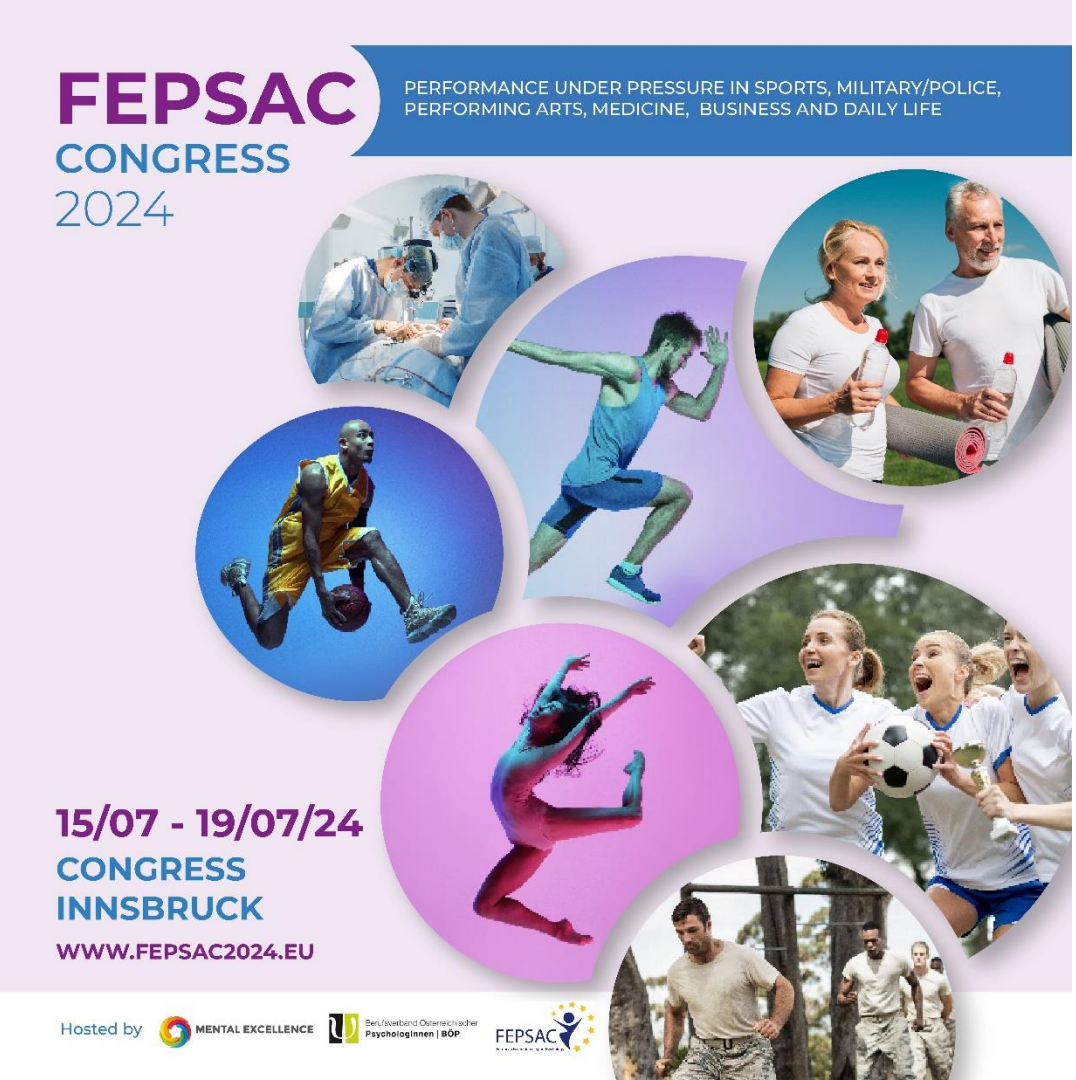

FEPSAC CONGRESS 2024

INSTITUT DES SCIENCES ETIENNE DU MOUVEMENT JULES MAREY

amU Faculté des sciences du sport Aix Marseille Université

Relationships between Motives for Sports Practice and Video Game Play

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Relationships between Motives for Sports Practice and Video Game Play - INTRODUCTION

- **Context** : an alarming observation regarding the rate of sedentariness, screen time, and lack of physical activity among French adolescents (Fillon et al., 2023)

  - **50% of boys and 33 % of girls** aged 6–17 years **achieve the physical activity guidelines** (Fillon et al., 2023).

  - **A decline in sport practices** (i.e., engaging in sport for at least one hour a week ; Luiggi et al., 2022) **rate,** from 79% in 2001 to 64% in 2018 (and 42% among low social economical status adolescents)

  - A quantity of **video game leisure practices inversely correlated with that of sports participation** (Kenney & Gortmaker, 2017)

Fillon et al. (2023). *Journal of Physical Activity and Health*. Kenney & Gortmaker(2017). *Journal of Pediatrics*. Luiggi et al. (2022). *European Journal of*

Relationships between Motives for Sports Practice and Video Game Play - INTRODUCTION

Objective：to examine the motives behind the experiences of these two seemingly opposing types of activities : sport practice and video game play.

Four motives for sport participation (Recours et al., 2004)

Competition: accomplishment derived from feeling that one is stronger than others

Exhibitionism: participating to be seen and to impress others

Sociability: relatedness and pleasure of sharing experience with people one appreciate

Playing to the limit: inspired by Simmel's concept of *adventure* and defined as an experience marked by its ambiguity and equivocation (e.g., attempting actions close to the breaking point)

Recours et al. (2004). *Journal of Leisure Research*

Relationships between Motives for Sports Practice and Video Game Play - INTRODUCTION

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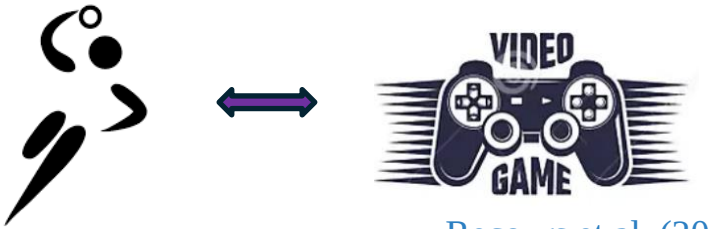
Four motives for sport participation (Recours et al., 2024)

Competition; Exhibitionism; Sociability; Playing to the limit

Q1 : Are these motives correlated to those underlying the practice of video game play?

H1 : *yes*



Recours et al. (2024). *Journal of Leisure Research*

Relationships between Motives for Sports Practice and Video Game Play - INTRODUCTION

The ‘playing to the limit’ motive may vary depending on the level of risk involved in the sport practiced (Martha and Laurendeau, 2010)

Q2 : Does this motive differ between young non-risk *versus* risk sports participants, and between non-violent *versus* violent video game players ?

H2-a : *given the risk of injury, young risk sports participants would report lower scores on the ‘playing to the limit’ motive, in comparison to non-risk sports participants*

H2-b : *violent video game players would report higher scores on this motive, in comparison to non-violent video game players, given the absence of physical risk*

Martha & Laurendeau (2010). *International Journal of Sport and Exercise Psychology*

Relationships between Motives for Sports Practice and Video Game Play – METHOD - Participants

- Participants: n=514 (girls, 28%), *Mean* age=15.80 (± 2.70), *Range* age=12-20
- Inclusion criterion: engaging in sports for a minimum of 1 hour per week in addition to physical education classes (Luiggi et al., 2018) and being a video game player (i.e., playing a minimum of 3 times per week)

Luiggi et al. (2018). *International Journal of Environmental Research and Public Health*

Relationships between Motives for Sports Practice and Video Game Play – METHOD - Participants

Four groups of adolescents were recruited by a private company specializing in recruitment for surveys, **according to the following criteria:**

1) The risk level of the sport they practice most often: non-risk sports (**NRS**) *vs* risk sports (**RS**, including high-risk sports and injury-prone sports)

Sport risk level	
NRS	RS

Table 1: sample size of each subgroup of adolescents

Relationships between Motives for Sports Practice and Video Game Play – METHOD - Participants

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1) The risk level of the sport they practice most often: non-risk sports (**NRS**) *vs* risk sports (**RS**, including high-risk sports and injury-prone sports)

2) **The level of violence in the video game** they play most often, determined based on the PEGI rating: Non-violent video game (**NVVG**, PEGI ≤ 12) *vs* violent video game (**VVG**, PEGI > 12)

		Sport risk level	
		NRS	RS
Video game violence level	NVVG	n=133	n=128
	VVG	n=132	n=121

Table 1: sample size of each subgroup of adolescents

Relationships between Motives for Sports Practice and Video Game Play – METHOD - Material

The 13-item motives for sport participation questionnaire (Recours et al., 2004)**:**

- The original version for the context of sport participation
- A version adapted to the context of video game play, whose the 4-factor structure was confirmed among 200 young video game enthusiasts ($Chi^2_{(59)}$ = 128.30, $p<0,001$; *CFI* = 0.991; *SRMR* = 0.068; *RMSEA* = 0.077)

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- Participants had to indicate on a 7-point Likert scale (ranging from 1 "Not at all" to 7 "Absolutely") to what extent each item corresponded to what they like about the sport they practice / the video game they play most often
-

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

1) The motives for **sport practice** and those underlying **video game play are correlated** (*rs* = Spearman Rho; ***: $p < 0.001$)

M = 5.17 (± 1,69)	**Competition** rs=0.51***	M = 5.61 (± 1.25)
M = 4.62 (± 1.50)	**Exhibitionism** rs=0.59***	M = 4.48 (± 1.51)
M = 5.69 (± 1,24)	**Sociability** rs=0.55***	M = 5.70 (± 1.21)
M = 5.26 (± 1.12)	**Playing to the limit** rs=0.57***	M = 5.17 (± 1.13)

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

2) There is a difference between some motives for sport practice and video game play

(*W* = Wilcoxon Signed-Rank Test for Paired Samples)

M = 5.17 (± 1,69)	**Competition** *rs*=0.51***	*M* = 5.61 (± 1.25)	*W = 49151.50, p<0.001, r*=0.30
M = 4.62 (± 1.50)	**Exhibitionism** *rs*=0.59***	*M* = 4.48 (± 1.51)	
M = 5.69 (± 1,24)	**Sociability** *rs*=0.55***	*M* = 5.70 (± 1.21)	
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Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

3) The **most consistent motives** between these two practices are **sociability** and **playing to the limit**

Sociability

M = 5.69 (± 1,24) ⟷ *rs*=0.55*** ⟷ M = 5.70 (± 1.21)

Playing to the limit

M = 5.26 (± 1.12) ⟷ *rs*=0.57*** ⟷ M = 5.17 (± 1.13)

Self-determination theory (Deci & Ryan, 2000) teaches us that intrinsic dimensions such as 'relatedness' correspond to a fundamental psychological need, not highly dependent on context, and transversal to several domains of life

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

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Sociability

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Playing to the limit

M = 5.26 (± 1.12) ⟷ rs=0.57*** ⟷ M = 5.17 (± 1.13)

→ An argument to **promote sports** among **young people who do not practice sports**: *'the more you are motivated by sharing good times with your friends, or by playing to the limit through video games, the more you will also be motivated during a sport practice (However, it is necessary that you start!)'.*

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

4) Differences between **non-violent video game players** (NVVG) *vs* **violent video game players** (VVG) on the '**playing to the limit'** motive **underlying video game play**

(*U*: Mann Withney; Significance threshold after applying the Bonferroni correction: $p < 0.0125$)

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

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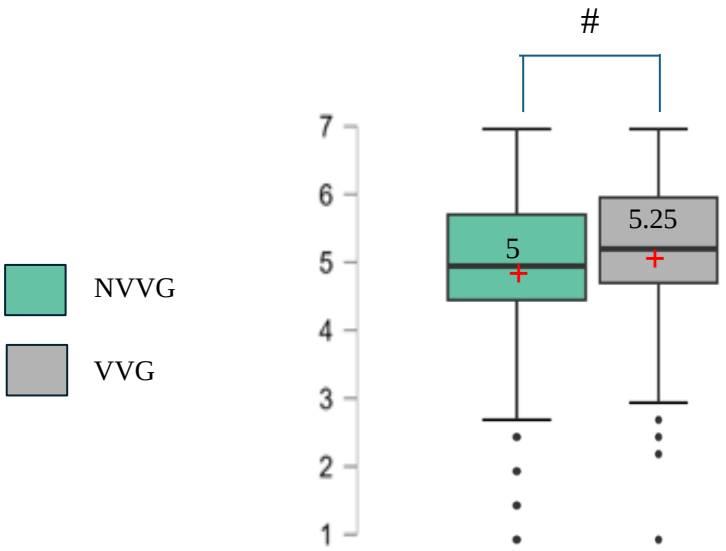


Playing to the limit

VVG tend to report higher scores on the 'playing to the limit' motive than NVVG

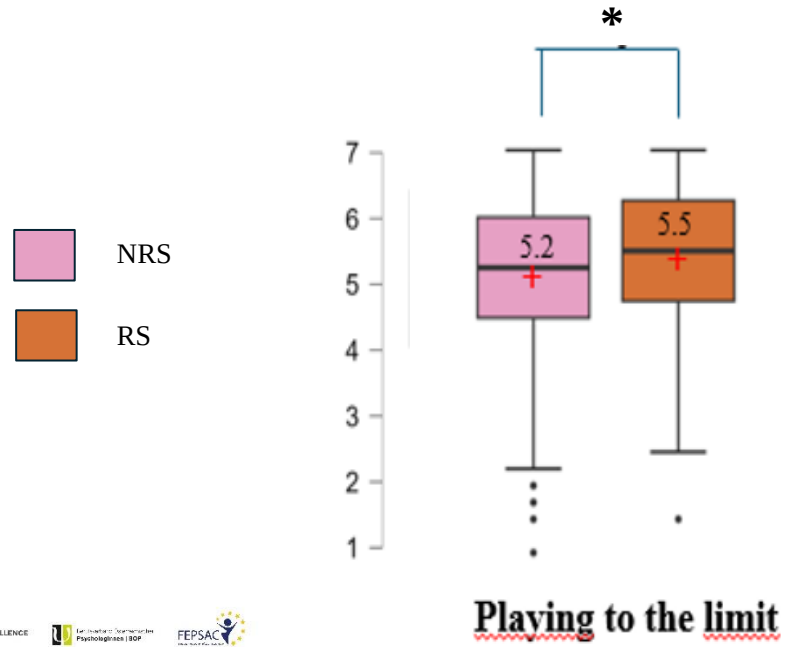
→ our hypothesis H2-a is not confirmed after applying the Bonferroni correction

U=29221, *p*=0.020, *r*=-0.12

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

5) Difference between **non risk sport** (NRS) *vs* **risk sport participants** (RS) on the 'playing to the limit' **motive underlying sports practice**

(*U*: Mann Withney; *Significance threshold after applying the Bonferroni correction: $p < 0.0125$)



→ Contrary to what we expected (H2-b), **risk sport participants have reported higher scores on the 'playing to the limit' motive**

* *U*=27348.00 $p<0.001$ r=-0.17

Relationships between Motives for Sports Practice and Video Game Play – RESULTS & DISCUSSION

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5) Difference between **non risk sport** (NRS) *vs* **risk sport participants** (RS) on the 'playing to the limit' **motive underlying sports practice**

- A higher score of 'playing to the limit' among risk sport participants

→ **The same is true for those who reported being injured in the past 12 months** ($p<0.003$): they reported **higher scores on the 'playing to the limit'** motive than others.

- A particular attraction to risk could explain these results.

Relationships between Motives for Sports Practice and Video Game Play – PERSPECTIVES

- Studying personality traits would be interesting to determine the profiles of young athletes and video game players regarding the motives underlying their practice and their taste for risk.

- It would also be interesting to see if, in the general adolescent population, the scores of underlying motives for video game practice differ between non-athletes and athletes.

Thank you for your attention!

Cécile MARTHA

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Thanks to the "**Délégation à la Sécurité Routière**" (Ministry of the Interior, France) for **funding** the overall research in which this study is included

Additional SLIDES

Use 13-item motives for sport participation questionnaire (Recours et al., 2004)**:**

Competition: 3 items, Ω = 0.91
Exhibitionism: 3 items, Ω = 0.86
Sociability: 3 items, Ω = 0.84
Playing to the limit: 4 items, Ω = 0.83

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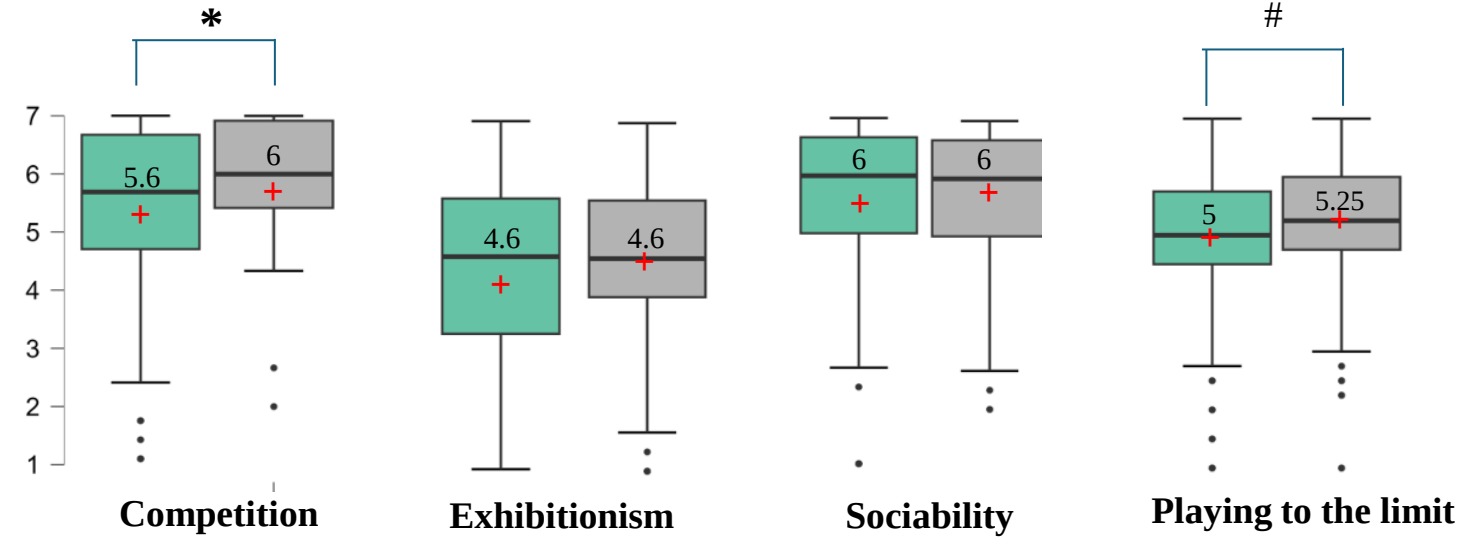
Additional SLIDES

Differences between **non-violent video game players** (NVVG) *vs* **violent video game players** (VVG) on the **motives underlying video game play**

(*U*: Mann Withney ; *Significance threshold after applying the Bonferroni correction : $p < 0.0125$)



* *U*=28716.50 *p*=0.010, *r*=-0.13

\# *U*=29221 *p*=0.020, *r*=-0.12

Additional SLIDES

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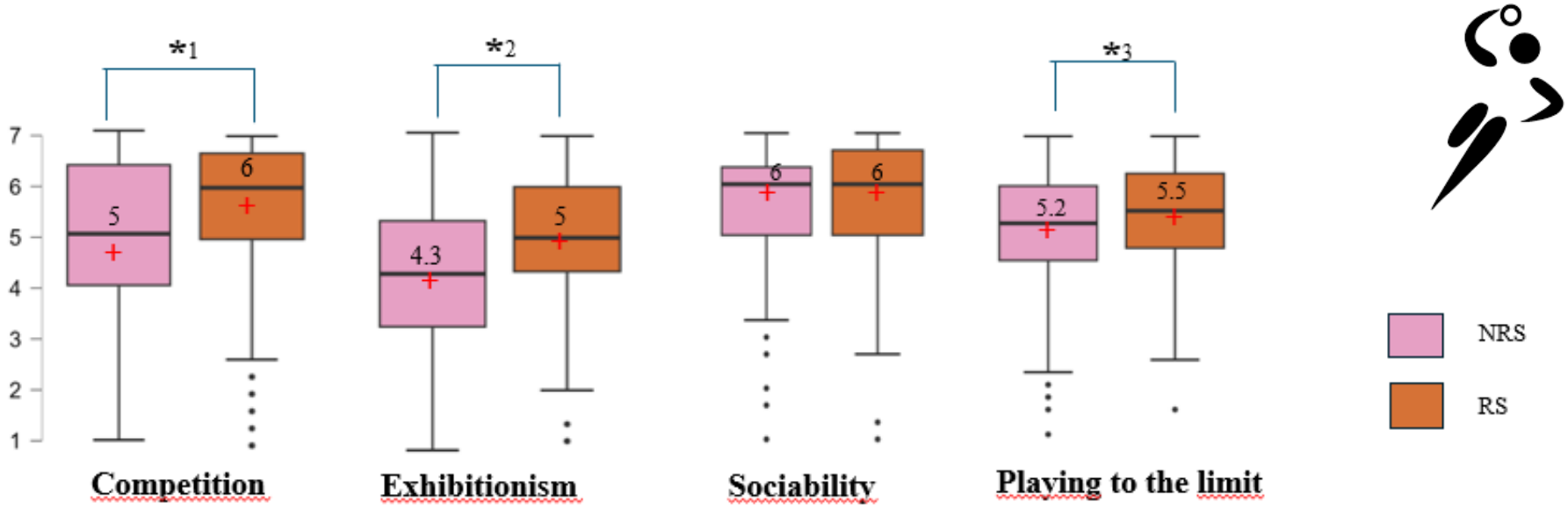

*1 *U*=25726.50 *p*<0.001 *r*=-0.22

*2 *U*=26311.50 *p*<0.001 *r*=-0.21

*3 *U*=27348.00 *p*<0.001 *r*=-0.17