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# Estonian and Finnish early childhood education teachers' views of well-being and changes at work during the COVID-19 pandemic

Marita Neitola <sup>a</sup>, Maire Tuul<sup>b</sup>, Aino Ugaste<sup>b</sup>, Tarja-Riitta Hurme<sup>a</sup>, Eero Laakkonen<sup>a</sup>, Jarmo Kinos<sup>a</sup>, Liisi Lend<sup>c</sup> and Sari Yrjänäinen<sup>a</sup>

<sup>a</sup>Department of Teacher Education, University of Turku, Turku, Finland; <sup>b</sup>School of Educational Sciences, Tallinn University, Tallinn, Estonia; <sup>c</sup>Open School, Tallinn, Estonia

## ABSTRACT



This study aimed to shed light on how the first wave of COVID-19 influenced well-being and changed the work of early childhood education and care (ECEC) teachers in Estonia and Finland and how well-being and changes are associated with each other. The data used in this quantitative study were gathered via nationwide online surveys of early childhood education teachers ( $N = 378$ ). The results revealed that there was no major change in teachers' well-being at work. Likewise, changes in work were limited. However, there were large individual variations in these experiences between teachers and between countries. Finnish teachers' well-being at work was only slightly explained by job changes, while Estonian teachers' well-being was significantly more explained by them. The findings highlight the intertwined nature of well-being at work and work changes and the individual nature of the effects of the COVID-19 pandemic on teachers' work.


## KEYWORDS

COVID-19; early childhood education; teachers; well-being; work conditions

## Introduction

The COVID-19 pandemic broke out all over the world at the beginning of 2020 and caused a crisis in the educational systems (Timmons et al. 2021). Among other countries, Estonia and Finland declared a state of emergency in March 2020 due to the global coronavirus outbreak. The central governments in both countries instructed local administrators to protect citizens against the virus, prevent infections and organise education in alternative ways, including remote work and distance teaching. It was recommended that young children be cared for at home, and parents mostly followed the instructions, although regional variations existed (Saranko, Alasutari, and Sulkanen 2021).

**CONTACT** Marita Neitola  marita.neitola@utu.fi  Department of Teacher Education, University of Turku, Marita Neitola, Seminaarinkatu 1, 26100 Rauma, Finland

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Due to the COVID-19 pandemic, participation in early childhood education and care (ECEC) in Finland decreased: from 77%, only 25% of children took part in ECEC services (Heikkilä et al. 2020; Säkkinen and Kuoppala 2020). Thus, at the beginning of the COVID-19 pandemic, the number of children in the groups was lower than usual (Kuutti, Kahila, and Sajaniemi 2021). Exceptional conditions produced staff transfers from one child group to another, or from C centre to another; child groups were mixed with each other and professionals were relocated to other services, such as home-help services (Nurhonen, Chydenius, and Lipponen 2021; Saranko et al. 2021). Meanwhile, attendance at Estonian kindergartens also decreased, but there are no exact statistics on this. Finland and Estonia were among the few European countries that did not close all ECEC centres due to the pandemic. However, in Finland, the focus of keeping centres open was, in the first place, due to ensuring the employment of staff working in critical sectors of society, representing an economic family support-focused argument in organising ECEC services during COVID-19 more than children's educational rights (Gillberg and Ruokonen 2022; Nurhonen, Chydenius, and Lipponen 2021; Van Laere et al. 2021).

### ***Teacher's work in change during the COVID-19 pandemic***

The pandemic put teachers up to new challenges and unpredictability (Van Laere et al. 2021). Worldwide reports of the impacts of the COVID-19 pandemic on ECEC have shed light on educators' work experiences during emergency conditions (e.g. Atilés et al. 2021; Bassok et al. 2020; Mitchell et al. 2020). The staff had to implement high-quality pedagogy and ensure that everyday life continued to be safe and well-being-enhancing for the children. Many ECEC educators face a range of challenges, such as unemployment, financial pressures and social distancing (see, e.g. Atilés et al. 2021; Bassok et al. 2020; Eadie et al. 2021, 2022; Samuelsson, Wagner, and Ødegaard 2020; Van Laere et al. 2021; Wistoft, Clark, and Qvortrup 2021).

Exceptional conditions included distress of own, family members' and customers' health, concerns of inequalities among families in terms of resources and children's learning, as well as fractured cooperation with guardians (e.g. Atilés et al. 2021; Dayal and Tiko 2020; Kim and Asbury 2020; Kuutti, Kahila, and Sajaniemi 2021; Reich et al. 2020). Thus, ECEC educators had to seek new strategies to cope with challenging work and learn novel pedagogical methods and practices (Kim and Asbury 2020; Kuutti, Kahila, and Sajaniemi 2021), which led to experiences of inadequacy and unpreparedness (Samuelsson, Wagner, and Ødegaard 2020). Kuutti, Kahila, and Sajaniemi (2021) have described that on the one hand, the exceptional period allowed the use and development of pedagogical approaches better than before. On the other hand, these conditions prevented and limited pedagogical activities. Gillberg and Ruokonen (2022) found that while the staff had more time for tasks that would normally not be covered by working hours (e.g. reading professional literature), they were increasingly concerned about the children who were absent from the ECEC due to pandemic. Changes in child groups and staff led to poorer familiarity with children and thus hampered professionals' pedagogical work with children (Kuutti, Kahila, and Sajaniemi 2021).

New ways of organising work and varying guidelines put a strain on managers and staff alike (Gillberg and Ruokonen 2022; Nurhonen, Chydenius, and Lipponen 2021;

Saranko, Alasuutari, and Sulkanen 2021). National and local instructions on pandemic responses varied frequently, and information came at such a rapid pace that staff members did not always have time to read and react to them quickly enough. In Gillberg and Ruokonen's (2022) study, early childhood professionals reported that they had to make quick, independent decisions, partly without support. The national recommendation on home childcare came out of the blue, and municipalities did not have time to agree on practices in advance or to draw up more detailed guidelines. Due to the non-existent concept of remote ECEC, education distance-learning practices and ideas for ECEC spread partly through social media and as ideas from the teachers themselves. From the perspective of ECEC teachers' well-being at work, sudden changes, emotional load and concerns of themselves, children and families can threaten the stability of the workforce and the quality of ECEC centres' services (Corr et al. 2014).

### **Well-being at work in the ECEC setting**

Occupational well-being has been defined as a combination of employees' personal (Day et al. 2007), psychological and physiological states (Kuykendall and Louis Tay 2015), as well as the experienced organisation's culture (Dagenais-Desmarais and Savoie 2011). It is well known that teaching is a very stressful occupation (Kyriacou 2001) and teachers' high stress is related to children's learning outcomes (e.g. Herman, Hickmon-Rosa, and Reinke 2018), poorer teacher-child relationships (Whitaker, Dearth-Wesley, and Gooze 2015) and teachers' emotional exhaustion (Skaalvik and Skaalvik 2016).

Different kinds of contextual factors, such as the composition of student demographics, children's challenging behaviours, school climate and compensations and benefits, can contribute to ECEC teachers' well-being (e.g. Friedman-Krauss et al. 2014; Hall-Kenyon et al. 2014; Jennings, Jeon, and Roberts 2020). Hall-Kenyon et al.'s (2014) review of ECEC teachers' well-being listed several related issues:

- educational levels
- satisfaction
- stress
- emotional competence
- sense of community
- health and pressures associated with emotional changes

Interactions with children and co-workers are the strongest reasons for both job satisfaction and dissatisfaction. Additionally, low pay, bad supervisor relations and poor working conditions have been reported as sources of dissatisfaction (Hall-Kenyon et al. 2014). Nislin et al. (2015) suggested that teachers' perceived competence, good relationships with the children, experienced appreciation and meaningfulness of work are significant elements of work-related well-being. A Finnish study (Nurhonen, Chydenius, and Lipponen 2021) has shown that, at best, well-functioning and well-established leadership structures support job satisfaction, motivation and a developmental approach to work.

It has been acknowledged that psychological well-being is related to ECEC teachers' practices and responsiveness in ECEC settings (see, e.g. Buettner et al. 2016; Hamre and Pianta 2004; Jennings 2015), and ensuring safe and protected learning

environments for children's well-being is at the heart (e.g. Jennings, Jeon, and Roberts 2020). Several studies have reported decreased well-being and increased stress of ECEC centre professionals and their increased need for support during the pandemic (e.g. Bassok et al. 2020, 2021; Bigras et al. 2021; Crawford et al. 2021; Eadie et al. 2022). Teachers and other professionals felt threats to their physical, emotional and financial health (Eadie et al. 2022).

The pandemic has increased negative feelings towards work (Eadie et al. 2021). During the COVID-19 lockdowns in the United States, Australia and New Zealand, teachers have experienced negative self-esteem (Reich et al. 2020), greater stress and feelings of burn-out (Bassok et al. 2020, 2021; Jennings, Jeon, and Roberts 2020; Mitchell et al. 2020). Teachers have suffered depression due to the expanded workloads, new responsibilities and fear of their own predisposition to the COVID-19 virus (Bassok et al. 2020). Moreover, committed to their work, teachers worried about how they would reach the goals of ECEC (Atiles et al. 2021). Furthermore, encountering the vulnerabilities of families and labour underevaluation affected educators' sense of the significance of their work and decreased self-esteem. MacIntyre, Gregersen, and Mercer (2020) summarised that workload, concern for their families' health and control at work were the highest stressors for teachers during the pandemic. They highlighted that the stress caused by the pandemic required different coping mechanisms, which can be highly individual and have differing effectiveness.

Pöysä, Pakarinen, and Lerkkanen (2021) pointed out that the heterogeneity of teachers should be considered in studies on well-being. They investigated the well-being at work of Finnish primary school teachers during the COVID-19 pandemic and found four different well-being profiles: (1) teachers with mediocre stress and work engagement, (2) teachers with mediocre stress and lowest work engagement, (3) teachers with highest stress and work engagement and (4) teachers with lowest stress and highest work engagement. They concluded that teachers' well-being at work was individually constructed. They found differences between teacher well-being profiles in factors enhancing well-being and reducing stress, such as work engagement, emotional exhaustion, but not recovery from work.

### **Purpose of the current study**

The COVID-19 pandemic forced ECEC administrators and personnel to adopt new methods of organising their ECEC services and activities (Gomes et al. 2021). In many ways, the pandemic revealed the vulnerability of ECEC services in times of various threats. Due to the continuing changes and possibilities that threaten our societies (e.g. new pandemics, wars and climate changes), studies regarding COVID-19 pandemic experiences in different countries and cultures can help establish and develop more powerful pedagogical models, as well as equipment, while not forgetting the implementation of measures that can sustain educators' and children's welfare. Pöysä et al.'s (2021) suggested that the impact of a pandemic on well-being at work can be highly individualised, depending on individual coping strategies (MacIntyre, Gregersen, and Mercer 2020).

Therefore, we aim to investigate ECEC teachers' experienced well-being at work during the first wave of the COVID-19 outbreak in the spring season of 2020 in Finland and Estonia. We are particularly interested in what kinds of changes teachers faced in their work during a pandemic and how these changes may relate to teachers'

well-being at work. Moreover, we examine possible differences between Estonian and Finnish teachers, who are in neighbouring countries that share similarities but also have differences in their ECEC systems. The ECEC systems of both countries are funded by public funds and regulated by the state, following certain laws and curricula (Estonian Ministry of Education and Research 2008; National Institute for Health and Welfare and the Ministry of Education and Culture 2020).

In both countries, children start school at the age of seven. The academic year starts in the middle of August in Finland and on the 1st of September in Estonia.

Our detailed research questions are as follows:

1. What are Estonian and Finnish ECEC teachers' experiences related to their well-being at work during the first wave of the COVID-19 pandemic?
2. What are Estonian and Finnish ECEC teachers' perceptions related to work changes during the first wave of the COVID-19 pandemic?
3. What are the relationships between Estonian and Finnish ECEC teachers' well-being at work and their perceived work changes?

### **Sample and procedure**

To examine teachers' welfare at work in both countries, we conducted online questionnaire surveys in Estonia and Finland during summer and autumn 2020, after the first wave of the COVID-19 pandemic, when ECEC services and pedagogics were executed under exceptional circumstances. In Finland, the data were gathered using electronic Webropol questionnaires (<https://webropol.com/>), which were distributed to ECEC teachers in four western towns. Data were also gathered through the University of Turku website and the Facebook groups of Finnish ECEC educators. In the study, we followed the guidelines of The Finnish National Board on Research Integrity (TENK, 2023) ethical guidelines. The electronic questionnaire was open to answers from June 1 until September 30, 2020. A total of 190 ECEC teachers (1.1% of all ECEC teachers in Finland, Official Statistics of Finland (OSF, 2022): Local government sector wages and salaries) from different parts of Finland responded to the survey. The respondents' ages and genders are specified in Table 1. Finnish teachers' mean age was 42,9 years (23y–64 y).

In Estonia, the ECEC teachers accomplished the questionnaire uploaded on the SurveyMonkey platform (<https://uk.surveymonkey.com/>). First, every fourth kindergarten in Estonia from the Estonian national educational database 'HaridusSilm' (2020) was

**Table 1.** Participants' age and sex by country.

	Finland		Estonia		All	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Age						
23–35 year old	55	28.9	43	22.9	98	25.9
36–49 years old	76	40.0	63	33.5	139	36.8
50 years old and older	57	30.0	82	43.6	139	36.8
No answer	2	1.1	0.0	0.0	2	0.5
Total	190	100.0	188	100.0	378	100.0
Sex						
Female	183	96.3	188	100.0	371	98.1
Male	6	3.2	0	0.0	6	1.6
No answer	1	0.5	0	0.0	1	0.3
Total	190	100.0	188	100.0	378	100.0

selected, and permission was sought to conduct a survey. Once permission was granted, the head of the institution was asked to send a questionnaire to one teacher from each group. If the kindergarten did not want to participate in the study, the next kindergarten on the list was contacted. It turned out that many kindergartens preferred not to participate in the study due to the difficulties of that time, so the invitation to participate in the survey was also disseminated on social media. A total of 188 kindergarten teachers (2.4% of all kindergarten teachers in Estonia) from 14 out of 15 counties responded to the survey. All the participants were female (i.e. according to the database 'Haridussilm' in the spring of 2020, less than 1% of kindergarten teachers in Estonia were men). Estonian teachers' mean age was 45,7 years (23y – 67y).

### **Instrument**

The online questionnaire was based on the Distant Learning Research Group's questionnaire concerning school teachers' experiences of the COVID-19 pandemic (see Kärki et al. 2023; Orell et al. 2021) and was modified to meet the ECEC context. The changes made were quite minor, for example the word 'school' was changed to 'early childhood education'. As background for the surveys, the DLR group used national school health and school well-being surveys, public debate during the emergency and the guidance of Finnish National Agency for Education (2020). We formulated the questionnaire better adapted to the ECEC environment, and considering the guidelines for ECEC- and pre-primary education of National Institute for Health and Welfare and the Ministry of Education and Culture (2020). In this article, we first explored ECEC teachers' experiences of their work during the pandemic's first wave. As a background variable, we used respondents' ages and home countries. The informants assessed their experiences of well-being at work on a 7-point Likert scale from 1 (I do not agree at all) to 7 (I totally agree). Well-being at work (Cronbach's alpha 0.69) consisted of 18 variables (see Table 2 and Appendix 1) covering the following four dimensions: *satisfaction with crisis management and instructions*, *stress at work*, *positive interaction in face-to-face work* and *positive interaction in remote work*. The dimensions and items of well-being at work with the dimension- and country-specific Cronbach's alphas are presented in Table 2.

Then, to determine the informants' perceptions related to their work changes during the first wave of the COVID-19 pandemic, they were asked to identify the direction of the experienced change in their work by choosing suitable values from any of the following: decreased (-2), rather decreased (-1), nothing changed (0), rather increased (1) or increased (2). The Osgood scale items in the survey related to perceived changes at work during pandemic first wave consisted of 13 variables (Cronbach's alpha 0.77), covering dimensions presented in Appendix 2 and Table 3 with the dimension- and country-specific Cronbach's alphas.

### **Analysis**

Statistical analysis was performed using IBM SPSS software 28 and Mplus8.4. The structure of the dimensions and the intervariable behaviour of the items within the dimensions were investigated using principal component analysis. To answer Research Question 1, we executed Student's t-tests to explore the differences between ECEC

**Table 2.** Dimensions and variables of well-being at work with reliability values.

Dimensions of well-being at work	Variables	Cronbach's Alpha		
		F	E	All
<i>Satisfaction with crisis management and instructions</i> (3 items)	'I am satisfied with the management in ECEC centre' 'I am satisfied with the municipal administrators' 'Our ECEC centre had clear and functional instructions and practices for remote working'	0.79	0.84	0.82
<i>Stress at work</i> (4 items)	'I was more tired than usually after the work day' 'I was at my limits of resilience' 'Remote work reduced my free time' 'There were enough breaks on remote work days' <sup>R</sup>	0.56	0.77	0.70
<i>Positive interaction in face-to-face work</i> (5 items)	'The children were able to concentrate well on activities in the classroom' 'There was a good spirit of togetherness in the child group' 'The interaction between me and the children was positive' 'The interaction between children was positive' 'The children's learning progressed in face-to-face activities'	0.80	0.84	0.84
<i>Positive interaction in remote work</i> (6 items)	'The remote work was not suitable for me' <sup>R</sup> 'There was a good spirit of togetherness in the child group during distant teaching' 'The children's learning progressed during distant teaching' 'Children's well-being deteriorated during the emergency conditions' <sup>R</sup> 'Children were out of reach during emergency conditions' <sup>R</sup> 'Guardians' support was sufficient to implement distance education'	0.53	0.78	0.72

Note: F = Finland, E = Estonia. Reversed items marked with <sup>R</sup>.

teachers in Estonia and Finland. Furthermore, we explored using analysis of variance (ANOVA) with Tukey post-hoc comparisons teachers' experienced well-being with relation to respondents' ages, which was a three-level variable: younger teachers (23–35 years old), middle-aged (36–49 years old) and older ones (50 years and over).

**Table 3.** Dimensions of the perceived changes at work with reliability values.

Dimensions of changes at work	Variables	Cronbach's Alpha		
		F	E	All
<i>Workload</i> (5 items)	'My workload decreased -increased' 'Time management was easier - more difficult' 'The feelings of haste decreased- increased' 'Mental workload decreased – increased' 'Physical workload decreased – increased'	0.74	0.75	0.75
<i>Job satisfaction</i> (3 items)	'Experiences of teaching were more negative-more positive' 'I could utilise my own competencies at work worse-better' 'My feelings of success in work decreased-increased'	0.56	0.76	0.70
<i>Teaching quality</i> (5 items)	'Children learnt worse-better in distance education' 'Children's commitment to learning was worse-better' 'The quality of teaching declined-improved' 'During the lesson, children presented their thoughts more passively-actively' 'Children were less – more focused on education'	0.85	0.88	0.88

Note: F = Finland, E = Estonia.

To respond to Research Question 2, country-by-country differences in workload, job satisfaction and teaching quality were traced by utilising the Student T-test. The perceived work changes were examined in relation to the age of the respondents using ANOVA, followed by Tukey's pairwise comparisons.

Finally, to investigate the relationships between Estonian and Finnish ECEC teachers' well-being at work and perceived work changes, we calculated correlations between the dimensions of well-being at work and the changes in workload, job satisfaction and teaching quality. To determine how changes in work during the pandemic might connect with well-being dimensions, we carried out multivariate regression analyses.

## Results

### *ECEC teachers' experiences related to their well-being at work during the first wave of the COVID-19 pandemic*

We obtained descriptive statistics for the four dimensions of well-being at work, which are presented in Table 4. The differences between the teachers are analysed using Student's t-test. The cross-tabulated distributions of responses for separate items in both countries are presented as percentages in Appendix 1.

The results showed that teachers' well-being during the first phase of pandemic was good, but there were differences between countries and variations within groups of teachers. On average, teachers' satisfaction with crisis management exceeded the scale's midpoint, while stress at work fell below it (see Table 4). Interactions with children were generally positive, favouring face-to-face interactions over remote ones. Comparative analysis of Finnish and Estonian teachers revealed higher satisfaction with crisis management and lower reported work-related stress among Estonian teachers. Finnish teachers, in contrast, felt more positive interactions in face-to-face work with children, and they rated interaction in remote work more positively compared to Estonian teachers. However, the standard deviation of teachers' ratings was high in most dimensions, suggesting that experiences were mixed among teachers in both countries.

**Table 4.** ECEC teachers' experienced well-being at work on a 7-point Likert scale (1 = do not agree at all, 7 = I totally agree).

Variable	Country	N	Mean (SD)	t (df)	p	d
<i>Satisfaction with crisis management and instructions (3 items)</i>						
	All (E & F)	373	4.34 (1.61)			
	Finland	189	3.77 (1.63)			
	Estonia	184	4.92 (1.37)	-7.39 (371)	<0.001	0.77
<i>Stress at work (4 items)</i>						
	All (E & F)	367	3.66 (1.58)			
	Finland	188	3.90 (1.76)			
	Estonia	179	3.41 (1.33)	3.04 (348)	0.003	-0.32
<i>Positive interaction in face-to-face work (5 items)</i>						
	All (E & F)	353	5.66 (1.10)			
	Finland	186	6.04 (0.80)			
	Estonia	167	5.23 (1.23)	7.25 (281)	<0.001	-0.78
<i>Positive interaction in remote work (6 items)</i>						
	All (E & F)	368	4.25 (1.15)			
	Finland	188	4.51 (1.20)			
	Estonia	180	3.98 (1.03)	4.51 (362)	<0.001	-0.47

Note: Interpretation for d: 0.20 small – 0.50 medium – 0.80 large (Cohen 1988).

When we analysed between experienced well-being at work and age, a statistically significant difference in the total sample was only between age and satisfaction with crisis management ( $F_{(2, 368)} = 8,04$ ;  $p < 0.001$ ;  $\eta^2 = 0.042$ ). Older teachers (50 years and over) were more satisfied with crisis management and instructions ( $M = 4.76$ ;  $SD = 1.60$ ) compared to middle-aged (36–49-year-old) ( $M = 4.04$ ;  $SD = 1.60$ ;  $p = 0.001$ , Tukey post hoc test) and younger teachers (23–35 years) ( $M = 4.16$ ;  $SD = 1.52$ ;  $p = 0.013$ , Tukey post hoc test). A similar pattern emerged in the responses of both Finnish ( $F_{(2, 184)} = 2.50$ ;  $p = 0.085$ ,  $\eta^2 = 0.03$ ) and Estonian teachers ( $F_{(2, 181)} = 3.27$ ;  $p = 0.040$ ;  $\eta^2 = 0.04$ ); those aged 50 and older were most satisfied with crisis management ( $M_F = 4.16$ ;  $SD_F = 1.81$ ;  $M_E = 5.20$ ;  $SD_E = 1.28$ ), while teachers aged 36–49 years were the least satisfied ( $M_F = 3.56$ ;  $SD_F = 1.55$ ;  $M_E = 4.62$ ;  $SD_E = 1.47$ ). This difference was statistically significant ( $p = 0.036$ , Tukey post hoc test) only in the Estonian sample.

### **ECEC teachers' perceptions related to work changes during the first wave of the COVID-19 pandemic**

The ECEC teachers reported perceived changes in every three dimensions: workload, job satisfaction and teaching quality. Descriptive statistics and differences analysed by Student's t-test are presented in Table 5. The cross-tabulated distributions of responses for separate variables in both countries are presented as percentages in Appendix 2.

Our discoveries indicated that while some teachers reported an increased workload during the Covid-19 pandemic, on average, there was a slight decrease (Table 5). Compared to Finnish teachers, Estonian teachers rated their workloads as decreasing more often. Moreover, the teachers assessed that their job satisfaction and the quality of teaching had decreased. Finnish ECEC teachers' job satisfaction dropped less compared to Estonian ECEC teachers, whose views were more critical.

Estonian teachers' perceptions of the changes in teaching quality were clearly more negative than Finnish teachers. Job satisfaction and teaching quality correlated with each other statistically significantly ( $r = 0.68$ ,  $p < 0.001$ ). There were no statistically significant differences in teachers' responses based on age group.

**Table 5.** The ECEC teachers' perceptions related to the work changes on a 5-point scale (1 and 2 = decreased, 3 = remained the same as before, 4 and 5 increased)

Variable	Country	N	Mean (SD)	t (df)	p	d
Workload (5 items)	All (E & F)	362	2.81 (0.99)			
	Finland	180	2.97 (0.99)			
	Estonia	182	2.65 (0.94)	3.19 (360)	0.002	-0.34
Job satisfaction (3 items)	All (E & F)	360	2.69 (0.94)			
	Finland	180	2.92 (0.78)			
	Estonia	180	2.46 (1.02)	4.80 (336)	<0.001	-0.47
Teaching quality (5 items)	All (E & F)	340	2.51 (0.92)			
	Finland	179	2.73 (0.82)			
	Estonia	161	2.26 (0.96)	4.87 (338)	<0.001	-0.53

Note: Interpretation for d: 0.20 small – 0.50 medium – 0.80 large (Cohen 1988).

**Table 6.** Correlations between well-being and changes at work variables.

	1	2	3	4	5	6	7
1. Satisf. with crisis management.	–						
2. Stress at work	–0.17**	–					
3. Pos. interact. in face-to-face work	–0.03	–0.00	–				
4. Pos. interaction in remote work	0.10	–0.16**	0.25***	–			
5. Workload	–0.08	0.29***	0.03	0.04	–		
6. Job satisfaction	–0.05	–0.09	0.24***	0.24***	0.02	–	
7. Teaching quality	–0.03	–0.05	0.29***	0.32***	0.02	0.67***	–

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

### ***The relationships between Estonian and Finnish ECEC teachers' well-being at work and perceived work changes during the first wave of the COVID-19 pandemic***

We used multivariate regression analysis to examine the relationships between well-being and changes at work during the pandemic among Estonian and Finnish early childhood education teachers. First, zero-order correlations between the variables were calculated for all the data. Items related to changes at work were strongly correlated with the well-being variables, and the results from the correlation analyses are presented in Table 6.

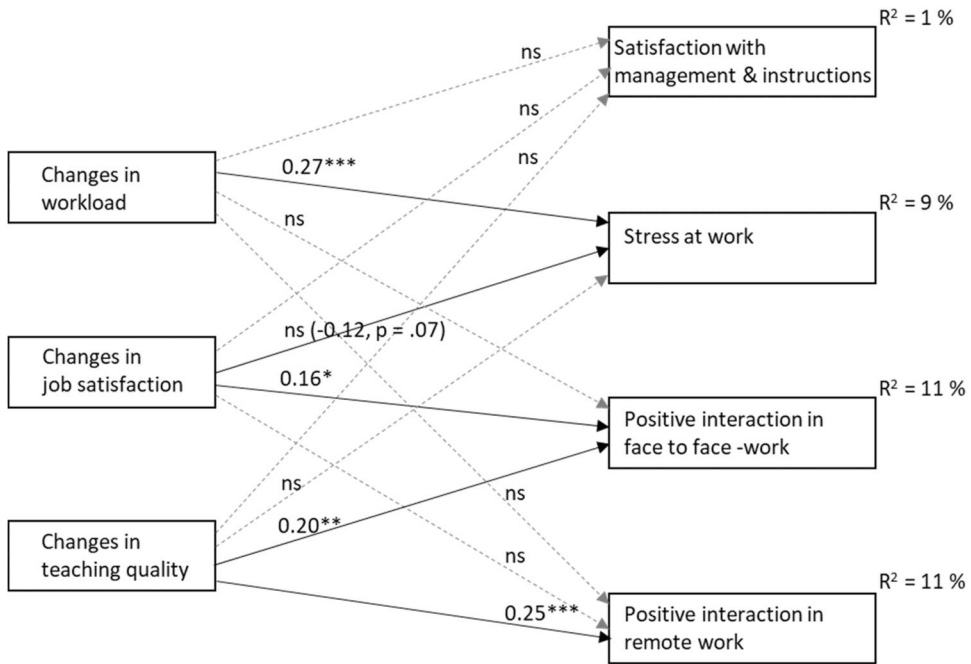
The results suggest that there are links between the ECEC teachers' experienced stress at work and workload as well as between positive interaction in face-to-face/remote work, job satisfaction and teaching quality. The better the interaction with children either in face-to-face or remote work, the less the teachers' met changes in job satisfaction and teaching quality.

Multivariate regression analysis allowed for a more detailed interpretation of how the variables under consideration were related. Thus, we examined how perceived work changes might influence ECEC teachers' well-being at work. Changes in workload explained experienced stress at work together with job satisfaction, indicating that an increased amount of work and decreased satisfaction caused more pressure on teachers (Figure 1). Reduced job satisfaction and quality of teaching had effects on face-to-face interaction and interaction in remote work.

Unlike in Finland, in Estonia, ECEC teachers' changed workloads were more strongly associated with stress at work and explained one-third of the variation, while in the Finnish data, this relationship was not statistically significant (see Figure 2). Estonian teachers reported decreases in workload, lower work-related stress and weaker teaching quality. Perceived changes in job satisfaction and teaching quality in Estonian data were positively related to interaction in remote work, explaining together one-fifth of it, while in Finnish data, associations between changes in teaching quality and face-to-face interaction, as well as with interaction in remote work, were weaker and explanatory rates (coefficient of determination  $R^2$ ) lower. The effect of changes in job satisfaction on stress at work in the Finnish data was negative.

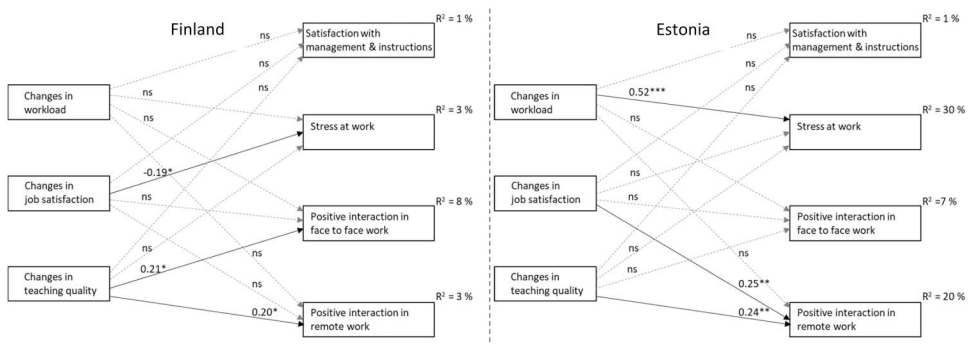
## **Discussion**

The present study contributes to the literature by utilising the self-ratings of ECEC teachers in two different countries to identify the different dimensions of occupational well-being and changes at work and their linkages following the COVID-19 pandemic in the first months.



**Figure 1.** Multivariate regression model for perceptions of work changes predicting Estonian and Finnish ECEC teachers' well-being at work ( $N = 338$ ).

While globally, the consequences of the COVID-19 pandemic for ECEC were very negative (e.g. Atilas et al. 2021; Bassok et al. 2020; Eadie et al. 2021, 2022; Samuelsson, Wagner, and Ødegaard 2020; Van Laere et al. 2021; Wistoft, Clark, and Qvortrup 2021), the impact in Finland and Estonia was less severe in terms of teachers' well-being or work changes. Generally, teachers' overall well-being seemed to stay moderate and changes at work were minor or almost nonexistent. However, when looking more closely at the different dimensions of well-being at work and work changes, differences were found both at the country level and within groups of teachers. Thus, our findings refer to the views of previous studies (Pöysä, Pakarinen, and Lerkkanen 2021) in that well-being at work is



**Figure 2.** Multivariate regression model for perceptions of work changes predicting Finnish (on the left,  $N = 178$ ) and Estonian (on the right,  $N = 160$ ) ECEC teachers' well-being at work.

individually constructed and influenced by many personal and external factors. Our results provide supporting evidence that safe and manageable working conditions, management quality and positive interaction with the children are at the core of ECEC teachers' well-being also during exceptional conditions (also Dagenais-Desmarais and Savoie 2011; Friedman-Krauss et al. 2014; Gillberg and Ruokonen 2022; Hall-Kenyon et al. 2014; Jennings, Jeon, and Roberts 2020; Kuykendall and Louis Tay 2015; Nislin et al. 2015).

### ***ECEC teachers' experiences related to their well-being at work***

The Finnish and Estonian ECEC teachers' ratings of well-being at work differed greatly from each other. Estonian teachers' satisfaction focused more on management and instruction, while Finnish teachers' well-being was characterised by positive interactions with children, both in face-to-face and distant teaching. Apparently, practices and guidelines on pandemics were clearer in Estonia than in Finland. Furthermore, among Estonian respondents, the percentage of older (and therefore more experienced) teachers was higher, and they were allowed to work at home to avoid contact with carriers of the disease. Senior teachers in both countries reported higher satisfaction with ECEC guidelines and management. This finding replicates Eadie et al.'s (2021) discoveries that senior professionals generally experience better well-being at work. In line with this study, previous studies in Finland have shown widely varying and partly missing instructions, guidelines and policies in pandemic management and protection (Gillberg and Ruokonen 2022; Kuutti, Kahila, and Sajaniemi 2021; Nurhonen, Chydenius, and Lipponen 2021).

### ***ECEC teachers' perceptions related to work changes***

Looking at changes at work, there was a downward trend in job satisfaction and teaching quality in teacher self-ratings. Compared to Finnish ECEC teachers, Estonian teachers' perceptions of work changes were more negative. The results imply that the changes brought about by the COVID-19 pandemic changed the work of teachers, increasing workload, job dissatisfaction and concerns about the quality of teaching, especially in Estonia. The changes had to happen very quickly, leaving no time to prepare or learn new ways of teaching, which understandably led to feelings of inadequacy (e.g. Eadie et al. 2021, 2022; Gillberg and Ruokonen 2022; Kuutti, Kahila, and Sajaniemi 2021; Nurhonen, Chydenius, and Lipponen 2021; Samuelsson, Wagner, and Ødegaard 2020; Saranko, Alasuutari, and Sulkanen 2021).

In Finland, the children's participation in ECEC decreased (Heikkilä et al. 2020; Säkkinen and Kuoppala 2020), which led to smaller child groups (Kuutti, Kahila, and Sajaniemi 2021), unless the groups were combined (Saranko, Alasuutari, and Sulkanen 2021), and increased utilisation of small group pedagogy. This pattern of results is consistent with the previous literature of Samuelsson, Wagner, and Ødegaard (2020) and Kuutti, Kahila, and Sajaniemi (2021) in that reorganised work allowed the ECEC teachers more time for the individual child, more frequent interaction with children and more consideration of children's interests (Kuutti, Kahila, and Sajaniemi 2021; Samuelsson, Wagner, and Ødegaard 2020). We suggest that such an approach might have increased teachers' occupational well-being, as well as created remote tools and developed distant teaching possibilities that enabled contact with children and their guardians at home (Gillberg and

Ruokonen 2022). As we know from previous research (Nislin et al. 2015), the experience of having influence, autonomy and commitment are important for ECEC teachers.

### ***The relationships between Estonian and Finnish ECEC teachers' well-being at work and perceived work changes***

Finally, contrary to Finnish ECEC teachers, Estonian teachers' well-being at work depended more on changes at work, job satisfaction and the quality of teaching, while Finnish teachers' well-being – somewhat surprisingly – was explained only by teaching quality. One interpretation of these findings is that the effects of the COVID-19 pandemic have caused more changes in Estonian early childhood education compared to Finland. Another interpretation of the lower associations between work changes and well-being in the Finnish data could be that some ECEC units succeeded better in modifying their culture of action and environments in a single thought, together with support by management (Gillberg and Ruokonen 2022). Thus, teacher well-being is influenced by the management support, work climate and the work communities' ability to respond in an evolving way to the change, even in unexpected exceptional circumstances.

### **Conclusions**

Our results highlight the importance of careful preparation the content of ECEC guidance, and clarification of the management structures by drawing up action plans at the state, municipal and ECEC unit level in supporting ECEC teachers' well-being at work and ensuring high-quality ECEC services (Gillberg and Ruokonen 2022; Hall-Kenyon et al. 2014; Nurhonen, Chydenius, and Lipponen 2021; Saranko, Alasuutari, and Sulkanen 2021; Wistoft, Clark, and Qvortrup 2021). Prioritising the interests of the child in education policies and developing teacher training would help to overcome future crises (Gillberg and Ruokonen 2022; Nurhonen, Chydenius, and Lipponen 2021; Visnjic-Jevtic et al. 2021).

The new communication methods and distance teaching skills learned during the pandemic need to be maintained to avoid ill-preparedness and its negative consequences for teachers' well-being (Nurhonen, Chydenius, and Lipponen 2021; Samuelsson, Wagner, and Ødegaard 2020). It is also necessary to consider the individual nature of teachers' well-being at work and personal coping mechanisms (MacIntyre, Gregersen, and Mercer 2020) so that appropriate support can be provided.

Our study has some limitations. First, we did not focus on possible differences in either teachers' well-being at work or perceived changes at work based on the participants' work experience but only age. Thus, to understand how teachers' work experiences influenced their well-being and perceptions of work changes during the COVID-19 pandemic, future studies should be undertaken. Second, because it is a cross-sectional study, no causal inferences can be made. Thus, longitudinal research focusing on the relations between occupational well-being and work changes during and after the COVID-19 would provide deeper knowledge of teachers' evolving well-being at work and its correlates.

### **Disclosure statement**

No potential conflict of interest was reported by the author(s).

**ORCID**

Marita Neitola  <http://orcid.org/0000-0002-5008-2855>

**References**

- Atilas, Julia T., Mayra Almodóvar, Aleida Chavarría Vargas, Maria J.A. Dias, and Irma M. Zúñiga León. 2021. "International responses to COVID-19: challenges faced by Early Childhood Professionals." *European Early Childhood Education Research Journal* 29 (1): 66–78. <https://doi.org/10.1080/1350293X.2021.1872674>
- Bassok, Daphna, Molly Michie, Deiby Mayaris Cubides-Mateus, Justin B. Doromal, and Sarah Kiscaden. 2020. "The Divergent Experiences of Early Educators in Schools and Child Care Centers During COVID-19: Findings from Virginia." Panel presented at the 42nd Annual Association of Public Policy Analysis and Management. <https://files.elfsightcdn.com/022b8cb9-839c-4bc2-992e-cefcb8e877e/710c4e38-4f63-41d0-b6d8-a93d766a094c.pdf>.
- Bassok, Daphna, Kennedy Weisner, Anna J. Markowitz, and Todd Hall. 2021. *Teaching Young Children during COVID-19: Lessons from Early Educators in Louisiana*. United States: EdPolicyWorks at the University of Virginia.
- Bigras, Nathalie, Lise Lemay, Joanne Leher, Annie Charron, Stéphanie Duval, Christelle Robert-Mazaye, and Isabelle Laurin. 2021. "Early Childhood Educators' Perceptions of their Emotional State, Relationships with Parents, Challenges, and Opportunities During the Early Stage of the Pandemic." *Early Childhood Education Journal* 49 (5): 775–787. <https://doi.org/10.1007/s10643-021-01224-y>.
- Buettner, Cynthia K., Lieny Jeon, Eunhye Hur, and Rachel E. Garcia. 2016. "Teachers' Social-Emotional Capacity: Factors Associated with teachers' responsiveness and Professional Commitment." *Early Education and Development* 27 (7): 1018–1039. <https://doi.org/10.1080/10409289.2016.1168227>
- Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Sciences*. 2nd ed. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Corr, Lara, Elise Davis, Anthony D. LaMontagne, Elizabeth Waters, and Emily Steele. 2014. "Childcare Providers' Mental Health: A Systematic Review of Its Prevalence, Determinants and Relationship to Care Quality." *International Journal of Mental Health Promotion* 16 (4): 231–263. <https://doi.org/10.1080/14623730.2014.931067>
- Crawford, April, Kelly A. Vaughn, Kathy L. Guttentag, Cheryl Varghese, Yoonkyung Oh, and Tricia A. Zucker. 2021. "'Doing What I can, but I got no Magic Wand:' A Snapshot of Early Childhood Educator Experiences and Efforts to Ensure Quality During the COVID-19 Pandemic." *Early Childhood Education Journal* 49 (5): 829–840. <https://doi.org/10.1007/s10643-021-01215-z>.
- Dagenais-Desmarais, Véronique, and André Savoie. 2011. "What is Psychological Well-Being, Really? A Grassroots Approach from the Organizational Sciences." *Journal of Happiness Studies* 13 (4): 659–684. <https://doi.org/10.1007/s10902-011-9285-3>.
- Day, Christopher, Pam Sammons, Gordon Stobart, Alison Kington, and Qing Gu. 2007. *Teachers Matter: Connecting Work, Lives and Effectiveness*. Maidenhead: McGraw-Hill Education.
- Dayal, Hem Chand, and Lavinia Tiko. 2020. "When are we Going to Have the Real School? A Case Study of Early Childhood Education and Care Teachers' Experiences Surrounding Education During the COVID-19 Pandemic." *Australasian Journal of Early Childhood* 45 (4): 336–347. <https://doi.org/10.1177/1836939120966085>
- Eadie, Patricia, Penny Levickis, Lisa Murray, Jane Page, Catriona Elek, and Amelia Church. 2021. "Early Childhood Educators' Wellbeing During the COVID-19 Pandemic." *Early Childhood Education Journal* 49 (5): 903–913. <https://doi.org/10.1007/s10643-021-01203-3>.
- Eadie, Patricia, Lisa Murray, Penny Levickis, Jane Page, Amelia Church, and Catriona Elek. 2022. "Challenges and Supports for Educator Well-Being: Perspectives of Australian Early Childhood Educators During the COVID-19 Pandemic." *Teachers and Teaching* 28 (5): 568–583. <https://doi.org/10.1080/13540602.2022.2062746>

- Estonian Ministry of Education and Research. 2008. "National Curriculum for Pre-school Child Care Institutions." Accessed January 26, 2024. [https://www.hm.ee/sites/default/files/estonian\\_national\\_curriculum\\_for\\_preschool\\_child\\_care\\_institutions.pdf](https://www.hm.ee/sites/default/files/estonian_national_curriculum_for_preschool_child_care_institutions.pdf).
- Estonian National Educational Database Haridussilm. 2020. "Õpetajad." Accessed May 26, 2023. <https://www.haridussilm.ee/ee/tasemeharidus/haridustootajad/opetajad>.
- Finnish National Agency for Education. 2020. "Tukimateriaalia opettajille sekä opetuksen ja koulutuksen järjestäjille poikkeuksellisiin opetusjärjestelyihin." [Support material for teachers and education and training providers for exceptional teaching arrangements]. Retrieved <https://www.oph.fi/fi/tukimateriaalia-opettajille-seka-opetuksen-ja-koulutuksen-jarjestajille-poikkeuksellisiin>.
- The Finnish National Board on Research Integrity (TENK). 2023. "The Finnish Code of Conduct for Research Integrity and Procedures for Handling Alleged Violations of Research Integrity in Finland." Accessed January 25, 2024. <https://tenk.fi/en/advice-and-materials>.
- Friedman-Krauss, Allison Hope, C. Cybele Raver, Pamela A. Morris, and Stephanie M. Jones. 2014. "The Role of Classroom-Level Child Behavior Problems in Predicting Preschool Teacher Stress and Classroom Emotional Climate." *Early Education and Development* 25 (4): 530–552. <https://doi.org/10.1080/10409289.2013.817030>
- Gillberg, Susanna, and Inkeri Ruokonen. 2022. "Varhaiskasvatuksen henkilöstön kokemuksia koronapandemian aiheuttamista muutoksista työssä keväällä 2020" [Early childhood education staff's experiences of the interest rate pandemic changes at work in spring 2020]. *Kasvatus & Aika* 16 (1): 42–66. <https://doi.org/10.33350/ka.111295>.
- Gomes, Judith, Sylvia Christine Almeida, G. Kaveri, Farhana Mannan, Prachi Gupta, Aihua Hu, and Mahbub Sarkar. 2021. "Early Childhood Educators as Covid Warriors: Adaptations and Responsiveness to the Pandemic Across Five Countries." *International Journal of Early Childhood* 53 (3): 345–366. <https://doi.org/10.1007/s13158-021-00305-8>
- Hall-Kenyon, Kendra M., Robert V. Bullough, Kathryn Lake MacKay, and Esther E. Marshall. 2014. "Preschool Teacher Well-being: A Review of the Literature." *Early Childhood Education Journal* 42 (3): 153–162. <https://doi.org/10.1007/s10643-013-0595-4>
- Hamre, Bridget K., and Robert C. Pianta. 2004. "Self-reported Depression in Nonfamilial Caregivers: Prevalence and Associations with Caregiver Behavior in Child-care Settings." *Early Childhood Research Quarterly* 19 (2): 297–318. <https://doi.org/10.1016/j.ecresq.2004.04.006>
- Heikkilä, Mia, Ann-Christin Furu, Anette Hellman, Anne Lillqvist, and Anna Rantala. 2020. "Barns deltagande i förskole- och daghemskontext under inledningen av coronavirusets utbrott i Finland och Sverige." *Barn* 38 (2): 13–28. <https://www.ntnu.no/ojs/index.php/BARN/issue/view/356>.
- Herman, Keith C., Jal'et Hickmon-Rosa, and Wendy M. Reinke. 2018. "Empirically Derived Profiles of Teacher Stress, Burnout, Self-Efficacy, and Coping and Associated Student Outcomes." *Journal of Positive Behavior Interventions* 20 (2): 90–100. <https://doi.org/10.1177/1098300717732066>.
- Jennings, Patricia A. 2015. "Early Childhood Teachers' Well-being, Mindfulness, and Self-compassion in Relation to Classroom Quality and Attitudes Towards Challenging Students." *Mindfulness* 6 (4): 732–743. <https://doi.org/10.1007/s12671-014-0312-4>
- Jennings, Patricia A., Lieny Jeon, and Amy M. Roberts. 2020. "Introduction to the Special Issue on Early Care and Education Professionals' Social and Emotional Well-being." *Early Education and Development* 31 (7): 933–939. <https://doi.org/10.1080/10409289.2020.1809895>.
- Kärki, Tomi, Heli Keinänen, Juli-Anna Aerila, Miina Orell, Lauri Kemppinen, and Pasi Koski. 2023. "Opettajien, oppilaiden ja huoltajien näkemyksiä peruskoulun ja lukion etäopetuksesta kevään 2020 poikkeusolojen aikana" [Teachers', pupils' and guardians' views on distance learning in primary and upper secondary schools during the spring 2020 emergency situation]. *Kasvatus* 54 (4): 326–340. <https://doi.org/10.33348/kvt.138069>.
- Kim, Lisa E., and Katryn Asbury. 2020. "Like a Rug had been Pulled from Under You': The Impact of COVID-19 on Teachers in England during the First Six Weeks of the UK Lockdown." *British Journal of Educational Psychology* 90 (4): 1062–1083. <https://doi.org/10.1111/bjep.12381>.

- Kuutti, Tiina, Sanna Kahila, and Niina Sajaniemi. 2021. "Pedagogiikkaa poikkeusaikana päiväkotien varhaiskasvatushenkilöstön kokemuksia pedagogiikan toteuttamisesta COVID-19-pandemian aikana" [Pedagogy in a time of emergency: the experiences of early childhood education staff in day care centres in implementing pedagogy during the COVID-19 pandemic]. *Journal of Early Childhood Education Research* 10 (3): 217–239.
- Kuykendall, Lauren, and L. Louis Tay. 2015. "Employee Subjective Well-being and Physiological Functioning: An Integrative Model." *Health Psychology Open* 2 (1): 1–11. <https://doi.org/10.1177/2055102915592090>.
- Kyriacou, Chris. 2001. "Teacher Stress: Directions for Future Research." *Educational Review* 53 (1): 27–35. <https://doi.org/10.1080/00131910120033628>.
- MacIntyre, Peter D., Tammy Gregersen, and Sarah Mercer. 2020. "Language Teachers' Coping Strategies During the Covid-19 Conversion to Online Teaching: Correlations with Stress, Wellbeing and Negative Emotions." *System* 94:102352. <https://doi.org/10.1016/j.system.2020.102352>.
- Mitchell, Linda, Edith Hodgen, Patricia Meagher-Lundberg, and Clare Wells. 2020. "Impact of COVID-19 on the Early Childhood Education Sector in Aotearoa New Zealand: Challenges and Opportunities." *Childhood Education* 96 (6): 38–45. <https://doi.org/10.1080/00094056.2020.1846385>
- National Institute for Health and Welfare and the Ministry of Education and Culture and the Ministry of Culture and the Ministry of Education and Culture. 2020. "Terveystien ja hyvinvoinnin laitoksen ja opetus- ja kulttuurinministeriön ohje opetuksen ja varhaiskasvatuksen järjestäjille koronavirusepidemian aikana." [Guidelines of the National Institute for Health and Welfare and the Ministry of Education and Culture and the Ministry of Culture and the Ministry of Education and Culture for providers of education and early childhood education during a Covid-19 pandemic.] Retrieved <https://valtioneuvosto.fi/docu-ments/10616/22150002/THL+OKM+ohje+kouluihin+04052020.pdf>.
- Nislin, Mari A., Maiju Paananen, Laura Repo, N. Nina Sajaniemi, and Margaret Sims. 2015. "Working with Children with Special Needs in Finnish Kindergartens: Professionals and/or Specialists?" *South African Journal of Childhood Education* 5 (3): 1–10. <https://doi.org/10.4102/sajce.v5i3.368>.
- Nurhonen, Linda, Heidi Chydenius, and Lasse Lipponen. 2021. *Korona tuli kylään -tutkimushankkeen loppuraportti. Koronakriisin vaikutuksia varhaiskasvatukseen*. [The final report of the Corona came to the village research project. Effects of the corona crisis on early childhood education. University of Helsinki]. Helsinki: yliopisto.
- Official Statistics in Finland. 2022. "Local Government Sector Wages and Salaries." Accessed March 27, 2024.
- Orell, Miina, Juli-Anna Aerila, Mari Siipola, Heli Keinänen, Lauri Kemppinen, Tomi Kärki, and Pasi Koski. 2021. "Perusopetuksen alimpien luokkien oppilaiden kokemuksia pandemian aikaisesta etäopetusjaksosta" [The experiences of primary school pupils in the lower grades of primary education during the pandemic]. *Sosiaalipedagoginen Aikakauskirja* 22:139–163. <https://doi.org/10.30675/sa.102826>.
- Pöysä, Sanni, Erja Pakarinen, and Marja-Kristiina Lerkkanen. 2021. "Patterns of Teachers' Occupational Well-Being During the COVID-19 Pandemic: Relations to Experiences of Exhaustion, Recovery, and Interactional Styles of Teaching." *Frontiers in Education* 6:699785. <https://doi.org/10.3389/feduc.2021.699785>.
- Reich, Justin, Christopher J. Buttner, Dan Coleman, Richard D. Colwell, Farah Faruqi, and Laura R. Larke. 2020. "What's Lost, What's Left, What's Next: Lessons Learned from the Lived Experiences of Teachers During the 2020 Novel Coronavirus Pandemic." *EdArXiv*. <https://edarxiv.org/8exp9>.
- Säkkinen, Salla, and Tuula Kuoppala. 2020. "Varhaiskasvatus 2019" [Early Childhood Education and Care 2019]. Helsinki: Terveystien ja hyvinvoinnin laitos. Accessed March 18, 2021. <https://urn.fi/URN:NBN:fi-fe2020092976135>.
- Samuelsson, Ingrid Pramling, Judith T. Wagner, and Elin Eriksen Ødegaard. 2020. "The Coronavirus Pandemic and Lessons Learned in Preschools in Norway, Sweden and the United States: OMEP Policy forum." *International Journal of Early Childhood* 52 (2): 129–144. <https://doi.org/10.1007/s13158-020-00267-3>

- Saranko, Lotta, Maarit Alasuutari, and Mimmu Sulkanen. 2021. *Varhaiskasvatuspalvelut koronapandemian aikana* [Organising and Providing Early Childhood Education and Care during the Coronavirus Pandemic]. Jyväskylä: University of Jyväskylä.
- Skaalvik, Einar M., and Sidsel Skaalvik. 2016. "Teacher Stress and Teacher Self-Efficacy as Predictors of Engagement, Emotional Exhaustion, and Motivation to Leave the Teaching Profession." *Creative Education* 7 (13): 1785–1799. <https://doi.org/10.4236/ce.2016.713182>.
- Timmons, Kristy, Amanda Cooper, Emma Bozek, and Heather Braund. 2021. "The Impacts of COVID-19 on Early Childhood Education: Capturing the Unique Challenges Associated with Remote Teaching and Learning in K-2." *Early Childhood Education Journal* 49 (1): 1–15. <https://doi.org/10.1007/s10643-020-01053-5>.
- Van Laere, Katrien, Nima Sharmahd, Arianna Lazzari, Martino Serapioni, Sanja Brajčević, Ingrid Engdahl, Henriette Heimgaertner, Liesbeth Lambert, and Hester Hulpia. 2021. *Governing Quality Early Childhood Education and Care in a Global Crisis: First Lessons Learned from the COVID-19 Pandemic*. NESET report. Luxembourg: Publications Office of the European Union. <https://doi.org/10.2766/642131>.
- Visnjic-Jevtic, Adrijana, Anikó Varga Nagy, Gulsah Ozturk, İkbal Tuba Şahin-Sak, Jesús Paz-Albo, Mehmet Toran, and Noelia Sánchez-Pérez. 2021. "Policies and Practices of Early Childhood Education and Care during the COVID-19 Pandemic: Perspectives from Five Countries." *Journal of Childhood, Education & Society* 2 (2): 200–216. <https://doi.org/10.37291/2717638X.202122114>.
- Whitaker, Robert C., Tracy Dearth-Wesley, and Rachel A. Gooze. 2015. "Workplace stress and the quality of teacher–children relationships in Head Start." *Early Childhood Research Quarterly* 30 (Part A): 57–69. <https://doi.org/10.1016/j.ecresq.2014.08.008>
- Wistoft, Karen, Aske Clark, and Lars Qvortrup. 2021. "A Window of Change: How COVID-19 Disrupted Pedagogical Approaches in Danish Kindergartens." *European Early Childhood Education Research Journal* 30 (5): 1–14. <https://doi.org/10.1080/1350293X.2021.2005111>.