



PYSD | *Preventing Youth Sport Dropouts*

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Co-funded by the
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Report about research in PYSD project



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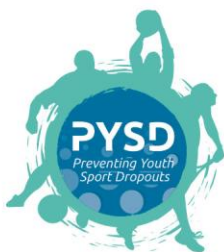


Table of contents

Report about research in PYSD project.....	1
METHODS	3
SAMPLE	3
INSTRUMENTS.....	9
RESULTS.....	11
1. Achievement at The Students Resilience Scale (SRS)	11
2. Achievement at The Parent Involvement in Sport Questionnaire (PISQ)	23
3. Achievement at The Coach-Athlete Relationship Questionnaire (CART-.....	35
4. Relation of Resilience Levels (SRS) with achievement on PISQ and.....	43

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METHODS

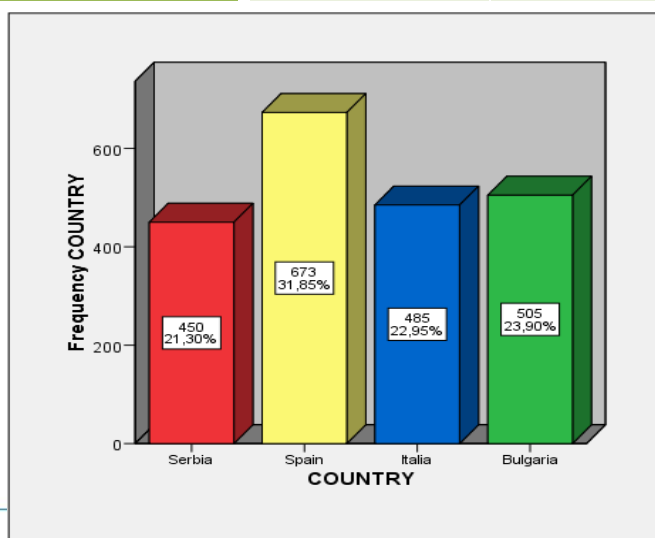
SAMPLE

Research under project PREVENTING YOUTH SPORTS DROPOUTS ref.no. 603143-EPP-1-2018-1-IT-SPO funded by the European Commission through the Erasmus+ program was conducted from September 2019 to January 2020. The study involved children and young people from 4 countries: Italy, Spain, Serbia and Bulgaria. A total of 2404 questionnaires were collected.

COUNTRY		
	Frequency	Percent
Italy	527	23.0
Spain	673	31.9
Serbia	452	21.3
Bulgaria	752	23.9
Total	2404	100.0

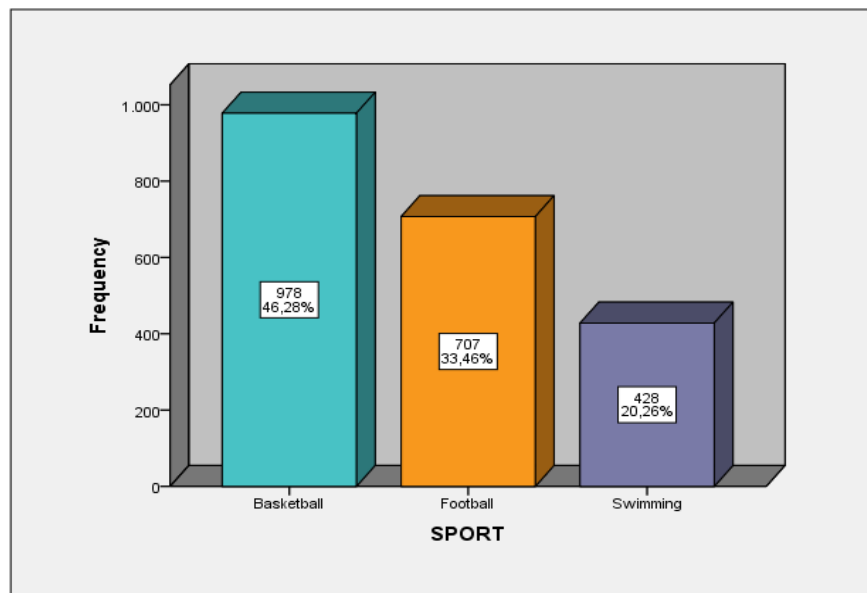
After reviewing the collected data, 2133 questionnaires that were in accordance with the criteria were taken for further analysis. From Italy, 485 (23.0%) respondents participated, from Spain 673 (31.9%), from Serbia 450 (21.3%) and from Bulgaria 505 (23.9%).

COUNTRY		
	Frequency	Percent
Italy	485	23.0
Spain	673	31.9
Serbia	450	21.3
Bulgaria	505	23.9
Total	2113	100.0



In comparison with the dominant sport 978 (46.3%) examinees are basketball players, 707 (33.5%) are football players and 428 (20.3%) are swimmers.

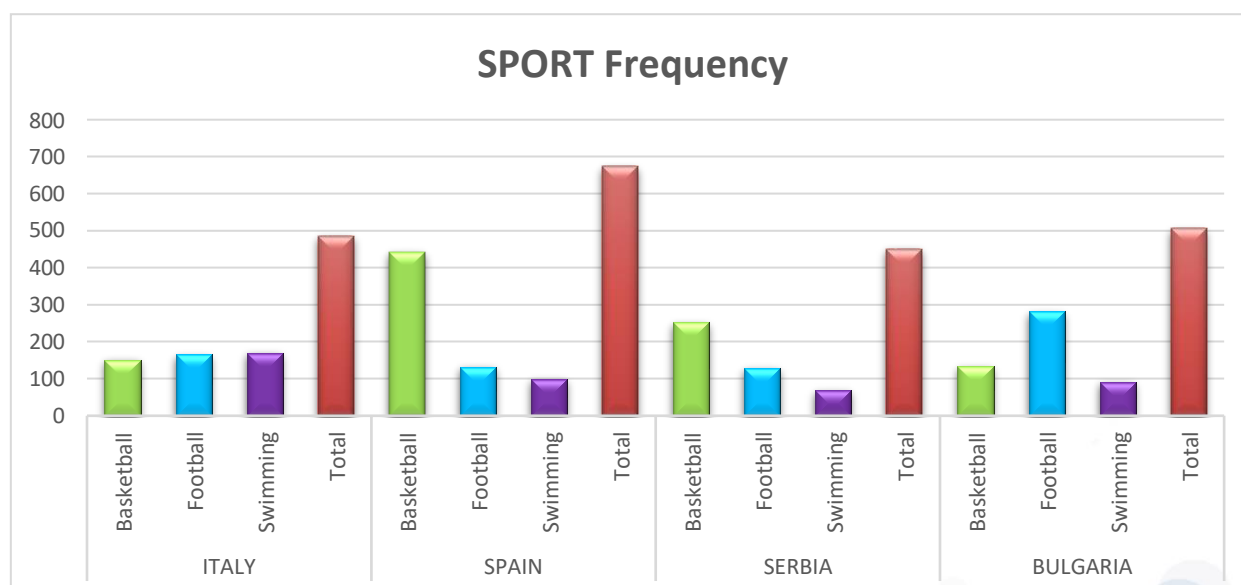
SPORT		
	Frequency	Percent
Basketball	978	46.3
Football	707	33.5
Swimming	428	20.3
Total	2113	100.0



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In comparison to the dominant sport, the sample structure by country is as follows:

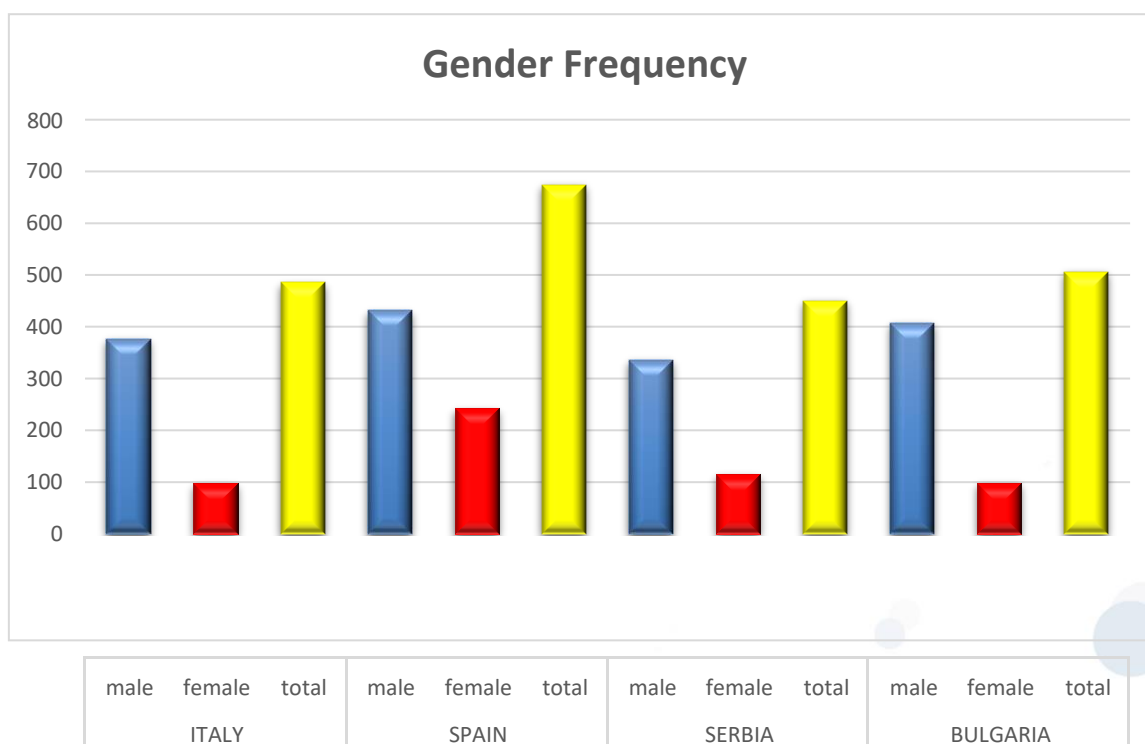
SPORTS BY COUNTRIES			
	SPORT	Frequency	Percent
ITALY	Basketball	151	31.1
	Football	165	34.0
	Swimming	169	34.8
	Total	485	100.0
SPAIN	Basketball	442	65.7
	Football	132	19.6
	Swimming	99	14.7
	Total	673	100.0
SERBIA	Basketball	252	56.0
	Football	129	28.7
	Swimming	69	15.3
	Total	450	100.0
BULGARIA	Basketball	133	26.3
	Football	281	55.6
	Swimming	91	18.0
	Total	505	100.0



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The sample included 73% of boys and 26% of girls. In comparison to the gender, the sample structure by country is as follows:

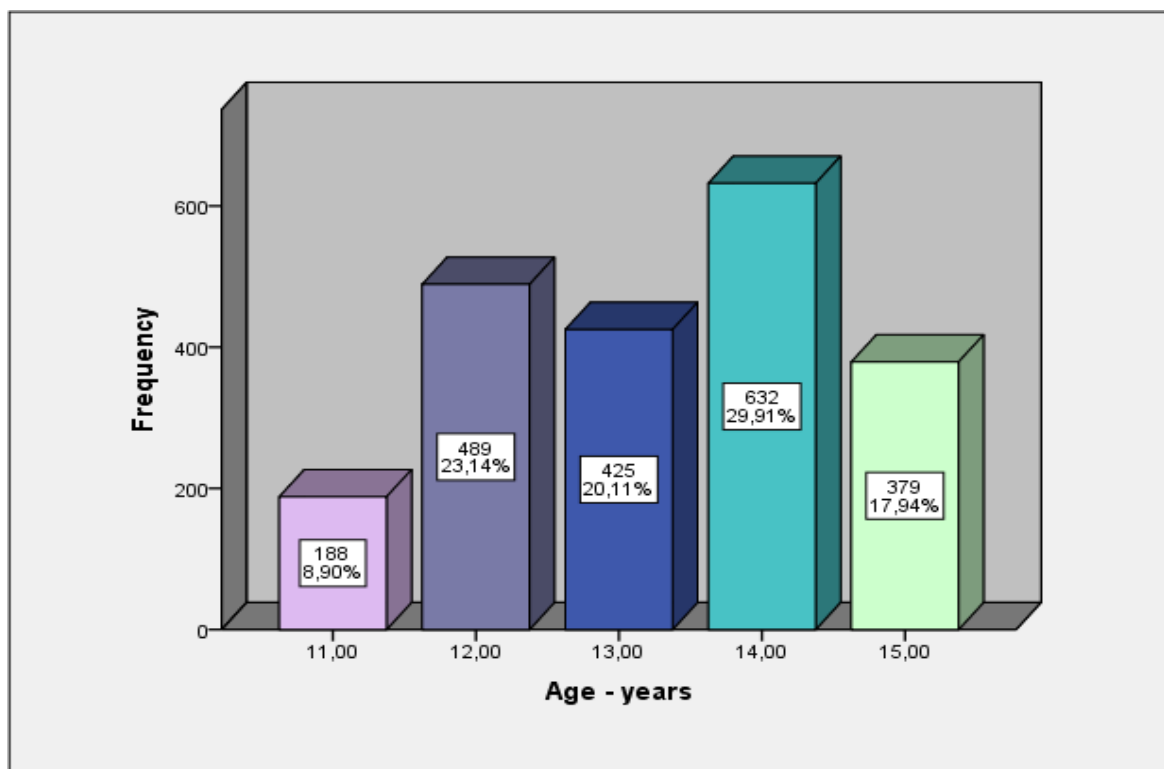
SPORT	GENDER	Frequency	Percent
ITALY	male	376	77.5
	female	97	20.0
	Total	485	100.0
SPAIN	male	431	64.0
	female	242	36.0
	Total	673	100.0
SERBIA	male	336	74.7
	female	114	25.3
	Total	450	100.0
BULGARIA	male	407	80.6
	female	98	19.4
	Total	505	100.0



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The sample included ages 11 to 15 years and 11 months, an average age of 13.8 years.

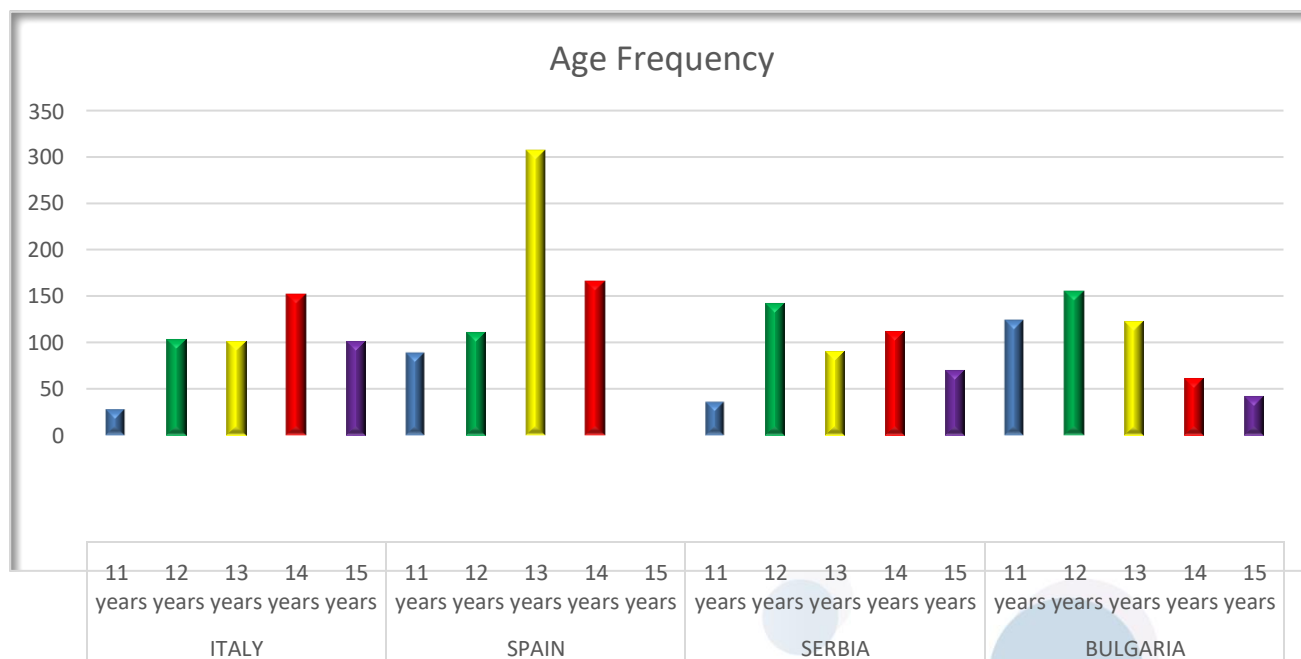
AGE	Frequency	Percent
11 years	188	8.9
12 years	489	23.1
13 years	425	20.1
14 years	632	29.9
15 years	379	17.9
Total	2113	100.0



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In comparison to the age, the sample structure by country is as follows:

COUNTRY	AGE	Frequency	Percent
ITALY	11 years	28	5.8
	12 years	103	21.2
	13 years	101	20.8
	14 years	152	31.3
	15 years	101	20.8
SPAIN	11 years	89	13.2
	12 years	111	16.5
	13 years	307	45.6
	14 years	166	24.7
	15 years	0	0
SERBIA	11 years	36	8.0
	12 years	142	31.6
	13 years	90	20.0
	14 years	112	24.9
	15 years	70	15.6
BULGARIA	11 years	124	24.6
	12 years	155	30.7
	13 years	123	24.4
	14 years	61	12.1
	15 years	42	8.3



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INSTRUMENTS

In the research it was used 4 instruments filled by children and young people:

1. **Questionnaire for collecting socio-demographic variables** which included the following variables:
 - 1) gender
 - 2) age
 - 3) place of living
 - 4) dominant sport and how long practicing in sport
 - 5) other sports and how long practicing in sports
 - 6) name of club where training and how long
 - 7) frequency of training (how many days and training per week)
 - 8) whether they participated in the competition and the name of the competition
 - 9) parental education
2. **The Students Resilience Scale – SRS** (Lereya et al, 2016) Items are rated on five-point, Likert-type scales ranging from never (1) to always (5). The scale covers range of 10 subscales, external supports and internal characteristics which can potentially be viewed as protective factors:
 - 1) *Family connection*
 - 2) *School connection*
 - 3) *Community connection*
 - 4) *Participation in home and school life*
 - 5) *Participation in community life*
 - 6) *Self-esteem*
 - 7) *Empathy*
 - 8) *Problem solving*
 - 9) *Goals and aspirations*
 - 10) *Peer support*
3. **The Parent Involvement in Sport Questionnaire – PISQ**, athlete's version, (Lee & MacLean, 1997), the mother and father are evaluated separately. Items are rated on five-point, Likert-type scales ranging from never (1) to always (5). It consists of 3 subscales:
 - 1) *The Directive Behaviour scale (DB)* – assess the extent to which parents control their children's behaviour in sport.
 - 2) *The Praise and Understanding (PU)* – assess the praise and empathy parents display towards their children.
 - 3) *The Active Involvement scale (AI)* – assess parents' activity in the club or during practice sessions.
4. **The Coach-Athlete Relationship Questionnaire – CART-Q**, athlete's version, (Jowett & Meek, 2002). Items are rated on seven-point, Likert-type scales ranging from I don't agree at all (1) to extremely I agree (7). It consists of 3 subscales:
 - 1) *Commitment* – is defined as coaches' and athletes' intention to maintain their athletic relationship and implies the athletic dyad's cognitive orientations for the future (cognitive aspect)
 - 2) *Closeness* – refers to feeling emotionally close with one another in the coach-athlete relationship (affective aspect)
 - 3) *Complementarity* – reflects coaches' and athletes' complementarity or cooperative interactions, especially during training (behavioral aspect).

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After collecting the data, the reliability of the instrument was checked. In the sample of children and youth from Italy, Serbia and Bulgaria, all three instruments showed **high reliability** (note the maximum value is 1), while in the sample of children from Spain it was **satisfactory**, with some negative inter-item correlations and low correlations of items with total score on the SRS and PISQ scale. This result could be due to the fact that children living in Catalonia whose first language was Catalan completed the Spanish questionnaires.

CRONBACH'S ALPHA			
	SRS	PISQ	CART-Q
Italy	0.914	0.923	0.920
Spain	0.833	0.818	0.851
Serbia	0.918	0.933	0.949
Bulgaria	0.940	0.927	0.910

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RESULTS

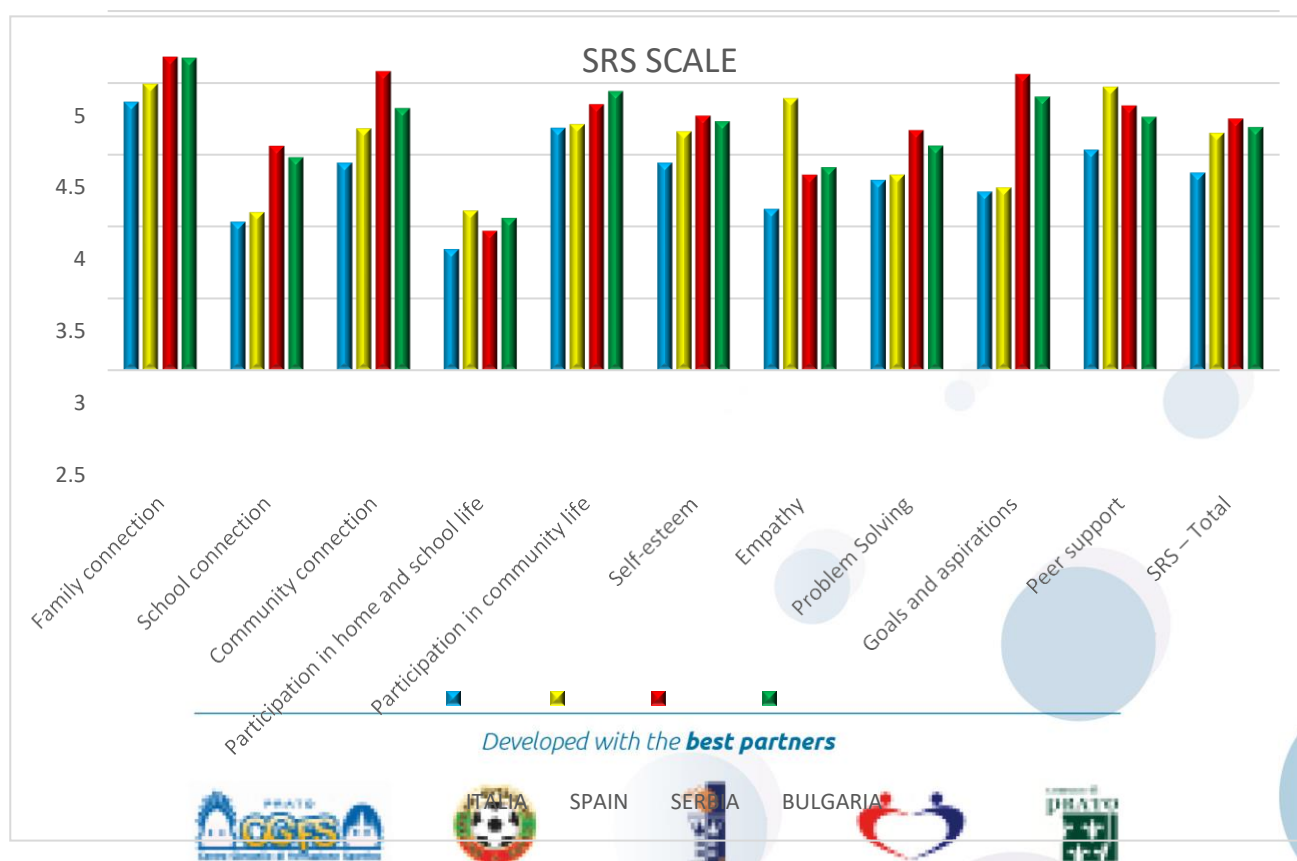
1. Achievement at The Students Resilience Scale (SRS)

1a. Cross-cultural differences at the Students Resilience Scale (SRS)

Survey results from a sample of children and young people from all four countries show the presence of high scores on the assessment of resistance levels. The *overall* level of resilience (SRS-total) measured by the SRS scale is most pronounced in children and youth from Serbia. Children and youth from Spain and Bulgaria score slightly lower, while children from Italy show the lowest levels of resilience.

* Scales where there is a statistically significant difference

SAMPLE	ITALIA		SPAIN		SERBIA		BULGARIA	
SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Family connection*	4.36	0.62	4.49	0.44	4.68	0.58	4.67	0.48
School connection*	3.53	0.87	3.60	0.72	4.06	0.93	3.98	0.83
Community connection*	3.94	0.94	4.18	0.68	4.58	0.67	4.32	0.88
Participation in home and school life*	3.34	0.74	3.61	0.75	3.47	0.97	3.56	0.78
Participation in community life*	4.18	1.01	4.21	1.08	4.35	1.09	4.44	0.87
Self-esteem*	3.94	0.67	4.16	0.62	4.27	0.66	4.23	0.65
Empathy*	3.62	0.95	4.39	0.68	3.86	1.03	3.91	0.86
Problem Solving*	3.82	0.87	3.86	0.86	4.17	0.89	4.06	0.82
Goals and aspirations*	3.74	0.95	3.77	0.91	4.56	0.64	4.40	0.75
Peer support*	4.03	0.66	4.47	0.46	4.34	0.78	4.26	0.64
SRS – Total*	3.87	0.51	4.15	0.34	4.25	0.51	4.19	0.49





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Differences exist on all aspects of the SRS scale. Compared to the other three countries, children and youth from Italy have the lowest scores in the overall score as well as in all aspects of resilience.

The following aspects of resilience are most pronounced in Serbian children and youth: *Family connection, School connection, Community connection, Self-esteem, Problem Solving* and *Goals and aspirations*. The result on the *Participation in community life* and *Peer support* is more moderate, while *Participation in home and school life* is average, *Empathy* aspect is slightly below average compared to the other three countries.

Children and youth from Bulgaria achieve similar results to children and youth from Serbia, which are slightly lower, with except that the aspect of *Participation in community life* is most pronounced in Bulgarian children and youth.

Compared to other countries children and youth from Spain achieve an average score *overall*. In aspects of *Participation in home and school life, Empathy* and *Peer Support* has more pronounced results than children and youth from other countries, while in all other aspects they have a slightly below average score compared to the other three countries.

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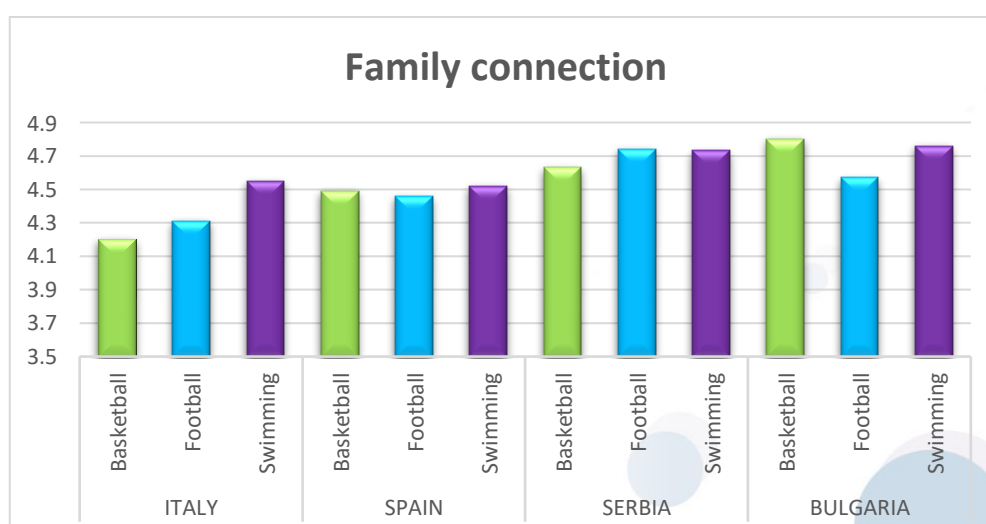


1b. Cross-cultural differences at the Students Resilience Scale (SRS) relative to the dominant sport

Comparing the level of resilience with respect to the type of sport and the country of testing, no differences were found in the relationship on *overall level of resilience*, but differences exist with respect to the 6 aspects of resilience measured by the SRS scale:

On the aspect *Family connection* all groups of athletes from all countries have a high score of over 4.00. Swimmers and basketball players from Bulgaria and footballers and swimmers from Serbia have the highest score, and basketball players from Serbia have a lower achievement. Italian football players and basketball players have described themselves as the lowest in this aspect. All athletes from Spain, footballers from Bulgaria and swimmers from Italy have an average achievement in relation to the whole sample.

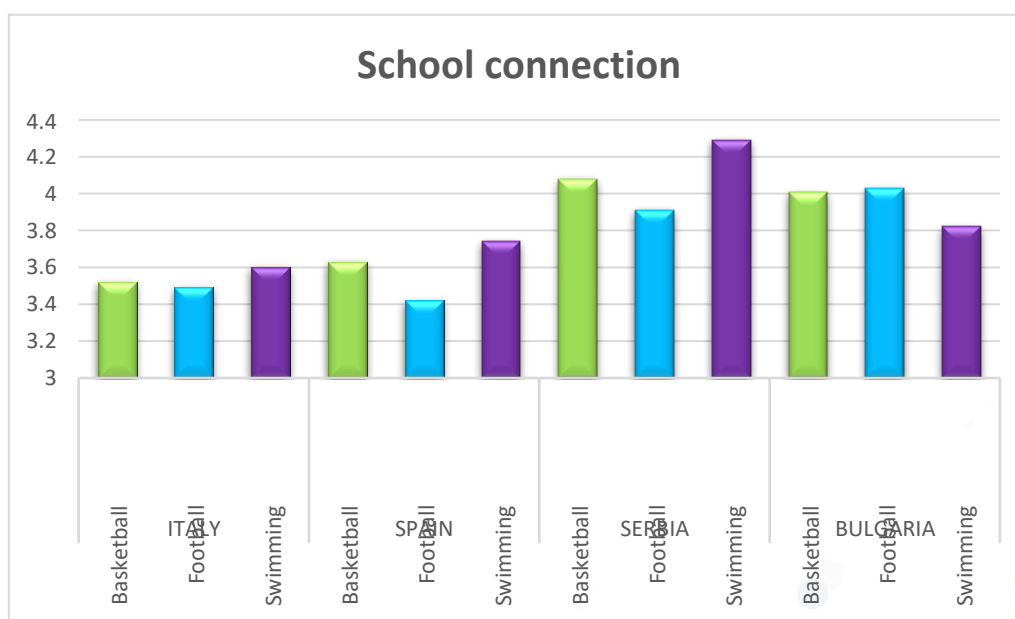
FAMILY CONNECTION			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	4.20	0.71
	Football	4.31	0.61
	Swimming	4.55	0.47
SPAIN	Basketball	4.49	0.46
	Football	4.46	0.41
	Swimming	4.52	0.42
SERBIA	Basketball	4.63	0.63
	Football	4.74	0.45
	Swimming	4.73	0.58
BULGARIA	Basketball	4.80	0.27
	Football	4.57	0.56
	Swimming	4.76	0.31



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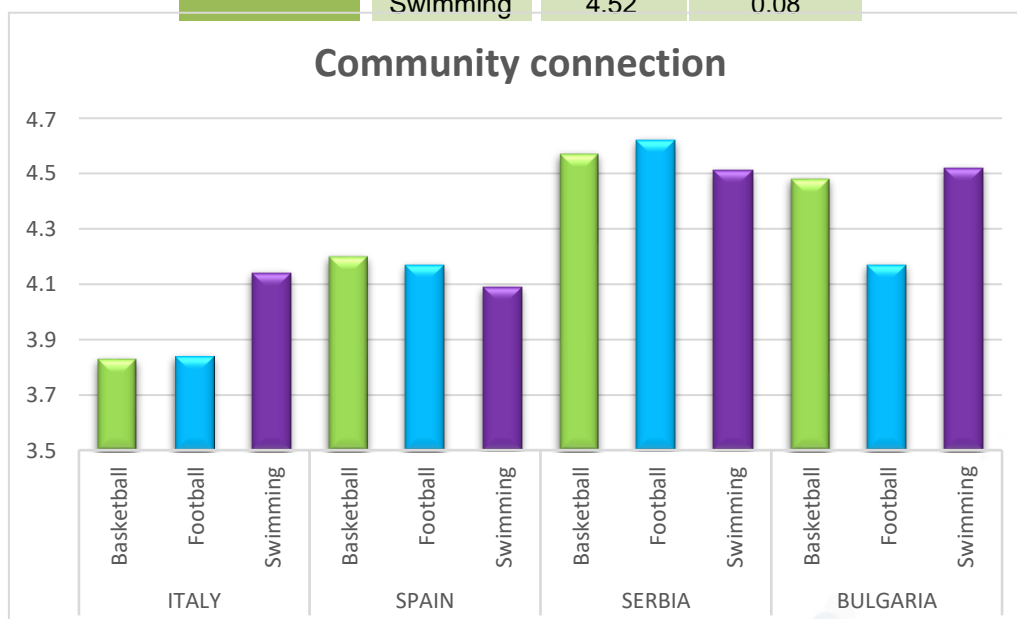
In the *School connection* aspect, the most pronounced result is Serbian swimmers. Compared to the whole sample, the average score is achieved by the other two groups of athletes from Serbia (basketball players and swimmers), as well as by all three groups of athletes from Bulgaria. Lower scores are achieved by all three groups of athletes from Spain and Italy, of which footballers from both countries (from Spain and Italy) have the lowest scores compared to all other comparison groups.

SCHOOL CONNECTION			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	3.52	0.07
	Football	3.49	0.06
	Swimming	3.60	0.06
SPAIN	Basketball	3.63	0.04
	Football	3.42	0.07
	Swimming	3.74	0.08
SERBIA	Basketball	4.08	0.05
	Football	3.91	0.07
	Swimming	4.29	0.10
BULGARIA	Basketball	4.01	0.07
	Football	4.03	0.05
	Swimming	3.82	0.09



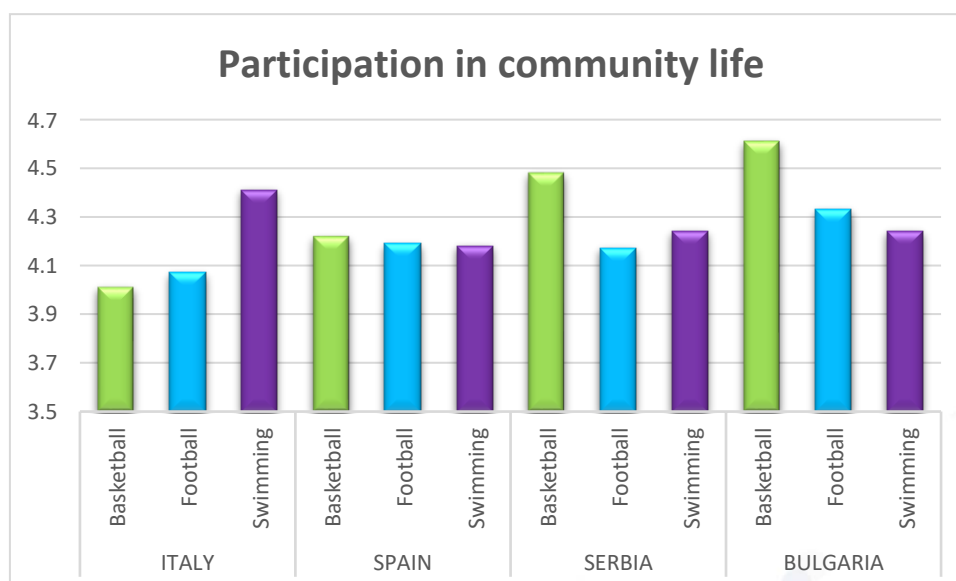
In terms of *Community connection*, the highest score is achieved by athletes from Serbia, primarily football players, followed by basketball players and swimmers. Swimmers and basketball players from Bulgaria have a slightly lower achievement. Among the lowest scores are all three groups of athletes from Spain, soccer players from Bulgaria, swimmers from Italy, while basketball players and soccer players from Italy have the lowest score.

COMMUNITY CONNECTION			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	3.83	0.06
	Football	3.84	0.06
	Swimming	4.14	0.06
SPAIN	Basketball	4.20	0.04
	Football	4.17	0.07
	Swimming	4.09	0.08
SERBIA	Basketball	4.57	0.05
	Football	4.62	0.07
	Swimming	4.51	0.09
BULGARIA	Basketball	4.48	0.07
	Football	4.17	0.05
	Swimming	4.52	0.08



In terms of *Participation in community life*, all groups of athletes from all countries have a high score of over 4.00. Basketball players from Bulgaria have the highest score, while basketball players from Serbia and swimmers from Italy have a slightly lower score. In terms of the overall sample, the average result is footballers and swimmers from Bulgaria, Spain and Serbia, as well as basketball players from Spain. Lower scores are achieved by basketball players and footballers from Italy, who have the lowest score.

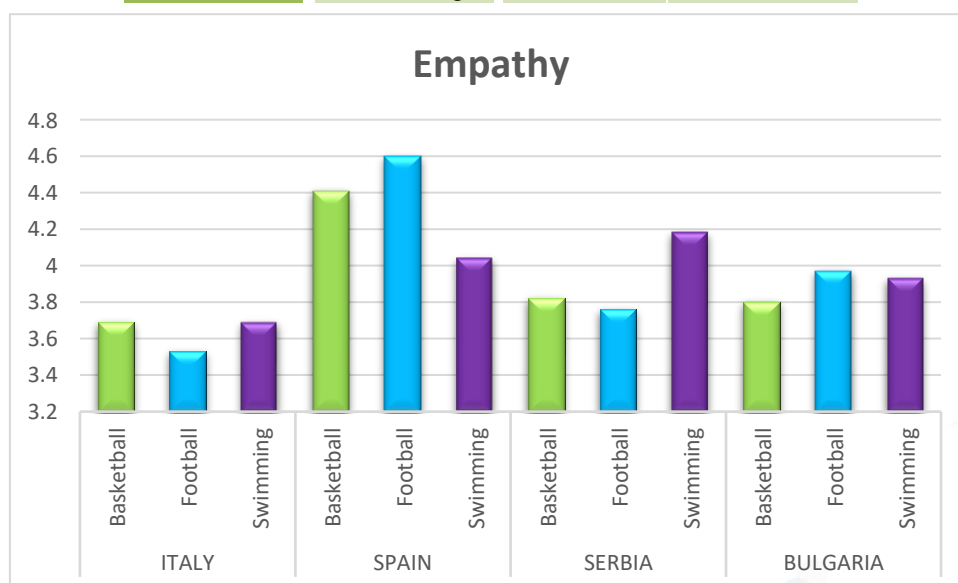
PARTICIPATION IN COMMUNITY LIFE			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	4.01	0.08
	Football	4.07	0.08
	Swimming	4.41	0.08
SPAIN	Basketball	4.22	0.05
	Football	4.19	0.08
	Swimming	4.18	0.10
SERBIA	Basketball	4.48	0.06
	Football	4.17	0.09
	Swimming	4.24	0.12
BULGARIA	Basketball	4.61	0.09
	Football	4.33	0.06
	Swimming	4.24	0.11



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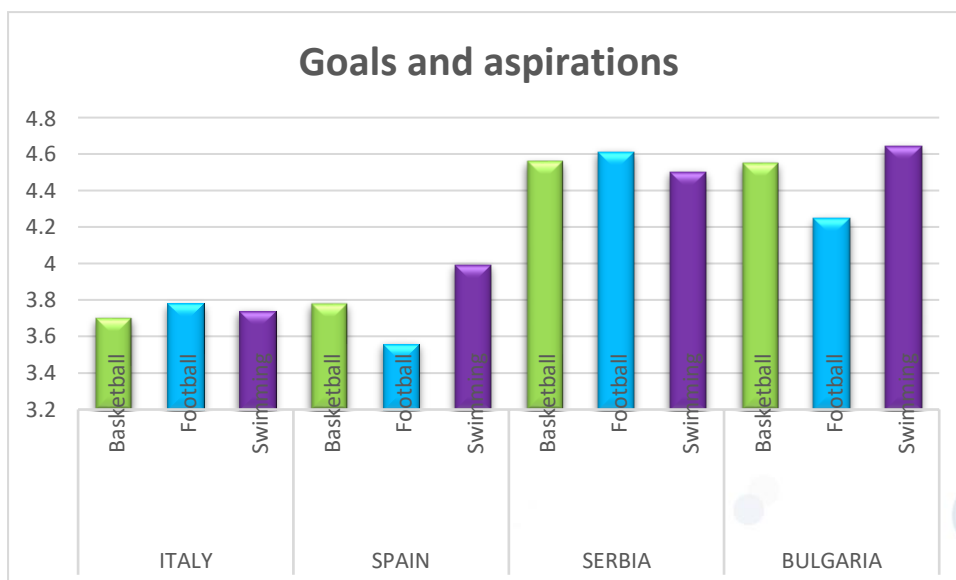
In the *Empathy* aspect, the highest score is achieved by football players and then by Spanish basketball players. Swimmers from Serbia, Spain and Bulgaria have average scores, as well as soccer players from Bulgaria. Lower scores are achieved by football players and basketball players from Serbia, as well as by all three groups of athletes from Italy, the lowest of which is soccer players from Italy.

EMPATHY			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	3.69	0.07
	Football	3.53	0.07
	Swimming	3.69	0.07
SPAIN	Basketball	4.41	0.04
	Football	4.60	0.07
	Swimming	4.04	0.09
SERBIA	Basketball	3.82	0.05
	Football	3.76	0.08
	Swimming	4.18	0.10
BULGARIA	Basketball	3.80	0.07
	Football	3.97	0.05
	Swimming	3.93	0.09



In terms of *Goals and aspirations*, all three groups of athletes from Serbia, as well as basketball players and swimmers from Bulgaria, have the highest results. The average score is achieved by football players from Bulgaria and swimmers from Spain. All three groups of athletes from Italy, basketball players from Spain, as well as footballers from Spain with the lowest score have lower scores.

GOALS AND ASPIRATIONS			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	3.70	0.07
	Football	3.78	0.06
	Swimming	3.74	0.06
SPAIN	Basketball	3.78	0.04
	Football	3.56	0.07
	Swimming	3.99	0.08
SERBIA	Basketball	4.56	0.05
	Football	4.61	0.07
	Swimming	4.50	0.10
BULGARIA	Basketball	4.55	0.07
	Football	4.25	0.05
	Swimming	4.64	0.09



1c. Differences on The Students Resilience Scale (SRS) by country related to the age and gender

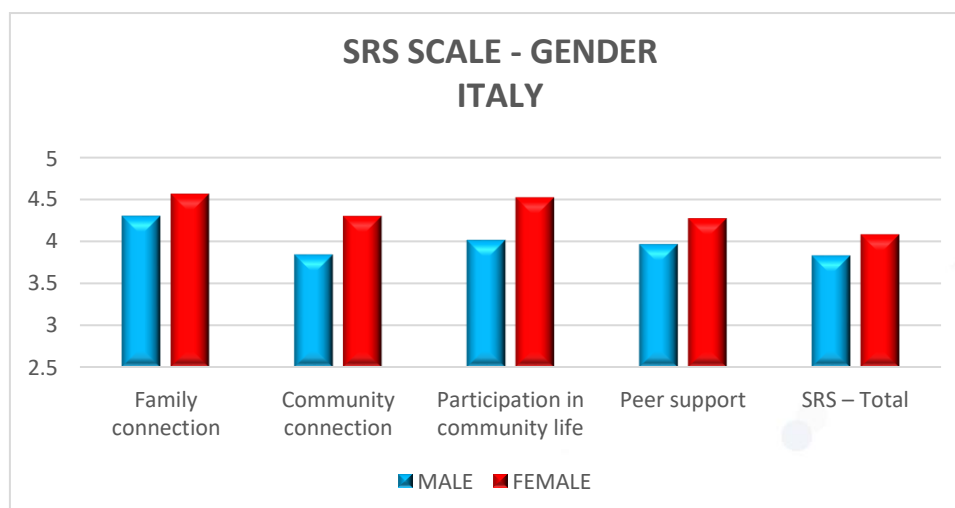
- Italy

The results obtained show that there are no differences on the overall resilience scale (SRS-total) in the sample of children and young people from Italy, nor on the age-measured aspects of The Students Resilience Scale (SRS).

In terms of gender differences, differences were obtained on the overall scale (SRS-total), as well as on four aspects of resilience: *Family connection*, *Community connection*, *Participation in community life* and *Peer support*. In all aspects, a girls from Italy achieves more results than boys.

GENDER	MALE		FEMALE	
	MEAN	SD	MEAN	SD
SRS SUBSCALES				
Family connection*	4.30	0.63	4.56	0.50
Community connection*	3.84	0.93	4.30	0.90
Participation in community life*	4.01	1.05	4.52	0.72
Peer support*	3.96	0.66	4.27	0.60
SRS – Total*	3.83	0.51	4.08	0.45

* Scales where there is a statistically significant difference



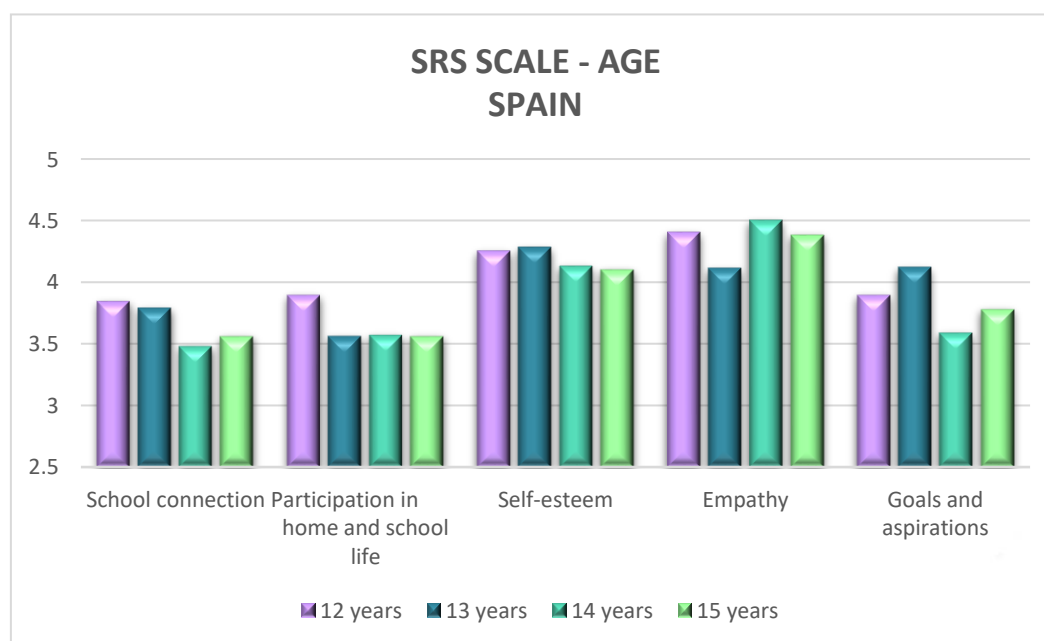
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- **Spain**

Results from a sample of children and young people in Spain show that there are no differences with respect to age at Total Resilience Score (SRS-total) as measured by The Students Resilience Scale (SRS), but that they are present in the following 5 aspects: *School connection, Participation in home and school life, Self-esteem, Empathy and Goals and Aspirations.*

AGE	12		13		14		15	
SRS SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
School connection*	3.84	0.67	3.79	0.78	3.48	0.67	3.56	0.72
Participation in home and school life*	3.89	0.65	3.56	0.89	3.57	0.71	3.56	0.76
Self-esteem*	4.25	0.55	4.28	0.61	4.13	0.62	4.10	0.63
Empathy*	4.40	0.70	4.11	0.81	4.50	0.61	4.38	0.66
Goals and aspirations*	3.89	0.89	4.12	0.86	3.59	0.94	3.78	0.83

* Scales where there is a statistically significant difference



The results show that younger children are characterized by higher scores in almost all aspects of resilience, which declines slightly with increasing number of years, and resilience is more pronounced in children aged 12 and 13 and less pronounced in young people 14 and 15 years. Only in the aspect of Empathy, the result is reversed, older children have higher achievement than younger children.

No gender differences were found in the sample of children and young people from Spain, that is, boys and girls do not differ in their degree of resilience.

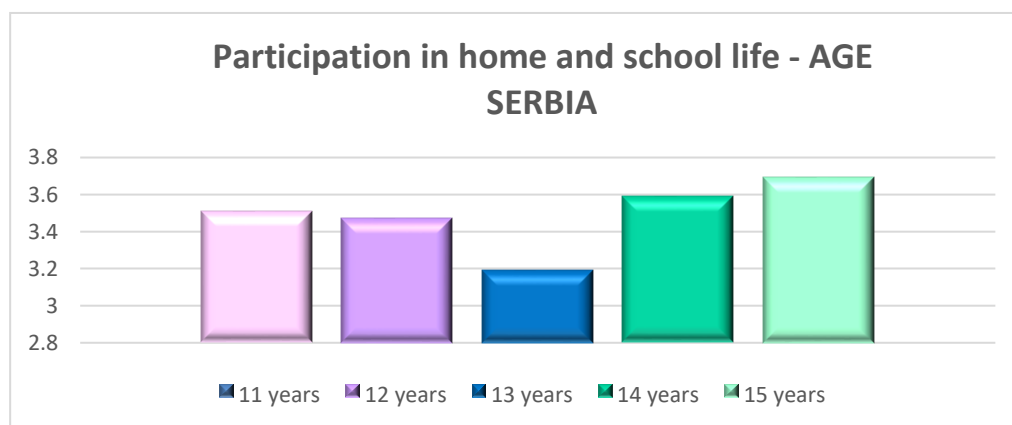
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- **Serbia**

The results obtained on a sample of children and young people from Serbia show that there are no differences with respect to age at the overall resilience score, as measured by The Students Resilience Scale (SRS), but that they are present in one aspect: Participation in home and school life. The lowest score is observed in the group of children aged 13, while young people aged 15 and over, with which children as young as 14, make higher score. Children aged 11 and 12 have a moderate achievement compared to the results of other age groups.

AGE	11		12		13		14		15	
SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Participation in home and school life*	3.51	1.15	3.47	0.94	3.19	1.00	3.56	0.93	3.69	0.86

* Scales where there is a statistically significant difference



In terms of gender, a very slight difference exists only in the Self-esteem aspect, on which girls make higher score.

GENDER	MALE		FEMALE	
SRS SUBSCALES	MEAN	SD	MEAN	SD
Self-esteem*	4.23	0.67	4.38	0.61

*Scales where there is a statistically significant difference

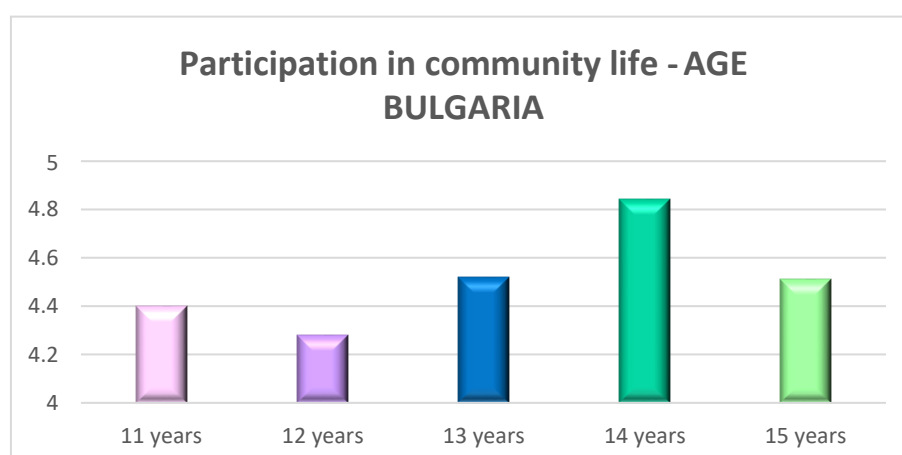
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- Bulgaria**

The results obtained on a sample of children and young people from Bulgaria show that there are no differences with respect to age at the total resilience Score (SRS-total) measured by The Students Resilience Scale (SRS), but that differences are present in one aspect: *Participation in community life*. The lowest score is for a group of children aged 12, and immediately after them, children as young as 11. The highest scores are achieved by children aged 14, while children aged 13 and 15 have a moderate achievement compared to the results of other age groups.

* Scales where there is a statistically significant difference

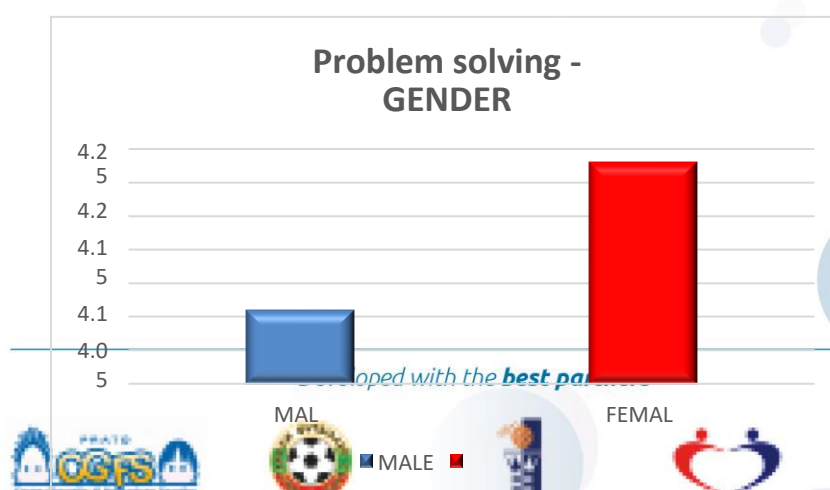
AGE	11		12		13		14		15	
SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Participation in community life*	4.40	0.81	4.28	1.03	4.52	0.84	4.84	0.57	4.51	0.61



There is only a difference in gender in the *Problem solving* aspect, in which girls make higher score than boys.

GENDER	MALE		FEMALE	
SRS SUBSCALES	MEAN	SD	MEAN	SD
Problem solving*	4.01	0.83	4.23	0.78

* Scales where there is a statistically significant difference

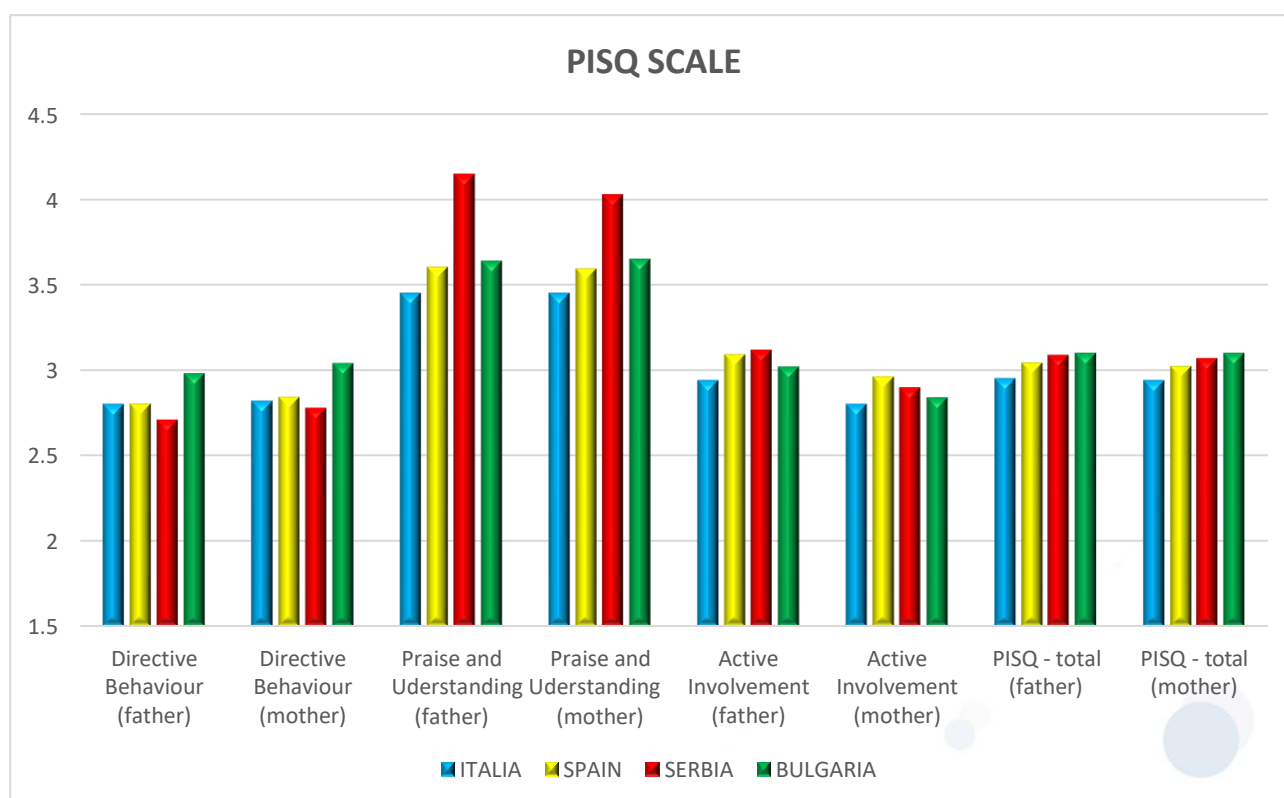


2. Achievement at The Parent Involvement in Sport Questionnaire (PISQ)

2a. Cross-cultural Differences on *The Parent Involvement* in Sport Questionnaire (PISQ)

* Scales where there is a statistically significant difference

SAMPLE	ITALIA		SPAIN		SERBIA		BULGARIA	
SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Directive Behaviour (father)*	2.80	0.84	2.80	0.72	2.71	0.87	2.98	0.81
Directive Behaviour (mother)*	2.82	0.84	2.84	0.71	2.78	0.89	3.04	0.81
Praise and Understanding (father)*	3.45	0.89	3.60	0.82	4.15	0.96	3.64	1.02
Praise and Understanding (mother)*	3.45	0.90	3.59	0.81	4.03	1.00	3.65	1.01
Active Involvement (father)*	2.94	0.83	3.09	0.59	3.12	0.99	3.02	0.86
Active Involvement (mother)*	2.80	0.84	2.96	0.63	2.90	0.99	2.84	0.87
PISQ - total (father)*	2.95	0.69	3.04	0.44	3.09	0.76	3.10	0.72
PISQ - total (mother)*	2.94	0.70	3.02	0.44	3.07	0.76	3.10	0.72



The assessment of the level of involvement of both parents in the sports activities of children and youth as measured by the PISQ questionnaire in the *General Score* (PISQ-total) is most pronounced in children and young people in Bulgaria, slightly lower in children and young people in Serbia, on average in children and young people in Spain, while it is least pronounced in children and young people in Italy.

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Children and youth from Bulgaria, compared to children and youth from other countries, describe the relationship with both parents as more directive in behavior (*Directive Behaviour*). In the other two aspects (*Praise and Understanding* and *Active Involvement*), they achieve results in the domain of average.

Children and youth from Serbia described both parents as the most supportive and understanding parents (*Praise and Understanding*), who also have a lowest level of directive behaviour (*Directive Behaviour*). Also, *Active Involvement of father* is most pronounced in this sample, while *Active Involvement of mother* is at the average score compared to children and youth from other countries.

Active involvement of mother in sports life is most pronounced in children and youth from Spain, while this aspect also has a higher value in relation to father (*Active Involvement of father*). The achievement on the Praise and Understanding and Directive Behaviour aspects for both parents is below average compared to children from other countries.

The children from Italy in all aspects measured by the PISQ questionnaire have the lowest scores, except for the *Directive Behavior* aspect for both parents where they achieve an average score.

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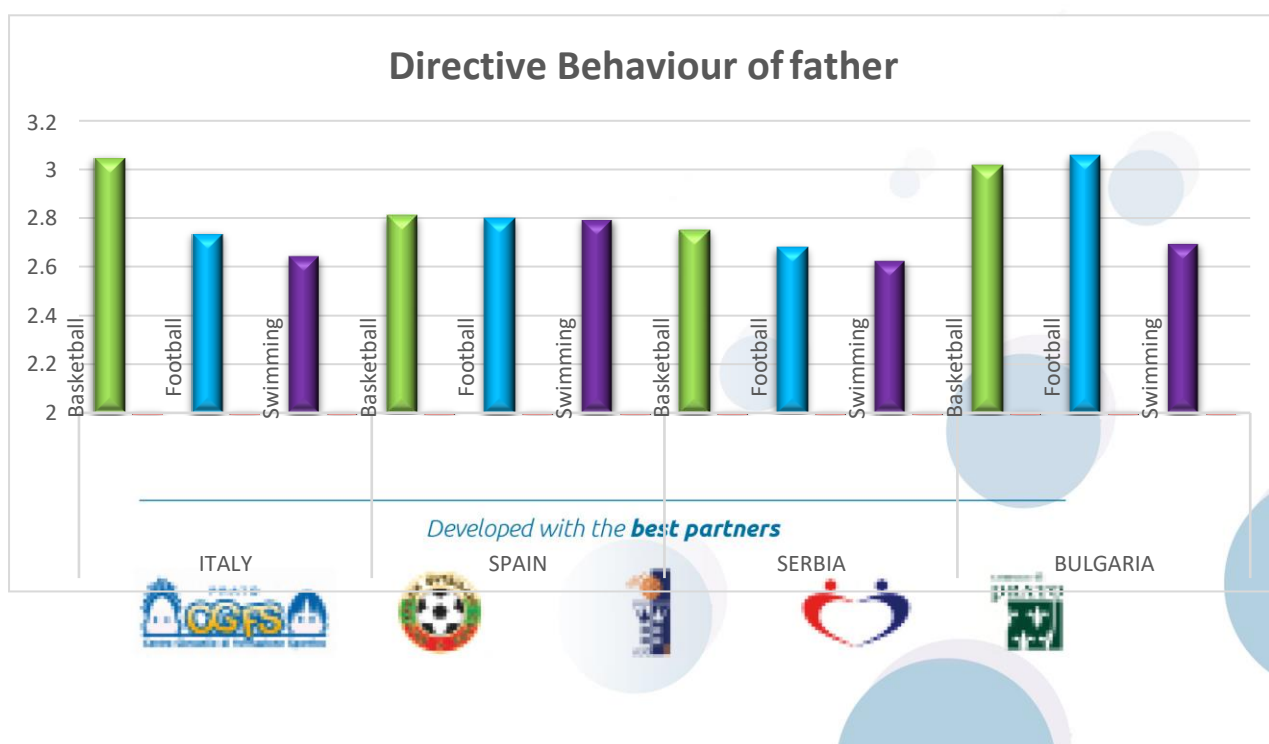


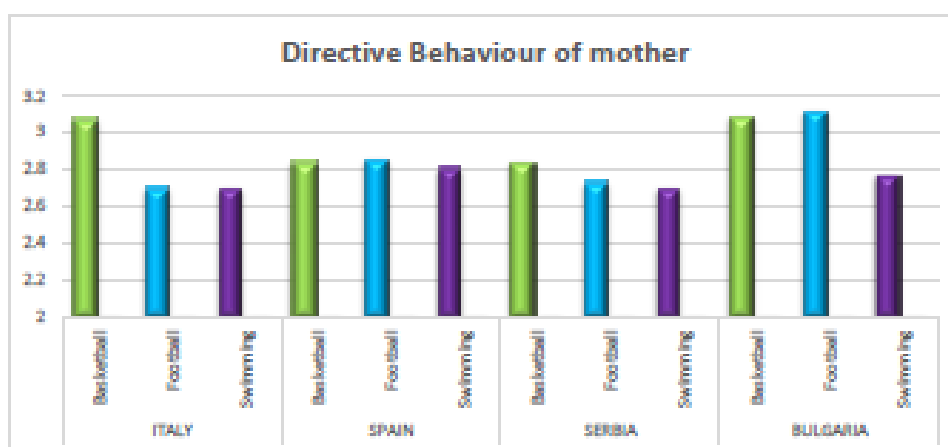
2b. Cross-cultural differences on The Parent Involvement in Sport Questionnaire (PISQ) versus dominant sport

Assessing the level of involvement of both parents in the sporting activities of children as measured by the PISQ questionnaire by type of sport and country of testing, no differences were found with respect to the *overall level of parent involvement in sport*, but differences existed with respect to the following three aspects measured by the PISQ scale:

In the *Directive Behavior* aspect, similar results were obtained for both parents. The greatest achievements are made by football players and basketball players from Bulgaria, as well as basketball players from Italy. Swimmers and football players from Serbia, as well as swimmers from Italy and Bulgaria have the lowest score in this aspect. The groups of athletes from Spain, followed by basketball players from Serbia and footballers from Italy, have a slightly higher score, almost average, compared to the whole sample.

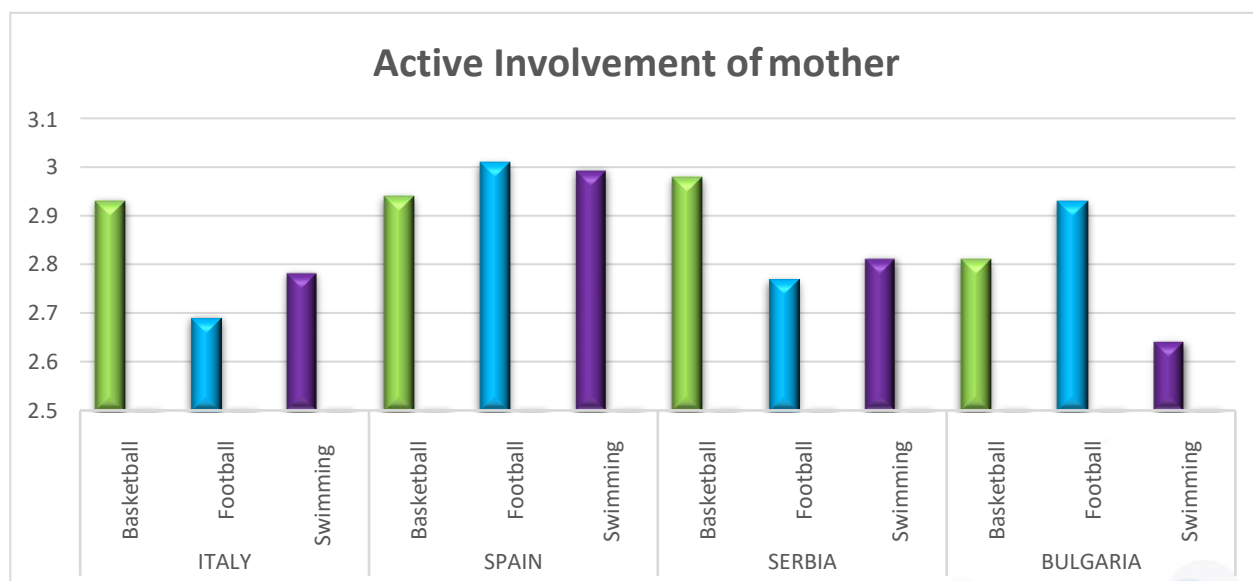
		DIRECTIVE BEHAVIOUR OF FATHER		DIRECTIVE BEHAVIOUR OF MOTHER	
COUNTRY	SPORT	MEAN	SD	MEAN	SD
ITALY	Basketball	3.04	0.06	3.07	0.06
	Football	2.73	0.06	2.70	0.06
	Swimming	2.64	0.06	2.70	0.06
SPAIN	Basketball	2.81	0.04	2.84	0.04
	Football	2.80	0.07	2.85	0.07
	Swimming	2.79	0.08	2.81	0.08
SERBIA	Basketball	2.75	0.05	2.83	0.05
	Football	2.68	0.07	2.73	0.07
	Swimming	2.62	0.10	2.70	0.10
BULGARIA	Basketball	3.02	0.07	3.08	0.07
	Football	3.06	0.05	3.11	0.05
	Swimming	2.69	0.08	2.77	0.08





In terms of *Active Involvement of Mother*, the greatest achievement is achieved by all athletes from Spain, as well as basketball players from Italy and Serbia and footballers from Bulgaria. The lowest achievement describes swimmers from Bulgaria and soccer players from Italy. Soccer players and swimmers from Serbia, as well as swimmers from Italy and basketball players from Bulgaria have an average score in this aspect.

ACTIVE INVOLVEMENT OF MOTHER			
	SPORT	MEAN	SD
ITALY	Basketball	2.93	0.07
	Football	2.69	0.06
	Swimming	2.78	0.06
SPAIN	Basketball	2.94	0.04
	Football	3.01	0.07
	Swimming	2.99	0.08
SERBIA	Basketball	2.98	0.05
	Football	2.77	0.07
	Swimming	2.81	0.10
BULGARIA	Basketball	2.81	0.07
	Football	2.93	0.05
	Swimming	2.64	0.09



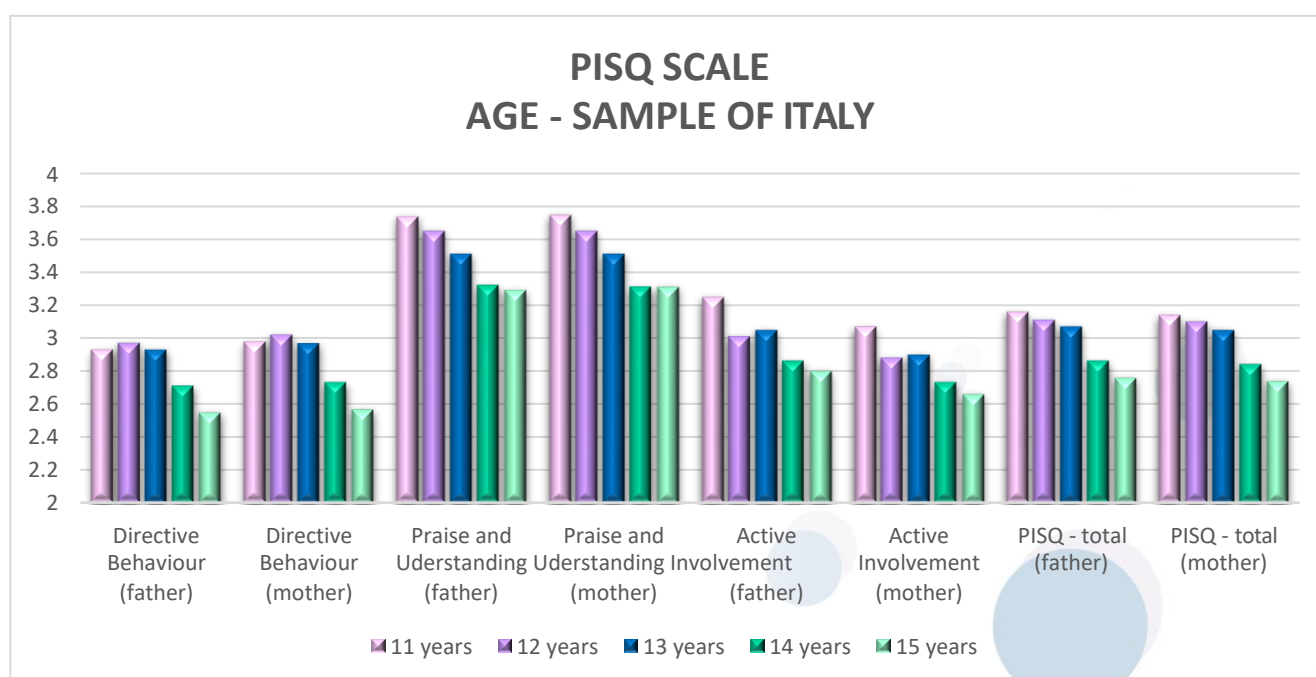
2c. Differences in The Parent Involvement in Sport Questionnaire (PISQ) by country by age and gender

- Italy

The results obtained show that, in relation to age, in the sample of children and young people from Italy, there are differences in the total score on *The Parent Involvement in Sport Questionnaire* (PISQ) for both parents, as well as in all aspects.

AGE	11		12		13		14		15	
PISQ SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Directive Behaviour (father)*	2.93	0.83	2.97	0.74	2.93	0.82	2.71	0.83	2.55	0.89
Directive Behaviour (mother)*	2.98	0.84	3.02	0.74	2.97	0.82	2.73	0.83	2.57	0.89
Praise and Understanding (father)*	3.74	0.94	3.65	0.83	3.51	0.91	3.32	0.85	3.29	0.93
Praise and Understanding (mother)*	3.75	0.90	3.65	0.85	3.51	0.91	3.31	0.87	3.31	0.93
Active Involvement (father)*	3.25	0.93	3.01	0.77	3.05	0.78	2.86	0.83	2.80	0.89
Active Involvement (mother)*	3.07	0.94	2.88	0.75	2.90	0.82	2.73	0.87	2.66	0.87
PISQ - total (father)*	3.16	0.67	3.11	0.64	3.07	0.66	2.86	0.68	2.76	0.75
PISQ - total (mother)*	3.14	0.68	3.10	0.64	3.05	0.66	2.84	0.68	2.74	0.75

* Scales where there is a statistically significant difference



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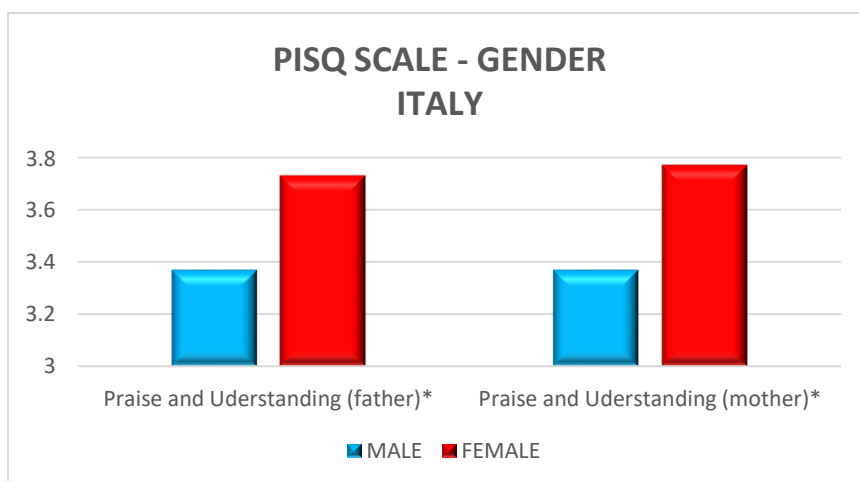
Younger children score more on the General Score as well as on all aspects of The Parent Involvement in Sport Questionnaire (PISQ) for both parents.

The involvement of parents in the sporting activities of children and young people is most pronounced in children of 11 years of age and gradually decreases with each passing year, so that children and young people aged 15 describe their parents as least involved in their sporting activities.

No differences were found for either parent on the overall scale. There are differences only on the *Praise and Understanding* aspect for both parents. The girls describe both their parents as more supportive and understanding.

PISQ SUBSCALES	MALE		FEMALE	
	MEAN	SD	MEAN	SD
Praise and Understanding (father)*	3.37	0.89	3.73	0.83
Praise and Understanding (mother)*	3.37	0.90	3.77	0.83

* Scales where there is a statistically significant difference



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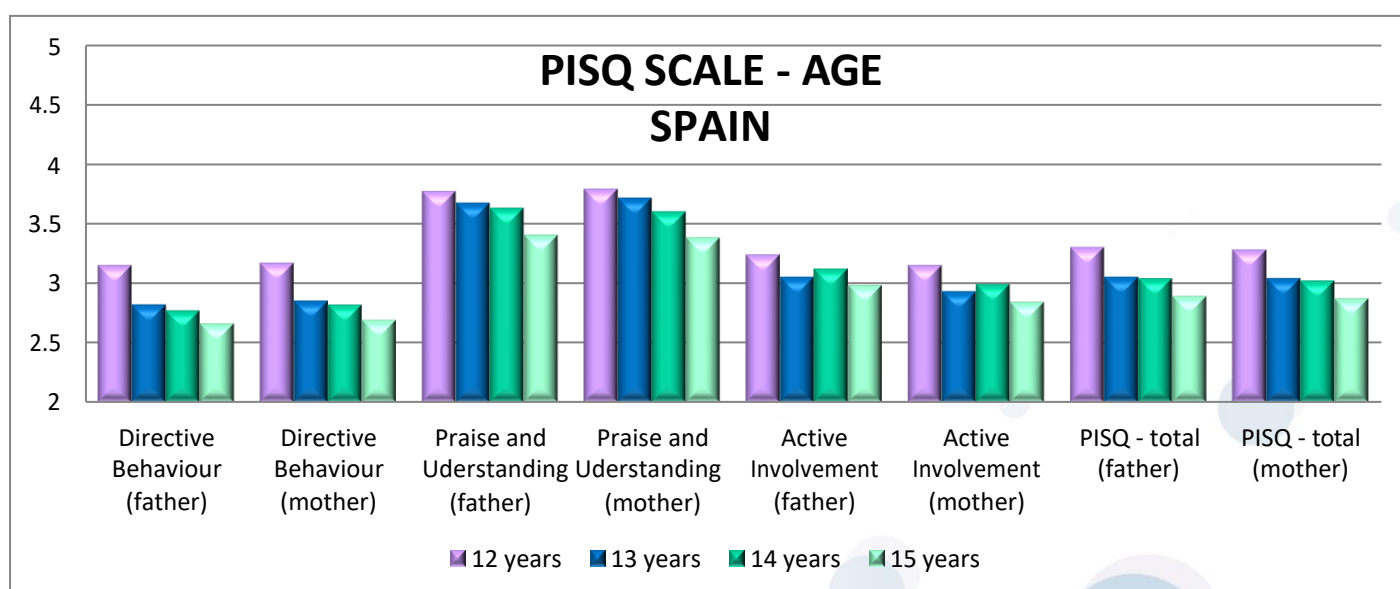
- **Spain**

The results obtained show that there are differences in age on the sample of children and young people from Spain in the total score on The Parent Involvement in Sport Questionnaire (PISQ) for both parents, as well as in all aspects.

Younger children score more on the General Score as well as on all aspects of The Parent Involvement in Sport Questionnaire (PISQ) for both parents. Parents' involvement in the sporting activities of children and young people is most pronounced in children of 12 years and gradually decreases with each passing year, so that children and young people from the age of 15 describe their parents as being involved in their sporting activities to a minimum.

AGE	12		13		14		15	
PISQ SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Directive Behaviour (father)*	3.15	0.73	2.82	0.74	2.77	0.75	2.66	0.61
Directive Behaviour (mother)*	3.17	0.72	2.85	0.73	2.82	0.73	2.69	0.60
Praise and Understanding (father)*	3.77	0.70	3.67	0.80	3.63	0.85	3.40	0.81
Praise and Understanding (mother)*	3.79	0.70	3.71	0.80	3.60	0.84	3.38	0.79
Active Involvement (father)*	3.24	0.66	3.05	0.74	3.12	0.52	2.98	0.52
Active Involvement (mother)*	3.15	0.70	2.93	0.78	2.99	0.56	2.84	0.56
PISQ - total (father)*	3.30	0.52	3.05	0.55	3.04	0.37	2.89	0.36
PISQ - total (mother)*	3.28	0.53	3.04	0.56	3.02	0.36	2.87	0.37

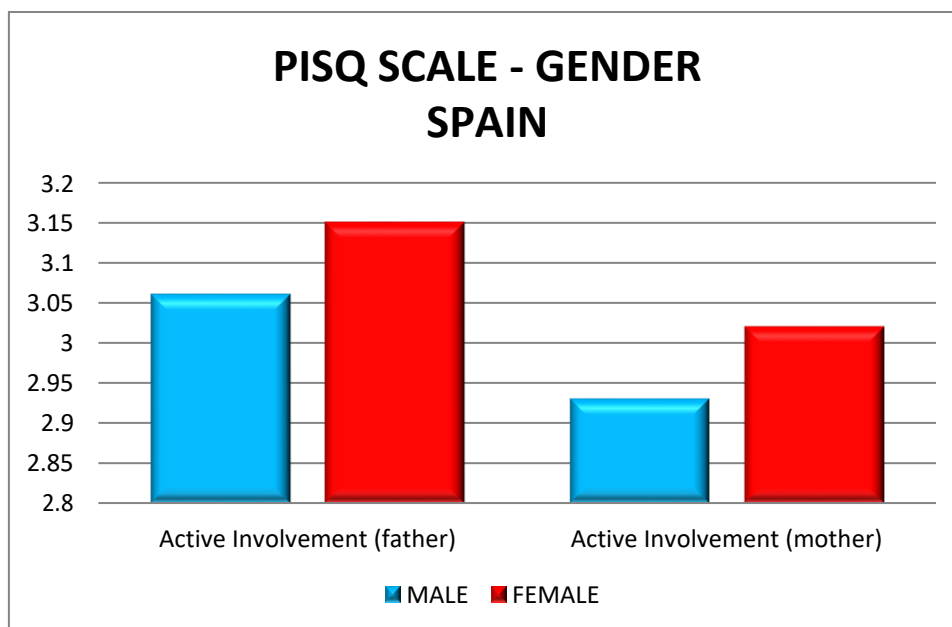
* Scales with statistically significant differences



Gender differences were not obtained on the overall scale for either parent. There are differences only in the *Active Involvement* aspect for both parents. Girls describe their parents as more involved in their sports activities.

GENDER	MALE		FEMALE	
	MEAN	SD	MEAN	SD
PISQ SUBSCALES				
Active Involvement (father)*	3.06	0.56	3.15	0.63
Active Involvement (mother)*	2.93	0.61	3.02	0.67

* Scales where there is a statistically significant difference

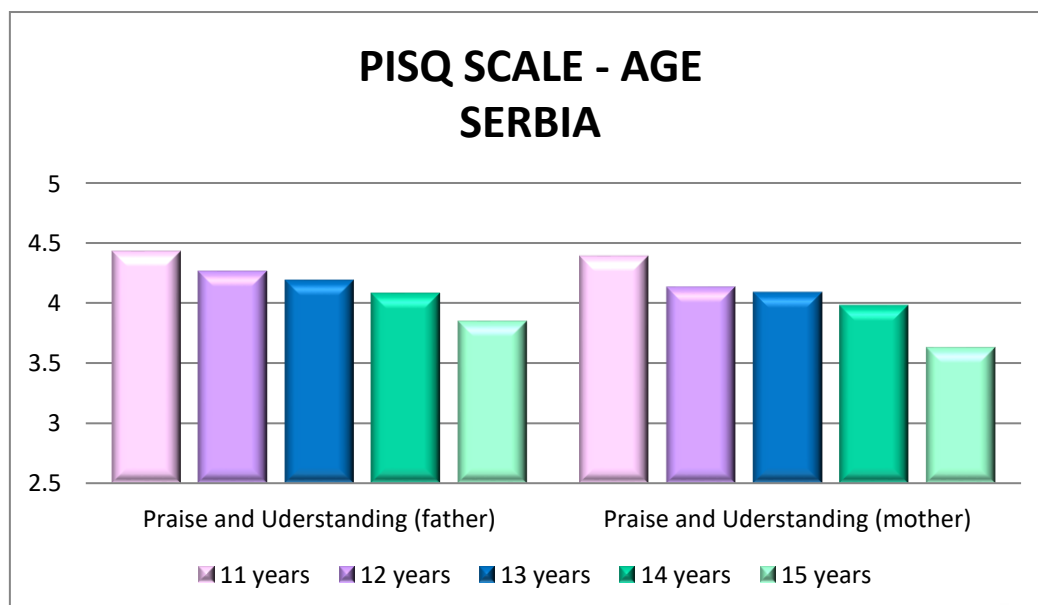


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There are no differences in the overall score on The Parent Involvement in Sport Questionnaire (PISQ) for both parents in the sample of children and young people from Serbia. The differences are only significant on *the Praise and Understanding* aspect for both parents. Children as young as 11 are mostly described by their parents as supportive and understanding, and with each passing year of age, the parent's experience is mitigated, which is the lowest among children as young as 15.

AGE	11		12		13		14		15	
PISQ SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Praise and Understanding (father)*	4.43	0.51	4.26	0.90	4.19	0.88	4.08	1.05	3.85	1.10
Praise and Understanding (mother)*	4.39	0.56	4.13	0.95	4.09	0.92	3.98	1.05	3.63	1.16

* Scales where there is a statistically significant difference

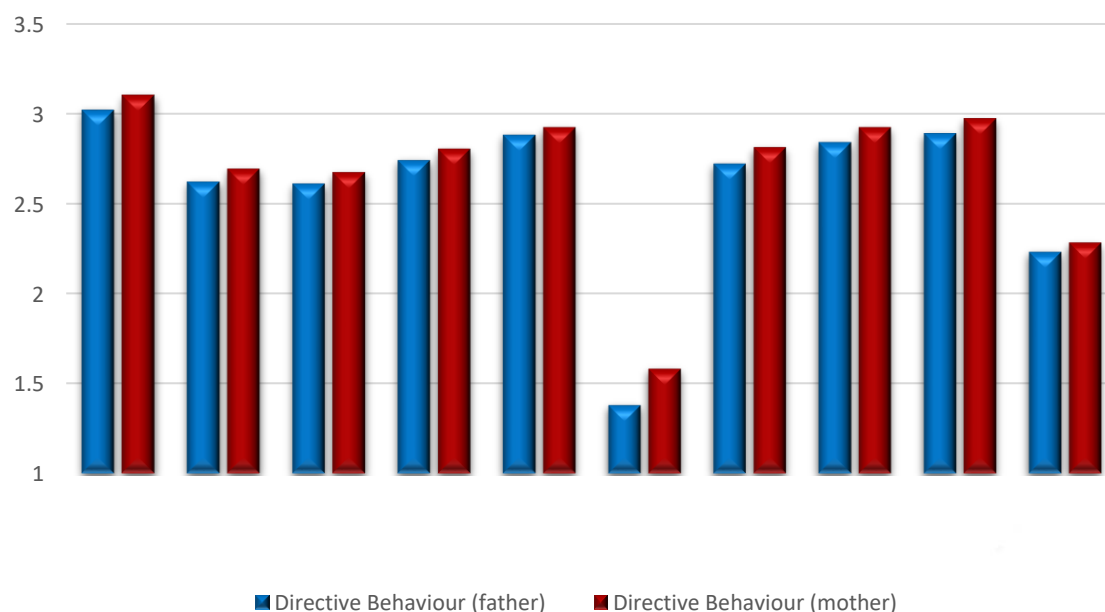


The Parent Involvement in Sport Questionnaire (PISQ) showed no gender differences in the population of children and young people in Serbia.

However, analyzing at the same time achievement in terms of age and gender differences appear on the aspect of *Directive Behavior* of both parents. Namely, boys aged 11 years perceive the relationship of both parents as more direct, while girls of the same age perceive the same behavior of both parents as the least direct. Both girls and boys of other age groups have average achievement in this aspect.

DIRECTIVE BEHAVIOUR OF FATHER				DIRECTIVE BEHAVIOUR OF MOTHER	
GENDER	AGE	MEAN	SD	MEAN	SD
MALE	11 years	3.02	0.70	3.10	0.71
	12 years	2.62	0.87	2.69	0.90
	13 years	2.61	0.79	2.67	0.79
	14 years	2.74	0.84	2.80	0.85
	15 years	2.88	1.06	2.92	1.01
FEMALE	11 years	1.38	0.09	1.58	0.30
	12 years	2.72	0.81	2.81	0.83
	13 years	2.84	0.89	2.92	0.88
	14 years	2.89	0.75	2.97	0.73
	15 years	2.23	1.01	2.28	1.01

Directive Behaviour of parents - GENDER SERBIA



11 years	12 years	13 years	14 years	15 years	11 years	12 years	13 years	14 years	15 years
MALE					FEMALE				

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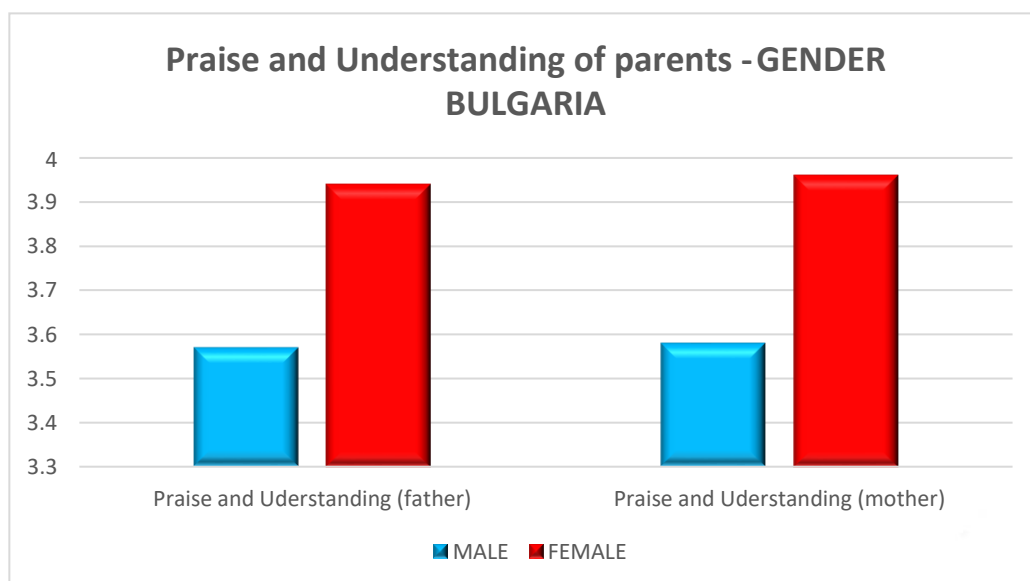
- **Bulgaria**

Results from a sample of children and young people in Bulgaria show that there is no difference in age with parents' involvement in sporting activities as measured by The Parent Involvement in Sport Questionnaire (PISQ).

There are no gender differences in total on The Parent Involvement in Sport Questionnaire (PISQ), but only on the Praise and Understanding aspect for both parents. The girls describe both their parents as more supportive and understanding.

GENDER		MALE		FEMALE	
PISQ SUBSCALES		MEAN	SD	MEAN	SD
Praise and Understanding (father)*		3.57	1.06	3.94	0.80
Praise and Understanding (mother)*		3.58	1.04	3.96	0.80

* Scales where there is a statistically significant difference



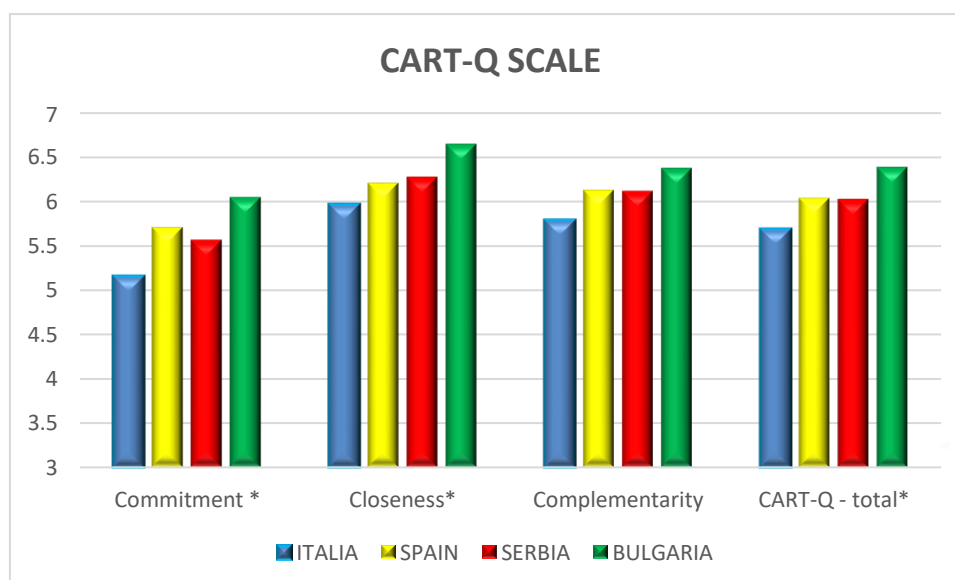
3. Achievement at The Coach-Athlete Relationship Questionnaire (CART-Q)

3a. Cross-cultural differences on The Coach-Athlete Relationship Questionnaire (CART-Q)

SAMPLE	ITALIA		SPAIN		SERBIA		BULGARIA	
SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Commitment *	5.16	1.26	5.70	0.94	5.56	1.55	6.04	1.03
Closeness*	5.97	1.15	6.20	0.76	6.27	1.33	6.64	0.64
Complementarity	5.79	1.15	6.12	0.77	6.11	1.33	6.37	0.74
CART-Q - total*	5.69	1.06	6.03	0.68	6.02	1.30	6.38	0.70

* Scales where there is a statistically significant difference

The overall assessment score, as well as the Commitment, Closeness and Complementarity aspects of relationships with coaches, as measured by the CART-Q questionnaire, are perceived most strongly by children and young people in Bulgaria, while this type of relationship is less pronounced in children and youth in Italy. Children and youth from Serbia and Spain achieve average results compared to the two countries mentioned above.



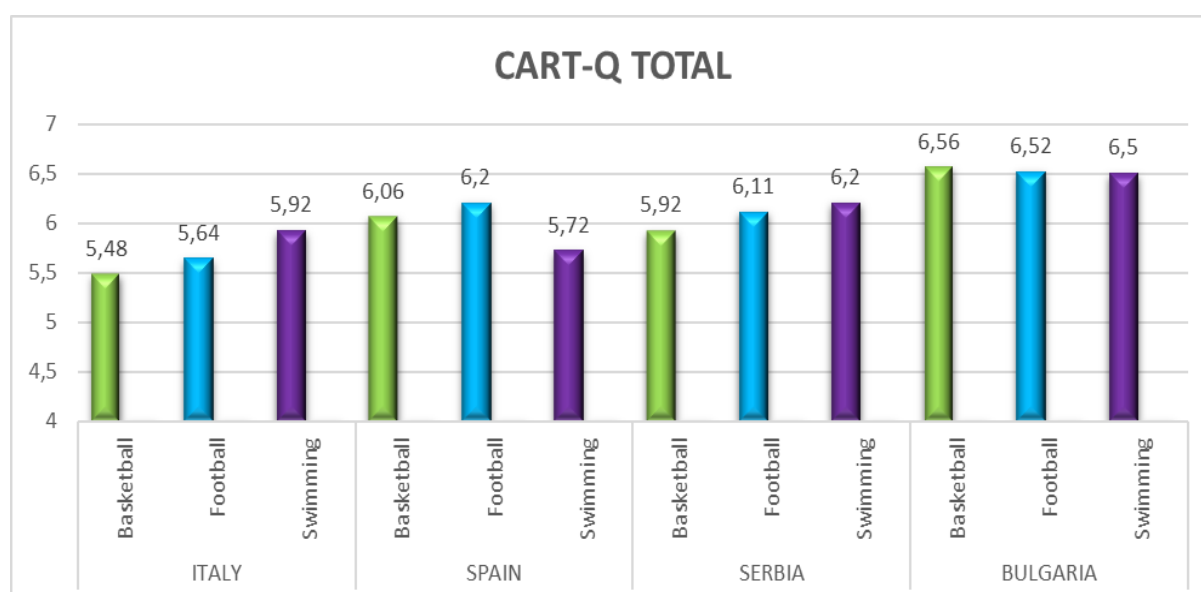
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3b. Cross-cultural differences on The Coach-Athlete Relationship Questionnaire (CART-Q) versus dominant sport

Assessing the satisfaction with the coach as measured by the CART-Q questionnaire in relation to the country in which the children and young people live and the type of sport they dominate, found differences with respect to the overall level of satisfaction with the coach, but also in all aspects measured by the CART questionnaire. The achievement on the overall score, as well as on the aspects that assessed the relationship between children and young people with coaches, are fairly uniform.

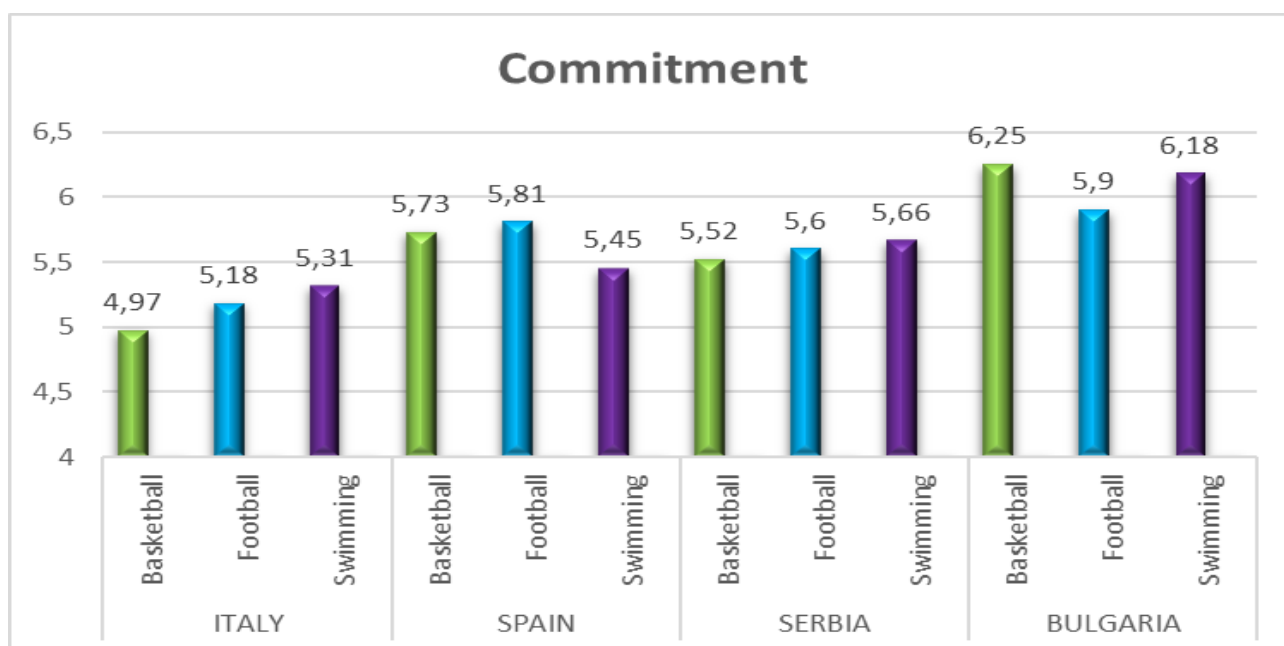
At the overall level of satisfaction with the quality of the relationship with the coach, the most pronounced achievement is the athletes of all Bulgarian athletes. Swimmers and football players from Serbia, such as football players and basketball players from Spain, have a moderate achievement, while basketball players and football players from Italy, as well as swimmers from Spain, have the lowest achievement in relation to the entire sample tested.

CART-Q - total			
	SPORT	MEAN	SD
ITALY	Basketball	5.48	0.08
	Football	5.64	0.07
	Swimming	5.92	0.07
SPAIN	Basketball	6.06	0.04
	Football	6.20	0.08
	Swimming	5.72	0.09
SERBIA	Basketball	5.92	0.06
	Football	6.11	0.08
	Swimming	6.20	0.11
BULGARIA	Basketball	6.56	0.08
	Football	6.52	0.06
	Swimming	6.50	0.10



In the *Commitment* aspect, all Bulgarian athletes also have the highest achievement, of which the basketball players have the highest score. Some athletes from Spain and Serbia have a slightly more moderate achievement, while the Italian athletes have the lowest scores, of which the basketball players have the lowest. Basketball players from Italy are the lowest in this aspect, as are footballers from Italy and swimmers from Spain.

COMMITMENT			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	4.97	0.10
	Football	5.18	0.10
	Swimming	5.31	0.10
SPAIN	Basketball	5.73	0.06
	Football	5.81	0.10
	Swimming	5.45	0.10
SERBIA	Basketball	5.52	0.07
	Football	5.60	0.10
	Swimming	5.66	0.14
BULGARIA	Basketball	6.25	0.10
	Football	5.90	0.07
	Swimming	6.18	0.12



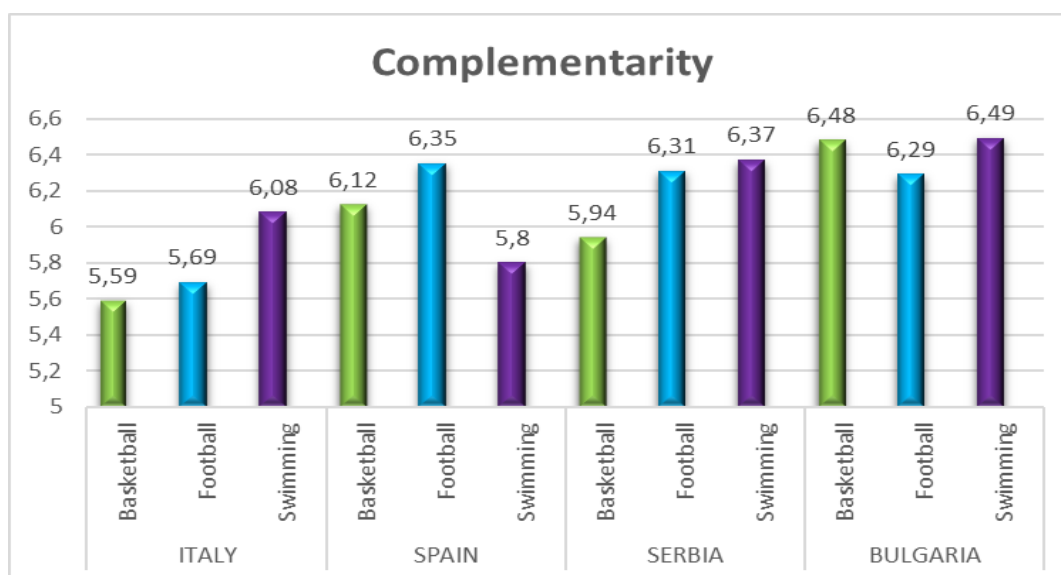
As with other aspects, the *Closeness* aspect is the highest achievement of all Bulgarian athletes, of whom the basketball players have the highest score. All athletes from Serbia, as well as football players and basketball players from Spain and swimmers from Italy, have a moderate achievement. Basketball players and footballers from Italy, as well as swimmers from Spain, have the lowest scores in terms of the overall sample.

CLOSENESS			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	5.75	0.08
	Football	5.93	0.08
	Swimming	6.21	0.07
SPAIN	Basketball	6.23	0.05
	Football	6.33	0.08
	Swimming	5.86	0.10
SERBIA	Basketball	6.21	0.06
	Football	6.30	0.09
	Swimming	6.45	0.12
BULGARIA	Basketball	6.87	0.08
	Football	6.48	0.06
	Swimming	6.75	0.10



In terms of *Complementarity*, the greatest achievement is also achieved by all Bulgarian athletes, of whom basketball and swimmers are the most, as well as footballers and swimmers from Serbia and footballers from Spain. Basketball players from Spain and Serbia and swimmers from Italy have a more moderate achievement compared to the overall sample. Basketball players and footballers from Italy have the lowest score, as do swimmers from Spain.

COMPLEMENTARITY			
COUNTRY	SPORT	MEAN	SD
ITALY	Basketball	5.59	0.08
	Football	5.69	0.08
	Swimming	6.08	0.08
SPAIN	Basketball	6.12	0.05
	Football	6.35	0.08
	Swimming	5.80	0.10
SERBIA	Basketball	5.94	0.06
	Football	6.31	0.09
	Swimming	6.37	0.12
BULGARIA	Basketball	6.48	0.09
	Football	6.29	0.06
	Swimming	6.49	0.10



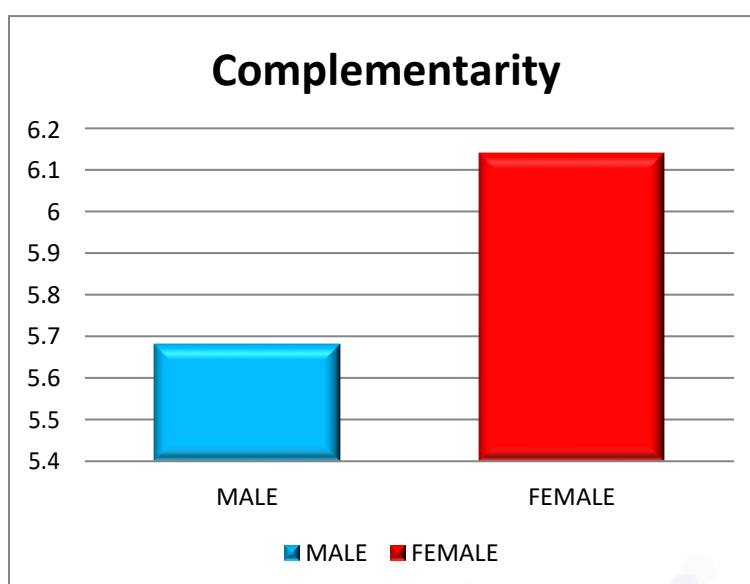
3c. Differences in The Coach-Athlete Relationship Questionnaire (CART-Q) by country by age and gender

- Italy

The results obtained show that there are no differences in age on the sample of children and young people from Italy on the overall score on The Coach-Athlete Relationship Questionnaire (CART-Q), nor on the aspects measured by this scale.

There are no gender differences in the overall Coach-Athlete Relationship Questionnaire (CART-Q), but only on the *Complementarity* aspect. In relation to boys, girls describe their relationship with the coach as more cooperative.

GENDER	MALE		FEMALE	
	MEAN	SD	MEAN	SD
CART-Q SUBSCALES				
Complementarity*	5.68	1.20	6.14	0.88

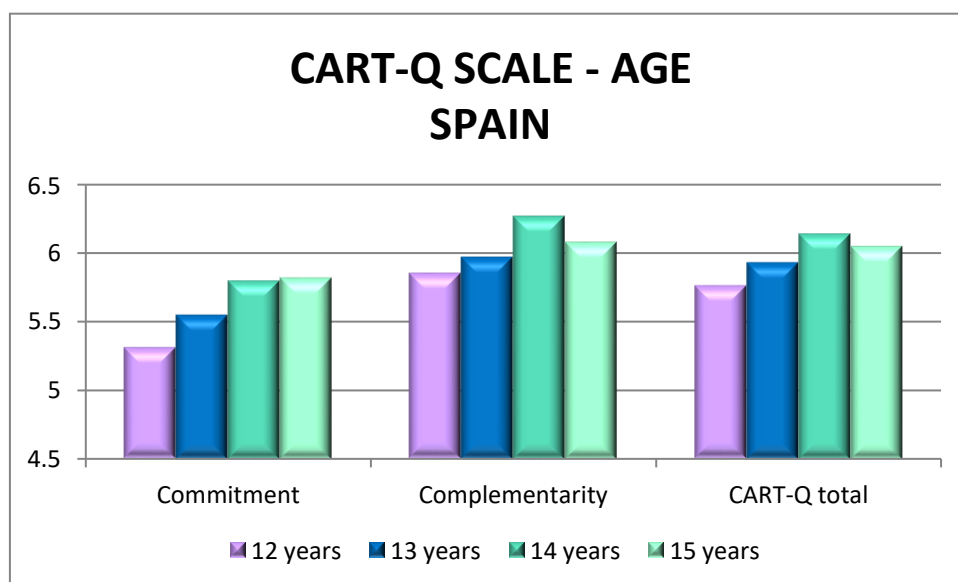


- Spain

The results obtained show that there are differences in age on the sample of children and young people from Spain on the overall score on The Coach-Athlete Relationship Questionnaire (CART-Q), as well as on aspects of *Commitment and Complementarity*. With age, values are rising on this scale, which are highest at age 14, and lowest at age 12.

AGE	12		13		14		15	
CART-Q SUBSCALES	MEAN	SD	MEAN	SD	MEAN	SD	MEAN	SD
Commitment*	5.31	1.19	5.55	1.03	5.80	0.80	5.82	0.92
Complementarity*	5.85	0.95	5.97	0.82	6.27	0.66	6.08	0.76
CART-Q total*	5.76	0.85	5.93	0.73	6.14	0.58	6.05	0.68

* Scales where there is a statistically significant difference



There are no gender differences in *overall scores*, as well as aspects of the estimated relationship with coaches, as measured by The Coach-Athlete Relationship Questionnaire (CART-Q).

- Serbia

The results obtained show that there are no differences in age and gender in the sample of children and young people from Serbia in the overall score, as well as in aspects of the estimated relationship with coaches, as measured by The Coach-Athlete Relationship Questionnaire (CART-Q).

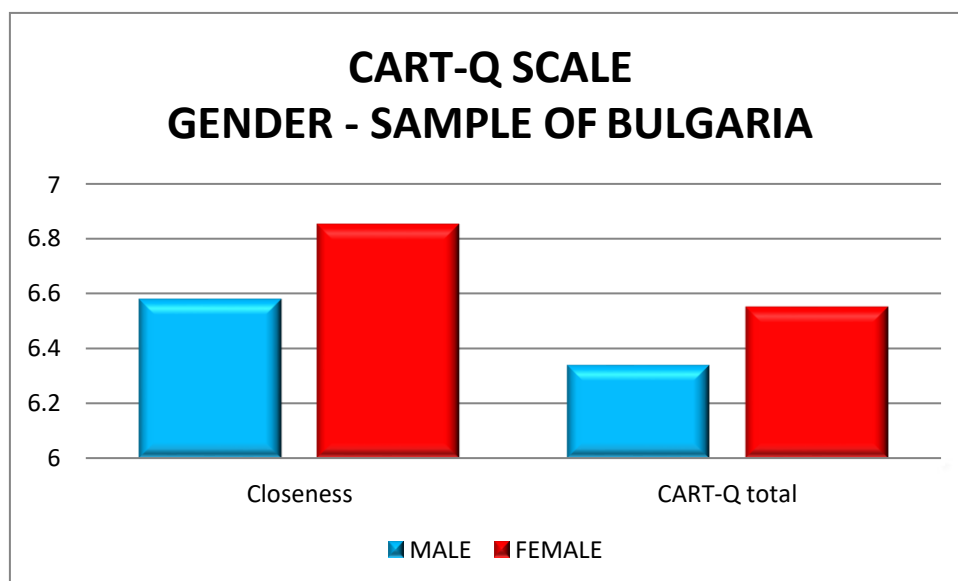
- **Bulgaria**

The results obtained show that there are no differences in age on the sample of children and young people from Bulgaria on the overall score on The Coach-Athlete Relationship Questionnaire (CART-Q), nor on aspects of the estimated relationship with coaches.

There are differences in terms of gender on the overall score (CART-Q total) and on the Closeness aspect as measured by The Coach-Athlete Relationship Questionnaire (CART-Q). The girls describe their relationship with the coach as more close and generally more satisfying than the boys.

GENDER	MALE		FEMALE	
	MEAN	SD	MEAN	SD
CART-Q SUBSCALES				
Closeness*	6.58	0.78	6.85	0.35
CART-Q total*	6.34	0.74	6.55	0.47

* Scales where there is a statistically significant difference



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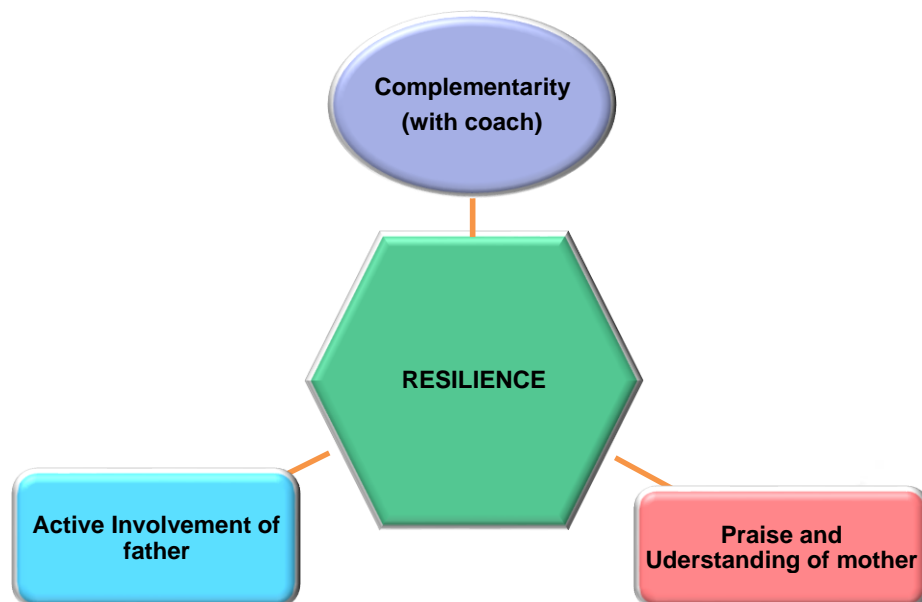
4. Relation of Resilience Levels (SRS) with achievement on PISQ and CART-Q by country

- **Italy**

An analysis of the connection between overall achievement on the resilience scale measured by the SRS scale, on the one hand, and parental involvement and relationships with the coach measured by the PISQ and CART-Q scales, on the other, shows that in the sample of children and young people from Italy, of all predictor variables, as significant distinguish the following three aspects, in order of contribution, from the highest to the lowest:

- Complementarity with the coach,
- Active Involvement of father &
- Praise and Understanding of mother.

Separate predictors correlated positively with the variable of estimation of the overall level of resilience, as measured by the SRS scale. These results show that children and young people who describe themselves as more resilience to the relationship with the coach are seen as a cooperative relationship during training (Complementarity), they describe the relationship with their father as actively including (Active Involvement of father), while they perceive the relationship with the mother as supportive, full understanding (Praise and Understanding of mother).



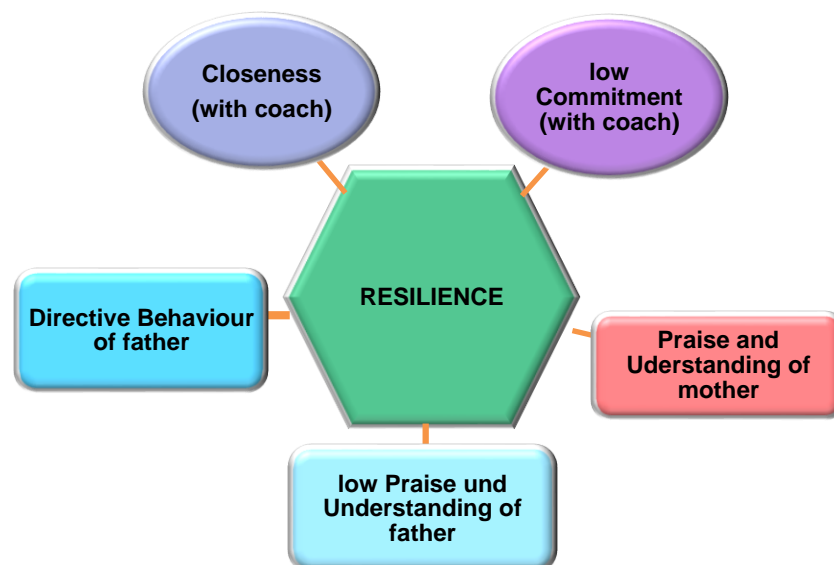
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- **Spain**

An analysis of the association between overall achievement on the resilience scale measured by the SRS scale, on the one hand, and parental involvement and relationship with the coach measured by the PISQ and CART-Q scales, on the other, shows that in the sample of children and young people from Spain of all predictor variables, distinguish the following five aspects, in order of contribution, from the highest to the lowest:

- Closeness in relation to the coach,
- Praise and Understanding of mother,
- low Praise and Understanding of father,
- low Commitment- in relation to the coach,&
- Directive Behaviour of father.

The results show that children and young people who describe themselves as more resilience to the relationship with the coach are viewed primarily as a relationship characterized by closeness (Closeness) and then commitment (Commitment). They perceive the mother toward a supportive, full of understanding (Praise and Understanding of mother) while they view the relationship with their father as less close and with less understanding (low Praise and Understanding of father) and more directive (Directive Behavior of father).



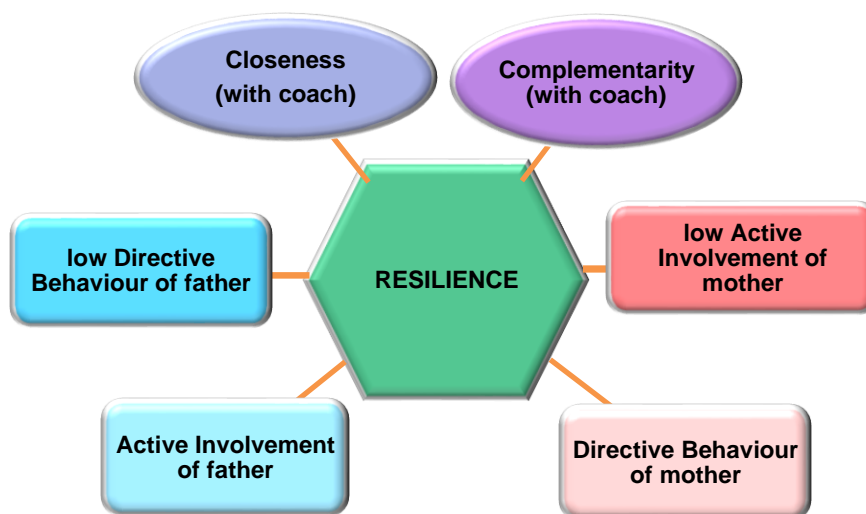
Developed with the **best partners**

- **Serbia**

An analysis of the connection between overall achievement on the resilience scale measured by the SRS scale, on the one hand, and parental involvement and relationship with the coach measured by the PISQ and CART-Q scales, on the other, shows that in the sample of children and young people from Serbia of all predictor variables, distinguish the following six aspects, in order of contribution, from the highest to the lowest:

1. Active Involvement of father,
2. Directive Behaviour of mother,
3. Low Directive Behaviour of father,
4. Low Active Involvement of mother.
5. Complementarity u in relation to the coach &
6. Closeness in relation to the coach

The results obtained show that children and young people who describe themselves as more resilient fathers perceive them primarily as being actively involved (Active Involvement of father) but not directive in the relationship (low Directive Behavior of father). At the same time, mothers are perceived as more directive (Mother Behavior) but less involved in sports activities (low Active Involvement of mother). They describe the relationship with the coach as cooperative (Complementarity) and close (Closeness).



- **Bulgaria**

An analysis of the relationship between overall achievement on the SRS scale of resilience, on the one hand, and parental involvement and relationship with the trainer of the measured PISQ and CART-Q scales, on the other, shows that the sample of children and young people from Bulgaria of all predictor variables is significant. distinguish the following four aspects, in order of contribution, from the highest to the lowest:

1. Complementarity in relation to the coach,
2. Low Directive Behaviour of father,
3. Directive Behaviour of mother &
4. Active Involvement of father.

The results show that children and young people who describe themselves as more resistant to the relationship with the trainer view the cooperative relationship during training (Complementarity), describe the relationship with the father as actively including (Active Involvement of father), without direct behavior (low Directive Behavior of father), while at the same time describing the relationship with the mother as more directive (Directive Behavior of mother).

