



A coaches' perspective on the contribution of anthropometric measures, physical performance, and motor coordination tests in table tennis, tennis, and badminton.



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**Genetically determined and
occurs only for a limited number
of individuals.**

(Pion/ Ghent University, 2015)

TALENT?

Discovery of potential performers in a heterogeneous population of young people who are currently not involved in a specific sport.

(Vaeyens, 2007)

TALENT DETECTION?

Alludes to the process of recognizing current participants with the potential to excel in a particular sport.

(Williams & Reilly, 2000)

TALENT IDENTIFICATION?



**“His mind and attitude were strong...
Physically, it was just NATURAL.”**

Ismael Lopez Mastrapa

➤ **“My rhythm & coordination, I think
that is something I had NATURALLY
over other people.”**

Keshorn Walcott



Identify key characteristics that coaches search for when selecting athletes for their sport.

Identify the similarities and differences



AIM OF STUDY?



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**COMPARE TABLE TENNIS TO TENNIS AND
BADMINTON**

Table tennis, like tennis and badminton, is a combination of mainly open complex motor tasks.

(Chang- Yong, Chen, Chen, Huang, & Hung, 2012)

**A construct of a generic test battery
that could be used for talent
detection, talent orientation, and
talent identification.**

(Pion/ Ghent University, 2015)

FLEMISH SPORTS COMPASS?

❖ Talent Detection:
Poor / Good
movers

❖ Orient children to
other sports

❖ Combine sport
specific tests:
Poor/ Good
movers

❖ Identify Talent!!!

AIMS OF FLEMISH SPORTS COMPASS?



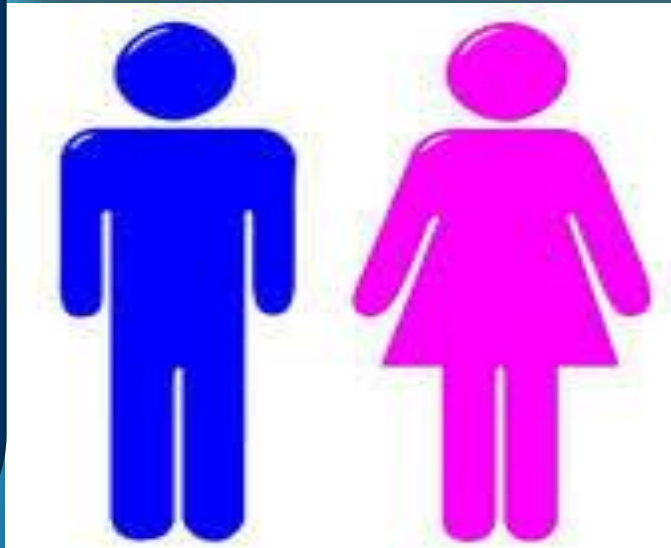
SurveyMonkey®

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METHODS?

**177 licensed
coaches**

152:25



PARTICIPANTS?

► Anthropometric Body

- Height
- Weight
- Mass index
- Fat percentage



CHARACTERISTICS USED IN THIS STUDY?

► Physical Performance

Functional Strength

Flexibility

Explosive jump

Endurance

Core stability



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► Physical performance

Speed/ Sprints

5m
10m
20m
30m



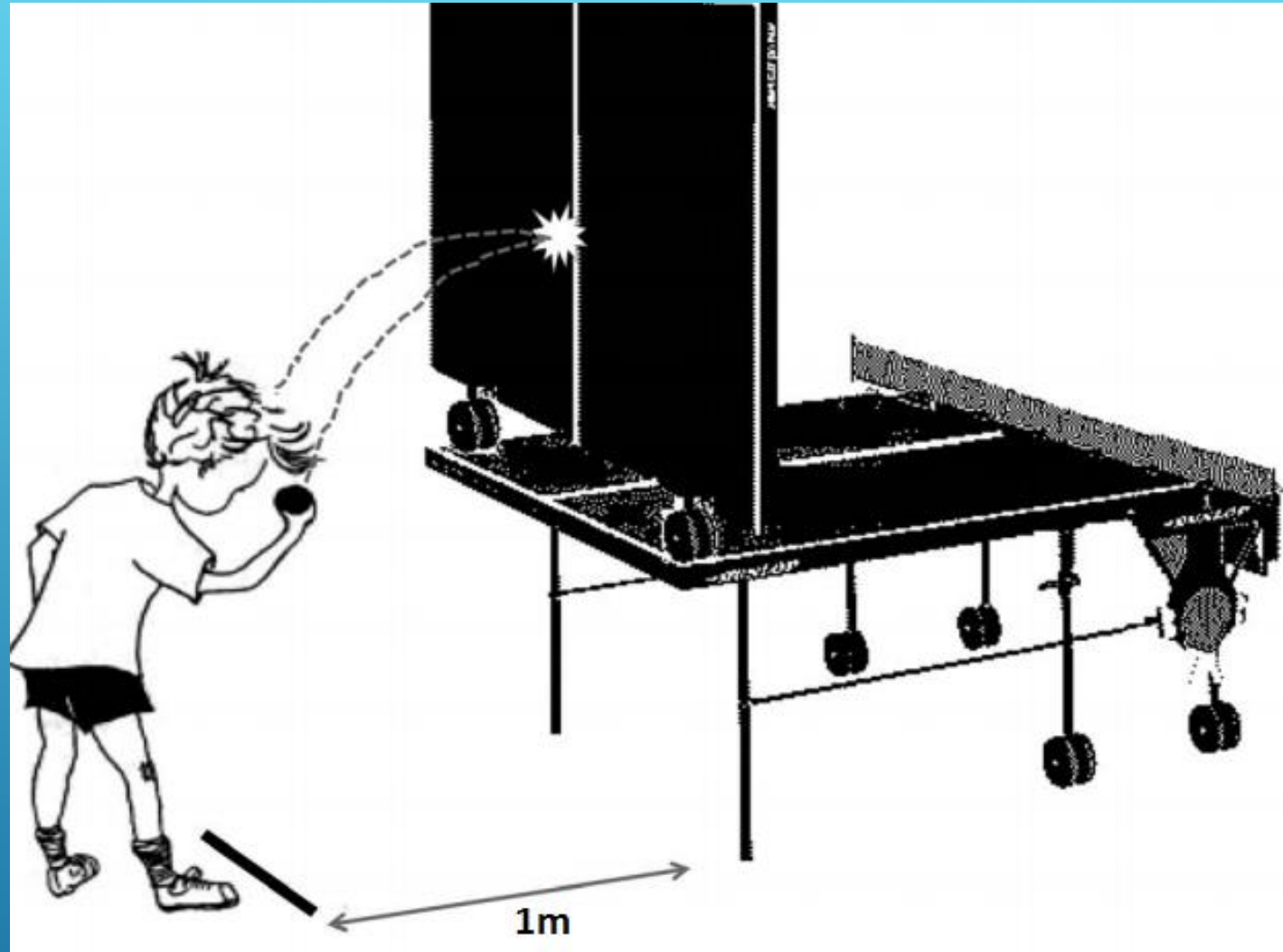
► Motor Coordination

- Ball handling: hits
- Balance
- Jumping sideways
- Moving sideways

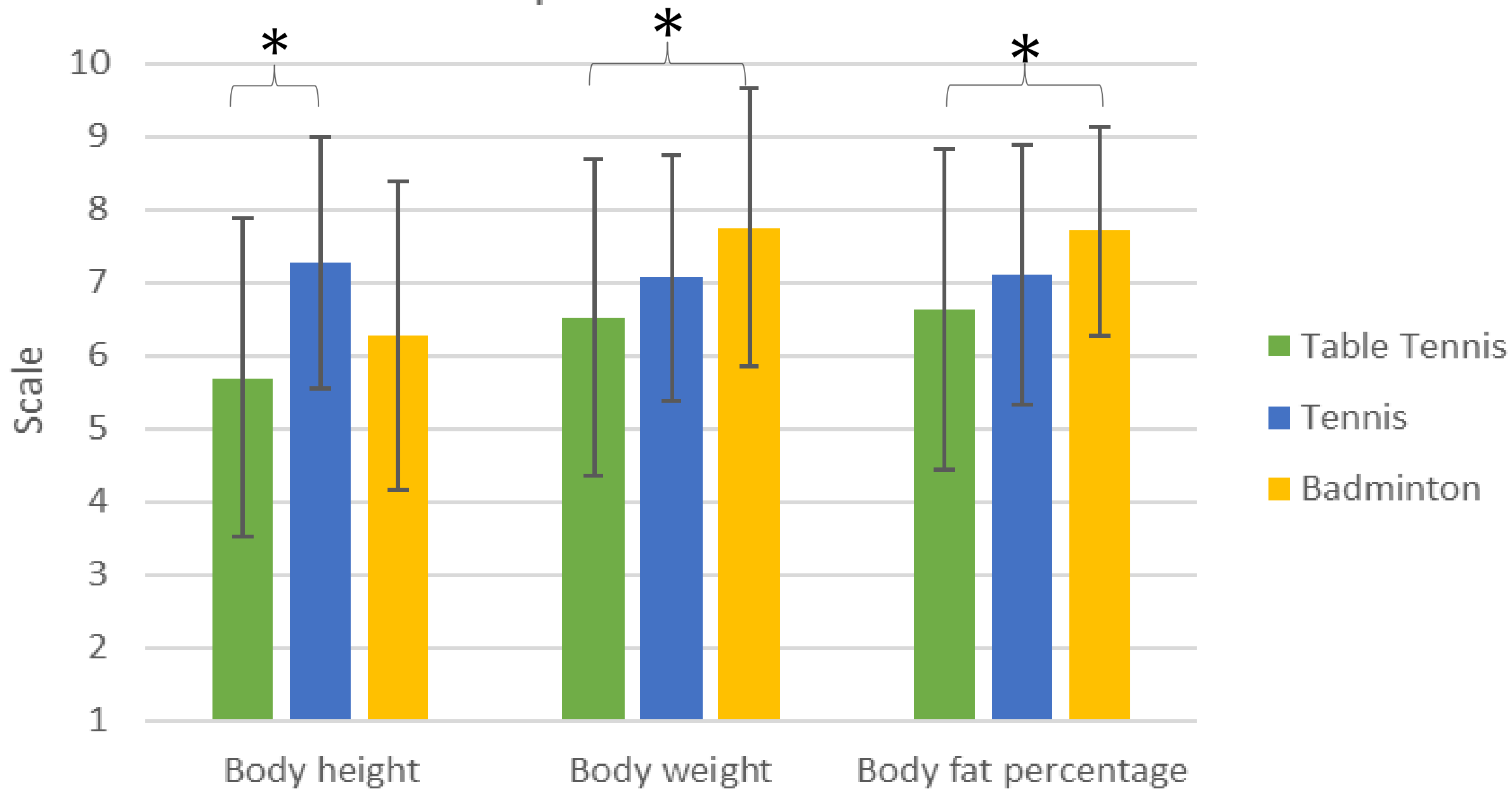


► Motor Coordination

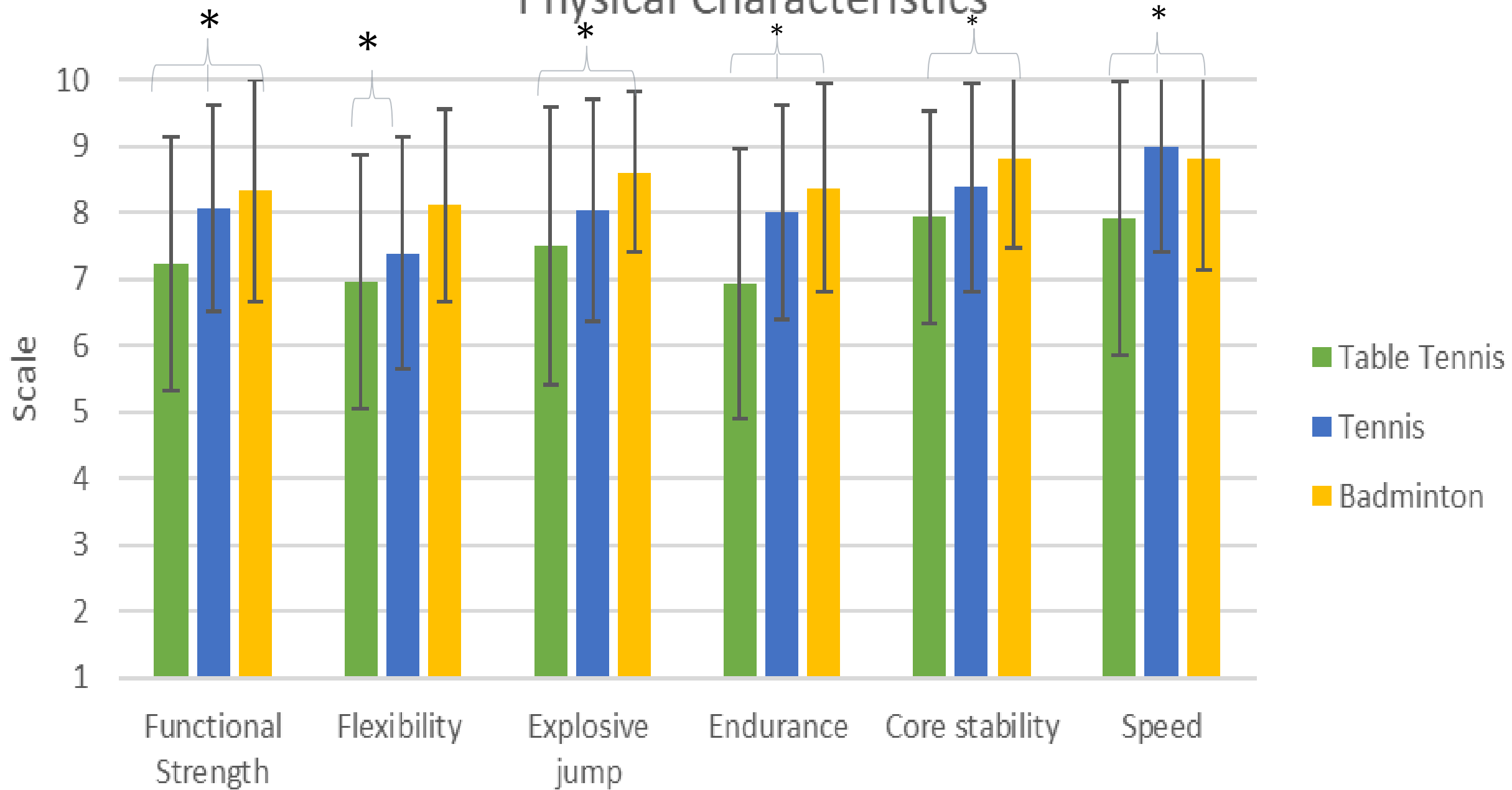
- Eye – Hand coordination skills
- Hand dribbling skills
- Shuttle throw
- Agility



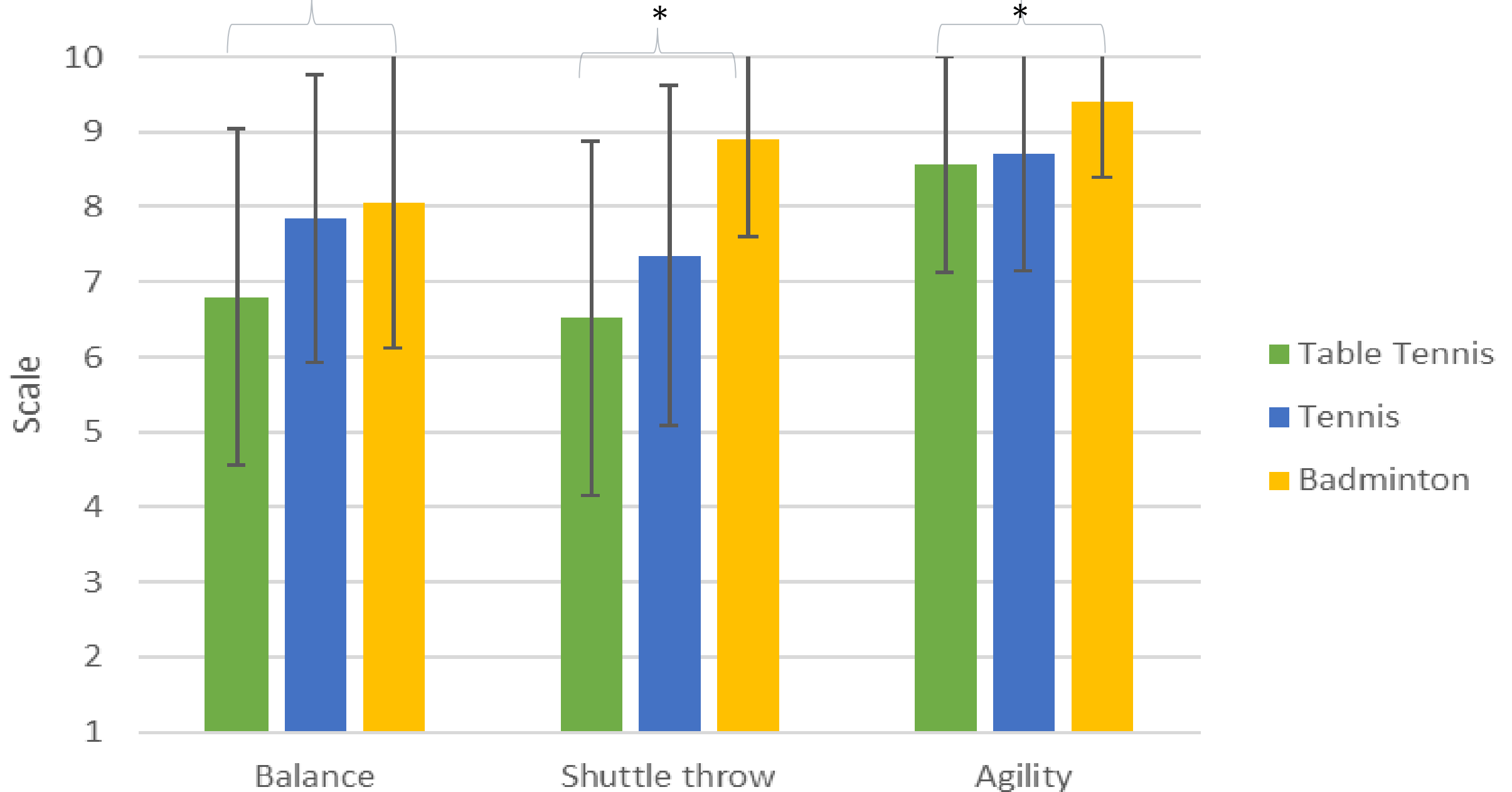
Anthropometric Characteristics



Physical Characteristics



* Motor coordination Characteristics



Assist small countries

**Help make talent
identification more objective**

**BENEFITS OF TALENT
IDENTIFICATION?**

Aid in talent orientation

- Is related to talent detection and aims at motivating youngsters to choose a sport that matches the individual talent characteristics to one or more specific sport(s).

(Papic, 2009; Pion/ Ghent University, 2015)

BENEFITS OF TALENT IDENTIFICATION?

Aid in talent transfer

- The opportunity that is offered to high-performance athletes to transfer their athletic ability to another sport.

(Gublin & Ackland, 2009; Halson, et al., 2006; Bullock et al., 2009)

BENEFITS OF TALENT IDENTIFICATION?



Amanda Haywood – Barbados

**Multiple Junior Caribbean titles
- Badminton/ Squash**

**Squash American University Scholarship
2018 Commonwealth Games**



Rhea Khan – Trinidad & Tobago

18 time national Squash champion

Caribbean Junior and Senior Squash titles

National Badminton titles



**1996 Summer Olympics
2 Bronze medals - Cycling**

**3 Winter Olympics – Speed Skating
1 Gold
1 Silver
2 Bronze**

CLARA HUGHES





8 Time Olympic Gold medalist

**World Record holder in 100m &
200m**

**2018 Trials with Professional
Football Club- Borussia Dortmund**

USAIN BOLT

**Incomplete
questionnaires due to
lack of knowledge of
some characteristics**



LIMITATIONS?

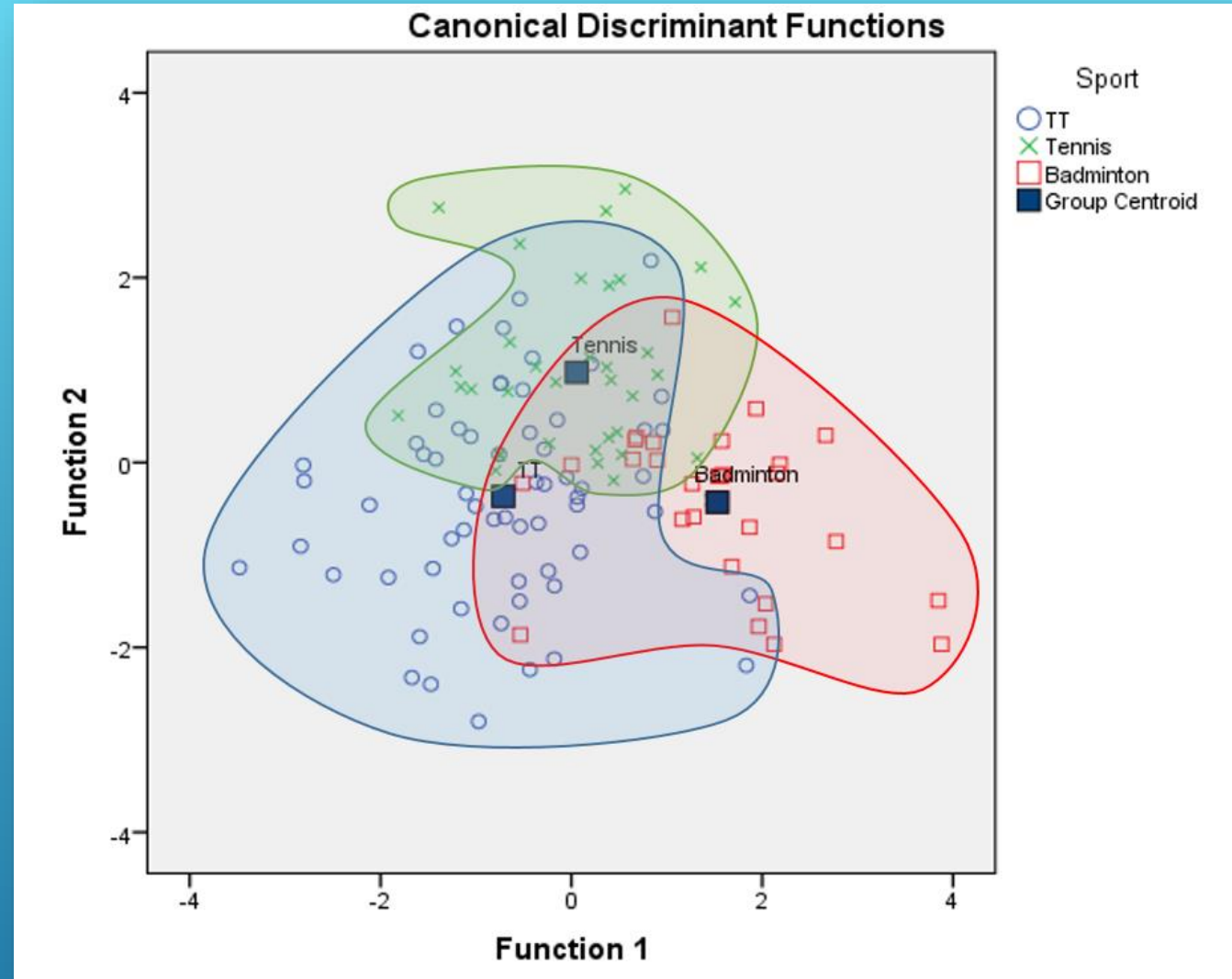
Inclusion of psychological measurements

- Concentration
- Decision making
- Mental toughness



FUTURE CONSIDERATIONS?

Coaches are
very well
aware of the
characteristics
needed for
their sport.



CONCLUSION?

Indicated the differences in the sporting profiles as well as the considerable overlap.

Early specialisation the only way to excel in racquet sports?

CONCLUSION?

Do something every
day that brings you
closer to your dream.

Katrina Mayer

*Thank
You*

MANOVA for comparison of table tennis, tennis and badminton based on the coaches' perspectives.				
Characteristics	Table Tennis (n = 84)	Tennis (n = 48)	Badminton (n = 45)	P
<u>Anthropometric</u>				0.000
Body height	5.70 (2.174) ^b	7.26 (1.725) ^a	6.27 (2.106)	0.000
Body weight	6.52 (2.172) ^c	7.06 (1.686)	7.75 (1.906) ^a	0.004
Body mass index (BMI)	6.47 (2.172)	7.00 (2.255)	7.26 (2.092)	0.077
Body fat percentage	6.64 (2.195) ^c	7.11 (1.772)	7.70 (1.424) ^a	0.012
<u>Physical</u>				0.003
Functional Strength	7.23 (1.913) ^{bc}	8.07 (1.546) ^a	8.33 (1.677) ^a	0.002
Flexibility (sit and reach)	6.97 (1.913) ^c	7.39 (1.742)	8.12 (1.452) ^a	0.005
Explosive jump (standing broad jump)	7.50 (2.087) ^c	8.05 (1.670)	8.62 (1.209) ^a	0.005
Endurance (20m beep test)	6.94 (2.028) ^{bc}	8.00 (1.614) ^a	8.38 (1.561) ^a	0.000
Core stability (planking)	7.94 (1.598) ^c	8.39 (1.573)	8.81 (1.348) ^a	0.012
Speed (5m sprint)	7.91 (2.059) ^{bc}	8.98 (1.577) ^a	8.81 (1.656) ^a	0.003
Speed (10m sprint)	7.06 (2.281) ^{bc}	8.32 (1.611) ^a	8.21 (1.675) ^a	0.001
Speed (20m sprint)	6.32 (2.332) ^c	7.02 (1.823)	7.62 (2.152) ^a	0.007
Speed (30m sprint)	5.59 (2.457) ^c	6.00 (1.905)	7.10 (2.602) ^a	0.005

MANOVA for comparison of table tennis, tennis and badminton based on the coaches' perspectives.				
Characteristics	Table Tennis (n = 84)	Tennis (n = 48)	Badminton (n = 45)	P
<u>Motor Coordination</u>				0.000
Ball Handling: hits	9.08 (1.703)	8.62 (1.769)	8.11 (2.424)	0.073
Walking backwards on a balance beam	6.80 (2.234) ^c	7.84 (1.922)	8.07 (1.961) ^a	0.009
Jumping sideways over a wooden slate	7.79 (1.767)	8.05 (1.794)	8.68 (1.188)	0.065
Moving sideways by stepping from one plate to the next	8.12 (1.910)	8.08 (1.689)	8.43 (1.372)	0.685
Eye –hand coordination	8.73 (1.989)	8.76 (1.588)	9.21 (1.287)	0.444
Hand dribbling skills	6.18 (2.505)	6.78 (2.562)	6.61 (2.859)	0.495
Shuttle throw	6.52 (2.355) ^c	7.35 (2.263) ^c	8.89 (1.286) ^{ab}	0.000
Agility	8.56 (1.437) ^c	8.70 (1.543)	9.39 (0.994) ^a	0.030

Data are frequencies of Coaches' characteristics					
Characteristics		Total	Table Tennis	Tennis	Badminton
N		177			
Male: female		152: 25			
Region	West-Europe	140	73	42	25
	Asia		14	0	8
	Australia	1	-	1	-
	Africa	1	-	-	1
	Middle-East	1	-	1	-
	Caribbean	11	3	2	6
	North America	2	-	1	1
	South America	2	-	1	1
Trainer level	Club	105	61	17	27
	National	32	9	15	8
	International	37	18	16	3
	No Classification	3	1	1	1