



TARTU ÜLIKOOL

What happened to European children's subjective relational social cohesion during Covid-19 pandemic?



Oliver Nahkur, PhD

Dagmar Kutsar, PhD

Institute of Social Studies, University of Tartu, Estonia

Background

- As a response to COVID-19 pandemic, social distancing measures have been implemented in Europe, including school closures.
- Previously, the effect of the COVID-19 pandemic on children's relationships with their friends and family has been explored in a single country studies or multi-national qualitative studies.
- Aim of the paper is to quantitatively examine how COVID-19 pandemic has affected European children's relational social cohesion with family and friends and explore the role of relational factors in it.

Relational social cohesion

Focus on the most prominent dimension of social cohesion (Schiefer and van der Noll 2017) - social relations, also called relational social cohesion (Moody and White 2003; Janmaat 2011) on the micro level, encompassing the relationships and ties between individuals.

We are particularly interested in social networks – the quality and quantity of children’s relationships with their family and friends.

We argue that the social distancing measures reshaped social networks of children and thus affected the level of social cohesion.

Research question 1

To our knowledge there is no evidence how similar or different has the change of children's relational social cohesion with family and friends during COVID-19 pandemic been across countries. Thus, our first research question is:

RQ1: How did children's relational social cohesion with family and friends change during COVID-19 pandemic?

Hypothesis: children's relational social cohesion with friends decreased more than within family

Research questions 2-4

- Previous studies have indicated that children's relational social cohesion with family (RSC-Fa) and friends (RSC-Fr) may have decreased during the pandemic, but some children have described their positive experiences gained from the confinement measures of social distancing.
- We are not aware of any previous study determining children's different profiles of change in their subjective relational social cohesion with family and friends experienced during COVID-19 pandemic.
 - RQ2: What profiles of change in children's relational social cohesion did emerge during the pandemic?
- Exploring the quantity and quality of relationships by profiles of change, including what relational factors help to explain children's belonging to a certain profile of change in relational social cohesion, would give us a new insight to better support children in such exceptional times.
 - RQ3: How do the profiles of change in relational social cohesion differ by children's quantity and quality of relationships in the family and with friends?
 - RQ4: What relational factors can help to explain children's belonging to a certain relational social cohesion profile?

Data and methods

We draw data from International Child Well-being Covid supplement Survey collected in 2021 primarily among 9-13-year-old children internationally.

The first version of the database included children's data from the following 11 European countries: Germany, Turkey, Italy, Albania, Romania, Wales, Belgium, Russia, Estonia, Finland, and Spain.

In total, we use data from 12155 children.

We use descriptive statistics, cluster and logistic regression analyses.

	Representative sample – yes or no	Geographical area covered by sampling strategy	Data collection time in 2021		Data collection method		Total number of children	There were times where I had to be in my home all day because of the Coronavirus Yes, %	I could not attend school for many days Yes, %
			Start	End	PPS (in person) %	WS (PC/tablet /mobile phone) %			
Albania	No	The capital of Albania, Tirana in urban and rural areas	22.06	30.07	73.2	26.8	1034	76.9	84.2
Belgium	Yes	Whole Flemish community in Belgium (Flemish region and the Dutch speaking population in Brussels)	25.05	29.06		100	2422	78.0	81.2
Estonia	No	Whole country	21.04	7.06		100	1258	66.1	25.2
Finland	No	Southwestern Finland (Turku and Naantali)	19.04	2.06		100	1003	34.3	29.4
Germany	No	Whole country with a focus on Frankfurt/Hessen	25.10	29.11		100	590	48.4	96.9
Italy	No	Whole country but mainly the cities of Genoa and Rome and southern regions of Campania, Calabria, and Puglia.	End of May	30.09		100	919	58.2	98.4
Romania	Yes (mix between convenience and representative sample)	Whole country	20.05	15.06	100		1856	66.8	76.8
Russia	Yes	Tyumen region	10.05	25.05		100	876	75.6	76.8
Spain	No	Province of Girona	5.05	4.08	59.8	40.2	702	76.9	86.2
Turkey			8.06	30.08	50.5	49.5	804	85.9	93.6
Wales	No	Rural North, Rural Heartland, Metropolitan Wales, and Valleys	5.07	15.07		100	691	79.4	78.2

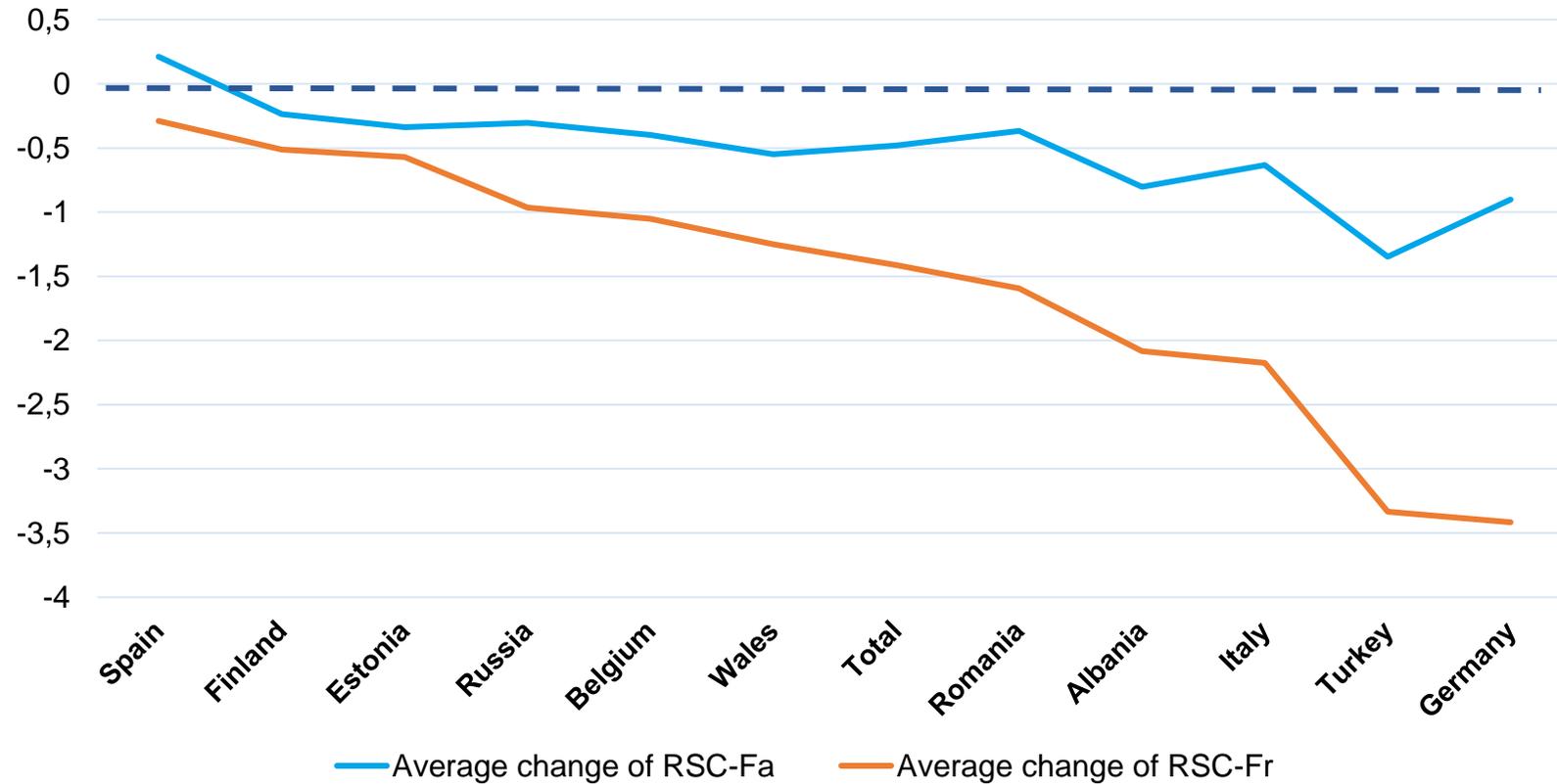
Relational social cohesion in family (RSC-Fa) and with friends (RSC-Fr)

- We measured the relational social cohesion on the micro level in family (RSC-Fa) and with friends (RSC-Fr)
- **before** the COVID-19 pandemic with – ‘Satisfaction before the Coronavirus with the relationships I had with people I live with’ and ‘Satisfaction before the Coronavirus with the relationships I had with my friends’;
- **during** the pandemic with ‘Satisfaction now during the Coronavirus with the relationships I have with my friends’ and ‘Satisfaction now during the Coronavirus with the relationships I have with people I live with’, respectively.
- Eleven-point assessment scale was used, where 0 was ‘not at all satisfied’ and 10 ‘totally satisfied’.
- Change of RSC-Fa and RSC-Fr for each child were computed as follows: **‘RSC now’ – ‘RSC before the Coronavirus’**.

Factors	Items	Scale
	Quantity of relationships	
	<i>Friends + family</i>	
Compulsory physical distancing from friends, high density of contacts inside the family due to the confinement measures	There were times where I had to be in my home all day (including the garden, yard or balcony, if you have) because of the Coronavirus	1=yes, 2-not sure, 3-no
	I could not attend school for many days	
In person self-distancing from friends, high density in family due to infection or risk of infection	Me or somebody in my home got infected with Coronavirus	
	At home we had to be very careful because somebody was considered at high risk of getting very ill if they got infected with the Coronavirus	
In person self-distancing from friends, high density in family due to Coronavirus anxiety	I am very afraid of the Coronavirus	0-I totally agree, 1-I agree a lot, 2-I agree somewhat, 3-I agree a little, 4-I do not agree
	It makes me uncomfortable to think about the Coronavirus	
	My hands become sweaty when I think about the Coronavirus	
	I am afraid of losing my life because of the Coronavirus	
	When I watch news and stories about the Coronavirus on the TV and social media, I become nervous or anxious	Arithmetic mean of these items.
	I cannot sleep because I'm worrying about getting the Coronavirus	
	My heart races (beats very fast) when I think about getting the Coronavirus	
	<i>Friends</i>	
Frequency of in person or online contacts	Playing or hanging out outside	0-never, 1- less than once a week, 2 – once or twice a week, 3 – three or four days a week, 4 – five or six days a week, 5 – every day
	During the Coronavirus how often spend time meeting with your friends online (e.g., on the computer, zoom or any other way)	
New online friends	I made new friends with other children online during the Coronavirus	0-I do not agree, 1-I agree a little, 2-I agree somewhat, 3-I agree a lot, 4-I totally agree

Quality of relationships		
Feeling safe	I feel safe with my friends	0-I do not agree, 1-I agree a little, 2-I agree somewhat, 3-I agree a lot, 4-I totally agree
	I feel safe at home	
Feeling support	During the Coronavirus, I felt well-supported by some of my friends	
	During the Coronavirus, I felt well-supported by some people I live with	
Feeling alone	I feel alone	0-I totally agree, 1-I agree a lot, 2-I agree somewhat, 3-I agree a little, 4-I do not agree
Feeling bored	How much you have felt this way during the last two weeks – bored?	0-extremely ... 10-not at all
Autonomy	Satisfaction with the freedom you have	0-not at all satisfied ... 10-totally satisfied
To be listened to	My opinions about the Coronavirus are taken seriously in my home	0-I do not agree, 1-I agree a little, 2-I agree somewhat, 3-I agree a lot, 4-I totally agree

Children's relational social cohesion with friends decreased more than within family



Profiles of change in children's RSC

Profiles by change in RSC-Fr and RSC-Fa	Change in RSC-Fr		Change in RSC-Fa		N	%
	Mean	StDev	Mean	StDev		
Gainers in both RSC	2.6	3.1	5.1	2.4	286	2.5
Gainers in RSC-Fa, decliners in RSC-Fr	-7.2	2.1	5.0	2.4	61	0.5
No change in either type of RSC	-1.2	2.5	-0.3	1.0	10317	89.9
Decliners in RSC-Fa, no changers in RSC-Fr	1.2	2.8	-5.5	1.9	195	1.7
Decliners in both RSC	-6.9	2.2	-5.9	2.2	613	5.3
Total	-1.4	2.9	-0.5	2.1	11472	100

By country, the proportion of 'no changers' were most notable in Finland (96.5%) and Estonia (94.6%).

'Decliners in both RSC' were most notable in Germany (17.6%) and Turkey (16.7%).

'Gainers in both RSC' were most notable in Spain (9.2%).

Quantity of relationships

Compulsory physical distancing from friends, high density of contacts inside the family due to the confinement measures

Had to be in home all day: 'decliners' > 'no changers'

Could not attend school for many days: 'decliners' > 'no changers'

In person self-distancing from friends, high density in family due to infection or risk of infection

Me or somebody in my home got infected: 'gainers' > 'no changers'

Someone at home at high risk of getting very ill if gets infected: 'decliners' > 'no changers'

In person self-distancing from friends, high density in family due to Coronavirus anxiety

Coronavirus anxiety: 'decliners' > 'gainers' > 'no changers'

Frequency of in person or online contacts

Frequency of playing or hanging out outside: 'decliners' < 'gainers', 'no changers'

Frequency of meeting with friends online: NS differences

New online friends

Made new friends with other children online: NS differences

Quality of relationships

Feeling safe

Feeling safe with my friends: 'decliners' < 'gainers', 'no changers'

Feeling safe at home: 'decliners', 'gainers' < 'no changers'

Feeling support

Feeling support by some of my friends: 'decliners' < 'no changers'

Feeling support by some people I live with: 'decliners', 'gainers' < 'no changers'

Feeling alone

Feeling alone: 'decliners' > 'gainers' > 'no changers'

Feeling bored

Feeling bored: 'decliners' > 'no changers'

Autonomy

Satisfaction with freedom you have: 'decliners', 'gainers' < 'no changers'

To be listened to

My opinions about the Coronavirus are taken seriously in my home: 'gainers' < 'decliners', 'no changers'



Factors of children's quantity and quality of relationships explaining their belonging to a gainers or decliners profile compared to no changers

		Gainers in both RSC			Decliners in bot	
		b	OR	S.E	b	OR
Controls	Girls (ref: boys)	NS			NS	
	Access to the Internet	NS			NS	
	Not having own room (ref: having it)	NS			NS	
Quantity: compulsory physical distancing with friends, high density of contacts inside the family due to the confinement measures	Had to be in home all day (ref: had not to be)	NS			NS	
	Not sure if had to be in home all day (ref: did not have)	NS			NS	
	Could not attend school for many days (ref: could attend)	NS			0.441**	1.55
	Not sure if can attend school for many days (ref: could attend)	NS			NS	
Quantity: in person self-distancing from friends, high density in family due to infection or risk of infection	Me or somebody in my home got infected (ref: did not)	0.443*	1.558	0.183	NS	
	Not sure if I or somebody in my home got infected (ref: did not)	NS			NS	
	Had someone at home at high risk of getting very ill if got infected (ref: had not)	NS			NS	
	Not sure if had someone at home at high risk of getting very ill if got infected (ref: had not)	NS			NS	
Quantity: in person self-distancing from friends, high density in family due to the Coronavirus anxiety	Coronavirus anxiety	-0.213*	0.808	0.087	-0.430***	0.65
Quantity: frequency of interaction	Playing or hanging out outside	0.120*	1.128	0.054	NS	
	Meeting with friends online	0.105*	1.110	0.048	NS	
Quantity: new friendships	Made new friends with other children online	NS			-0.092*	0.91
Quality: safety perceptions	Feeling safe with my friends	0.211*	1.234	0.084	NS	
	Feeling safe at home	NS			NS	
Quality: support perceptions	Feeling support by some of my friends	NS			NS	
	Feeling support by some people I live with	-0.206**	0.814	0.077	-0.133*	0.87
Quality: loneliness perceptions	Feeling alone	NS			-0.171***	0.84
Quality: boredom perceptions	Feeling bored	-0.047*	0.954	0.024	NS	
Quality: autonomy perceptions	Satisfaction with the freedom you have	NS			-0.080***	0.92
Quality: 'to be listened' perceptions	My opinions about the Coronavirus are taken seriously in my home	-0.130*	0.878	0.061	NS	
Intercept		-2.808***		0.589	-0.105	
N		162			400	
Nagelkerke R ²		0.076				

Decliners in both RSC

- Children who could not attend school for many days were more likely 'decliners in both RSC' compared to 'no changers' than children who could attend school.
- With lower Coronavirus anxiety score, children would less likely be the 'decliners in both RSC' compared to 'no changers'
- Children who more agreed that they made new friends with other children online were less likely 'decliners in both RSC' compared to 'no changers'.
- Children who agree more that they feel support by people they live with were less likely 'decliners in both RSC' compared to 'no changers'
- Children who agree less that they feel alone were less likely 'decliners in both RSC' compared to 'no changers'.
- With higher satisfaction with the freedom they have, children were less likely 'decliners in both RSC' compared to 'no changers'

Gainers in both RSC

- Children who themselves or somebody in their home got infected with Coronavirus had two times higher odds than children with no infection experience to be a 'gainer in both RSC' compared to 'no changers'.
- With lower Coronavirus anxiety score, children would less likely be the 'gainers in both RSC' compared to 'no changers'.
- Children who more frequently played or hanged out outside or met online with their friends were more likely 'gainers in both RSC' compared to 'no changers'.
- Children who agreed more that they feel safe with their friends were more likely 'gainers in both RSC' compared to 'no changers'.
- Children who agree more that they feel support by people they live with were less likely 'gainers in both RSC' compared to 'no changers'
- Children who agree less that they feel bored were less likely 'gainers in both RSC' compared to 'no changers'.
- Children who agree more that their opinions about the Coronavirus were taken seriously in their home were less likely 'gainers in both RSC' compared to 'no changers'

Conclusion

Our analyses confirm the decrease in RSC-Fa and RSC-Fr, while noticeably bigger decrease in RSC-Fr.

Five profiles of change in RSC emerged: (1) gainers in both RSC; (2) gainers in RSC-Fa and decliners in RSC-Fr; (3) no change in either RSC; (4) decliners in RSC-Fa and no changers in RSC-Fr; and (5) decliners in both RSC.

Children's quantity and quality of relationships differ by their profiles of change in RSC.

In conclusion, our study confirmed the importance of keeping schools open to save RSC of children.