



# **The CEREPS consensus statement of physical education and school sport for recovery of the COVID-19 pandemic in Europe: Scientific background & recommendations for action**

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# Scientific background paper – part 1



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## 1. European based COVID-19 studies (pp.4-28)

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1.2 Reviews on comparative COVID-19 studies between European countries

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# Scientific background paper – part 1



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## 3. Conclusions for the design of the CEREPS consensus statement on recommendations for action to recover the quality of physical education and school sport in Europe (pp. 43-44)



## Recommendations for Action – part 2



### Matrix of recommendations and actions for different stakeholders:

Children, adolescents, young adults, parents, school principals, PE teachers, volunteers, coaches, scholars, policy makers

Actions to take during the COVID-19 pandemic (pp. 3-5)

Actions to take after the COVID-19 pandemic (pp. 5-7)



# 1. National country reviews of the impact of COVID-19 pandemic

- **N= 19** national and comparative studies across European countries included Austria, Belgium, Bosnia-Herzegovina, Croatia, Denmark, France, Germany, Hungary, 2xItaly, Netherlands, Poland, Portugal, Romania, Russia, Slovenia, 2xSpain and Sweden which addressed different items of physical activity, motor development and a variety of psychosocial/ mental burden of **children and adolescents** (>18 years) before COVID-19 and during COVID-19 lockdowns
- **N= 10** studies (Austria, Belgium, Denmark, Greece, Ireland, Italy, Spain, 2xUK, and Ukraine) addressed **younger adults** (<18 years up to 34 years) with different items of physical activity, sedentary lifestyle factors and psychosocial/ mental burden before COVID-19 and during COVID-19 lockdowns
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- **N= 4** surveys with **parents** were reviewed (Norway, Slovakia, Italy, Spain) who gave proxy reports of their children`s behaviour patterns and individual burden during COVID-19 lockdown
- **N= 5** studies included **PE teachers** (Czech Republic, Finland, Norway, France, Turkey) about their teaching strategies in home schooling and online teaching PE during school closure

## 1.2 Reviews on comparative COVID-19 studies between European countries



- **N= 7 comparative reviews between EU countries:**
- Faulkner et al.(2020) on adults
- Gillic et al. (2020) on adolescents
- Gobbi et al.(2020) on PE teachers
- **Kovacs et al. (2021) on children & adolescents**
- Orgiles et. al. (2020) on parents
- Ruiz-Roso (2020) on adolescents
- Stockwell et al. (2021) on children and adolescents



## Kovacs et al. (2021) “Physical activity, screen time and the COVID-19 school closure in Europe – An observational study in 10 countries”

<b>Internal review indicator</b>	<b>Structured schedule of PA daily, number of days meeting norms of daily PA (60 min.), meeting 60 min. MVPA daily, meeting 2 hrs. or less of screen time per day</b>
<b>Country</b>	<b>Europe (highest COVID cases: Russia, Spain, Italy, Germany, France); (less affected COVID cases: Belgium (Flanders), Portugal, Romania, Hungary, Poland, Slovenia)</b>
<b>Sample</b>	N =8,395 children/adolescents aged 6-18 years; data collection May/June 2020; 47% boys, 57,6 urban, 15,5% in self-isolation of COVID-19
<b>Age mean</b>	13 years,
<b>Purpose</b>	How many children remained in structured routines in COVID time; in how far was the PA norm (60 min. a day) and screen norm (2 hrs a day) achieved?
<b>Methods</b>	Online survey, for younger participants parent`s proxy report
<b>Results means</b>	<b>66,4% remained in structured routines (min. 38,4% Russia, max 69,3 % Germany); 56,6% active in online PE (min. 2,1% Germany, max. 79,8% Slovenia); 19% achieved daily 60 min. norm of PA (min. 7,5% Italy, max. 26,7% Slovenia); excess of more than 2 hrs screen time daily (69,5%), meeting the screen norm (30,5%, min. 20,4% Italy, max. 53,8 % Germany)</b>
<b>Conclusion</b>	<b>“consist daily routines are important in helping children maintain healthy active lifestyle in pandemic situation” (Kovacs et al., 2021, p. 1); “schools should made PE lessons a priority” (ibid.); prevalence of insufficient physical activity and unhealthy screen time</b>

# 1.3 Outcome of COVID-19 Studies for children and adolescents



## Levels/ Minutes of PA:

Sekulic et al.(2020, CRO): sig. decline ( $p < 0.001$ ) of minutes per week after lockdown;  
Derigny et al. (2022 FRA): decrease of all levels of physical activity (LMVPA);  
Schmidt et al. (2021,GER): decrease of weekly min. per day for sport activities pre-Covid t1 28,5 min, post-lockdowns t2 0 min. t3 3,7 min; for all PA t1 35,1 min, t2 24,3 min, t3 13,6 min.  
Pietrobelli et al. (2020, ITA): decrease of sport time per from 3,60 hrs down to 1,29 hrs

## Coverage of the time norm of daily 60 min PA:

Orgiles et al. (2020, ITA/ESP): from 28% down to 9%  
Kovacs et al. (2021, EU): down to 19% (ITA 7,5%, SLO 26,7%)  
Roe et al. (2021 NOR): down to 33%

## Screen time:

Schmidt et al. (2021, GER): pre-Covid t1 133, up to post-lockdown t2 196, t3 228 minutes per day  
Pietrobelli et al. (2020, ITA): 2,76 hrs per week up to 7.61 hrs a week  
Lodzinska & Lelonek (2021, POL): from 5 hrs pre-Covid up to 9 hrs during Covid lockdown a week



# 1.3 Outcome of COVID-19 Studies for children and adolescents



## **BMI development:**

Jarnig et. al. (2021, AUT): percentage of overweight & obesity increased from t 1 20,3% up to t2 on 24,1%  
Starc (2020, SLO): 56,8% of girls, 58,4% of boys weight gain at t2 compared to the previous measurement of cohort groups in 2019  
Basterfield et al. (2022, UK): increase of percentage of overweight & obesity from t1 35% up to t2 on 51%

## **CRF Physical Fitness:**

Jarnig et al. (2021, AUT): decline in 6 min.run from t1 of 917 metres down to 815 metres at t 2  
Starc (2020,SLO): 69,5% of girls, 67,8% of boys reduce of physical fitness at t 2 compared to the previous measurement of cohort groups in 2019, highest reduce in endurance capacity  
Basterfield et al. (2022, UK): reduce of shuttle run laps from 23,4 at t1 down to 20,6 at t2

## **Motor development:**

Vrieswijk et al. (2021, NED): coordination score of 17.2 at t 1 down to 14,0 at t 2; balancing/climbing from 91,3% at t1 down to 84,5% for grade 1 and 2  
Pombo et al. (2021, POR): motor competence score from 57 at t1 down to 41 at t2



# 1.3 Outcome of COVID-19 Studies for children and adolescents



**Psycho-social health:** e3 on 47,7%; decrease of high HRQoL from t1 (16,6%) via t2 down to 5,8% and t3 5,7%

## **Mental health:**

Ravens-Sieberer et al.(2021,GER): increase of problems are reported for stomach aches (t1 21,3%;t2 30,5%, t3 36,4%), headaches from 28,3% at t1 up to 40,5% at t2 upto 46,4% at t3.

The reviewed parents reports have a more extensive collection of mental health items which results underpin extension of reduced well being during COVID-19 pandemic.

## **Comparisions between pre-Covid and Covid-studies**

All studies on children and adolescents under review reported on declines/decreases between pre-Covid and post-lockdown measurements with one exception: Chen et al. (2020) in Sweden; index for stress and psycho-social symptoms almost stable between t1 and t 2 (15,1 vs. 15.8)



# 1.4 Outcome of COVID-19 Studies for children and adolescents



## Observed effects of development during COVID-19 lockdowns

Across the COVID-19 studies whether the focus is on children or adolescents or on parental reports on childrens observed behaviour there are some important tendencies:

1st. Ambivalences occurred between studies whether inactive children in pre-Covid time became **more active in the beginning of a first lockdown**. Data of some studies document a slight increase of outdoor PA in the first three weeks of a lockdown. However, the longer the lockdown in terms of weeks is going on, the more former inactive children stay even more inactive.

2nd. Many reviewed studies report on age related effects: **the younger children are (kinder garten, first grades of primary schools) the more they report on less time of PA and more psycho-social problems and individual mental burden** after school closure and closed sport club programmes. Social exclusion from friends and class mates is often linked with feeling of isolation and loneliness.

3rd. It seems to be not only in the case of Sweden, that **children in countries with a small/ mild lockdown** (e.g. Denmark, Netherland, Belgium, Slovenia) **did not suffer as much as** their counterparts **in countries with long/strong lockdowns** (e.g. France, Germany, Italy, Spain).

4th. Some **Ministries of Education and Sport** on provincial and national level (e.g. in Austria, Denmark, France, Spain) **guided schools and teachers how to sustain** with some **physical exercises** at school mainly outside during lockdowns.

## 2. Position statements and declarations on recovery of PE and PA from COVID-19 pandemic



**In total 35 documents (published online and as printed papers by 23 stakeholders) from 10 countries across Europe in 6 different languages were collected/translated and analysed. The documents included 26 different indicators to restore/recover negative impacts of COVID-19 regulations for physical activities, physical education, social youth work etc. set up with closure of schools, sport clubs, social institutions and public places.**

**The 23 stakeholders are: Ministries of Education, Sport and Health (6), PE Teacher Associations (5), Youth Organisations (5), Sport Associations (3), Health Services (2) and Research Institutes/Networks (2).**

**The top 10 (most frequently identified indicators) are:**

Recover absence of PE and PA, follow national/international guidelines, teach PE professionally with licenced teachers, social inclusion & equity, innovative digital teaching, outdoor PE/PA & ventilation indoors, sanitation & hygiene standards, daily PE & integration of PA into classes, wear PE clothes to school, develop policies with key stakeholders, collaborative networks with communities & organisations.

# 2. CEREPS Consensus Statement of Physical Education and School Sport for recovery from COVID-19 Pandemic – part 2



**The CEREPS consensus statement of physical education and school sport for recovery from the COVID-19 pandemic in Europe**

## **Recommendations for Actions**

Authors on behalf of CEREPS:

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# Matrix of Recommendations for Actions for different Stakeholders



**Matrix of Recommendations and Actions for different Stakeholders**

Stakeholders/	Children	Adolescents	Young adults	Parents	School principals	PE teachers	Volunteers	Coaches	Scholars	Policy makers
<b>Recommendations &amp; Actions</b>										
<b>During the Covid-19 pandemic</b>										
<b>Infrastructure and Social Context of the School Environment</b>					X	X		X		X
<b>Communication and Social Distancing in Practicing Physical Education and Sport</b>	X	X	X	X		X	X	X		
<b>Importance of regular time allocation of PE with inclusive PE classes and qualified PE teachers</b>				X	X	X			X	X
<b>Hygiene Standards for Equipment, Facilities, and Types of Physical Activities</b>	X	X	X	X	X	X	X	X		
<b>Digital Teaching of Physical Education and Blended Learning</b>	X	X	X	X	X	X		X	X	X
<b>The Importance of Integrated Outdoor Physical Education and Sport</b>	X	X	X	X	X	X	X	X	X	
<b>Post-Covid-19 pandemic</b>										
<b>Networking of schools with different groups of stakeholders in the local community</b>				X	X	X	X	X	X	
<b>Further professional training in physical education and school sport for teachers and coaches</b>					X	X		X	X	X
<b>Monitoring the Quality of Physical Education and School Sport and Related Interventions</b>	X	X	X	X	X	X		X	X	
<b>Policy making with administrators on different governmental levels</b>				X	X	X		X	X	X

# Actions to take for recovery of physical education and school sport



ACTIONS to take are:

(6) During COVID-19 pandemic:

Infrastructure & school environment; qualified PE teacher & allocated regular time of PE; hygiene standards (equipment, facilities, kind of PA); communication & social distancing; digital teaching of PE; integrated outdoor PE;

(4) After COVID-19 pandemic:

Networking between schools & stakeholders; further professional education of PE teachers; internal and external monitoring of PE and school sports with interventions; policies and policy making of administrators on different governmental levels

# Recommendations for Recovery



- Children and adolescents should remain physical active as much as possible during the pandemic with structured daily routines for more individual exercises
- Individual types of outdoor physical activities should be daily practised under the conditions of hygiene rules and social distancing
- Public spaces should not be forbidden to enter if hygiene standards will not be violated
- Local sport facilities with sport club programmes and school facilities for physical education teaching were long time too much closed and locked down without guidelines for teachers and coaches to offer physical activities with new standards of health protection for the COVID-19 virus
- It is alarming to realize that there seems to be a European-wide lack of regional and national authorities in the education, physical education teacher and youth sport sector who failed during the lockdowns in their countries to intervene for practical offers of physical education and sport activities

