



## Research Article

# The Impact of the Covid-19 Social Isolation Measures on the Resilience and Quality of Life of Working Mothers

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**Abstract:** The Covid-19 pandemic has caused feelings of desperation, fear, terror, anxiety while it has also brought radical changes in the quality of life and psychological health of people worldwide. The lockdown and social isolation measures due to the pandemic seem to have affected the working mothers' resilience, health, and quality of life. The purpose of this study is to examine how working mothers reacted during the Covid-19 pandemic and how the state-imposed quarantine affected their quality of life, their health, and their resilience. We designed and carried out a web-based survey in Cyprus with 208 participants, all working mothers. We administered two questionnaires, namely the World Health Organization Quality Of Life (WHOQOL)-BREF (WHO, 1998), which examines the quality of life, and the Self-evaluation Resilience Questionnaire (Resilience-Project EU, 2019), which assesses working mothers' resilience. The participants answered the questionnaires on the Internet platform Enklikanketa, from May 20 to May 30, 2020. The results showed that the state-imposed measures of social isolation in the form of quarantine had a negative impact on the psychological resilience and the quality of life of younger working mothers, of single working mothers, and of those working mothers who were residing in rural areas at the time. Working mothers who belonged to older age groups, those who continued to pursue activities and hobbies during the quarantine, and mothers who maintained a higher quality of life were affected less by social isolation measures. In conclusion, important protective and supportive factors to working mothers were family support, cooperation between their family members, the right working conditions, and job satisfaction.

**Keywords:** Covid-19, health, quality of life, resilience, stress, working mothers

## 1. Introduction

Resilience is related to the individual's recovery from traumatic events, his rebound after stressful situations, and his/her overcoming difficulties. Psychological resilience may be generally defined as the ability to support or retrieve psychological well-being during or after addressing stressful conditions. Unfortunately, being less resilient to social threats, such as pandemics, may enhance the risk of developing psychiatric conditions. On the other hand, a significant perception of social support is associated with a reduced likelihood of developing psychological distress and psychiatric conditions (Cicchetti et al., 1993; Luthar, 1999; Grzankowska & Ślesińska-Sowińska, 2016; Ogińska-Bulik, 2015).

The present paper examined working mothers' resilience and their struggle to balance motherhood with their professional careers during the quarantine at the peak of the Covid-19 pandemic crisis.

## **1.1 Working mothers and resilience**

A working mother, who, besides her duties at the workplace, also has the critical responsibility to take care of her family, inevitably faces specific challenges and imbalances to juggle the responsibilities of work and family life. How each working mother manages the pressure depends on the various coping strategies she has learned to implement (Michie, 2002). In recent decades, women have been introduced into the workforce and have gained higher education and employment levels. Said progress had facilitated not only their financial independence but also their financial contribution to the family income. Studies show that the working mother's responsibility for taking care of her children is, in many cases, a cause of anxiety. Working mothers worry about coping with their multiple roles of mother-wife-employee (Kline & Snow, 1994; Meleis & Stevens, 1992; Snow et al., 2003). According to the findings of a survey, which took place in Malaysia, the multiple daily roles that working mothers had to adopt had a detrimental effect on their mental health and their emotional well-being. Noor's (1999) research showed that mothers' multiple daily roles caused stress, guilt, and dissatisfaction with their performance both within their family and at work.

Another study related to the role of exposure to traumatic events and anxiety disorders (Scali et al., 2012) showed that those women who scored high on the 10-Item Connor-Davidson Resilience Scale (CD-RISC-10) were less likely to develop anxiety and mood disorders than women who scored low. The researchers linked the factor of resilience with the exposure to trauma and concluded that factors such as the way women assess their resilience, the way they perceive stressful situations, and their different perceptions of stress all affect to a certain extent their levels of resilience. Their findings also demonstrated that those mothers who had a history of dealing with challenges could adapt more healthily and functionally to adverse conditions than mothers who had not experienced similar difficulties and challenges before. Scali's findings are consistent with the view that resilience is enhanced by successfully dealing with severe risks and adversities, where the individual is led to a more successful psychological functioning (Scali et al., 2012; Van Heugten, 2013). Resilience and successful coping with stress in the workplace can compensate for the adverse effects of stress and improve working women's well-being.

## **1.2 Working mothers' resilience and social isolation**

Human beings are social beings. Our biological, psychological, and social system has developed to continuously look for ways to communicate and collaborate with other people. In an emergency, such as the recent quarantine, social systems are shaken and begin to deteriorate. Social exclusion implies isolation, and often isolation brings loneliness. Some studies have shown that these two concepts together (isolation + loneliness), have a similar impact with other high-risk factors for a person's health, such as high blood pressure or smoking. Whether it involves loneliness or not, social isolation can have a significant impact on premature mortality, regardless of race or nationality (Cacioppo et al., 2011).

According to Holt-Lunstad (2017), social isolation poses very high health risks, comparable to heavy smoking or alcohol addiction, and can increase stress or the development of sleep problems. Such consequences are harmful to one's physical condition while, at the same time, they can lead to depression. A study at the School of Medicine at the University of Florida found that loneliness and social isolation are responsible for 40% of the risk of developing dementia.

Regarding the current situation due to the Covid-19, researchers have observed that stress levels may increase during an epidemic, as people may fear for their health as well as the health of family members and friends, and among other problems, it may frequently result in difficulties in concentration, changes in sleeping patterns and changes in eating habits. Additionally, such a stressful experience may worsen chronic health problems, upset the psychological equilibrium, and increase the use of cigarettes, alcohol, and drugs (WHO, 2020). Taking into consideration individual differences in stress responses, it seems that those who will face more challenges and consequently higher levels of stress during the extraordinary circumstances of a pandemic are the elderly, especially those with chronic health problems, people who belong to vulnerable groups, teenagers and children, the health workers, and people who are already challenged with mental illness. Public mental health seems to have been shaken after the implementation of the lockdown measures. The World Health Organization (2020) also reports that stress levels have risen sharply in the population, rising rates of loneliness, depression, substance abuse, self-harm, and suicidal ideation.

## **1.3 Research purpose**

The purpose of our research was to examine how working mothers dealt with the changes in their daily routine caused by the state-imposed quarantine measures during the peak of the Covid-19 pandemic crisis and how these changes affected their quality of life, their health, and their resilience. Participants were asked to answer questions based on their feelings and experiences during the past two weeks of their lives. We postulated the following research questions:

RQ1. How demographic characteristics of working mothers (age, place of residence, marital status) affect their resilience and their quality of life?

RQ2. 'Did Covid-19 pandemic and social isolation measures affect working mothers' resilience and quality of life'?

RQ3. What is contribution of the effective cooperation between family members to mothers' resilience and their quality of life?

RQ4. How the quality of conditions at work may impact mothers' resilience and quality of life?

RQ5. How working mothers' health affect their quality of life?

RQ6. Is there correlation between mothers' resilience and their quality of life?

## **2. Method**

### **2.1 Sample**

The participants of our study were 208 working mothers from Cyprus and Greece. The majority of the participating women (60%) belonged to the age group 40-59 years, whereas 40% of the mothers were 20-39 years at the time the study took place. The majority of the women were married (87%), and only 13% were single mothers. Regarding the number of children, over half of the mothers (55%) had two children, 29% had one child, and 16% had three children. Most of our participants (85%) had achieved higher education (university). As far as their workplace was concerned, the majority (59%) worked as private employees, 30% of the sample worked as civil employees, and 11% were self-employed. Most of our participants (79%) resided in urban areas.

### **2.2 Data collection**

The survey took place in May 2020 and focused on a sample of Cypriot working mothers. The participants completed two questionnaires, both in their native language, namely the Greek version of the WHOQOL-BREF (WHO, 1998) and the Questionnaire of self-evaluation resilience (Resilience-Project EU, 2019). Besides, we used a short demographic questionnaire (PIF) to collect information about the participant's age, marital status, residence, and family status. We adopted a web-based survey design and obtained the approval for this study from the Psychology and Social Sciences Department at Frederick University. All participants gave their consent online before responding to the survey questions. Participants were allowed to terminate the survey at any time they desired. Participation in the present study was voluntary, anonymous, and confidentiality of information was assured. The participants answered the questionnaires on the Internet platform Enklikanketa, from May 20 to May 30, 2020.

### **2.3 Instruments**

#### **2.3.1 WHOQOL-BREF (WHO, 1998)**

The first Questionnaire was WHOQOL-BREF (WHO, 1998), which assesses the quality of life and includes 26 items. The questionnaire loads on four factors. The first factor is physical health, where information regarding any physical pain a person may experience and how this affects daily activities, the need for medical care, the levels of energy, fatigue, mobility, the quality of sleep, and the ability to work. The second factor is psychological health, where information regards the person's beliefs about life, levels of concentration, body image, self-esteem, and the frequency of the appearance of negative emotions. The third factor regards social relations. We collected concerning personal relations, social support from the immediate social network, and sexual relations. The fourth factor regards the environment. The information concerns the adequacy of daily security, hygiene in the living space, and financial

security. The items are assessed on a five-point Likert scale, with scores from 1 to 5, where the person is asked to answer them considering himself and his life during the last two weeks. Possible scores on the short version of the WHOQOL questionnaire range from a low of 26 points to a high of 130 points.

### ***2.3.2 Self-evaluation resilience questionnaire (Resilience-Project EU, 2019)***

The second Questionnaire we applied was the Self-evaluation resilience Questionnaire (Resilience-Project EU, 2019), which includes 21 items and loads to seven factors. The first factor is perception; the second factor is getting a grip of one's life, the third factor is forming relationships, the fourth factor is acceptance and optimistic thinking (confidence in the future), the fifth factor is an orientation on solutions and aims, the sixth factor is a healthy lifestyle, and the seventh factor is self-efficacy. The questions were measured on a Likert ten-point scale, with scores from 0 to 10. Possible scores on the self-evaluation resilience questionnaire range from a low of 0 (does not apply to me) through a high of 30 points (fully agree) for each of the seven categories.

## ***2.4 Data analysis***

We conducted a pilot survey on ten working mothers to determine the suitability and reliability of the questionnaires and determine that participants could understand all the questions. Also, the preliminary data were screened for errors and outliers. Preliminary analysis showed that no variable had more than 5% of missing data. Missing data were adjusted according to the scale average for the participant with missing data. We calculated descriptive statistics on the assessed variables, reporting mean scores, and associated standard deviation. Data analysis included descriptive statistics as mean, standard deviation, frequencies, percentage to describe participants' characteristics. We conducted all data analyses using SPSS 25.0. To examine our research questions, we applied the t-test, Anova, two-way ANOVA, and multivariate Anova (Manova) to compare means between married and single working mothers' resilience and quality of life, working mothers' residence, and age. We applied Pearson's correlation coefficient to explore whether correlations (positive or negative) could be found between working mothers' resilience and quality of life during the quarantine implementation in the Covid-19 pandemic.

## **3. Results**

### ***3.1 How demographic characteristics of working mothers (age, place of residence, marital status) affect their resilience and their quality of life***

There is a statistically significant difference between younger working mothers and older working mothers [ $F(1.205) = 2.154, p < 0.05$ ] regarding their health and lifestyle. Our findings demonstrated that mothers belonging to the older age group implemented a healthier lifestyle and better care of themselves than younger mothers. Also, a statistically significant difference was observed [ $F(1.205) = 39.234, p < 0.001$ ] between younger and older working mothers. During the quarantine, younger mothers seem to have engaged more in activities or hobbies that gave them positive energy and improved their mood than older mothers. We also detected a statistically significant difference between our participating mothers regarding their perception of resilience and their place of residence [ $F(1.206) = 1.988, p < 0.05$ ]. Working mothers who resided in rural areas had higher resilience than mothers who resided in the cities. Indeed, mothers in rural areas had significantly more social relationships [ $F(1.206) = 3.277, p < 0.036$ ] than working mothers in urban areas. They stated that they had at least one person to share the good and the bad moments in their lives, found time for the important people in their lives and could count on others' support. These findings are strengthened by another finding, namely that working mothers living in rural areas felt significantly more support by family members than those residing in urban areas [ $F(1.206) = 6.270, p < 0.033$ ]. Nevertheless, another statistically significant difference [ $F(1.206) = 8.567, p < 0.042$ ] between urban and rural working mothers regarded their perception of their working conditions. Urban working mothers felt more than those in rural areas whose current working conditions harmed their mental health during the quarantine.

Our findings also showed statistically significant differences between married and single-mothers regarding their physical and mental health, social network, and family support. According to their responses, married mothers

experienced better physical health, [F(4.200) = 3.019,  $p < 0.019$ ] and better mental health [F(4.200) = 2.008,  $p < 0.05$ ] than single mothers. They also assessed their social relationships as more effective [F(4.200) = 2.212,  $p < 0.05$ ] and felt that they received more support from their immediate environment than single mothers [F(4.200) = 2.657,  $p < 0.05$ ].

### ***3.2 'Did Covid-19 pandemic and social isolation measures affect working mothers' resilience and quality of life'***

Our data analysis showed statistically significant differences between those working mothers who engaged systematically in hobbies and activities that elevated their mood compared to those who did not do so during the quarantine. The working mothers who stated that they were engaged in activities or hobbies evaluated their Perception of life more positively [F(1.205) = 10.741,  $p < 0.001$ ], felt that they had more control over their lives [F(1.205) = 10.822,  $p < 0.001$ ], and stated that they had formed more positive relationships with their environment [F(1.205) = 15.272,  $p < 0.001$ ]. These mothers also demonstrated optimistic thinking [F(1.205) = 27.038,  $p < 0.001$ ]. Additionally, active mothers seem to have set more effective goals in the duration of the quarantine [F(1.205) = 12.597,  $p < 0.001$ ], they felt that they were more self-sufficient [F(1.205) = 34.739,  $p < 0.001$ ], and they were more satisfied with their physical health [F(1.205) = 4.555,  $p < 0.001$ ] than the less active mothers. Furthermore, active working mothers stated that they had a healthier lifestyle [F(1.205) = 16.071,  $p < 0.001$ ], assessed their psychological well-being more positively [F(1.205) = 9.967,  $p < 0.001$ ] and they formed more positive social relationships [F(1.205) = 13.327,  $p < 0.001$ ] than the working mothers who remained less active during the lock-down period.

The level of activity during the quarantine seems to be a significant determinant of our participants' assessment of their working conditions [F(1.205) = 25.570,  $p < 0.001$ ]. Mothers who engaged in activities or hobbies during the quarantine were more able to handle current working conditions. Also, women who engaged in activities felt that they had a better quality of life [F(1.205) = 2.610,  $p < 0.001$ ], more support [F(1.205) = 11.179,  $p < 0.001$ ] and more effective cooperation between family members [F(1.205) = 24.539,  $p < 0.001$ ] than those working mothers that remained less active during the quarantine.

### ***3.3 What is contribution of the effective cooperation between family members to mothers' resilience and their quality of life'***

There are statistically significant differences between working mothers who stated cooperation between family members at home and working mothers who stated no cooperation between family members. Data analysis indicates that working mothers who stated that there is cooperation of family members also felt that they had more control over their lives [F(1.205) = 4.562,  $p < 0.036$ ], more positive relationships [F(1.205) = 10.976,  $p < 0.004$ ], experienced a healthier lifestyle [F(1.205) = 12.973,  $p < 0.011$ ] and assessed their self-efficacy higher [F(1.205) = 17.555,  $p < 0.041$ ] than mothers who evaluated the cooperation within their poorly. Mothers of families with higher levels of cooperation between the family members felt that they enjoyed better psychological health [F(1.205) = 13.019,  $p < 0.006$ ] and felt that they had more support [F(1.205) = 11.198,  $p < 0.001$ ]. Mothers with collaborative family members engaged more frequently in activities and hobbies than those with less collaborative family members [F(1.205) = 25.122,  $p < 0.01$ ].

### ***3.4 How the quality of conditions at work may impact mothers' resilience and quality of life'***

There is a statistically significant difference between working mothers who stated that they work in a telework form from home as compared to those who work with physical presence at their place of work [F(1.205) = 9.980,  $p < 0.043$ ]. Participating mothers who work remotely felt more satisfied with their physical health than those who went to their office during the quarantine. Our analysis showed that working mothers who stated that they do not feel more discomfort at work had a better quality of life [F(1.205) = 5.816,  $p < 0.001$ ]; they had greater control over their lives [F(1.205) = 2.440,  $p < 0.013$ ] they were able to engage in activities that give them a positive mood/energy [F(1.205) = 5.000,  $p < 0.001$ ] as opposed to those who felt under pressure at work. Also, working mothers who stated that their working conditions remained stable during the lockdown seemed to display a better ability in shaping their relationships [F(1.205) = 5.000,  $p < 0.008$ ] and they enjoyed a better psychological state [F(1.205) = 4.220,  $p < 0.001$ ] than the mothers whose working conditions changed dramatically during the quarantine. Mothers whose working conditions

remained the same were also significantly more satisfied with their social relationships [F(1.205) = 3.539, p < 0.001]; they felt more accepted and applied an optimistic way of thinking [F(1.205) = 2.631, p < 0.004]. At the same time, mothers with stable conditions at work also had better goal orientation and more solutions [F(1.205) = 1.641, p < 0.011], enjoyed healthier lifestyle [F(1.205) = 1.127, p < 0.038] and they interacted more positively with their environment [F(1.205) = 6.569, p < 0.029].

### 3.5 How working mothers' health affect their quality of life

There are statistically significant differences between working mothers who felt that they had good health during the quarantine instead of those that felt a deterioration of their health during that time. Mothers who felt healthy seemed to also feel that they had control over their lives [F(4.206) = 32.191, p < 0.001], enjoyed more acceptance and optimistic thinking [F(4.206) = 38.252, p < 0.001], had a better focus on goals and solutions [F(4.206) = 36.007, p < 0.001] and had a healthier lifestyle [F(4.206) = 23.430, p < 0.001] than mothers who did not assess their health positively. Furthermore, mothers with good health seemed to have more self-efficacy [F(4.206) = 11.320, p < 0.001] as well as better psychological well-being [F(4.206) = 77.894, p < 0.001] than those who didn't. Working mothers with good physical health also enjoyed better social relationships [F(4.206) = 35.033, p < 0.001], perceived their network as more supportive [F(4.206) = 18.661, p < 0.001], and felt that there was more cooperation between their family members, [F(4.206) = 9.670, p < 0.001].

### 3.6 Is there correlation between mothers' resilience and their quality of life

Our data analysis revealed significant positive correlations between resilience, quality of life and working mothers' health.

**Table 1.** Correlation between mothers' resilience, their physical health and their quality of life

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	
Perception of life	1	0.854**	0.693**	0.806**	0.778**	0.721**	0.766**	0.617**	0.749**	0.667**	0.662**	0.530**	0.591**	
Getting a grip of one's life		1	0.713**	0.828**	0.807**	0.757**	0.801**	0.621**	0.723**	0.633**	0.628**	0.498**	0.507**	
Forming Relationship			1	0.719**	0.700**	0.671**	0.663**	0.564**	0.670**	0.683**	0.696**	0.436**	0.437**	
Acceptance and Optimistic thinking				1	0.825**	0.728**	0.818**	0.555**	0.730**	0.640**	0.674**	0.516**	0.571**	
Orientation on solutions and aims					1	0.757**	0.827**	0.583**	0.742**	0.598**	0.631**	0.448**	0.501**	
Healthy lifestyle						1	0.765**	0.570**	0.759**	0.598**	0.671**	0.467**	0.464**	
Self-efficacy							1	0.621**	0.754**	0.575**	0.643**	0.447**	0.489**	
Physical health								1	0.719**	0.518**	0.670**	0.422**	0.420**	
Psychological health									1	0.680**	0.765**	0.551**	0.575**	
Social relations										1	0.693**	0.502**	0.573**	
Environment											1	0.500**	0.567**	
Quality of life												1	0.635**	
General Health of the last two weeks														1

As shown in Table 1 when Resilience was treated as a variable then significant positive correlations were detected with various other variables indicating that when the levels of resilience were elevated then scores on Perception of life ( $r = 0.854$ ), forming relationships ( $r = 0.713$ ), Acceptance and Optimistic thinking ( $r = 0.828$ ), Orientation on solutions

and aims ( $r = 0.807$ ), healthy lifestyle ( $r = 0.757$ ), Self-efficacy ( $r = 0.801$ ), Physical health ( $r = 0.621$ ), Psychological health ( $r = 0.723$ ), Social relations ( $r = 0.633$ ), Environment ( $r = 0.628$ ), Quality of life ( $r = 0.498$ ), Health during the last two weeks ( $r = 0.507$ ) were also significantly higher.

When Quality of Life was treated as a variable we detected significant positive correlations with the following variables, demonstrating that when quality of life was enhanced then Perception of life ( $r = 0.530$ ), Control of one's life, ( $r = 0.498$ ), Forming Relationships ( $r = 0.436$ ), Acceptance and Optimistic thinking ( $r = 0.516$ ), Orientation on solutions and aims ( $r = 0.448$ ), Healthy lifestyle ( $r = 0.467$ ), Self-efficacy ( $r = 0.447$ ), Physical health ( $r = 0.422$ ), Psychological well-being ( $r = 0.551$ ), Social relations ( $r = 0.502$ ), Environment ( $r = 0.500$ ), and general Health of the last two weeks ( $r = 0.635$ ) also tended to reach higher values.

Last but not least when Health was treated as a variable our data showing that when participants felt that they enjoyed good health then other variables such as Perception of life ( $r = 0.591$ ), Control of one's life ( $r = 0.507$ ), Forming Relationships ( $r = 0.437$ ), Acceptance and Optimistic thinking ( $r = 0.571$ ), Orientation on solutions and aims ( $r = 0.501$ ), Healthy lifestyle ( $r = 0.464$ ), Self-efficacy ( $r = 0.489$ ), Physical health ( $r = 0.420$ ), Psychological health ( $r = 0.575$ ), Social relations ( $r = 0.573$ ), Environment ( $r = 0.567$ ), and Quality of life ( $r = 0.635$ ) also showed significant improvement.

## 4. Discussions

The present study examined how working mothers dealt with the changes in their daily routine caused by the state-imposed quarantine measures during the peak of the Covid-19 pandemic crisis, and how these changes affected their quality of life, their health, and their psychological resilience. Participants evaluated the last two weeks of their lives based on the changes that may have occurred during that time of ongoing measures of social and physical isolation. According to Xiao et al. (2020), infectious disease epidemics affect the physical health of infected people and affect the psychological health and well-being of the non-infected population. Also, several recent research results (Brooks et al., 2020; Felix et al., 2020; Polizzi et al., 2020; Singer, 2018) demonstrated that the implementation of public health policies such as quarantine, social isolation, lockdown measures for significant periods might alter a person's everyday life significantly with both short- and long-term consequences for psychological distress and well-being.

Our research findings confirm our first research question regarding demographic characteristics concerning resilience and quality of life. Our results showed that age was a significant determinant of the quality of self-care that mothers applied. Our participating working mothers who belonged to the older age group implemented a healthier lifestyle, and they took better care of themselves than our younger mothers. Simultaneously, the residence place seems to have affected the working mothers' resilience; mothers residing in rural areas demonstrated higher resilience than those living in the cities during the Covid-19 quarantine.

Our second research question postulated that the social isolation measures in the quarantine form would significantly impact working mothers' resilience and quality of life. Through our findings, we demonstrated that mothers' activity levels during the quarantine were a significant determinant of their resilience and quality of life. Working mothers who sought to engage in activities or hobbies during extreme social isolation also had a positive mood and higher energy levels, resulting in a better quality of life than working mothers who remained less active. According to our active participants, they felt more satisfied with their physical and mental health, they had better social relationships, and they were more optimistic and confident in the future. Working mothers who pursued hobbies and activities during the quarantine felt better cooperation with the family members and higher resilience to cope with the adverse conditions they were experiencing during the quarantine. Our research findings comply with those of Compas (2014), who also indicated that resilient individuals showed a higher level of social skills (demonstrated mainly in their communication skills), enjoyed more fulfilling relationships with others, and demonstrated empathy in the family context. Other research findings (Xiang et al., 2020; Wang et al., 2020; Lee & You, 2020; Bishop, 2000; Fredrickson, 2001; Ogińska-Bulik & Juczyński, 2011) confirm the positive effects of resilient copings, such as higher levels of internal tranquillity and optimism, more significant curiosity for the world, increased life energy and more openness to new experiences. Married mothers experienced significantly better physical and mental health than the single mothers of our sample. They also felt that their social relations within their family were more effective in comparison to single

households.

In this respect, our results confirmed our third research question by demonstrating that working mothers who enjoyed good cooperation between their family members regarding daily activities also exhibited higher scores on general resilience and higher scores on quality of life, positive mood, and physical and psychological health. According to Grzankowska et al. (2018) and Lachowska (2008), family support and the marital relationship's length and quality are essential determinants of resilience. Other relevant research findings showed that the quality of the relationships with other family members as well as having children in the family could be a significant source of empowerment for mothers when fulfilling their professional roles (Xiao, 2020; Thompson et al., 2016; Chen et al., 2020; Murry et al., 2001; Stavrova & Fetchenhauer, 2015; Greenfield & Marks, 2006; Jeżewska, 2001).

As we postulated in our fourth research question, our findings indicated that, indeed, the working conditions might contribute positively to resilience, health, and the quality of life of working mothers. Working mothers who were satisfied with their working conditions, mostly those who worked from home, were affected much less by the pandemic, the lockdown measures, and social isolation and stated that they enjoyed a better quality of life. Mothers who experienced less distress regarding their workplace conditions also demonstrated higher resilience and better social relationships. Furthermore, these women claimed that they had better physical and mental health and elevated mood and energy levels. Similar results were obtained in other studies, namely that resilience influences one's perception of stress levels and the measures undertaken against it, including job demands and work-related stress. Resilience was a significant determinant of mothers' functioning when fulfilling family and work roles, but it might also play an essential part in job satisfaction (Kaczmarek & Aleszczyk, 2013; Ogińska-Bulik & Juczyński, 2011). Several research findings (Zalewska, 2003; Kurpiel & Wałęcka-Matyja, 2014; Grandey et al., 2005) demonstrated that employment is an essential element of the social functioning of adults. Job satisfaction is linked to professional activity and may enhance one's well-being and fulfillment. However, it may be associated with a feeling of being overburdened caused by the demand to combine professional life and family.

Furthermore, Grzankowska (2018) showed that women satisfied with their job were more likely to cope with setbacks by seeking help from their social network and that work was of greater subjective importance to them. Mroz and Kaleta (2015) indicated a connection between job satisfaction and other factors influencing working women's functioning in the family. Other research findings (McManus et al., 2002; Peeters et al., 2005) underlined that without a supportive network, parental and professional responsibilities would be too demanding.

Concerning our fifth research question, in which we postulated that the working mothers' health has a significant impact on their quality of life, our findings showed that indeed, working mothers who stated that they were pleased with their physical and mental health also stated that they enjoyed a better quality of life, better cooperation with the members of their family, better social relationships and a higher level of optimism for the future. Our findings established statistically significant relationships between resilience, quality of life, and physical and mental health. Following other findings (Cairney et al., 2003; Lansford et al., 2001; Napora et al., 2018), single mothers were more likely to express symptoms of depression, experience reduced satisfaction with life and have lower self-esteem in comparison to married mothers. They were also less likely to seek help when addressing work-related stress. The permanent absence of one parent causes the other to undertake all responsibilities and reconcile with a high level of professional duties (Matysiak-Błaszczuk & Włodarczyk, 2004; Treas et al., 2011). Moreover, our findings established that age was a significant determinant of our participants' quality of life, showing that the quality of life of working mothers who belonged to the younger age groups was more negatively affected during the quarantine than older mothers. Van Bavel et al. (2020) underlined that the pandemic itself and the resulting preventive measures of self and social isolation have harmed people's interpersonal relationships and have caused severe problems in their health, resilience, and quality of life.

Our study demonstrated that working mothers who managed during the quarantine to maintain a higher quality of life felt that they had more control over their lives, established better social relationships, applied more optimistic thinking, and were able to find more effective solutions to problems. Mothers who perceived themselves as healthy (physically and emotionally) performed better on all the scales, demonstrating higher control levels, self-efficacy, optimistic thinking, and better social functioning. Finally, working mothers with higher levels of resilience demonstrated higher levels of physical and emotional health, better relationships with their social and family network, more determination to find solutions to arising problems, and a better quality of life.

## 5. Conclusions

The Covid-19 pandemic has brought radical changes in people's lives worldwide with a psychological impact of the epidemic on the population's quality of life and mental health. In the current study, working mothers' resilience, mental health, and quality of life are significantly affected when applied to social isolation measures and during the Covid-19 outbreak. Younger working mothers, single working mothers, and working mothers residing in urban areas were affected more by social isolation measures than older, married working mothers and those who lived in rural areas. However, research data showed that protective factors were a healthier lifestyle, active participation in activities and hobbies, family support, good cooperation between their family members regarding daily activities, right working conditions, and job satisfaction. As a result of working mothers, they enjoyed a better quality of life, better social relationships, and a higher level of optimism for the future.

## 6. Suggestions

Authorities need to adopt preventive strategies at the community level. It is imperative to provide adequate psychological services to address the psychological impact of the Covid-19 outbreak. The government should provide appropriate information to attenuate the impact of anxiety, frustration, and negative emotions that represent substantial barriers to the correct management of social crises and psychological consequences related to pandemic. Additionally, telephone helplines, Internet access, and active social networks should reduce social isolation and loneliness, especially in vulnerable individuals. In conclusion, authorities should adopt strategies to reduce the burden of pandemic and the dramatic mental health consequences of this outbreak, enhancing the general population's resilience during the Covid-19 crisis. Given the possibility that the pandemic might continue to pose a threat globally for some considerable time, and most likely until an effective vaccine is available to the public, governments should be aware of these facts and decide their further Covid-19 pandemic policies in line with the relevant scientific findings.

## 7. Limitations

We conducted the current study during the global Covid-19 outbreak and the state-imposed lockdown measures. First, we conducted the study by the online system "enklikanketa", and the authors used a web-based survey method to avoid possible infections, both researchers and participants. Furthermore, the small sample size and convenient sample may limit the generalization of the research's results.

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