Women's decision-making on additional unpaid work during the COVID-19 pandemic: assessing the role of finance

Ana Rimac Smiljanić, Sandra Pepur & Ivana Bulog

Published online: 23 Oct 2022.

Submit your article to this journal ↗

Article views: 588

View related articles ↗

View Crossmark data ↗

Routledge
Taylor & Francis Group

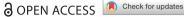# Women's decision-making on additional unpaid work during the COVID-19 pandemic: assessing the role of finance

Ana Rimac Smiljanić[a] (iD), Sandra Pepur[a] (iD) and Ivana Bulog[b] (iD)

[a]Department of Finance, Faculty of Economics, Business and Tourism, University of Split, Split, Croatia; [b]Department of Management, Faculty of Economics, Business and Tourism, University of Split, Split, Croatia

ABSTRACT

This article investigates the determinants of women's additional unpaid work during the specific circumstances of the COVID-19 pandemic lockdown. Apart from the influential factors usually investigated in the standard model of unpaid work, we contribute to recent research by including variables such as financial literacy and family financial fragility. Pandemic lockdown altered the normal functioning of families and created financial uncertainty. Thus, we hypothesised that women's financial literacy and family financial fragility influenced women's decision to take on less or more unpaid work and could alter the division of unpaid work between women and other family members. We employed real-time individual-level data from the survey that we conducted during the second lockdown restrictions in January and February 2021. Croatia is an interesting case to investigate unpaid work determinants because although it has joined the E.U. and accepted positive legal aspects of gender equality, conservative gender norms still dominate there. The results revealed that women's financial literacy negatively affects women's willingness to take on more unpaid work while the deteriorating family financial situation in the pandemic has a positive effect.

1. Introduction

The COVID-19 pandemic has brought many changes and new burdens to women's everyday lives. In addition to health and economic uncertainty, new circumstances of lockdown such as work from home, home-schooling as well as physical and social distancing have significantly changed the organisation of family life with most of the burden on women. The pandemic predominantly hit sectors with a mainly female

workforce, such as health, retail, and hospitality (Dugarova, 2020). Besides, imposed government measures to restrict the virus spread have significantly affected labour market participation (Del Boca et al., 2020); women faced greater income reductions and were more likely to lose their jobs (GLEC, 2020; OECD, 2021; WTO, 2020).

Throughout history, in difficult times, women worldwide have been taking on hard work sacrificing themselves for the family and risking their future position at work and in society. The same is happening today. These excessive and unequal pressures on women have been present for a long time in post-communist countries in Central and Eastern Europe (C.E.E.). After decades of promotion and encouraging women's inclusion at work during the communist era, the economic and political transition has reinstated women's position in society (Nikolić-Ristanović, 2004). Decades later, the daughters of these women are in a similar position. This time the pandemic caused women in C.E.E. countries to step back from work and sacrifice themselves for the family. Have daughters learned something from the sacrifices of their mothers? Do women today appreciate their knowledge and their economic freedom more? These questions are the starting point of this research.

The family can be considered as a decision-making unit where many decisions are made daily on an individual or household level. These decisions concern many economic activities essential for a family's long-term well-being maintenance and existence, such as family lives, household work, financial decisions concerning resource allocation etc. Research results (i.e., Chauhan, 2021; Del Boca et al., 2020) indicated that some movements toward greater sharing of household tasks responsibilities had been made, but unfortunately, this balance has been shaken again due to the pandemic (OECD, 2021; Xue & McMunn, 2021).

The tendency of greater involvement of women in household chores is visible in situations where both men and women work full time, and both earn equal income (Chauhan, 2021). Women's participation in unpaid work at home worsens their position in the labour market, which results in their lower personal income (Addati et al., 2018; OECD, 2021; Power, 2020). Due to missed opportunities to advance at work, the large amount of unpaid work at home also implies a reduction in women's future income, and eventually a lower retirement income in older age (Lusardi & Mitchell, 2007; Lusardi et al., 2021). Apart from the described impact on their economic status, a lack of income, due to more unpaid work, also affects women's financial independence, bargaining power and decision-making within the household (Chauhan, 2021). This also jeopardises the financial position of the whole family. Therefore, it is to be expected that women's financial literacy and family financial fragility significantly affects women's decision-making about additional unpaid work.

Previous studies on unpaid work identified some general socio-demographic factors, such as level of education, marital status, number of children, employment and (relative) salary, as women's unpaid work determinants (i.e., Hozer-Koćmiel & Kuźmiński, 2020; Hunady et al., 2014; Kaščáková et al., 2013; Singh & Pattanaik, 2020; Van der Lippe et al., 2018). Some analyses used a microeconomic approach (survey research), while some of them applied macroeconomic perspective, at various either individual countries or sets of countries. However, none of the previous research considers women's financial literacy and family financial fragility as

determinants of their decision to take additional unpaid work. Therefore, this article aims to fill the observed gap and significantly contribute to a deeper understanding of the role of finance in women's decision-making about additional unpaid work in times of the COVID-19 pandemic.

This research was conducted in a specific social and economic environment. Croatia is a post-communist country that has joined the E.U. and accepted positive legal aspects of gender equality. Therefore, researching this kind of environment provide insight into the effects of implemented legislative changes on women's everyday life. The IMF (2019) provided evidence that due to a higher amount of women's unpaid work, the female labour force is weakened in the labour market which lowers the whole economy's productivity.

This study is a part of a larger research on the effects of the COVID-19 pandemic on women's well-being from an economic perspective. In the empirical research, we used the snowball sampling method for obtaining the sample for online self-report surveys. Data were collected during the COVID-19 lockdown of January and February 2021.

Our study adds to the relatively scarce empirical literature on the role of finance in inter-household decision-making. It contributes to the existing literature by identifying women's financial literacy and family financial fragility as influential factor and providing evidence that they determine additional unpaid work in stressful times caused by the pandemic.

2. Literature background

The existing empirical literature groups potential determinants that could influence one's decision to engage in more unpaid work into sets of socio-economic and demographic characteristics (Hozer-Koćmiel & Kuźmiński, 2020; Hunady et al., 2014; IMF, 2019; Kaščáková et al., 2013; OECD, 2021; Singh & Pattanaik, 2020; Van der Lippe et al., 2018). The study of Kaščáková et al. (2013) focuses on exploring determinants of unpaid work in Slovakia. According to the model results, gender is a significant determinant of unpaid work. Among other observed demographic and social determinants, age, educational level and employment are significant, only in selected categories.

Based on the cross-sectional data for 29 countries Hunady et al. (2014) confirmed that in all countries women do more unpaid work whereas men spend more time in paid work, which could lead to income gender inequality. This is particularly noticeable in less developed countries where the share of female unpaid work is mostly very high. Results showed that the determinants of unpaid work were different for the two genders. Women's unpaid work is more influenced by the number of children and elderly in the population and wage level in the labour market, while the size of paid work is an important determinant for both genders.

The empirical study of Hozer-Koćmiel and Kuźmiński (2020) revealed that the main factors that influence unpaid housework in Poland were paid work time, time spent on basic needs (sleeping, eating, and washing), time spent on learning, the number of children and economic activity. The results showed no differences in the

key determinants of time devoted to housework between women and men depending on the type of locality (rural areas vs cities). The findings of the study of Singh and Pattanaik (2020) conducted in India disclosed that women who are less educated and have lower wealth are more engaged in household chores. Women's engagement in unpaid domestic work depends on three factors–constraints (social and religious), choices (failure of market and states to provide essential provisioning), and career (low opportunity cost of unpaid work in the market).

More recent research emphasised the investigation on how different measures imposed during the time of the pandemic affected the division of unpaid work (Chauhan, 2021; Derndorfer et al., 2021; Farré et al., 2022). Namely, the pandemic situation affected women and men differently through the increased burden of unpaid work that fell more on women who worked longer hours unpaid than men (Xue & McMunn, 2021). The study of Chauhan (2021) showed that the pandemic and lockdown exacerbated the already existing gender inequalities and increased women's burden of unpaid work even more. According to the results, marital and employment status are key determinants of women's unpaid workload. In addition, the time spent on unpaid work increased the most for married and unemployed women, who even before the pandemic lockdown, spent the most time doing such work. Hazarika and Das (2021) conducted interviews among parents in middle-class homes to investigate how domestic responsibilities were shared among partners. They found a change in the traditional gender roles in families during pandemics. In situations when both parents were working from home, the mothers were overburdened with household chores and children while men were overburdened with 'work from home' and were minimally involved in unpaid work at home. Mothers neglected their careers due to the increased obligations with the household chores and children care and online schooling.

Several recent papers provide empirical evidence on the intra-household distribution of decision-making power and unpaid work in European countries. Derndorfer et al. (2021) studied the effect of working from home, due to pandemic restrictions in Austria, on the change in the division of housework and childcare within households. The results reveal that the men would take on a larger share of housework if men are alone working from home or together with their female partners. Only in the situation if the female partner was not able to work from home, the involvement of men in childcare increased. The overall conclusion is that the burden of childcare, and particularly home-schooling, was disproportionately borne by women. Farré et al. (2022) show that the pandemic in Spain increased the gender gap in total hours worked, including paid and unpaid work. This increase is a result of the smaller decrease in hours in paid work and a larger increase in hours of unpaid work among women. Thus, although men slightly increased their participation, women continued to bear the burden, regardless of their situation in the labour market. The observed gendered patterns in a division of housework are consistent with the models that highlight the importance of social norms in explaining the outstanding gender gaps in the labour market.

There are two theoretical strands in the literature that can explain the unproportioned division of unpaid work between genders and that are important grounds for

understanding the role of women in household decision-making (Chauhan, 2021). From the economic perspective, women's unpaid work depends on the comparative advantage relative to the paid work. Gender perspective encompasses the unitary (or utility) model and bargaining model. The traditional model assumes that the family acts as a sole decision-making unit, with common preferences and utility for all members, ignoring individual preference heterogeneity. Additionally, according to this view, partners specialise in their roles in line with time availability–meaning that the partner less engaged in payable working activities will spend more time on domestic activities and vice versa. As a response to these shortcomings, especially the one of ignoring the role of gender as a factor in women's preferences, the bargaining model has gained more attention to explain family decision-making (Kim et al., 2017) and the nature of unpaid work (Chauhan, 2021). According to the bargaining model, each individual has his/her preferences, and the one with more household bargaining power–e.g., income, level of education, employment or financial knowledge, is likely to make family decisions and to avoid unpaid work.

Research results on how to make financial decisions in the family indicate that both individual and joint family decisions are influenced by personal as well as family factors (Kim et al., 2017). However, changes in cultural norms and social standards have led to an increase in the proportion of women working outside the home (Lee & Beatty, 2002). An increasing number of women contributing to the family finances by participating in paid work has made changes in their decision patterns. Employment contributes to women's bargaining power and can eventually influence household decisions in favour of their preferences (Kim et al., 2017). Women's financial literacy also empowers their participation in decision-making intra-households (Banerjee et al., 2020). Namely, women who significantly contribute to the household income and have higher knowledge will have greater bargaining power and make decisions that will lead towards more equality in the division of unpaid work at home.

It is well known that people with higher levels of financial literacy are making better financial decisions (Lusardi & Mitchell, 2014; Lusardi et al., 2021). Families are not exceptions. Relative education, employment, and wages are essential dimensions in financial decision-making in the household (Johnston et al., 2016). However, all family members' financial knowledge and preferences are not of the same value in intra-household financial decision-making; men still dominate (Ke, 2021). In families where women are less involved in family financial decision-making, households archive suboptimal financial outcomes (Banerjee et al., 2020; EIEF, 2021). However, in situations when family economic costs are rising due to gender norms, the cultural norms are changing, and the allocation of decision power is more distributed within the household (EIEF, 2021). In addition, it is well known that family financial well-being significantly affects the overall well-being of all family members (Friedline et al., 2021).

All of the above-mentioned supports the research idea that family finances and women's financial literacy should be important factors in women's decisions about additional unpaid work during the pandemic. Therefore, we assume that financially literate women should be able to better assess the financial consequences of their

decision to take extra-unpaid work. In times of negative pandemic shocks that threaten to family financial stability, women would accept more unpaid work to shield other family members. Our assumption is supported by the results of Thorne (2010) who documented that in hard times, such as family bankruptcy, women took more burden aiming to protect their husbands from the financial stress.

3. Research methodology

3.1. Aim of the research

A tendency of women's participation in unpaid work is evident throughout history. In difficult times, they take on even more family responsibilities, working harder, sacrificing themselves for the family, and risking their future position at work and in society. The same is happening in the recent COVID-19 times. This research aimed to understand the determinants of women's decision-making about additional unpaid work during the COVID-19 pandemic. Apart from general determinants of unpaid work by considering that pandemic lockdown altered the normal functioning of the families and created financial uncertainty, we hypothesise that financial literacy and family financial fragility, along with standard determinants of unpaid work, influenced women's decision to take on less or more unpaid work and could alter the division of unpaid work between women and other family members.

3.2. Research design

This study is a part of a larger research on the effect of the COVID-19 pandemic on women's well-being from an economic perspective. The online survey was conducted during the second lockdown in Croatia, precisely in January and February 2021. Snowball sampling was used to reach the participants. This method is used when the aim is to gather information from a specific group of people and for obtaining the sample for web-based self-report surveys (Margetić et al., 2022). With the focus on women, as the subject of investigation, aiming to enhance our knowledge regarding various aspects of women's financial literacy and family financial fragility in the household decision-making process, particularly about unpaid work during the COVID-19 pandemic, this method was the most appropriate to follow. The women were reached mostly throughout social networks since it was an easy and straightforward path to reach and engage participants in our survey. Along with the link to an online survey, participants were introduced to a detailed explanation of the research purpose. Participation was voluntary and anonymous.

3.3. Measures

In time of pandemic was observed as dependent variable. It was measured with four-item scale. The measure was assessed on a 5-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Respondents were asked to answer how they agreed or disagreed with the statements relating to additional responsibilities at home during the pandemic. The items are presented in Table 1.

Table 1. Sample characteristics.

Variables	Frequency	Percentage	Mean	Median	Std. Dev	Range
Age			2.56	2.00	.741	4
18-25	28	3.2				
26-40	417	47.9				
41-50	345	39.7				
51-60	67	7.7				
61-70	12	1.4				
Education			3.49	4.00	.991	4
Elementary school	4	0.5				
Secondary education	203	23.3				
College education	130	14.9				
University education	429	49.3				
Master's degree or doctoral degree	103	11.8				
Family status			1.83	2.00	.375	1
Living with no other adult household member	147	16.9				
Living with other adult household members	722	83.0				
Care for other family members (except for woman's children)			1.79	2.00	.410	1
Yes	185	21.3				
No	684	78.6				
Number of children			2.57	3.00	.979	3
Without children	156	17.9				
One child	214	24.6				
Two children	345	39.7				
Three and more	154	17.7				
Number of household members			3.55	4.00	1.086	4
Living alone	30	3.4				
2 household members	121	13.9				
3 household members	233	26.8				
4 household members	308	35.4				
5 and more	177	20.3				
Working status			1.72	2.00	.968	1
Engaged in the labour market (full or part-time)	713	82.04				
Not engaged in the labour market labour market (unemployed, housewives, in retirement, etc.).	156	17.96				
Relative income			1.55	2.00	.498	2
Earn the same or more relative to other adult household members	368	42.3				
Earn less relative to other adult household members	442	50.8				
Don't want to answer	60	6.9				

Source: Authors' calculation.

To measure *financial literacy*, respondents answered the 'Big Three' questions that measure their knowledge about interest rates, inflation and risk (Lusardi & Mitchell, 2007). The value of financial literacy was valued from 0 to 3, where respondents with two and three correct answers were grouped as financially literate while others were considered illiterate.

Building upon GLEC (2020), we formulated four questions to capture the subjective perception of *family financial fragility*. Respondents were asked to assess the following four statements: 'The financial situation of the family was good prior to the pandemic', 'Due to the pandemic, we were in delay in settling current obligations', 'We have enough savings to pay our obligations in the next three months' and 'I

postponed consumption in the pandemic.' All statements were assessed on a 5-point Likert scale.

The study used *demographic characteristics* of respondents as control variables. These variables have been selected from the standard determinants of unpaid work in the literature: age, education, family status, number of children, number of household members, care for other family members, working status and relative income. The empirical analysis divides women living alone and those living with other adult household members (family status). By working status, women are grouped in those engaged in the labour market (full or part-time) and those who do not participate in the labour market (unemployed, housewives, in retirement, etc.). Regarding relative income, we divided the sample into women earning the same or more relative to other adult household members and women who earn less.

3.4. Sample

There were no missing data as all the survey items were obligatory. We received answers from women that ran associations that promoted entrepreneurship, social inclusion of women, and from groups of women gathered around similar interests and topics from everyday life. Thus, with social network support, the survey resulted in a response rate and statistically significant sample − 869 valid responses. Sample characteristics are shown in Table 1.

Table 1 shows the frequency and percentage of the demographic data in the study. It portrays the respondents' profile that highlights women's age, education level, family status, number of children, number of household members, working status and relative income. As it can be seen from Table 1, out of 869 women, 47.9% were young and middle-aged women (between 26- and 40-years-old), followed by women between 41- and 50-years-old (39.7%). The rest were aged above 51 and below 26 years. Eighty-three per cent were living with other adult household members, and just 16.9% alone. More than three quarters (82.1%) of the respondents had children living at home. The average number of children was 2.57. In addition, 82.04% of women are engaged in the labour market (full or part-time), and 50.08% were earning less compared to other adult household members.

3.5. Data analysis

The statistical software SPSS 23 for the analysis and interpretation of the quantitative data was used for analysis. Statistical procedures applied in this research are descriptive statistics, correlation analysis, non-parametric tests, and multivariate linear regression.

4. Results

Introductory analysis focused on descriptive statistics of the additional unpaid work during the COVID-19 pandemic and is displayed in Table 2. The means of the three components of additional unpaid work variables are close to 3.0, indicating that

Table 2. Descriptive statistics for components of additional unpaid work during the COVID-19 pandemic.

Components	M	SD	N	Ran.
During the COVID-19 pandemic, I was additionally burdened with work related to home schooling.	2.94	1.608	869	1–5
During the COVID-19 pandemic, I was additionally burdened with daily household chores.	2.84	1.455	869	1–5
During the COVID-19 pandemic, I was additionally burdened with the care of elderly family members	2.77	1.498	869	1–5
During the COVID-19 pandemic, I was additionally burdened with the care of sick family members	2.16	1.400	869	1–5

Source: Authors' calculation.

Table 3. Kruskal–Wallis test results for a number of household members.

	During the COVID-19 pandemic, I was additionally burdened with work related to home schooling.	During the COVID-19 pandemic, I was additionally burdened with daily household chores.	During the COVID-19 pandemic, I was additionally burdened with the care of elderly family members	During the COVID-19 pandemic, I was additionally burdened with the care of sick family members
Chi-Square	123,256	35,338	5,671	4,653
df	4	4	4	4
Asymp. Sig.	.000	.000	.225	.325

[a]Kruskal–Wallis Test.
[b]Grouping Variable: Number of household members.
Source: Authors' calculation.

Table 4. Kruskal–Wallis test for unpaid work and number of children.

	During the COVID-19 pandemic, I was additionally burdened with work related to home schooling.	During the COVID-19 pandemic, I was additionally burdened with daily household chores.	During the COVID-19 pandemic, I was additionally burdened with the care of elderly family members	During the COVID-19 pandemic, I was additionally burdened with the care of sick family members
Chi-Square	179,004	31,411	3,153	2,713
df	3	3	3	3
Asymp. Sig.	.000	.000	.369	.438

[a]Kruskal–Wallis Test b. Grouping Variable: Number of children.
Source: Authors' calculation.

women perceived that in times of pandemic they were largely additionally burdened with work related to home schooling ($M = 2.94$), daily household chores ($M = 2.84$), and with the care of elderly family members ($M = 2.77$).

To identify if there is a difference regarding additional unpaid work components when considering the number of household members and the number of children, the Kruskal–Wallis test was conducted. Tables 3 and 4 show that there was a statistically significant difference between the additional women's burden with home schooling and daily household chores when concerning these variables ($p < 0.001$).

In the next step, multiple regression analysis was carried out to analyse brunt determinants of additional unpaid work in a time of the pandemic. Table 5 shows the results of four model specifications with different indicators of financial fragility. The difference between models (1–4) is based on the qualitative difference between the four different versions of the question to capture financial fragility.

Table 5. Results of multiple regression analysis.

Variables	Model 1					Model 2				
	B	SE	β	t	p	B	SE	β	t	p
Constant	3.100	.545		5.684	.000	3.225	.525		6.149	.000
Age	.002	.067	.001	.025	.980	-.006	.067	-.003	-.084	.933
Education	.059	.051	.040	1.154	.249	.068	.051	.047	1.340	.181
Family status	-.247	.155	-.058	−1.593	.112	-.234	.156	-.054	−1.501	.134
Number of children	.255	.056	.172	4.587	.000	.253	.056	.171	4.533	.000
Care for other family members	-.291	.115	-.084	−2.519	.012	-.299	.115	-.086	−2.599	.010
Working status	.182	.147	.044	1.241	.215	.176	.147	.043	1.198	.231
Relative income	-.100	.099	-.035	−1.008	.314	-.091	.099	-.032	-.917	.359
The same level of free time as before	-.237	.034	-.239	−6.886	.000	-.234	.034	-.235	−6.844	.000
Higher personal stress level	.158	.037	.149	4.246	.000	.160	.037	.150	4.306	.000
Financial literacy	-.222	.100	-.075	−2.215	.027	-.203	.100	-.068	−2.034	.042
Endangerment of woman job/income	.099	.035	.100	2.857	.004	.095	.035	.096	2.754	.006
The financial situation of the family was good prior to the pandemic	.032	.048	.022	.659	.510					
We have enough savings to pay our obligations in the next three months						-.021	.030	-.025	-.723	.470
R	.406					.406				
R^2	.165					.165				
Adjusted R^2	.152					.152				
F change	13.077					13.086				
Sig.	.000					.000				
N	809					809				

Variables	Model 3					Model 4				
	B	SE	β	t	p	B	SE	β	t	p
Constant	3.358	.529		6.353	.000	2.995	.526		5.693	.000
Age	.000	.067	.000	-.003	.998	-.019	.067	-.010	-.279	.780
Education	.075	.051	.052	1.475	.141	.082	.051	.057	1.628	.104
Family status	-.245	.155	-.057	−1.581	.114	-.241	.155	-.056	−1.559	.119
Number of children	.247	.056	.167	4.451	.000	.250	.055	.169	4.516	.000
Care for other family members	-.285	.115	-.082	−2.476	.013	-.301	.115	-.087	−2.628	.009
Working status	.166	.147	.040	1.135	.257	.143	.147	.035	.978	.329
Relative income	-.091	.099	-.032	-.926	.355	-.066	.099	-.023	-.665	.506
The same level of free time as before	-.232	.034	-.234	−6.807	.000	-.228	.034	-.229	−6.692	.000
Higher personal stress level	.162	.037	.152	4.368	.000	.154	.037	.145	4.169	.000
Financial literacy	-.199	.099	-.067	−2.009	.045	-.174	.099	-.059	−1.750	.080
Endangerment of woman job/income	.103	.035	.104	2.976	.003	.069	.036	.069	1.911	.056
I postponed consumption in the pandemic	-.075	.039	-.064	−1.940	.053					
Due to the pandemic, we were in delay in settling current obligations						.125	.044	.101	2.830	.005
R					.410					.415
R^2	.168					.172				
Adjusted R^2	.155					.16				
F change	13.409					13.832				
Sig.	.000					.000				
N	809					809				

Dependent Variable: Additional unpaid work in time of the pandemic

Source: Authors' calculation.

In model 1, financial fragility is represented with the respondents' assessment of the statement 'The financial situation of the family was good prior to the pandemic'; in Model 2 – 'We have enough savings to pay our obligations in the next three months'; in Model 3 – 'Due to the pandemic, we were in delay in settling current obligations.' and in Model 4 – 'I postponed consumption in a pandemic.'

As it can be seen from Table 5, all models 1–4 are statistically significant ($p < 0.001$). In all estimated models 1–4, financial literacy is statistically significant and has a negative effect on additional unpaid work. With respect to various

indicators of family financial fragility, there is an observed difference between the models. Two statements that represent a good family financial situation are not statistically significant determinants of additional unpaid work (Table 5, Models 1–2). However, the statements which measure a bad family financial situation are statistically significant and positively affect additional unpaid work (Table 5, Models 3–4). It is interesting to emphasise that the results for the variable *Endangerment of woman's job/income due to the pandemic*, are statistically significant and positive in all models (1–4). Obtained results for the variables that measure personal woman's stress, and their free time are statistically significant ($p < 0.001$). Personal stress has a positive sign, and women's free time negatively influences additional unpaid work. When it comes to standard determinants of unpaid work, the number of children and care for other family members[1] are statistically significant ($p < 0.001$ and $p < 0.05$). Other standard determinants (age, education, family status, working status, and relative income) were not statistically significant.

5. Research discussion

The research results are interesting and somewhat puzzling. Perceived additional women's unpaid work during the pandemic is determined by different factors than unpaid work in normal times. Unexpected situations and new additional unpaid work created a new division of obligations between household members. When women are under higher personal stress, they do more unpaid work and sacrifice their free time. According to the results (Tables 2–5) the number of children is a significant determinant of additional unpaid work during the pandemic. Home-schooling and daily household chores were for women the largest additional burden during the pandemic (Table 2). Women with more children were more burdened (Tables 3 and 5). These results imply that the pandemic measures of school closure and other kids' activity closure were mainly on women's shoulders. This supports previous research results of unpaid work determinants and new research on family life during the pandemic (Derndorfer et al., 2021; Farré et al. 2022; Hazarika & Das, 2021; OECD, 2021). Obtained results provided evidence that institutions that provide support for parents, like kindergartens, schools, etc. are extremely important for women's participation in the labour market. The consequence of the lack of these institutions is mainly on women's shoulders. Regarding women's care for other family members that existed prior to the pandemic, it is interesting to highlight that household members take on additional unpaid work instead of these women (Table 5) which implies intrahousehold support.

The good news of our results is that financial literacy is important. This is in line with postulates of the bargaining model (Kim et al., 2017), which presumes that the individual with more household bargaining power (e.g., financial knowledge) is likely to make family decisions and avoid unpaid work. Our results are consistent with the research results of Banerjee et al. (2020) about the importance of women's financial literacy for family decision making. Educating women about finance can serve as an indirect tool for a more equal division of obligations between the household members. The promotion of financial literacy among women creates the possibility for

their larger inclusion into the labour market and subsequently the prospect of the country's economy. Namely, research has proven that the improvement of gender equality in the E.U. would increase G.D.P. per capita (EIGE, 2022; IMF, 2019). In contrast, results on the other financial aspects give a not so optimistic view on women's life. In a situation when women's job/income is threatened, women take on more unpaid work.

Moreover, more striking results are about family financial fragility. When the family finances are endangered, women try to protect other household members by taking more additional unpaid work. This is in line with the specialisation approach of the household decision making on additional unpaid work (Derndorfer et al., 2021; Farré et al., 2022). Thus, it can be stated that neither bargaining power theory nor specialisation can completely explain the women's additional unpaid work during the pandemic. It is obvious that in times of crisis cultural and social norms dominate. In similar countries, traditional views on women's roles in society have been proven to be an essential moderator of women's economic activity (Abaz & Hadžić, 2020).

Taken together, the results on financial literacy and family finances imply that women understand the financial consequences of their decisions to take on more unpaid work. However, they are more willing to take additional unpaid work, consciously sacrificing themselves for the well-being of other family members. Obviously, in post-communist countries, cultural norms and social standards have a stronger influence than financial knowledge and improved gender legislation. Moreover, during the transition, the institutional social support for families did not follow the changes in the labour market. Thus, it can be concluded that family support system development is crucial for women to reduce gender inequity.

6. Conclusion

This research aimed to understand determinants of women's additional unpaid work during the COVID-19 pandemic. The results of the primary empirical research among Croatian women revealed that women with children are burdened the most. Therefore, we provide evidence that institutions that provide support for parents are extremely important for women's participation in the labour market. The consequence of the lack of these institutions is mainly on women's shoulders. Additional results on women's financial literacy and family financial situation indicate that encouraging financial education and promotion of family financial planning can help achieve more financially resilient families and more equal distribution of unpaid work in households.

There are some research limitations that should be noted. Firstly, in the sample more educated women than in the general population dominate. However, the result can provide valuable information about women's life during the pandemic. Secondly, we aimed to conduct a cross-cultural analysis based on cross-sectional data from different countries – this could contribute to a deeper and clearer understanding of these issues. Unfortunately, we did not receive enough responses to obtain a statistically significant sample. Thus, we concentrated our research on Croatia.

The results of this research are interesting and beneficial for scholars and practitioners to better understand woman's position in the household and society and to shape future activities aimed at improving their positions. Therefore, it is necessary to raise awareness and sensitise society about the importance of women's social and economic position, which enables their financial independence and the family's financial stability. With the long-term double burden that they currently have at home and at work, women are in a situation where they could well be forced to choose which sphere of life to sacrifice. No matter which one they choose, the woman, the family, and also the whole of society loses. Therefore, women should be provided with social support that would enable them to use their knowledge, talents, and skills in the labour market without sacrificing their families and/or themselves. As a suggestion for future research, it would be worth analysing women's paid and unpaid work as a determinant of women's and family well-being.

Note

1. With this question we tested women's burden with care for other family members regardless of the pandemic.

Disclosure statement

Funding

ORCID

Ana Rimac Smiljanić http://orcid.org/0000-0002-8720-2048
Sandra Pepur http://orcid.org/0000-0003-3468-9072
Ivana Bulog http://orcid.org/0000-0001-6007-6849

References

Abaz, A. K., & Hadžić, A. (2020). Economic activity of women and young women in Bosnia and Herzegovina under the umbrella of traditional views of women's role in society. *Economic Research-Ekonomska Istraživanja*, *33*(1), 2591–2605. https://doi.org/10.1080/1331677X.2020.1751671

Addati, L., Cattaneo, U., Esquivel, V., & Valarino, I. (2018). *Care work and care jobs for the future of decent work* [Research Report NO. CPG-JMB-REPRO]. International Labour Organization. Retrieved from International Labour Organization website: https://www.ilo.org/global/publications/books/WCMS_633135/lang–en/index.htm

Banerjee, A. N., Iftekhar, H., Kamlesh, K., & Philip, D. (2020). The power of a financially literate woman in intra-household financial decision-making. *SSRN Electronic Journal*, 3246314. https://doi.org/10.2139/ssrn.3246314

Chauhan, P. (2021). Gendering COVID-19: Impact of the pandemic on women's burden of unpaid work in India. *Gender Issues*, 38(4), 395–419. https://doi.org/10.1007/s12147-020-09269-w

Del Boca, D., Oggero, N., Profeta, P., & Rossi, M. (2020). Women's and men's work house-work and childcare before and during COVID-19. *Review of Economics of the Household*, 18(4), 1001–1017. https://doi.org/10.1007/s11150-020-09502-1

Derndorfer, J., Disslbacher, F., Lechinger, V., Mader, K., & Six, E. (2021). Home sweet home? The impact of working from home on the division of unpaid work during the COVID-19 lockdown. *PLoS One*, 16(11), e0259580. https://doi.org/10.1371/journal.pone.0259580

Dugarova, E. (2020). *Unpaid care work in times of the COVID-19 crisis: Gendered impacts, emerging evidence and promising policy responses*. Paper prepared for the UN Expert Group Meeting "Families in Development: Assessing Progress Challenges and Emerging Issues Focus on Modalities for IYF + 30". https://www.un.org/development/desa/family/wp-content/uploads/sites/23/2020/09/Duragova.Paper.pdf

EIEF. (2021, January). *From patriarchy to partnership: Gender equality and household finance* [Einaudi Institute for Economics and Finance Working Papers Series 2101]. Zaccaria, L., & Guiso, L. https://doi.org/10.2139/ssrn.3652376

EIGE. (2022). *Economic benefits of gender equality in the European Union overall economic impacts of gender equality* [Research Report No. MN-01-17-095-EN-N]. European Institute of Gender Equality. Retrieved from European Institute of Gender Equality website: https://eige.europa.eu/gender-mainstreaming/policy-areas/economic-and-financial-affairs/economic-benefits-gender-equality

Farré, L., Fawaz, Y., González, L., & Graves, J. (2022). Gender inequality in paid and unpaid work during COVID-19 times. *Review of Income and Wealth*, 68(2), 323–347. https://doi.org/10.1111/roiw.12563

Friedline, T., Chen, Z., & Morrow, S. (2021). Families' financial stress & well-being: The importance of the economy and economic environments. *Journal of Family and Economic Issues*, 42(S1), 34–51. https://doi.org/10.1007/s10834-020-09694-9

GLEC. (2020, December). *Household financial fragility during COVID-19: Rising inequality and unemployment insurance benefit reductions* [GLEC Working Paper Series WP 2020-4]. Schneider, D., Tufano, P., & Lusardi, A.

Hazarika, O. B., & Das, S. (2021). Paid and unpaid work during the Covid-19 pandemic: A study of the gendered division of domestic responsibilities during lockdown. *Journal of Gender Studies*, 30(4), 429–439. https://doi.org/10.1080/09589236.2020.1863202

Himmelweit, S., Santos, C., Sevilla, A., & Sofer, C. (2013). Sharing of resources within the family and the economics of household decision-making. *Journal of Marriage and Family*, 75(3), 625–639. https://doi.org/10.1111/jomf.12032

Hunady, J., Orviska, M., & Uramova, M. (2014). The size and determinants of unpaid work – the gender comparison. *International Journal of Social Science and Human Behavior Study*, 1(2), 91–96.

Hozer-Koćmiel, M. & Kuźmiński, W. (2020). Modelling unpaid housework time in Poland on the basis of a time use survey. *Folia Oeconomica Stetinensia, 20*(1) 177–189. https://doi.org/10.2478/foli-2020-0010

IMF. (2019, October). *Reducing and redistributing unpaid work: Stronger policies to support gender equality* [International Monetary Fund Working Paper No. 19/225].

Johnston, D. W., Kassenboehmer, S. C., & Shields, M. A. (2016). Financial decision-making in the household: Exploring the importance of survey respondent, health, cognitive ability and personality. *Journal of Economic Behavior & Organization*, 132, 42–61. https://doi.org/10.1016/j.jebo.2016.09.014

Kaščáková, A., Nedelová, G., & Považanová, M. (2013). Determinants of the unpaid work in Slovakia. *Statistica*, 93(1), 47–55.

Ke, D. (2021). Who wears the pants? Gender identity norms and intrahousehold financial decision-making. *Journal of Finance*, LXXVI(3), 1–72. https://doi.org/10.2139/ssrn.2909720

Kim, J., Gutter, M. S., & Spangler, T. L. (2017). Review of family financial decision making: Suggestions for future research and implications for financial education. *Journal of Financial Counseling and Planning*, *28*(2), 253–267. https://doi.org/10.1891/1052-3073.28.2.253

Lee, K. C., & Beatty, E. S. (2002). Family structure and influence in family decision making. *Journal of Consumer Marketing, 19*(1), 24–41. https://doi.org/10.1108/07363760210414934

Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, *42*(1), 35–44. https://doi.org/10.2145/20070104

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A., Hasler, A., & Yakoboski, P. J. (2021). Building up financial literacy and financial resilience. *Mind & Society*, *20*(2), 181–187. https://doi.org/10.1007/s11299-020-00246-0

Margetić, B., Peraica, T., Stojanović, K., & Ivanec, D. (2022). Spirituality, personality, and emotional distress during COVID-19 pandemic in Croatia. *Journal of Religion and Health*, *61*(1), 644–656. https://doi.org/10.1007/s10943-021-01473-6

Nikolić-Ristanović, V. (2004). Post-communism: Women's lives in transition. *Feminist Review*, *76*(1), 2–4. https://doi.org/10.1057/palgrave.fr.9400151

OECD. (2021). *Caregiving in crisis: Gender inequality in paid and unpaid work during COVID-19*. OECD Policy Responses to Coronavirus (COVID-19). Paris: Organization for Economic Co-Operation and Development. Retrieved from OECD website https://www.oecd.org/coronavirus/policy-responses/caregiving-in-crisis-gender-inequality-in-paid-and-unpaid-work-during-covid-19-3555d164/

Power, K. (2020). The COVID-19 pandemic has increased the care burden of women and families. *Sustainability: Science. Practice and Policy*, *16*(1), 67–73. https://doi.org/10.1080/15487733.2020.1776561

Sherman, H. D., Kyoung, K. T., Lindamood, S., & Sunwoo, L. T. (2021). Husbands, wives, and financial knowledge in wealthy households. *Financial Planning Review*, *4*(1), e1110. https://doi.org/10.1002/cfp2.1110

Singh, P., & Pattanaik, F. (2020). Unfolding unpaid domestic work in India: Women's constraints, choices, and career. *Palgrave Communications*, *6*(1), 111. https://doi.org/10.1057/s41599-020-0488-2

Thorne, D. (2010). Extreme financial strain: Emergent chores, gender inequality and emotional distress. *Journal of Family and Economic Issues*, *31*(2), 185–197. https://doi.org/10.1007/s10834-010-9189-0

Van der Lippe, T., Treas, J., & Norbutas, L. (2018). Unemployment and the division of housework in Europe. *Work, Employment & Society*, *32*(4), 650–669. https://doi.org/10.1177/0950017017690495

WTO. (2020, September). The economic impact of Covid-19 on women in vulnerable sectors and economies. *Information Note*. World Trade Organization. https://www.weforum.org/agenda/2020/09/covid-19-gender-inequality-jobs-economy/

Xue, B., & McMunn, A. (2021). Gender differences in unpaid care work and psychological distress in the UK Covid-19 lockdown. *PLoS One*, *16*(3), e0247959. https://doi.org/10.1371/journal.pone.0247959