



Münster, October 17 and 18, 2022

European Conference on Physical Education and School Sports

**wgi** Willibald Gebhardt  
Institute



# COVID-19 studies on PE teachers of various school grades in Italy



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DEGLI STUDI  
DI URBINO  
CARLO BO

Erica Gobbi

*Department of Biomolecular Sciences*

*University of Urbino, Italy*

# University of Urbino

Marche Region



# Overview

- Background: Italian PE and the COVID-19 pandemic
- Studies 1 & 2: High school PE teachers promoting out-of-school PA
- Study 3: Primary school teachers
- Conclusion and next steps

# Italian PE background

3 to 6 years old



6 to 11 years old



11 to 14 years old



14 to 19 years old

**Kindergarten** → **Psychomotricity**  
not compulsory, generalist teachers

**Primary school** → **Physical Education**  
2 hrs/week compulsory but with flexible time allocation, generalist teachers

**Lower secondary school** → **Physical Education**  
2 hrs/week compulsory, specialized teachers

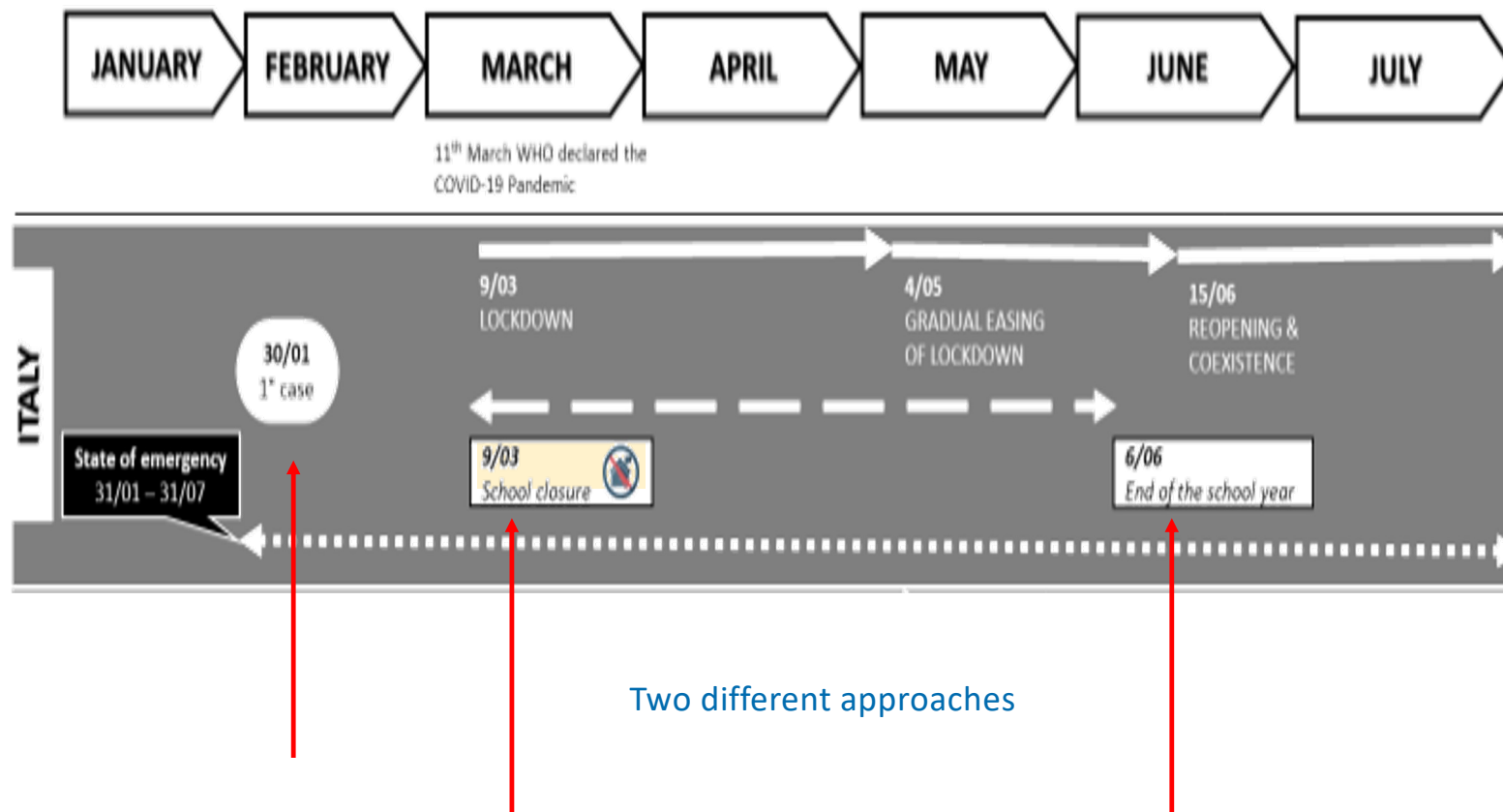
**Upper secondary school** → **Physical Education**  
2 hrs/week compulsory, specialized teachers



2022-23  
Around 2200 qualified PE teachers in primary school (5<sup>th</sup> grade)



# Italian PE and Covid-19



Two different approaches



# Italian PE and Covid-19

April 26, 2020



Safety in sport context:  
“professional level allowed, no combat sport”



May 02, 2020



School opening in September 2020:  
“the gym could be used as large space for desks if necessary”



May 28, 2020



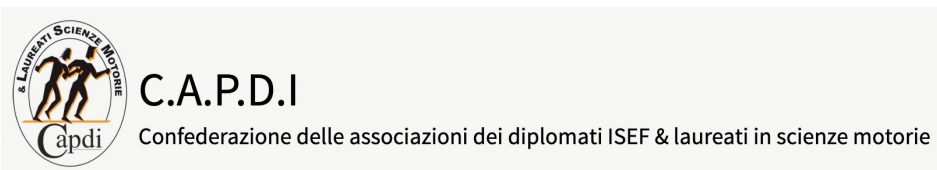
Physical education:  
“2 meters of physical distancing, team and group-based sport are not recommended”

Erica Gobbi – 18/10/2022





# Italian PE and Covid-19



C.A.P.D.I.

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Ufficio scolastico regionale per l'Emilia-Romagna

Ministero dell'Istruzione



Tag: piattaforma on line educazione fisica

Covid-19 - CAPDI: una piattaforma on line per l'Educazione Fisica

31 Marzo 2020

La CAPDI ha attivato una piattaforma pensata per la didattica on-line con materiali utili per l'Educazione Fisica. Link alla piattaforma per la scuola secondaria: <https://padlet.com/capdilm/educazionefisica> Link alla piattaforma per la scuola dell'infanzia e primaria: <https://padlet.com/capdilm/palestrabimbi> Per informazioni o assistenza sull'uso Continua a leggere

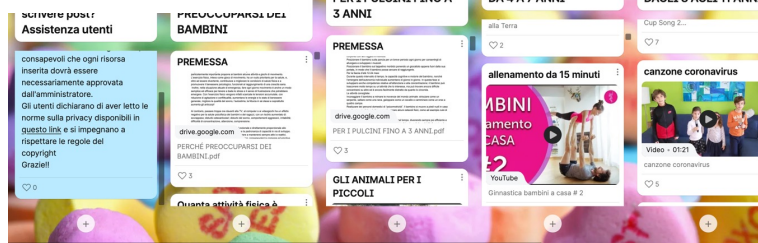
Youtube channel

Facebook page

Lesson plans

Webinars

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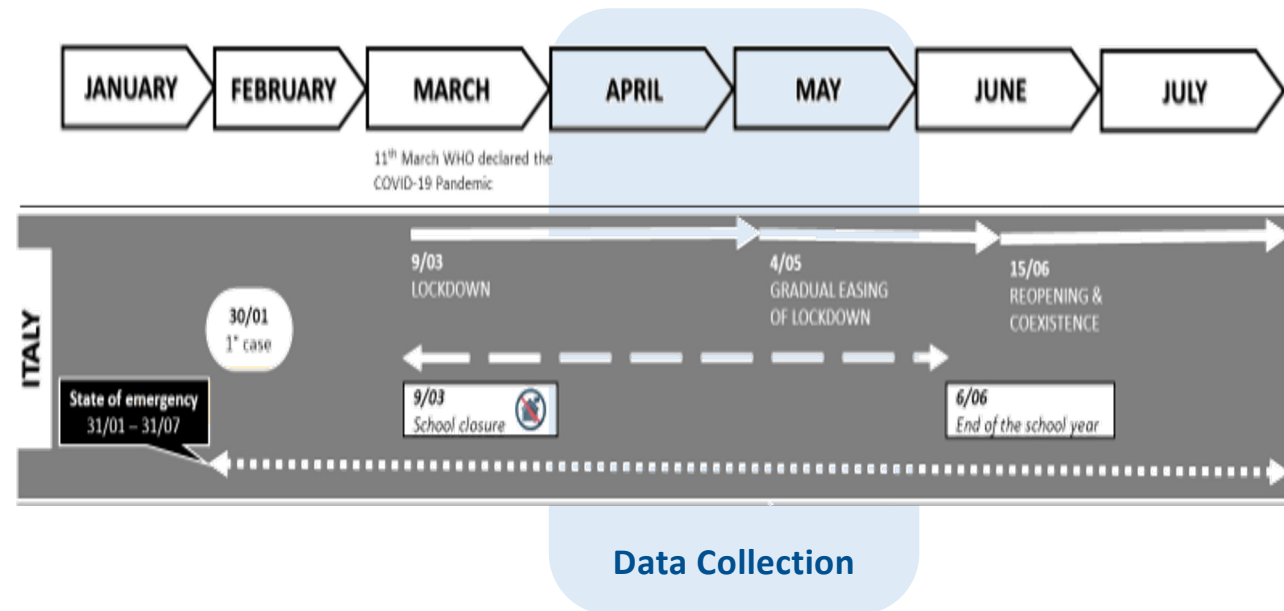
Webinar for  
PE teachers

Erica Gobbi – 18/10/2022

Italian background

# Italian PE and Covid-19

- Recommendation only came from school principals, no suggestions from the Ministry
- **PE shifted from practical to theoretical subject: insurance problems**
- Involving students was further hampered







# Study 1: Promoting out-of-school PA



International Journal of  
*Environmental Research  
and Public Health*



Article

## **Promoting Physical Activity during School Closures Imposed by the First Wave of the COVID-19 Pandemic: Physical Education Teachers' Behaviors in France, Italy and Turkey**

Erica Gobbi <sup>1</sup>, Silvio Maltagliati <sup>2</sup>, Philippe Sarrazin <sup>2</sup>, Selenia di Fronso <sup>3</sup>,  
Alessandra Colangelo <sup>4</sup>, Boris Cheval <sup>5</sup>, Géraldine Escriva-Boulley <sup>2</sup>, Damien Tessier <sup>2</sup>,  
Giyasettin Demirhan <sup>6</sup>, Gokce Erturan <sup>7</sup>, Yilmaz Yüksel <sup>6,8</sup>, Athanasios Papaioannou <sup>9</sup>,  
Maurizio Bertollo <sup>3,\*</sup> and Attilio Carraro <sup>10,\*</sup>

This study aimed to examine, from before to during the COVID-19 lockdown, the changes of French, Italian, and Turkish PE teachers' behaviours promoting their students' out-of-school PA, alongside with the changes of pedagogical formats in relation to these behaviours

# Method

Frequency of PE teachers' behaviours promoting their students' out-of-school PA:

- **Guiding,**
- **Helping to set goals,**
- **Encouraging self-monitoring**

Pedagogical formats used in relation to these behaviours

Pedagogical formats of feedback from students

(Hagger et al., 2010; Nurmi et al., 2016)



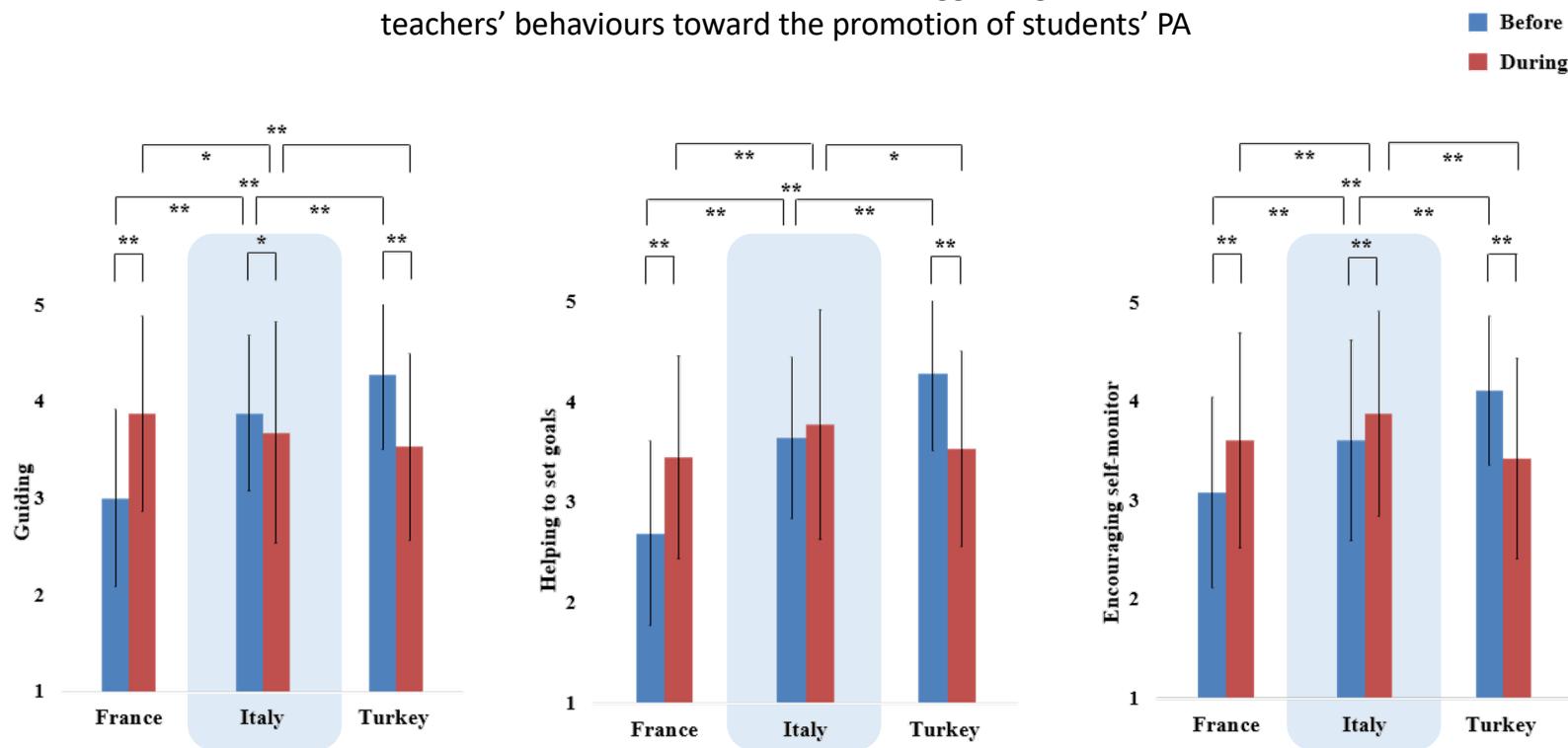
- before/during the lockdown
- controlling for perceived health and years of PE teaching
- 1146 PE teachers

Country	Gender	n (%)	Age
France (n= 434)	Male	221 (50.9%)	42.9 (11.3)
	Female	213 (49.1%)	40.5 (10.2)
Italy (n= 497)	Male	158 (31.8%)	50.4 (10.1)
	Female	339 (68.2%)	49.8 (10.5)
Turkey (n= 215)	Male	85 (39.5%)	40.0 (8.7)
	Female	130 (60.5%)	41.9 (9.4)

# Results

Different trends in the three Countries

**In Italy:** A lower frequency of behaviours encouraging students to be active, no difference in helping students to set goals, higher frequency in encouraging them to monitor their PA levels was observed, suggesting a shift in teachers' behaviours toward the promotion of students' PA

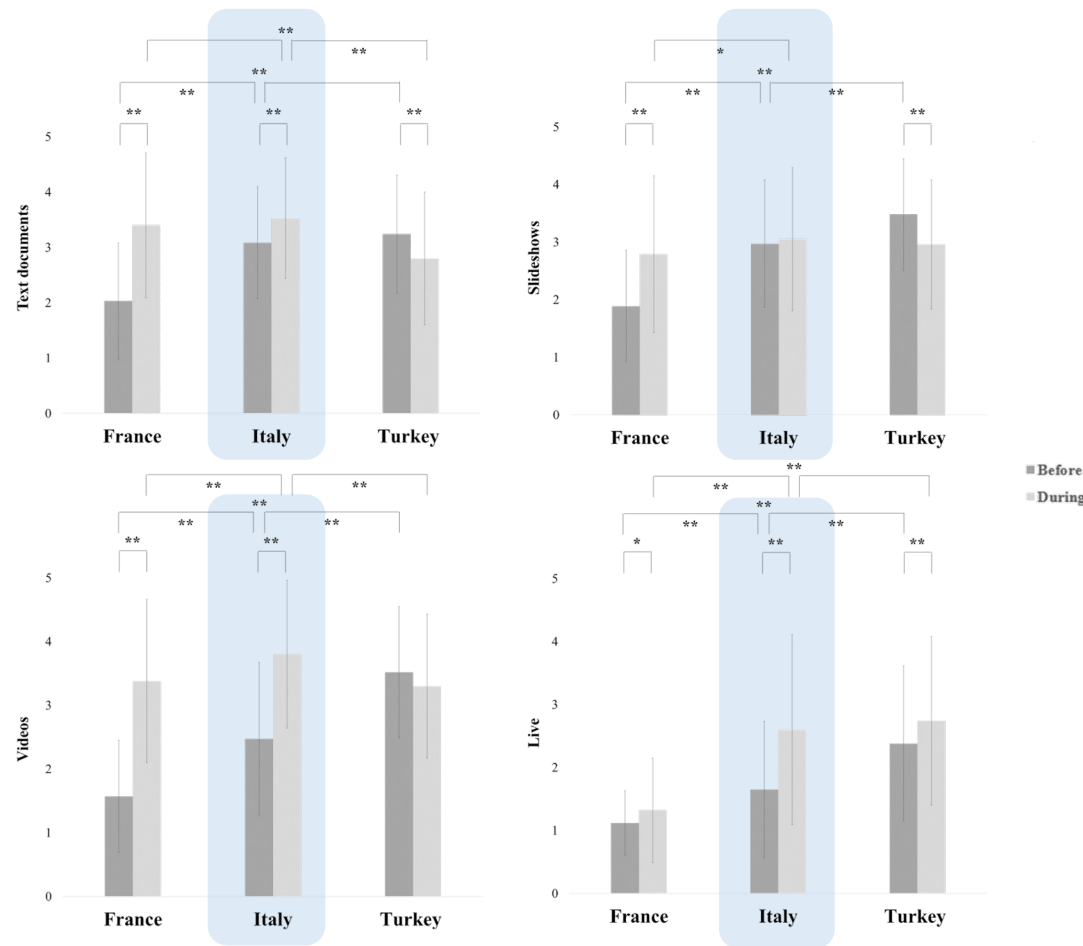


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# Results

*If you propose/d pedagogical contents aiming to promote out-of-school PA among your students, in what format and how often do/did you propose them?*



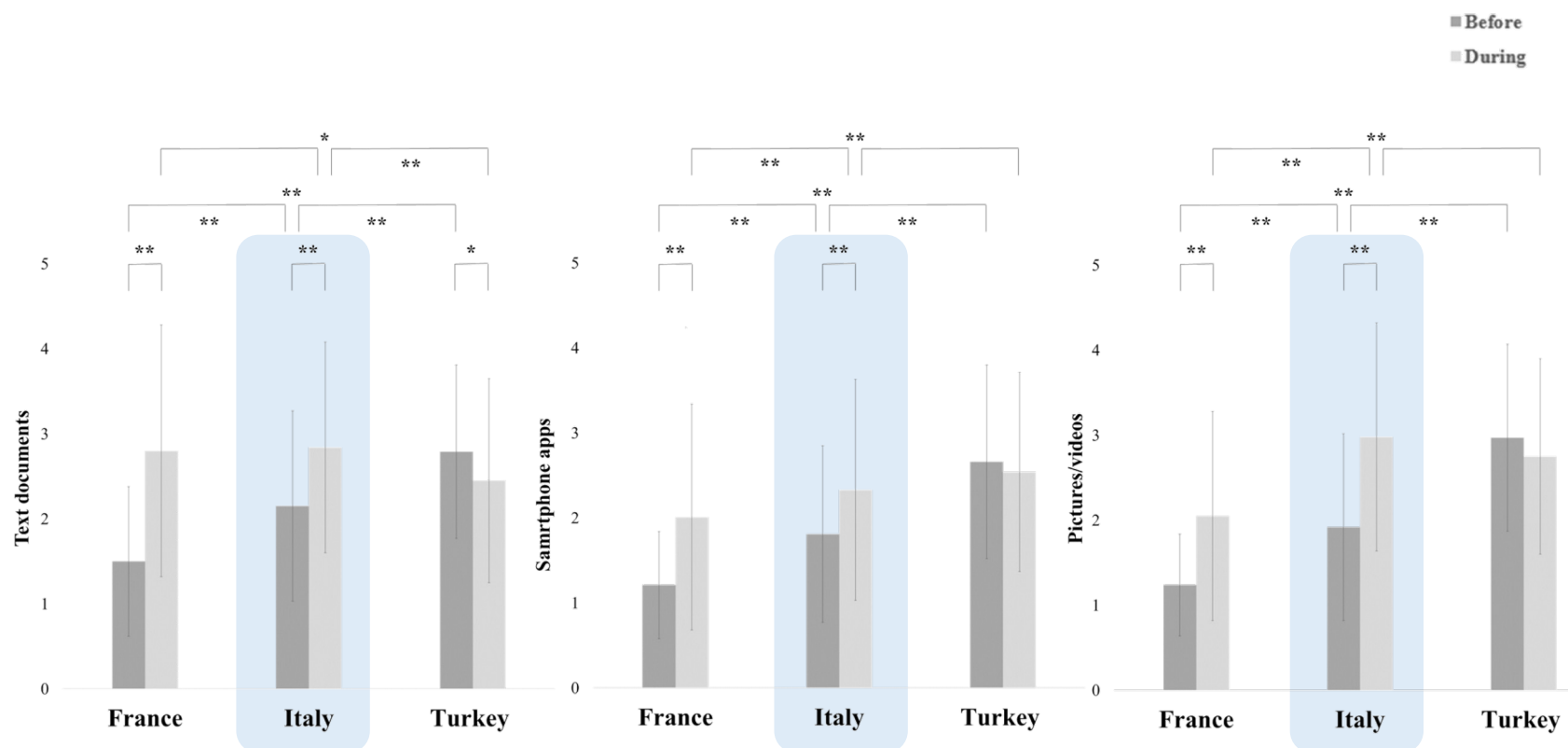
- Italy and France: increasing of digital and technological instruments
- Turkey: only live streaming

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# Results

*If you propose/d pedagogical contents aiming to promote out-of-school PA among your students, how often do/did you ask them to make some feedback about what they have/had actually done?*




# Study 2: How and why promoting out of school PA?

*Journal of Teaching in Physical Education*, (Ahead of Print)

<https://doi.org/10.1123/jtpe.2021-0116>

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Human Kinetics   
ARTICLE

## **Predicting Changes in Physical Education Teachers' Behaviors Promoting Physical Activity During the COVID-19 Pandemic Using an Integrated Motivational Model**

**Silvio Maltagliati,<sup>1</sup> Attilio Carraro,<sup>2</sup> Géraldine Escriva-Boulley,<sup>1,3</sup> Maurizio Bertollo,<sup>4</sup> Damien Tessier,<sup>1</sup>  
Alessandra Colangelo,<sup>5</sup> Athanasios Papaioannou,<sup>6</sup> Selenia di Fronso,<sup>4</sup> Boris Cheval,<sup>7,8</sup> Erica Gobbi,<sup>9</sup>  
and Philippe Sarrazin<sup>1</sup>**

The present work  
provides a  
complementary  
analysis of the  
previous data set.



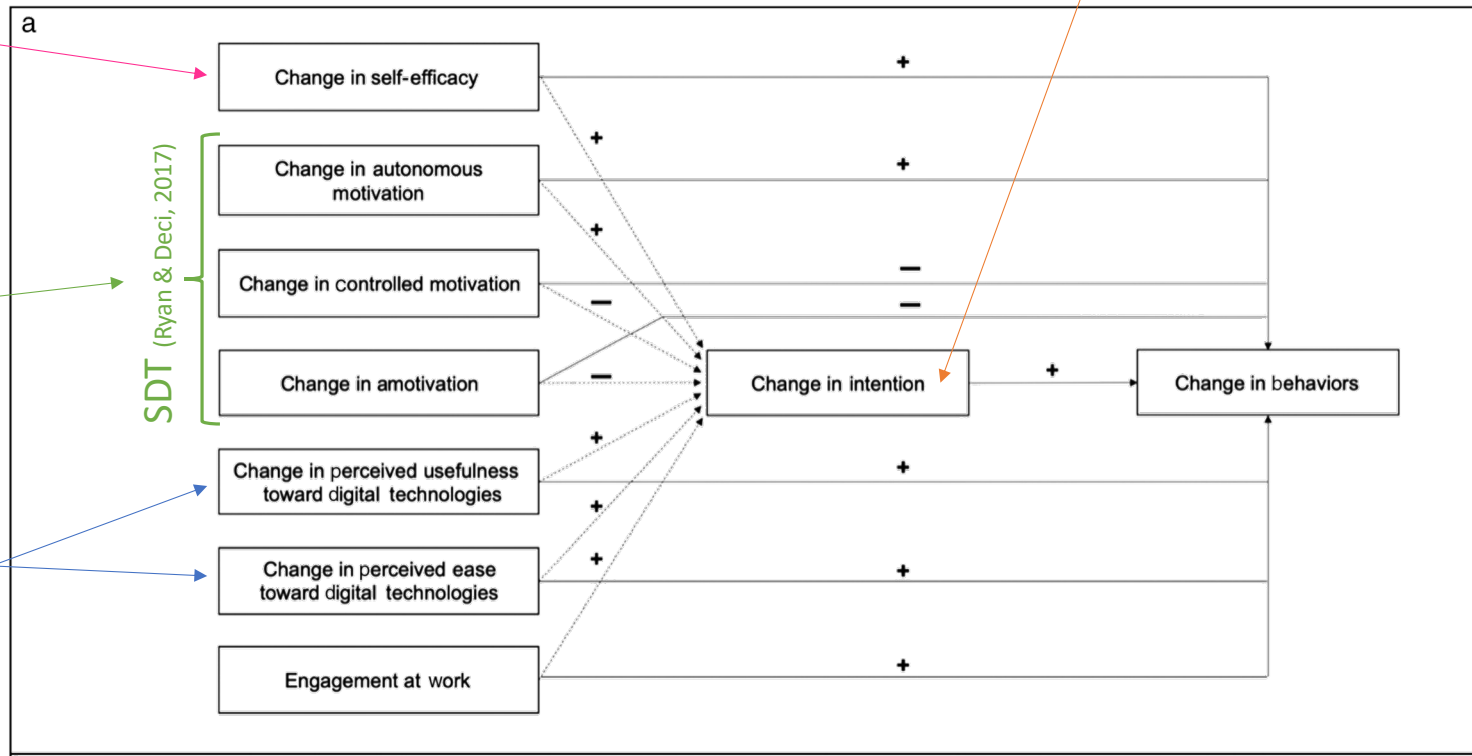


# The hypothesized associations

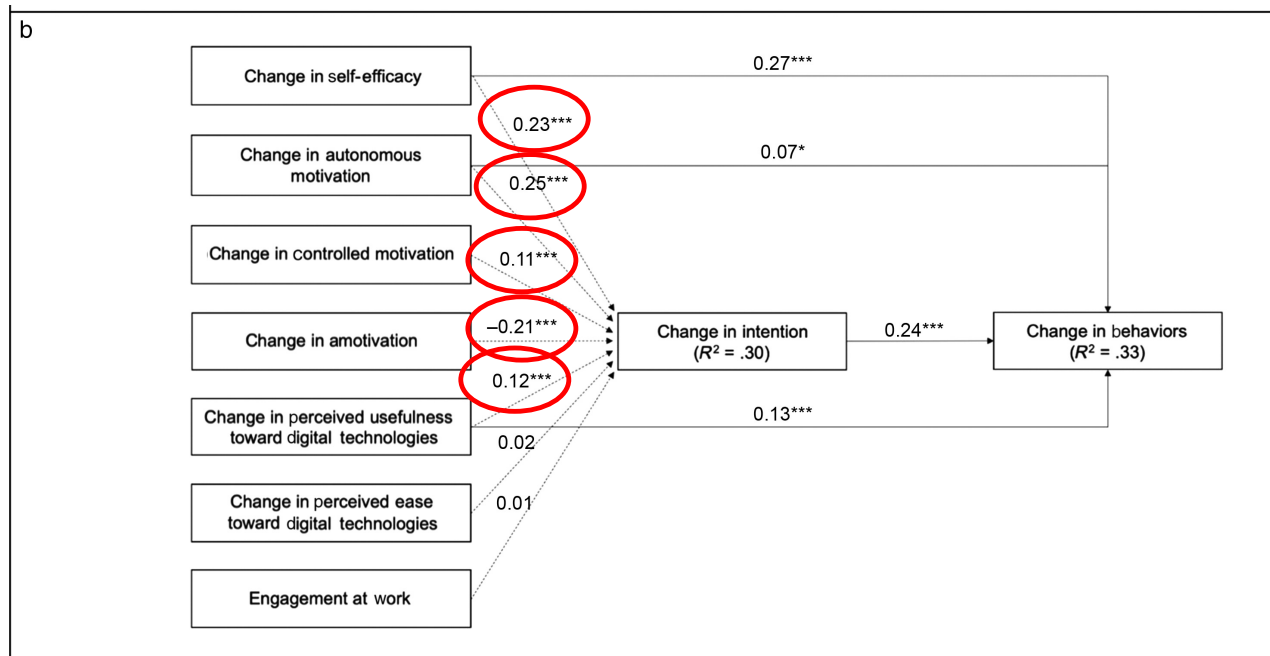
SCT: beliefs about one's own capabilities to plan and execute a specific behaviour (Bandura, 1986)

The type of motivation represents distal factor influencing the decision process of engaging in a behaviour (Hagger & Chatzisarantis, 2016)

TAM: related to teachers' behaviours and intention to use such tools in education (Teo, 2012)



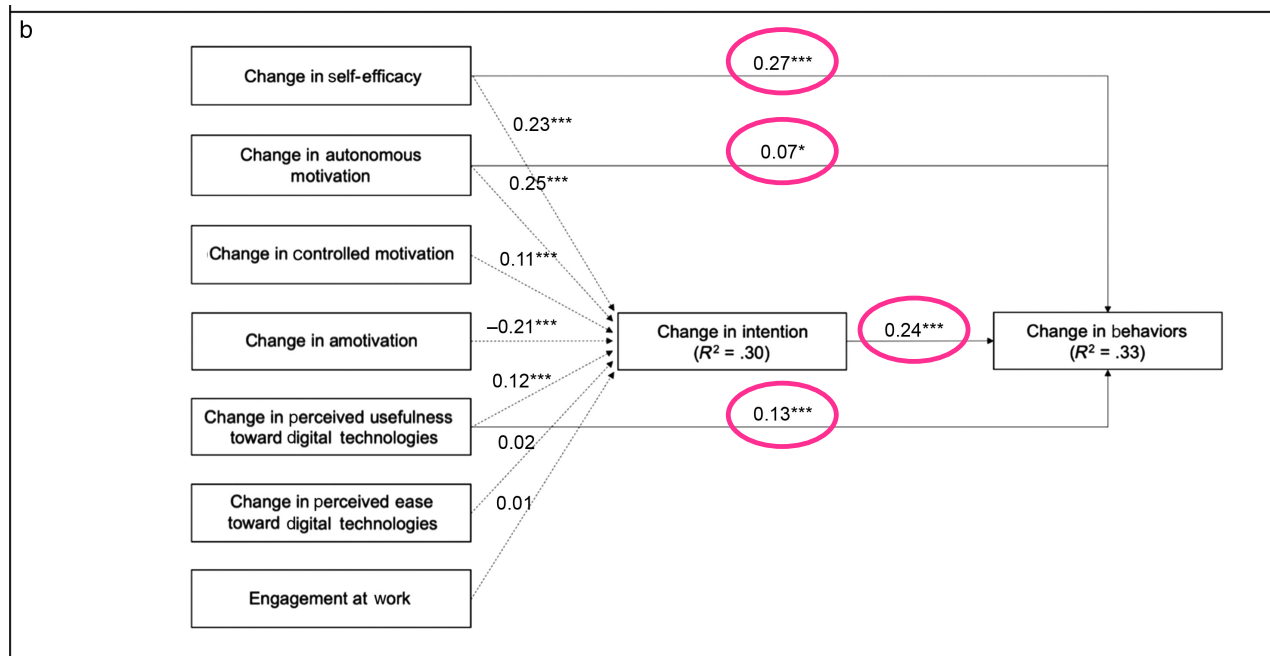
# Results



Changes in amotivation, controlled motivation, autonomous motivation, self-efficacy and perceived usefulness toward digital technologies from before to during lockdown, were significantly associated with changes in the **intention** to promote out-of-school PA.

The model explained 30% of the variance in changes in the intention to promote PA

# Results



Changes in intention, self-efficacy, autonomous motivation, and perceived usefulness toward digital technologies from before to during lockdown, were significantly associated with changes in the **behaviours** promoting out-of-school PA.

The model explained 33% of the variance in changes in behaviours promoting PA

# Results at a glance

A change in intention only predicted a **small to medium change in behaviours** ( $\beta = 0.24$ ). In other words, a stronger intention to promote PA during lockdown does not automatically translate into increased behaviours promoting PA

An increase in **self-efficacy, autonomous motivation, perceived usefulness toward digital technologies** were associated with an increase in both the intention to promote PA and directly, to behaviours promoting PA suggesting that are variables that **foster teachers' commitment** to challenging situations.

Conversely, **amotivation** was negatively associated with changes in the intention to promote PA.



## Study 3: Primary school teachers



*sustainability*



*Article*

### **Primary School Physical Education at the Time of the COVID-19 Pandemic: Could Online Teaching Undermine Teachers' Self-Efficacy and Work Engagement?**

Erica Gobbi <sup>1</sup>, Maurizio Bertollo <sup>2</sup>, Alessandra Colangelo <sup>3</sup>, Attilio Carraro <sup>4,\*</sup> and Selenia di Fronso <sup>2</sup>

The present study aimed to evaluate whether SE-PE and WE changed from before to during the lockdown among primary school classroom teachers.

# Method

## Participants



From a total of 884 primary school classroom teachers answering the questionnaire, a total of **622** (5.6% males) teachers were considered for the analyses, representing those **involved in teaching PE during the lockdown**.

Participants were then divided into three age categories ( $\leq 40$  years, 41–50 years, and  $\geq 51$  years).



- before/during the lockdown
- controlling for perceived digital competence

## Measures

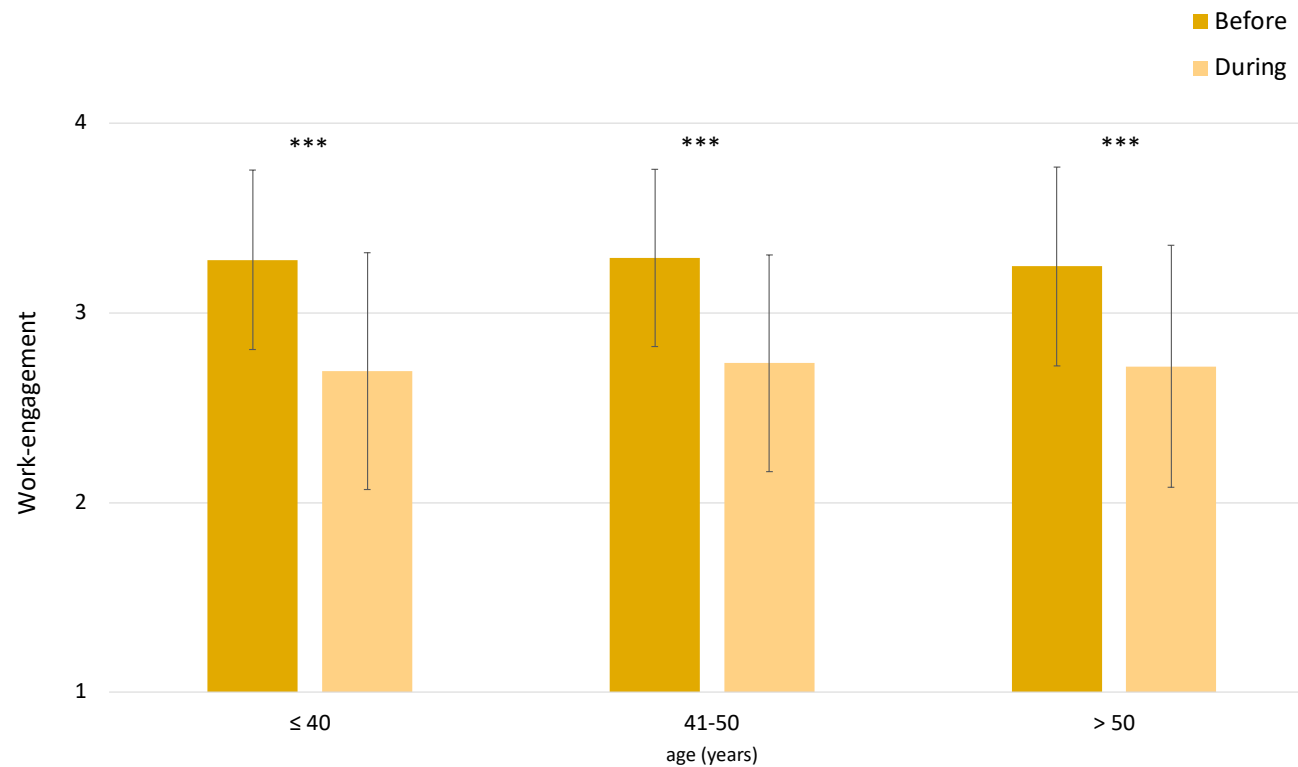
- Self-efficacy in teaching PE (classroom management, students' engagement and instructional strategies)  
(Tschannen-Moran & Woolfolk Hoy, 2001);
- Utrecht Work Engagement Scale  
(Schaufeli et al., 2006);

Significant Pearson's correlations observed between teachers' SE-PE and WE in before ( $r = 0.471, p < 0.001$ ) and during the lockdown ( $r = 0.461, p < 0.001$ )



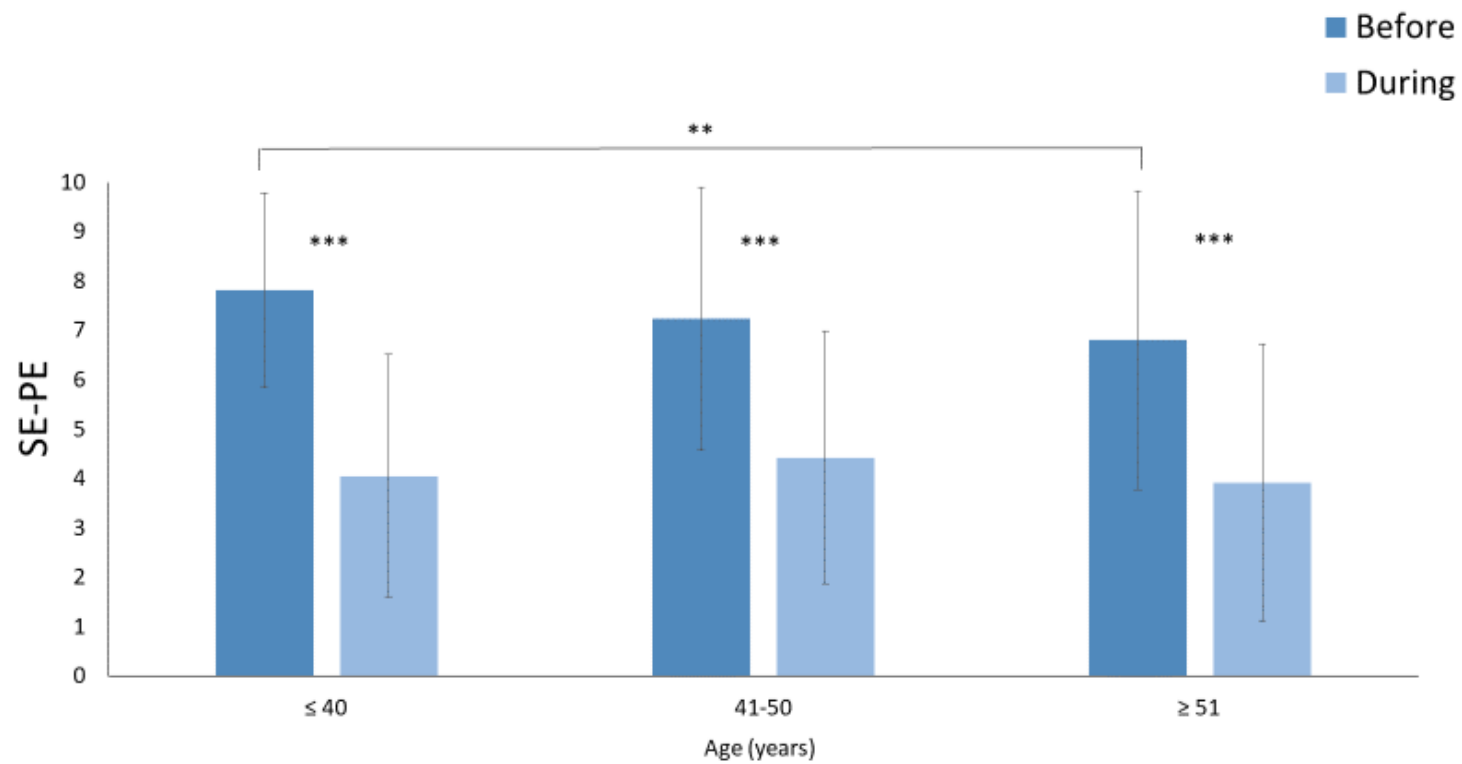
# Results

Work-engagement significantly decreased from before to during the online teaching, without time × age categories interaction.



# Results

Self-efficacy significantly decreased from before to during the online teaching, with a time × age categories interaction effect.



# Conclusion

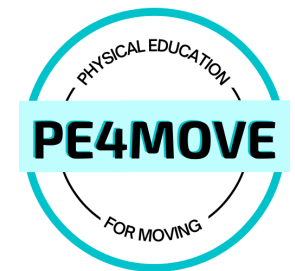
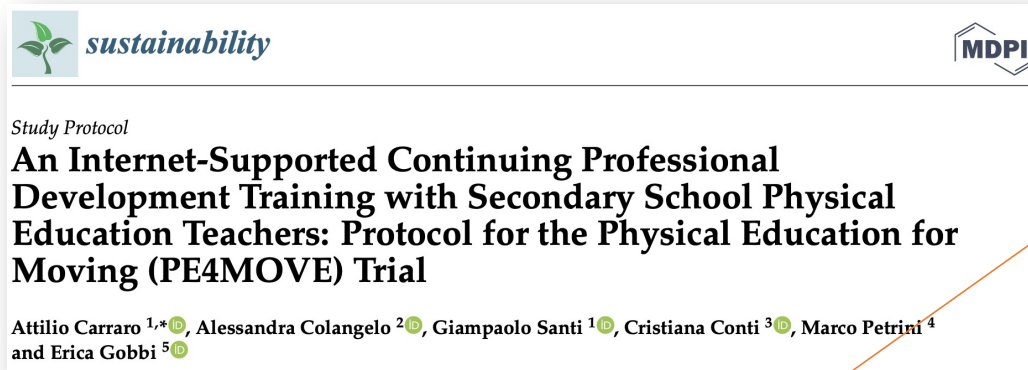
Findings could be applied to inform PE teachers' initial and continuous education addressing relevant and possible new scenarios, such as implementing new curricula or technologies

Importance of supporting PE teachers' **self-efficacy** to better understand how to cope with disruptive educational settings.

Further recognition of the important **role of PE and PE teachers** in promoting out-of-school PA among youths.

Training PE teachers on how **digital innovations** are shaping PE pedagogy in order to reinforce their perceived usefulness and competence in ICT, and in turn, fostering the implementation of renewed pedagogical practices.

# Next steps?



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[erica.gobbi@uniurb.it](mailto:erica.gobbi@uniurb.it)