learning style

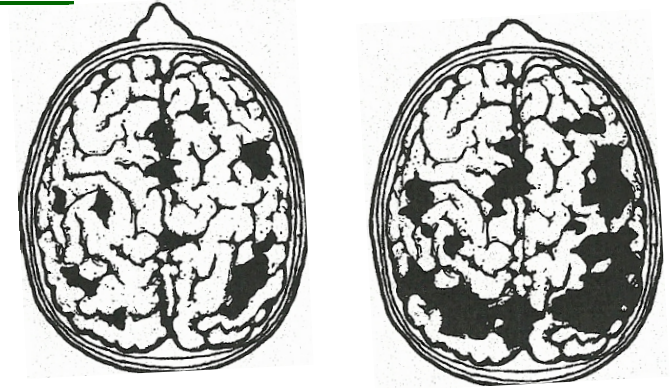
Due to the fact that men can rationalise an abstract thought and integrate it,

- **Men** learn tactical elements / set moves faster and can apply them by approx. 1/3x more effectiveness than women in a competition situation
- **Women's** teams need twice as much time to learn the same choreography

Verbal ability

Due to the fact that certain sections of the frontal lobe of the woman's brain (which is responsible for speech) is bigger

- **Women's** oral and verbal skills are better developed:
 - learn languages easier,
 - use the mother tongue better, and
 - talk 3x as much as men



Male

Female

(Location of speech and language)

Personality

The differences in the way their brains work, determines the personality of both genders.

- **Women** are more open, make social connections faster, are more likely to look for contact and company (extrovert)
- **Men** are more insular, try to solve problems on their own, more often turn inside for answers and solutions, camouflage their emotions (introvert)

Judging success and ambition differently:

- **Men** – hierarchy and domination more important
- **Women** – interested in the type and meaning of the chosen task

EMOTIONAL FACTORS

Social relationships

The genetic differences determine social relations:

- **Men** – egocentric, strive for dominancy. Therefore, in the hierarchy the fight for leadership is more evident
- **Women** – more sociable, when making friends sympathy and empathy are more important



Leadership role

- **Girls** – before and after adolescence, social connections decide who is going to be the leader
- **Boys** – until puberty, undoubtedly the strongest of the pack will be the leader (often an early developer). After the change (around 16 – 17 y.) physical differences diminish/become less obvious and so strength united with brain will be the main criteria for choosing a leader

Behaviour on and off court

The general behaviour of society is also evident in sport:

- **Women** – get offended quicker and hold a grudge longer, more sensitive to criticism and generally more respectful of authority
- **Men** – explosive, but forgive faster and make peace easier. Generally aggressive, always looking for competition, often challenge the coach

Environmental influences

Due to the different roles developed during the evolution of the two genders, women are more susceptible to the input of the outside world.

- **Women** in general, worry more about their surroundings. In sport – training facilities, change room, cleanliness and space for example

Pain threshold

Genetically woman's resistance to sickness is a little better and they live longer.

- **Women** have more pain sensors than men, the pain threshold is lower, they don't tolerate chronic pain easily and ask for medical assistance more so than men. Their resistance to sickness is a little better.

Sports injuries

- *Deriving from the differences in body shape and structure, the type and frequency of the injuries are different when comparing the genders.*



- When comparing **how often** injury happens:
 - Until 15 years of age **girls** injure themselves average 3x more often than boys.
 - From 16 years of age the proportion of injuries are gradually shifting towards the boys,
 - Then between 31-35 years of age **men** injure themselves average 5x more than women.

- When comparing **how serious** the injuries are:
 - Due to the structural differences (**women** have wider pelvic bone, thus, tendency for „x - legs”, resulting difference in the structure of the knee-joint)
 - Women players suffer cruciate ligament damage in the knees average 6-8x more often than men.

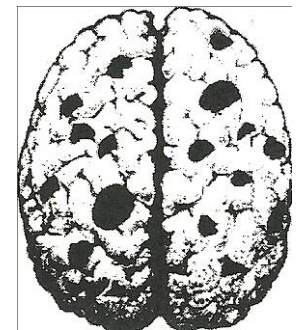
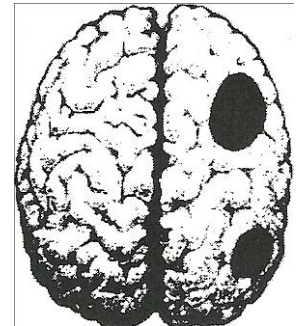
Emotional life

The stability of the emotional life - thus the mood - is greatly influenced by the hormonal system.

- Due to the cyclic change of the hormonal level (oestrogen), after puberty in **women**, mood swings and changes in attitude are more extreme

The latest research indicates that our emotions may be located in different areas of the brain

- **Men's** emotions operate separately from other brain functions. - Men can argue logically and in words (left half) and then become emotional about the issue (right half)
- In **women**, emotions operate in both hemispheres, thus, at the same time with other brain functions.
 - Women can express emotion (and perhaps cry) while doing a totally different activity



CONCLUSION

When coaching male and female teams the abovementioned areas are only a starting point to help in better understanding players. However, it needs to be noted that these are generalisations and based on stereotypes.

There are also “boyish” girls and “girlish” boys who make the distinctions between the two sexes less clear and more challenging in dealing with team preparation.

Naturally, all players are individuals with different psychological, social and emotional backgrounds and needs - hence they have to be treated accordingly.

Yes, there is parity between the sexes. So when coaching them, should they be treated the same? Definitely not.....

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Dissimilarity between Men's and Women's handball

WHEN REFEREEING FOR MEN'S AND WOMEN'S HANDBALL TEAMS

The Referees' opinion

based on the group discussion during the

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PHYSICAL ABILITIES

- Speed and intensity of the game is higher,
- The length of the attack is usually longer,
- Efficiency of the attack is higher and
- More body contact thus more interruption at men's matches.

CO-ORDINATIONAL ABILITIES

- Female players tend to make more technical mistakes,
- Their movements are 'not so rhythmical' and
- Their body movements can be 'misleading'.
- Male players have better ability to protect themselves (falling) and
- Their movements are more predictable / readable.

COGNITIVE ABILITIES

- Eye contact is more important when dealing with male players.
- Male players - straight communication, women players - more details.
- Talking the right amount and at the right time, according to the gender.
- Male players are more challenging regarding referee's decisions and
- Referees need to give them 'immediate feed-back'.

EMOTIONAL FACTORS

- Female players are more sensitive for injury / pain (and show it).
- Emotionally both gender react 'differently' to referees' decision.
- Male players are more often 'acting' and over reacting.
- Female players show more empathy to the other team.