ORIGINAL RESEARCH
PROJECTS

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Parental Involvement in Children's Remote Education: Examining the Case of the COVID-19 Pandemic

Abstract

This paper presents the results of a study that aimed to determine how parents were involved in their children's remote education during the SARS-CoV-2 pandemic, with comparisons at the beginning and at the end of the sanitary regime, and by parents' education, place of residence, mode of work during the pandemic, number of children they had and the level of education of their child/children. The study was conducted by means of an online survey using two independent measurements: at the beginning of the pandemic and during the fifth wave of the pandemic. A sample of N = 75 respondents was surveyed in Measurement I, and N = 306 in Measurement II. A mixed survey procedure was used. The research tool was a self-admin-

istered survey questionnaire. The research found that the introduction of distance learning forced new arrangements for the organisation of home life, existing habits and interaction patterns, with parental involvement in their children's distance education differentiated by parents' socio-demographic characteristics. It was also found that recurrent periods of remote learning about the ongoing pandemic were increasingly burdensome for working parents, who did not see the benefits of this education for their children.

Introduction

The announcement of the COVID-19 pandemic caused by the SARS-CoV-2 coronavirus in March 2020, combined with the implementation of legal restrictions and stringent social measures to curb the spread of infection, have profoundly impacted various aspects of modern societies. Individuals have been compelled to adapt to a new reality, characterized not only by the health consequences of the disease and the severe psycho-physical effects related to social isolation (Xiao et al., 2020; da Silva et al., 2021), but also by the need for widespread changes in their daily lives. As a preventive measure against the virus, remote learning was introduced in almost all countries and educational levels (Meinck et al., 2022).[1] Leveraging modern electronic technologies, students have been able to engage directly with educational content delivered by teachers through diverse mediums (documents, videos, audios, etc.) using various communication tools and educational platforms, all from the comfort of their own homes. However, the implementation of mandatory remote schooling for children has necessitated significant parental involvement. Parents have been required to organize and oversee their children's remote learning (Pek & Mee, 2020), while also balancing these responsibilities with family life and their own work commitments.

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[1] In Poland, the government implemented standards for the operation of the education system, including the introduction of compulsory distance learning, through the decision to close schools, kindergartens, and crèches as of March 25, 2020, as stated in the Ordinance of the Minister of Health (Journal of Laws 2020.531) amending the Ordinance on the declaration of an epidemic state in the territory of the Republic of Poland.

Parental involvement is a comprehensive concept encompassing various aspects related to a child's education, such as parent-child communication on school matters, monitoring homework completion, assisting with assignments, reading together, fostering relationships with the school, creating a conducive learning environment, showing interest in the educational process, and more (Wilder, 2014; Veas et al., 2019). Numerous studies highlight the beneficial influence of different forms of parental involvement on children's educational achievement, including the provision of supportive learning environments (Sheldon & Epstein, 2005; Gomes, 2015). However, findings regarding the relationship between parental support with homework and children's academic performance have been inconsistent (Lee & Bowen, 2006; Boonk et al., 2018; Silinskas & Kikas, 2019).

This research aims to examine the ways in which parents were involved in their children's remote education during the SARS-CoV-2 pandemic. It specifically focuses on comparing parental involvement at the initial phase of the pandemic and at the later stage, considering factors such as parents' education, place of residence, work arrangements during the pandemic, number of children, and the education level of their child/children. The research design addresses the following key questions: 1) What tasks related to remote education parents were faced with during the initial phase of the COVID-19 pandemic? 2) What do parents declare regarding the implementation of these tasks during the fifth wave of the pandemic, and how do these declarations differ based on socio-demographic characteristics? 3) What are the parents' opinions regarding their involvement in organizing their children's remote learning environment at the onset of the pandemic and after two years? 4) What are parents' perspectives on the strengths and weaknesses of distance learning, both at the beginning of the pandemic and after two years?

Material and method

The research utilized a web-based survey method known as Computer-Assisted Web Interviewing (CAWI). A survey was created using Forms in the MS Office package, and a link to the survey was distributed to parents through electronic journals such as Vulcan and Librus. To expand the sample, parents were also encouraged to share the survey link with their friends

who had children aged 7–15 years (snowball method). Two independent measurements were conducted: Measurement I during the initial phase of the SARS-CoV-2 virus pandemic and the subsequent lockdown introduced from April to May 2020, and Measurement II during the fifth wave of the pandemic from December 2021 to January 2022.

A non-probabilistic random selection method was employed. In Measurement I, a sample of N = 75 parents with children aged 7–15 years participated in the survey. The majority of respondents were female (73%), with a mean age of 45 years (SD = 7.51). All participants were economically active, with 59% working remotely, 24% working in a hybrid mode, and 17% working on-site. Most respondents had a university degree. Half of the respondents resided in cities with more than 500,000 inhabitants, while over one-fifth lived in rural areas, and the rest in smaller towns. Approximately 60% of respondents had one child, more than one-fifth had two children, and the remaining participants had three or more children.

In Measurement II, a total of N = 310 parents of children aged 7–15 participated, with N = 306 being useful for analysis. The sample consisted mainly of females (89%), with a mean age of 42 years (SD = 4.67). The majority of respondents were economically active, with 17% working remotely, 53% in a hybrid mode, and 29% working on-site. Similar to Measurement I, most respondents had a university degree. Nearly half of the respondents resided in Poland's largest cities, 16% lived in rural areas, and the remaining participants lived in smaller towns and cities. Slightly more than half of the respondents had two children, every fourth respondent had one child, and every fifth respondent had three or more children. The distribution of parents across school grade levels was as follows: n = 127 (32%) for classes I–III, n = 125 (31%) for classes IV–VI, and n = 150 (37%) for classes VII–VIII (Table 1).

A mixed-methods research approach was employed, incorporating both qualitative and quantitative methods (Rubacha, 2008).

The research followed a four-phase sequential exploratory strategy (Creswell, 2013). In the first phase, data were collected using a survey questionnaire that included open-ended questions and a scale elaborated by the authors. The open-ended questions aimed to gather free-form responses from respondents regarding the tasks they encountered with the introduction of remote learning in schools. The scale comprised 9 statements, and respond-

ents were asked to rate their agreement on a scale of 1 to 7, where 1 represented "strongly disagree" and 7 represented "strongly agree." The statements covered parental involvement in organizing remote learning environment (3 items) and the perceived challenges and benefits of distance learning for their child (6 items). Subsequently, content analysis was conducted on the respondents' open-ended responses, employing data reduction and emergent coding techniques to identify analytical categories and corresponding codes (Miles & Huberman, 2000). This analysis helped identify areas of parental involvement in caregiving and educational activities prompted by the child's social isolation and the pursuit of distance education, along with associated parental tasks. During the second phase of the research, a scale was developed as a research tool based on the identified parental tasks. This scale, consisting of 8 items, had a range from 0 to 10. The extremes of the scale represented "definitely no" (0) and "definitely yes" (10). In Measurement II, respondents were also asked to respond to the statements of the scale used in Measurement I. The final phase of the research involved conducting statistical analysis and interpreting the obtained results.

Table 1. Characteristics of the research sample

Sociodemographic characteristics		Measurement I n = 75		Measurement II n = 306	
		n	%	n	%
Gender	Female	55	73.0	271	89
	Male	20	27.0	39	11
Economic activity	Yes	75	100.0	289	94.4
	No	0	0.0	17	5.6
Work mode during the pandemic	Remote	44	58.7	48	16.6
	Hybrid	18	24.0	154	53.3
	On-site	13	17.3	83	28.7
	No data	0	0.0	4	1.4

Table 1. (continued)

Sociodemographic characteristics		Measurement I n = 75		Measurement II n = 306	
		n	%	n	%
Education	Vocational	1	1.3	1	0.3
	High School	8	10.7	34	11.1
	Higher – Vocational (bachelor's degree / engineer)	7	9.3	23	7.5
	Higher – Master's degree	48	64.0	216	70.6
	Higher than Master's degree	11	14.7	32	10.5
Place of residence	Village	17	22.7	50	16.3
	City with up to 20,000 inhabitants	10	13.3	27	8.8
	City with a population ranging from 20,000 to 200,000	8	10.7	62	20.3
	City with a population ranging from 200,000 to 500,000	2	2.6	23	7.5
	City with a population exceeding 500,000	40	50.7	144	47.1
Number of children	One	45	60.0	79	25.8
	Two	16	21.3	164	53.6
	Three	11	14.7	53	17.3
	Four	3	4.0	10	3.3
Child's level of education (grade)	1–3	–	–	127	31.6
	4–6	–	–	125	31.1
	7–8	–	–	150	37.3

Source: Authors' research.

Results

The analysis of respondents' statements obtained in the initial months of the pandemic resulted in the identification of four distinct categories of tasks. These tasks represent the areas in which parents were involved in caregiving and educational activities due to social isolation and the shift from traditional to remote education, along with the associated social roles assigned to them. The identified social roles encompassed the following: participation in the child's compulsory schooling, addressing the child's need for social interaction with peers, organizing the space and environment for remote learning, and taking care of the child's health. Parents performed various social roles, including those of a teacher, learner, inspector, supervisor ensuring the child's adherence to compulsory schooling, peer, IT specialist, strategist, and health promoter (Table 2).

Table 2. Areas of parental involvement in caregiving activities and assigned social roles

Area of involvement	Performed social role
Participation in the child's compulsory schooling	teacher
	student
	inspector
	supervisor ensuring the child's adherence to compulsory schooling
Addressing the need for social interaction with peers	peer
Organizing the space and environment for remote learning	IT specialist
	strategist
Taking care of child's health	health promoter

Source: Authors' research.

Parental involvement in their child's compulsory schooling primarily encompassed the roles of teacher, learner, inspector, and supervisor. The decision to take on the role of **teacher** was justified by parents who emphasized that *Children cannot learn on their own. They require encouragement, task ex-*

planations, positive reinforcement, and supervision. They require a mirror, a re-flection of their own being… Merely connecting with an impersonal machine such as a computer is not enough. This sentiment was particularly evident among parents of early childhood students. *As a mother of a second-grader I have to assist my son with practically every learning activity. We write together, read together, do artwork... I am the one who sends his worksheets to the teacher since he is not yet proficient with the computer or scanner.*

Parents also found themselves assuming the role of the **learner** on a regular basis. They had to dedicate a significant amount of time and attention to familiarize themselves with the chosen remote learning platform and acquire the necessary skills. They sought guidance from online resources, virtual advisors, colleagues, and friends to assist their children. *My husband had to undergo an online training so that our son could navigate the Ms Teams platform smoothly, and still he frequently reached out to colleagues for assistance.* They expanded their own knowledge to effectively explain concepts to their child or aid them with their homework.

Distance learning provided an opportunity for parents to become acquainted with their children's teachers, sometimes for the first time ever, observe their teaching methods, and gain insight into the curriculum requirements, thereby assuming the role of a **inspector**. From this standpoint, parents expressed concerns about excessive homework and curriculum overload. A mother of an eighth-grade student remarked, *Now we can see how overloaded the curriculum is.* Nonetheless, many parents acknowledged the dedicated efforts of educators, stating, *Some teachers really impress me. After all, they are also learning this new system themselves and have to search for new materials.*

The placement of the child's learning space within the home imposed a significant responsibility on parents to fulfil their child's educational obligations and monitor their progress, thus assuming the role of a **supervisor**, as expressed in the respondents' statements. As one mother highlighted, *I am the guardian of rules and discipline. I ensure that my son learns consistently to avoid falling behind. I also monitor his computer usage, making sure he doesn't spend too much time on games and stays safe online.*

The restrictions imposed at the onset of the pandemic to limit direct contact significantly impacted children and adolescents, particularly in terms

of their need for social interaction with peers, which is crucial for their so-cial development. Separated from their peers, young people were confined to spending 24 hours a day with their immediate family, which often led to tensions and conflicts in the long run. To address this need for peer contact, parents often took on the role of **peers** themselves. For instance, one parent shared, *My son is an only child, and he really misses contact with his peers. I ac-company him every day during his learning and playtime. We engage in board games, building blocks, and making dough balls.*

According to parents, one of the most significant challenges during the pandemic was creating an environment and conditions for children to learn remotely within the home while considering the various daily household needs. Parents had to navigate and balance these two areas of activity, assum-ing the role of **strategist** in organizing home life. Creating dedicated study spaces for children proved particularly challenging, especially when multiple children were studying simultaneously while parents were working remotely. As one parent explained, *Currently, our whole family is studying or working re-motely. Since we have a shortage of computers (which we compensate for with smartphones), we have had to establish a precise schedule of activities through-out the day. I ensure everything runs smoothly without interruptions.*

Remote education not only required computer hardware and software but also the ability to use them effectively. Therefore, parents were tasked with providing their children with access to computers and taking on the role of home **IT specialists** in operating e-learning platforms. One parent described their involvement, saying, *I often assist my daughter in using the remote educa-tion platform, especially when she encounters difficulties with logging in, screen sharing, or using the chat feature. Technical issues such as lagging and freezing often arise. Since I work remotely from home, I am available to help them at any time.* According to the respondents, nearly all parents were involved to varying degrees in the process. Many parents assisted their children in using communication tools, operated printers and scanners, and provided ongoing technical support to address any issues that arose.

In response to the various challenges arising from pandemic restrictions, such as prolonged screen time for children or the lack of direct peer contact, parents have made efforts to minimize the risk of their children developing habits that could have long-term negative effects on their health. As a result,

parents have taken an active role as **health promoters**. One parent shared their approach, stating, *I prioritize keeping my son physically active. Whenever he is sone with his homework, we go outside or move around the house. I encourage and motivate him, setting an example myself. Since we are in isolation, I take charge of preparing all the meals, ensuring they are not only well-balanced but also tasty.*

The survey conducted during the fifth wave of the pandemic provided insights into the level of parental involvement in caregiving roles that emerged following the implementation of distance learning less than two years prior. The responses from parents indicated that they were primarily engaged in the tasks of being a strategist, health promoter, and teacher for their own children. The roles of supervisor and IT specialist held intermediate positions, while the roles of peer, student, and inspector required comparatively less parental involvement (Table 3).

Table 3. Parents' statements regarding their involvement in caregiving and educational roles during the fifth wave of the pandemic

Area of involvement	Performed social role	rank	M	SD
Organizing the space and environment for remote learning	strategist	1	7.85	2.38
Taking care of child's health	health promoter	2	7.75	2.11
Participation in the child's compulsory schooling	teacher	3	7.66	2.52
	supervisor	4	7.48	2.49
Organizing the space and environment for remote learning	IT specialist	5	7.27	2.69
Addressing the need for social interaction with peers	peer	6	6.23	2.72
Participation in the child's compulsory schooling	student	7	5.45	3.30
	inspector	8	5.42	2.82

Source: Authors' research.

At the same time, it turned out that certain roles exhibit strong correlations with each other. The role of supervisor shows a strong positive correlation with the role of teacher (r = 0.70) and with the role of student (r = 0.54), while the roles of teacher and student also exhibit a significant correlation (r = 0.51). Notably, there is a strong correlation between the roles of strategist and IT specialist (r = 0.59) (Table 4).

Table 4. Matrix of correlations between roles performed by respondents – data analysis from measurement II (N = 306)

	1	2	3	4	5	6	7
1 Parent as strategist							
2 Parent as health promoter	0.428**						
3 Parent as teacher	0.302**	0.219**					
4 Parent as supervisor	0.381**	0.300**	0.698**				
5 Parent as IT professional	0.585**	0.237**	0.443**	0.517**			
6 Parent as peer	0.299**	0.356**	0.267**	0.361**	0.228**		
7 Parent as learner	0.217**	0.259**	0.507**	0.544**	0.319**	0.269**	
8 Parent as inspector	0.398**	0.231**	0.241**	0.335**	0.284**	0.289**	0.272**

Source: Authors' research.

Parents' involvement in these roles varied based on their place of residence. Urban parents dedicated the most effort to the role of strategist, responsible for balancing household responsibilities and creating an environment conducive to remote learning. On the other hand, rural residents primarily undertook activities associated with the role of their child's teacher. In villages and larger cities (200,000–500,000 inhabitants), the role of supervisor ranked second in significance. Notably, parents demonstrated great concern for their children's health, evident by the high ranking of the role of health promoter (Table 5).

Table 5. Parental involvement in caregiving and educational roles during the fifth wave of the pandemic by place of residence

R A N K	Place of residence									
	village		city with up to 20,000 inhabitants		city with a population ranging 20,000–200,000		city with a population ranging 200,000–500,000		city with a population > 500,000	
	role of	M	role of	M	role of	M	role of	M	role of	M
1	teacher*	8.14	strategist	7.96	health promoter	7.82	strategist	7.83	strategist	7.98
2	supervisor	7.84	IT specialist	7.33	strategist	7.68	supervisor	7.70	health promoter	7.87
3	health promoter	7.82	health promoter	7.19	teacher*	7.55	health promoter	7.48	teacher*	7.86
4	strategist	7.62	supervisor	6.59	supervisor	7.40	teacher*	7.35	supervisor	7.51
5	IT specialist	7.40	teacher	6.26	IT specialist	7.15	IT specialist	7.30	IT specialist	7.26
6	peer	6.76	peer	5.93	peer	6.23	peer	5.61	peer	6.23
7	inspector	5.58	inspector	5.11	student	5.32	inspector	5.52	inspector	5.77
8	student	5.57	student	4.48	inspector	4.82	student	4.78	student	5.69

Remark: * statistically significant differences for specific role between groups ($p < 0.05$).

Source: Authors' research.

Furthermore, parents' involvement in these roles varied based on their level of education. Respondents with a secondary education exhibited the highest mean level of involvement (M = 6.38), while those with a master's degree or higher showed the lowest level of involvement (M = 5.13). The analysis of differences also revealed that the lower parents' education level is, the greater their involvement in the student role (Table 6).

Table 6. Parental involvement in caregiving and educational roles during the fifth wave of the pandemic by level of education

Performed social role	Educational level/Rank				p
	medium (n = 34)	bachelor/ engineer degree (n = 23)	MA degree (n = 216)	higher than MA (n = 32)	
strategist	7.41 (4)	7.83 (1)	7.81 (1)	8.53 (2)	0.467
health promoter	8.12 (2)	7.74 (2)	7.66 (2)	8.06 (4)	0.354
teacher	7.97 (3)	7.52 (3)	7.47 (3)	8.75 (1)	0.064
supervisor	8.24 (1)	7.09 (5)	7.30 (4)	8.16 (3)	0.086
IT specialist	7.41 (5)	7.43 (4)	7.19 (5)	7.75 (5)	0.871
peer	6.18 (8)	6.87 (6)	6.32 (6)	5.34 (7)	0.195
student	7.15 (6)	6.35 (7)	5.15 (8)	5.13 (8)	0.006
inspector	6.38 (7)	5.43 (8)	5.23 (7)	5.75 (6)	0.147

Source: Authors' research.

The number of children and their level of education also proved to be differentiating factors in parental involvement. Parents with two or more children primarily focused on tasks associated with the role of strategist, whereas the role of supervisor took precedence for parents of only children, falling to fifth position for those with two or more children. The role of strategist also ranked highest in the declarations of respondents with children in early childhood and grades 4–6, while the role of child health promoter came second in these groups, indicating its significance for parents of children in grades 7–8. Interestingly, as the child's level of education decreased, parents' involvement in the role of teacher decreased as well. It is worth noting that parents with lower-educated children less frequently involved in tasks related to the role of student and more often assumed the role of peer (Table 7).

Table 7. Parental involvement in caregiving and educational roles during the fifth wave of the pandemic by number of children they have and the child's level of education

RANK	Number of children					
	one (n = 79)		two (n = 164)		three and more (n = 62)	
	role of	M	role of	M	role of	M
1	supervisor	8.03	strategist	7.72	strategist	7.82
2	health promoter	7.99	health promoter	7.66	teacher	7.76
3	teacher	7.77	teacher	7.55	health promoter	7.73
4	strategist	7.78	IT specialist	7.29	IT specialist	7.39
5	IT specialist	7.03	supervisor	7.26	supervisor	7.29
6	peer	6.77	peer	6.06	peer	5.82
7	inspector	5.81	student	5.67	inspector	5.75
8	student	5.59	inspector	5.30	student	4.97

RANK	Children's level of education					
	Class 1–3 (n = 126)		Grade 4–6 (n = 124)		Grade 7–8 (n = 150)	
	role of	M	role of	M	role of	M
1	strategist	8.06	strategist	8.12	health promoter	7.82
2	health promoter	7.70	health promoter	7.89	teacher	7.76
3	supervisor	7.63	teacher	7.77	strategist	7.73
4	teacher	7.62	IT specialist	7.56	supervisor	7.39
5	IT specialist	7.45	supervisor	7.47	IT specialist	7.29
6	peer*	6.99	peer	6.23	student*	5.82
7	inspector*	5.86	student	5.55	peer*	5.75
8	student*	4.90	inspector	5.10	inspector*	4.97

Note: * Statistically significant differences for each role between those who had vs did not have children at specific level of education ($p < 0.05$).

Source: Authors' research.

To provide a comprehensive understanding of parents' involvement in caregiving and educational activities during the fifth wave of the pandemic, data collected from economically active respondents were analysed according to their work mode. The results indicate that parents working in hybrid and remote setups primarily take on the roles of strategist, health promoter, and teacher. Conversely, parents working in on-site settings primarily take the role of teacher, with the role of strategist ranking fourth in their case (Table 8).

Table 8. Parents' involvement in caregiving and educational roles during the fifth pandemic wave by their work mode

R A N K	Respondents' work mode (N = 289)					
	on-site		hybrid		remote	
	role of	M	role of	M	role of	M
1	teacher	8.09	strategist	7.93	strategist	8.13
2	supervisor	7.59	health promoter	7.80	health promoter	7.81
3	health promoter	7.58	teacher	7.54	teacher	7.42
4	strategist	7.51	IT specialist	7.47	supervisor	7.10
5	IT specialist	7.36	supervisor	7.36	IT specialist*	6.58
6	peer*	6.56	peer*	6.33	peer*	5.46
7	student*	6.06	inspector	5.49	student*	5.27
8	inspector	5.43	student*	5.05	inspector	5.08

Remark: * Statistically significant differences for each role between the groups ($p < 0.05$).

Source: Authors' research.

Parents' efforts to facilitate distance learning arrangements for their children over the two-year period of the pandemic undoubtedly involve acquiring experience and new skills in this domain. To assess parents' attitudes towards their involvement in organizing distance education, the results of a scale containing their feedback in this matter were compared between the beginning of the pandemic and its fifth wave (Measurement I and Measure-

ment II). The analysis revealed statistically significant differences among the group of active respondents regarding the statement *It is difficult to reconcile professional duties with assisting children at remote education* ($p < 0.012$). The mean score for this statement in Measurement II (M = 5.08) was significantly higher compared to the mean score in Measurement I (M = 4.27), indicating that as the pandemic persists, the remote learning format becomes more and more burdensome to working parents.

The parents' opinions on the strengths and weaknesses of their child's remote learning, obtained in the first and second measurements, were also analysed. It was found that after two years of the pandemic, parents were more critical than during the initial lockdown regarding the statement *Remote education brings a lot of benefits to children* (M = 2.33 and M = 3.60, respectively), and to a lesser extent, they believed that children were comfortable with the remote learning mode (M = 2.97 and M = 3.60, respectively). This result was significant at $p < 0.05$. Additionally, there was a borderline statistically significant difference in the evaluation of children's ability to cope with school duties, with respondents finding it more effective during the initial phase of the pandemic (M = 4.66 and M = 5.15, respectively).

Summary and discussion of results

Research conducted during the pandemic has shown that the implementation of distance education in many countries forced new solutions in terms of organizing home life, existing habits, and interaction patterns (Ribeiro et al., 2021).

Qualitative analysis of the research material collected in Measurement I identified four categories of tasks that represent areas of parental involvement related to the broader aspects of caregiving and educational support within the family. These categories include supporting the child's fulfilment of compulsory schooling, meeting the child's need for peer contact, organizing space and conditions for remote learning, and taking care of the child's health. Within these categories, various parental tasks associated with social roles were identified, such as teacher, learner, inspector, supervisor, peer, IT specialist, strategist, and health promoter.

Analysis of the respondents' statements regarding the organization of space and conditions for remote learning indicates that they encountered various types of difficulties and constraints of a personal, technical, and logistical nature. These findings align with studies conducted in other countries during this period (Abuhammad, 2020; Bhamani et al., 2020; Dong et al., 2020; Garbe et al., 2020; Kim & Padilla, 2020). Personal barriers primarily included deficits in technical knowledge required to access virtual materials and tools, as well as the challenges of reconciling individual needs, abilities, and expectations within the new situation. Technical barriers mainly revolved around limited access to the internet, hardware, or necessary computer software for distance learning. Logistical barriers predominantly involved difficulties in organizing and balancing home and work life with the school duties of the child/children.

The involvement of parents in roles such as teacher, student, inspector, and supervisor, overseeing the child's fulfilment of school duties, highlights the crucial role parents played as active participants in their children's education during the pandemic period, as supported by other authors (Reimers et al., 2020). According to researchers, parents' deep involvement in the learning process allowed them to gain a better understanding of their children's educational needs and exercise some degree of control. Parents were also found to be the primary motivators for their children's knowledge acquisition and provided support in overcoming difficulties (Andrew et al., 2020; Bubb & Jones, 2020; Mußél & Kondratjuk, 2020).

Furthermore, it is noteworthy that respondents demonstrated a responsible approach to the parental task of protecting and promoting their children's health. Particularly during a period of pandemic-induced constraints that limit physical activity and rational diet choices, it is essential to provide conditions for proper physical development. The role of the health promoter aligns with the role of the parent as a peer, as indicated by respondents' statements. Given the physical isolation of children from their peers and social contacts limited to virtual settings, this role holds significant value from a psychosocial development perspective.

Quantitative research conducted during the fifth wave of the pandemic revealed the extent of parental involvement in caregiving and educational roles. These roles were identified based on data collected in Measurement 1

and showed that, after nearly two years of social isolation and the adoption of remote learning systems, parents were most involved in the roles of strategist, health promoter, and teacher for their own children.

The emphasized role of the parent as a strategist, as observed in our study, is corroborated by other authors who stress that parents had to juggle their professional and domestic responsibilities while supporting their children in distance learning to ensure continuity in family life (Daniela et al., 2021; Mata et al., 2021).

The introduction of remote education during the pandemic thrust parents into teaching roles for which they were unprepared (Azubuike & Aina, 2020). In our study, this teaching role correlated well with the parent's role as a learner, with parental involvement ranked highest in roles such as supervisor (monitoring the child's fulfilment of school duties) and IT specialist (ready to address computer hardware and software issues). Remarkably, as indicated by respondents' statements, accompanying their children during remote learning has increased parents' appreciation for educators, as supported by other studies (Ewing & Vu, 2021).

Accompanying a child in the remote learning process requires a significant investment of time from parents and specific competencies. Parents with lower levels of education faced particular difficulties, including understanding the principles of remote learning, knowledge gaps in various areas, and sense of being overwhelmed (Bubb & Jones, 2020). Portuguese researchers found that the higher parents' educational level was, the less time they spent with their child, however, this time was longer for those with fewer children (Ribeiro et al., 2021). These findings partly align with our research, which found that parents with educational level higher than MA expressed the highest level of commitment to the teaching role, with the number of children having little effect. Conversely, research conducted in Latvia at the beginning of the pandemic found that parents with higher levels of education coped better with social isolation and were more likely to perceive the benefits of distance learning (Kesson, 2020; Rogers et al., 2020). Our research indicates that parents' feedback on these benefits became more critical during the fifth wave of the pandemic. Research suggesting greater parental involvement in accompanying a child's learning at a younger school age was not confirmed (Panaoura, 2020; Ribeiro et al., 2021). Instead, our study found that

parental involvement in both teaching and learning roles decreased as the child's education level decreased. Researchers indicate that the home learning situation provided an opportunity for parents to learn more about teachers' requirements and teaching methods (Bozkurt et al., 2020). This is supported by the emergence of the inspector role during qualitative analysis, although the data from Measurement II suggested this role had marginal importance.

When conducting surveys in both the first and second measurements, it was observed that women were more likely to participate, likely due to the greater involvement of mothers in caregiving and educational activities. It was primarily the responsibility of mothers to support their children's household tasks and learning (Dong et al., 2020; Lewis, 2020). This highlights a significant societal issue that requires further research and action (Villadsen et al., 2020). Some employers recognize this problem and are providing specific training for employees to develop skills in balancing work and childcare responsibilities.[2] This is particularly relevant considering the statistically significant difference shown in our study between the two measurements regarding parents' ability to reconcile work responsibilities with assisting their children at remote learning. The data indicates that as the pandemic continues, remote learning is becoming increasingly burdensome for economically active parents.

The pandemic period was exceptionally challenging for families with children, who were compelled to develop new strategies for their daily lives. Despite the numerous difficulties they faced, they were able to mobilize their resources and find new paths in caring for, raising, and educating their children.

The findings from our research presented in this article can be applied not only to pandemic situations but can also be extrapolated to similar ways of involving parents in their children's remote education during other crisis situations. However, the level of involvement in such situations may be less intense, considering the coping strategies developed over the course of the pandemic. This is especially likely as certain forms of distance education,

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[2] An example of such activities is the programme "Equalising opportunities for female researchers combining work and parental care during the COVID-19 pandemic" at the Jagiellonian University in Krakow; Retrieved 5.04.2022 from: https://futuresoc.id.uj.edu.pl/minigranty-prorownosciowe.

currently being implemented on a limited basis in many schools, require parents to utilize their acquired competencies.

As noted by Bogdan de Barbaro, the lockdown forced people to reinvent themselves and discover untapped resources they were previously unaware of (Dudek et al., 2021).

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