UNIVERSITY OF PADOVA

Department of General Psychology

Bachelor’s Degree Course in Psyhcological Science

Final dissertation

Informal caregiving during Covid-19 pandemic

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Academic Year 2021/2022

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Abstract

The negative impact that caregiving has on informal caregivers has been extensively studied over the years, and it has been demonstrated how their role poses them at additional risks of suffering both physical and psychological consequences.

During the spread of the Covid-19 pandemic, informal caregivers continued to face additional burdens with respect to the general population because they faced unusual circumstances and they had to deal with significant changes associated with the reorganization of their daily routine.

In addition, it is crucial to examine how pre-existing gender imbalances associated with the role of the informal caregiver might be exacerbated by this current situation.

The present thesis was conducted to observe the impact that the Covid-19 pandemic had on caregivers and the possible differences associated with the gender of the caregiver.

This review supported the existence of the hypothesized differences in wellbeing among caregivers and non-caregivers and showed an increased caregiver burden associated with female caregivers.

The main limitations reported by the analysed articles were usually associated with the lack of extensive existing data on the matter because of the recency of the disease outbreak.

Introduction

Lately, an increase in the number of older people can be observed in nearly every country (World Health Organization [WHO], 2021) and this inevitably leads to a growth in the caregiver population. An informal or family caregiver is someone "who has a significant personal relationship with, and provides a broad range of assistance for, a person in need of care", they are usually untrained, and they offer unpaid services (Family Caregiver Alliance, 2019).

The recent Covid-19 outbreak pressured the different national governments to impose drastic measures aimed at the containment of the transmission of the virus and this caused remarkable consequences even on the general population, as it is observed by Ettman et al. (2020), who reported that the prevalence of depression symptoms highly increased during the pandemic. Caregivers, before the onset of the pandemic, were already subject to the caregiver burden, which is defined as "the stress and other psychological symptoms experienced by family members and other nonprofessional caregivers in response to looking after individuals with mental or physical disabilities, disorders, or diseases" (APA Online Dictionary of Psychology, 2020) and this current situation contributed to worsening their psychological wellbeing (Zucca et al., 2021).

Different were the authors that identified some of the aspects caused by the implemented measures that were thought to have had an impact on informal caregivers: the loss of in-home support staff and the consequent tentative to adapt to telemedicine use (Kowanda et al., 2021), the increased difficulty in providing essential care while also trying to maintain the suggested social distancing (Beach et al., 2021), and the greater stress resulted from the awareness that care recipients are at higher risk of contracting the illness in its more severe form (Park, 2020) are all factors that are highly likely to worsen caregivers' wellbeing.

Furthermore, it is of paramount importance to address another issue: women, no matter where in the world, are those who are in charge of unpaid work most of the times, performing 76.2 per cent of the total caregiving hours provided (Addati et al., 2018, p. xxix), and not only has this been magnifying the already existing disparities in caregiving burden among men and women (Summers, 2020), but also it has been increasing women's risk of exposure to the virus (Gausman et al., 2020). This imbalance in the distribution of caregiving duties, also stemming from the fact that women during lockdown perceive an increased lack of agency in choosing their role (Connor et al., 2020), is associated with negative personal and professional outcomes for women (Stefanova et al., 2021). Thus, the influence that this current situation has on their wellbeing and career outcomes must be carefully analysed so that the accurate policies can be implemented to improve their condition. Overall, this thesis aims to describe the additional burdens that the caregiver population faced during the recent pandemic, and the gender imbalances that are exacerbated during this period.

The first section will be dedicated to the outline of the figure of the informal caregiver. It will follow an analysis of how the COVID-19 pandemic contributed to a worsening of the situation of informal caregivers, with a specific focus on how the situation worsened for female informal caregivers. In the last part, there will be a discussion on the results observed and conclusions will be drawn.

CHAPTER 1: Informal caregiving and Caregiver Burden

1.1 Informal caregivers and their prevalence

Recently, different studies have suggested how some caregivers, although they still encounter the difficulties involved with caring, report positive effects regarding their personal growth (Wong et al., 2009). However, caregiver burden is still widely experienced by the majority of the family caregivers population, therefore it is of paramount importance to define this issue correctly.

To begin this discussion, it is critical to have a clear definition of the term “informal caregiver” and estimate their prevalence around the world. Among the several definitions of “informal caregiver”, which might differ according to some characteristics, as the amount of time spent caring for the dependent person or the type of activities performed for the cared person, the one provided by Gould (2004) clearly explicates the term by stating that an informal caregiver is “anybody who provides unpaid or arranges for paid or unpaid help to a relative or friend because they have an illness or disability that leaves them unable to so some things for themselves or because they are getting older. This kind of help could be with household chores or finances or with personal or medical needs.” (Gould, 2004, p.18). The main tasks they are involved with, aimed at the general wellbeing of the recipient, are usually ongoing and demanding: these may range from helping with usual chores, to financial and administrative tasks, but also including providing emotional support or nursing (Goodhead et al., 2016).

Even though it is possible to choose one definition as a reference, when trying to obtain an exact estimate of the prevalence of the population of informal caregivers across countries it is arduous to do so because of the fact that, by definition, the care they provide is informal and because of the existence of variations in the definitions: caregivers do not belong to only one specific age category, they vary in the motives behind their choice for being caregivers, the skills that they have, and intensity and duration of the help that they supply (OECD, 2013). However, there is some existing literature that evaluates the prevalence of this population across the different countries in the world: in Europe, the percentage of people aged 50 and over who stated that they provided informal care at least once a week is around 13% (Figure 1) (OECD, 2013); what can also be derived from this table is that in Sweden, Greece, Switzerland, Denmark and the Netherlands, the lowest rates of daily care provision were observed and this might be attributed to the better development of Long Term Care Facilities in those countries. (OECD, 2013).

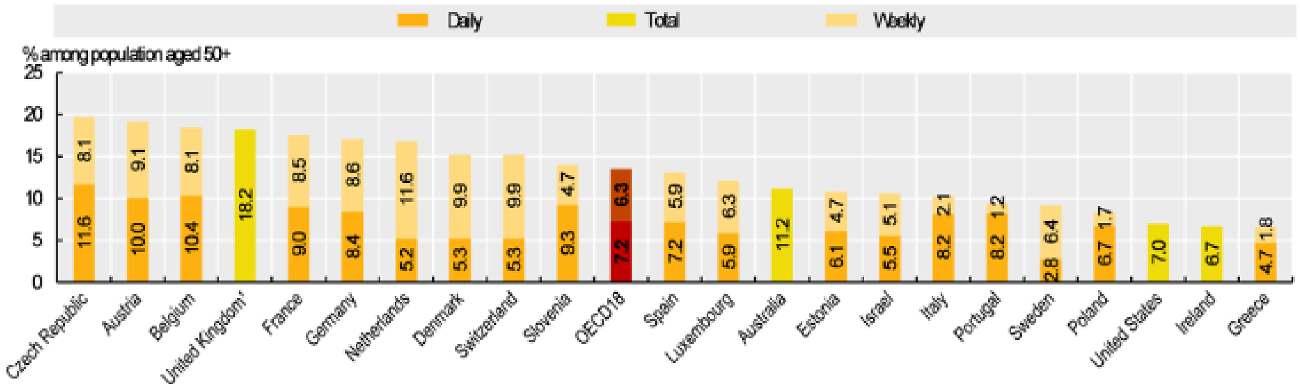


Figure 1. Share of informal carers among population aged 50 and over. (OECD, 2013)

In Italy, in particular, the prevalence is estimated to be over than 7 million, which is about 14% of the population (ISTAT, 2015). As regards countries outside Europe, data obtained from surveys about prevalence, conducted in Australia, the UK, and Canada, have estimated that "about one household in twenty has a primary caregiver" (Goodhead et al., 2016, p.4). Given such high prevalence of the informal caregiver population, it is clear how important it is for governments across the world to acknowledge this fact so that they will be able to implement the most suitable policies needed to help them in their everyday duties.

1.2 Caregiver Burden

Having clearly stated what is meant by informal caregiving, it is important to underline which are the consequences suffered by people belonging to this population.

From the previous paragraph, it appears reasonable to assume that caregiving can have a huge impact on the life of the caregiver, and in fact there are a number of different studies that show that this is true. To begin with, caregiving makes the population of informal caregivers under a continuous exposure to stress: this duty is persistent and unpredictable, and, leaving little opportunity for adaptation, it creates physical and psychological strain (Schulz et al., 2020). The meta-analysis conducted by Vitaliano et al. (2004) showed that caregivers showed a pattern of poorer physical health (nine increased risk of health problems), and they were found to be more prone to taking medications than non-caregivers were. In addition, they reported a 23% higher rate of stress hormones than for non-caregivers. They also reported how caregivers suffered more sleep disturbances (Vitaliano et al., 2004).

Even though it has been investigated how the relationship between caregiving and psychological distress is not influenced by parameters that in other cases are known to contribute to health inequalities, such as income and socioeconomic circumstances (Hirst, 2005), there are some other factors that might enhance the burden that is felt by caregivers. For example, the strains of caregiving increase with the time spent providing care, and being a co-residential caregiver also negatively influences their mental health (Goodhead, 2016). Not only did caregivers report higher levels of strain, but also this was shown to be related to a worsening of both their own and patients' wellbeing, and this highlights how indispensable it is to support caregivers in their daily duties, as it is evident how their conditions have an impact on their recipients as well (Cipolletta et al., 2019).

1.3 Women who are informal caregivers

One of the most important issues that must be addressed when talking about informal caregiving is how women are disproportionately represented within that population.

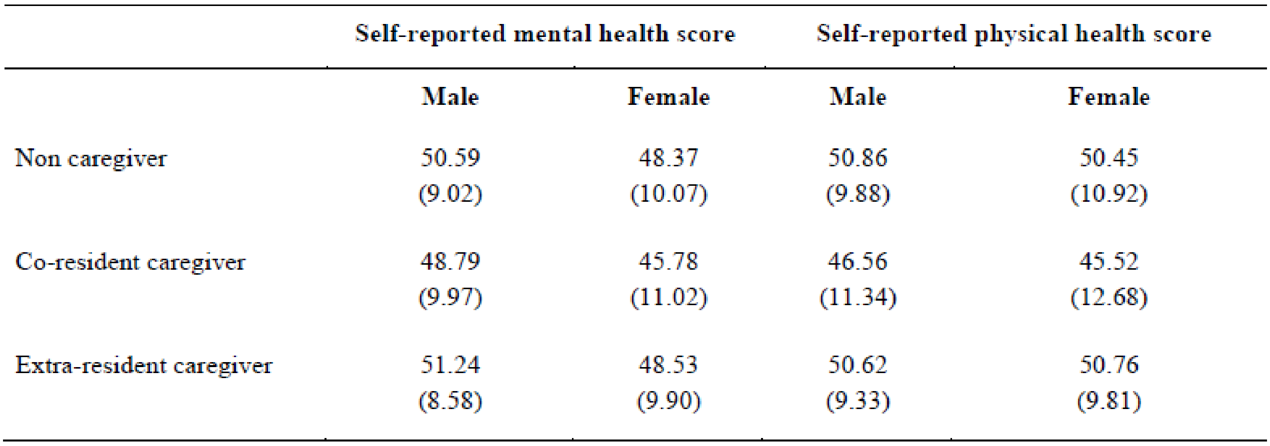
Women, no matter where in the world, are those who are in charge of unpaid work most of the times, performing 76.2 per cent of the total caregiving hours provided (Addati et al., 2018) and the average informal caregiver is "a 49-year-old woman who works outside the home and spends nearly 20 hours per week providing unpaid care to her mother for nearly five years" (Feinberg et al., 2011, p.1). Therefore, it appears logical the fact that, as soon as researchers started studying in the late 1970s the role of informal caregivers and its hidden costs, it immediately became apparent how women might fall prey of societal expectations if the massive gender differences existing within the informal caregivers population were not to be taken into account (Goodhead et al., 2016).

It is widely acknowledged how, throughout the world, caregiving is still perceived as something naturally part of women's work (Esplen, 2009), and it has been examined how this is even more visible in Southern Europe, where the caregiver burden is usually charged to daughters because, according to the social norms, they are those who must take the duty of providing care (Di Novi et al., 2015).

One of the problems that has been identified is that this way of thinking is so deeply rooted that it is hard to erase. For example, Abel (1991) pointed out that female family members are expected to take care of their relatives in a way that in other contexts would be considered paid employment. Similarly, Dalley (1996) highlighted the different expectations that are held for daughters, who are defined as good when they sacrifice their time for taking care of others, and sons, who are praised for helping their relatives financially.

Therefore, if the common belief is that women are always available for caring for family members, whereas men can do it only if their careers allow them to do so, it means that the restriction of women's opportunities is framed as natural and unalterable (Lee & Tang, 2015), and one of the consequences that has been shown by research is that these gender norms create barriers for men to assume informal caregiver roles (Esplen, 2009). What is more, not only men tend not to be informal caregivers, but also, when they actually take care of their dependents, they reported that they had been forced by the circumstances in such role (Kaye & Applegate, 1990), primarily because of the absence of a female sibling (Horowitz, 1985).

In light of these findings, it is conceivable that female informal caregivers must suffer additional burdens compared to men and this is what has been found in several studies. For example, while men more commonly report positive experiences related to caregiving, women tend to report more stress or negative experiences (Li et al., 2013). Similarly, Edwards et al. (2017) reported that female caregivers are more likely to experience greater levels of caregiver burden and depression and they attributed this disparity between female and male informal caregivers in caregiver intensity. The research conducted by Portier (2018) is also in line with these findings: as it is shown in Figure 2, females reported lower self-rated mental and physical health compared to males in the same category, and the level of self-reported physical health is 2.37 points lower for female coresident caregivers, when compared to the controls.



	Self-reported mental health score		Self-reported physical health score	
	Male	**Female**	**Male**	**Female**
Non caregiver	50.59 (9.02)	48.37 (10.07)	50.86 (9.88)	50.45 (10.92)
Co-resident caregiver	48.79 (9.97)	45.78 (11.02)	46.56 (11.34)	45.52 (12.68)
Extra-resident caregiver	51.24 (8.58)	48.53 (9.90)	50.62 (9.33)	50.76 (9.81)

Figure 2. Means and standard deviations (in brackets) of the self-reported mental health and self-reported physical health scores per modalities. (Portier, 2018).

Another serious consequence of women’s greater prevalence in the informal caregivers population is observable on employment. Findings from the study conducted by Ciccarelli and Van Soest (2018), for example, report that, on average, providing continuous informal care highly reduces the probability for women of being employed (by 10.5%, whereas it is 7.6% for males) and it also implies a 13.1% decrease of work hours.

One major problem associated with such trends among women who are caregivers is that there is some indication that employment may be helpful for their psychological wellbeing. As explained by Hansen & Slagsvold (2015), being fulltime employed could reduce the negative association between caregiving and well-being in women because it might offer respite or distraction. Similarly, Pohl et al. (1994) concluded that leaving work to focus on care tended to lead to social isolation and thus to a series of negative consequences for caregivers.

These findings make it clear how women who are informal caregivers fare worse than men because of the different reasons identified, and therefore it is of vital importance to look for the most optimal way to start looking for ways that could help reducing this gap.

CHAPTER 2: Informal caregiving during COVID-19

2.1 Changes to informal caregiving during COVID-19

As it is evident from what has been explained so far, informal caregivers face several stressors during their daily life and, since the start of the Covid-19 pandemic, many researchers have begun to wonder how that situation might have impacted their conditions.

The increasing diffusion of the coronavirus led governments to impose more stringent rules as lockdowns and thorough hygiene procedures (WHO, 2020), which had a negative impact on the life of everyone (Ettman et. al, 2020) and even more so on informal caregivers, who must continue to assist their dependents in this difficult economic and social situation initiated by the pandemic.

In a series of recent studies, numerous were the factors identified that were indicators of a change to informal caregiving due to the spread of the pandemic across the world. Articles regarding these matters were searched on Google Scholar and Psycinfo using keywords such as “COVID-19 OR Coronavirus”, “Informal caregiver OR Family caregiver” and “Caregiver burden OR Caregiver distress”. Some of the factors that were most frequently mentioned were the perception of the increased vulnerability of recipients, due to their pre-existing conditions, and the consequent situation of having to rely on fewer supporters to limit the risk of contagion.

In the study conducted by Cipolletta et al. (2021), participants showed feelings of worry for their loved ones’ health even though they knew they were respecting in the best possible way all the measures implemented to lessen the risk of contagion. This is also consistent with the findings of Irani et al. (2021), who reported that caregivers were preoccupied about the fact that, by inevitably interacting with other people (one of the participants was an essential worker), they might increase the risk of their dependent being exposed to COVID-19. These were not the only studies to report such information. Zucca et al. (2021) reported that 74.5% of those informal caregivers who participated to their study were concerned about how COVID-19 infection might impact on health of their patients with dementia (Figure 3).

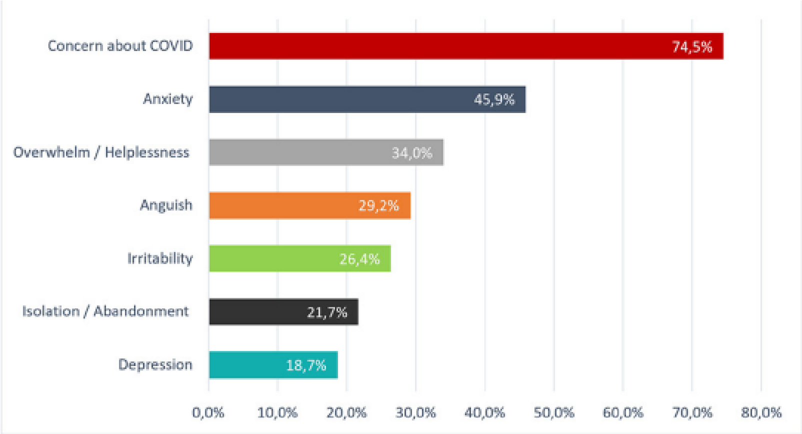


Figure 3. Overall prevalence of stress symptoms in the study cohort (Zucca et al., 2021)

What is more, both the study conducted by Cipolletta et al. (2021), and the study by Lightfoot et al. (2021), highlighted the necessity of limiting face-to-face contacts as much as possible: in the study conducted by Cipolletta et al. (2021), caregivers explained how they feared hospitalisation for their loved ones as they did not perceive hospitals as safe places anymore, but as places where the risk of contagion would be increased, and therefore would rather be remotely supported by general practitioners or primary care services; Lightfoot et al. (2021), similarly, reported that some of the participants, who before COVID-19 shared caregiving, stopped people (also close relatives) from coming into the house to limit the risk of contagion from the outside.

Even though in some cases, as highlighted by the examples previously mentioned, caregivers found it necessary to shift to the use of remote services, not everyone believed that this was the most efficient decision. To begin with, the research conducted by Brown et al. (2020) underlined how difficult it became during the pandemic even to only contact health-care services for assistance, and this is consistent with the findings reported by Zucca et al. (2021), who stated how, even though their interview was performed only a few weeks since the beginning of the lockdown, one of the strongest stressors felt by their respondents was discontinuation of care. The research conducted by Kowanda et al. (2021) is also in line with those findings: they reported not only that, while before shutdowns due to the pandemic 91.0% dependents used to receive assistance and medical support in-person, during the pandemic 69.7% affirmed to be receiving services in a remote or online setting (Figure 4), but also that their dependent's therapies were moderately to severely disrupted and this is unbearable because, as reported by the participants, the continued lack of in-person professional supportive services may lead to a loss of skills previously acquired.

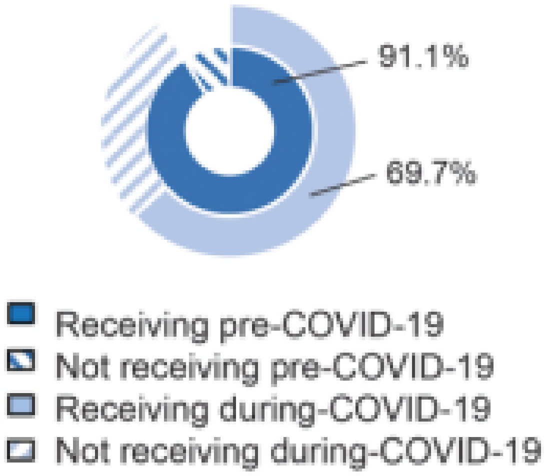


Figure 4. Receipt of in-person services pre-COVID-19 and subsequently provided through online/remote systems during the COVID-19 pandemic (Kowanda et al., 2021).

Another aspect worth mentioning is the changes in the care routine that caregivers had to implement. The study conducted by Cipolletta et al. (2021) discussed the main difficulties experienced by informal caregivers who wanted to perform the everyday care routine while also trying to maintain distance and wear a face mask: the caregivers who participated in this study reported how they perceived that masks were rendering it very difficult to interact with the care recipients and this was also having a negative impact on their relationship. Consistently with these findings, Lightfoot et al. (2021) discussed how a number of caregivers perceived as difficult avoiding all forms of physical contact with their relatives, especially because for some of them this was one of the key ways of interaction.

What is more, grocery shopping was yet another aspect of the caregiving routine that had to be changed. Five participants in the study conducted by Cipolletta et al. (2021) explained that "preventive rules lengthened the time needed for this activity and affected everyday time organisation" (Cipolletta et al., 2021, p.10); this explanation is consistent with what was reported in the study conducted by Irani et al. (2021), in which participants explained that they wanted to identify the times in which the stores were less crowded to minimize the risk of contracting the virus and one of them also explained "I disinfect *everything* that I bring in the house after shopping" (Irani et al., 2021, p.1093), describing this process as time-consuming, but necessary.

Having clearly portrayed how challenging it is for informal caregivers to continue performing their tasks in such difficult conditions, it appears necessary to study what consequences they are facing because of these changes in their duties.

2.2 Impact of COVID-19 on informal caregivers

The population constituted by informal caregivers is an extremely fragile one and it was already mentioned how they fared worse than non-caregivers according to several different parameters (see: Cipolletta et al., 2019; Goodhead, 2016; Schultz et al., 2020). For this reason, it appears necessary to investigate how they were impacted by the current pandemic situation.

In this paragraph, an analysis of the consequences faced by informal caregivers will be carried out and the more impacted subgroups within the informal caregivers population will be identified.

2.2.1 Impact of COVID-19 on informal caregivers' mental health and wellbeing

One of the main aspects that was identified in the reviewed literature as a consequence of COVID-19 was the impact that it had on informal caregivers' mental health and wellbeing.

In the survey conducted by Kowanda et al. (2021), caregivers reported feeling more nervous and anxious both in the preliminary survey and in the follow-up survey. This is consistent with the findings obtained in the study conducted by Beach et al. (2021), who reported that family caregivers scored significantly (p < .01) worse than non-caregivers, observing the largest effect for the anxiety measure, in which family caregivers showed a score which was more than half a standard deviation above national norms. What is more, a series of recent studies has also shown a pattern of higher levels of stress-related symptoms. The study conducted by Frangiosa et. al (2020) reported that the vast majority of the respondents (80%) claimed to have stress symptoms that are usually reported by people experiencing severe stress (Figure 5).

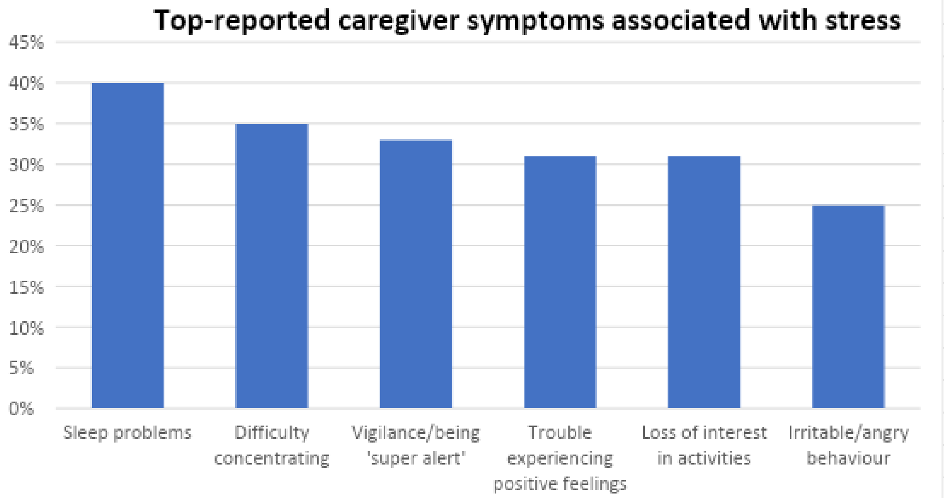


Figure 5. Top- reported caregiver symptoms associated with stress. (Frangiosa et al., 2020)

These findings are consistent with other analysed studies. The research conducted by Zucca et al. (2021) reported that 87.4% of the caregivers who participated reported at least one symptom of stress and 27.4% reported four or more symptoms out of the six used in the study to investigate the effects of being a family caregiver during lockdown ((1) depression, (2) anxiety, (3) anguish, (4) irritability, (5) overwhelmed/helplessness (OH), and (6) isolation/abandonment (IA)). Moreover, among the outcomes in the study conducted by Park et al. (2021), psychological distress was the most common symptom experienced, reported by 35.2% of non-caregivers, 42.3% of short-term caregivers and 46.5% of long-term caregivers, with statistically significant differences for caregivers and non-caregivers remaining also when controlling for demographic, socioeconomic and pre-existing health traits. This difference between caregivers and non-caregivers has also been explored by Schorren (2020), who reported that scores regarding general wellbeing of informal caregivers decreased more than wellbeing scores of non-caregivers during isolation.

All of the reported findings support the hypothesis that the current situation is influencing negatively informal caregivers, thus highlighting how important it is to assess their mental state as to investigate what could possibly be done to avoid further deterioration of conditions.

2.2.2 Impacts of COVID-19 on informal caregivers' somatic physical symptoms

Worsening of mental health is not the only consequence that informal caregivers have to face. As regarding physical health, several studies suggested that an aggravation of conditions is observed in this field as well.

The study conducted by Park (2021) reported that long-term caregivers showed more negative somatic physical symptoms as headaches, abdominal discomfort, and body aches, than either short-term caregivers or non-caregiver. Also in line with these findings are the results obtained by Frangiosa et al. (2020), which reported that 25% of caregivers blamed physical changes due to the current pandemic as the reason why they were having difficulties in caring for their loved one. Furthermore, the study conducted in Serbia by Todorovic et al. (2020) investigated the relationship between concerns about self-health and the health of their care recipient, and actual physical health. What they found was that those who believed that their health was more endangered during the pandemic also reported lower physical health dimension scores of quality of life (Todorovic et al., 2020).

It is of paramount importance not to underestimate the physical consequences that the pandemic brought to informal caregivers, also because, as it has been previously mentioned, the relationship between the caregiver and the care recipient is so close that if caregivers are dealing with some impairments both regarding their mental and their physical health, what will happen as a consequence is that the wellbeing of the recipient will be impacted as well.

2.2.3 Subgroups within informal caregivers Population who were more impacted by the COVID-19

Different are the reasons that lie behind the fact that, among the informal caregivers population, there are some subgroups that were disrupted the most during this situation. Therefore, it is necessary to identify them as to adjust already existing policies that support informal caregivers in a way that they will help to reduce the additional burden faced by these subgroups.

The majority of studies identified women who are informal caregivers as reporting more negative consequences due to this situation (see: Stefanova et al., 2021; Wade et al., 2021; Zwar et al., 2022). However, this problem will be the focus of the next paragraph in this dissertation, therefore here I will proceed to analyse other subgroups that were also found to be more negatively impacted than others.

Across studies, the subgroup that was most commonly identified with increased burden was informal caregivers of people living with dementia. Even though 69.4% of caregivers who participated to Budnick study (2021) reported that they did not feel as if there were changes in the care situation, this is in contrasts with 39.7% of those who cared for people affected by dementia who reported rather or greatly increased burden during the COVID-19. These findings are in line with other several studies. Beach (2021) reported that those providing care for people with cognitive/memory issues reported the highest number of effects on the COVID-19 impact index. Also the survey conducted by Frangiosa et al. (2020) shows the same pattern: it is stated that caregivers of people living with Alzheimer's or another dementia were those who were suffering from the highest stress levels. Likewise, Zucca (2021) supports these findings by arguing that depression was more frequently found in caregivers of patients with a diagnosis of FTD. Other subgroups that were found to be suffering the most were informal caregivers providing care to family members in contrast to those helping care recipients who were not related to them (Todorovic et al., 2020), caregivers with lower incomes (Beach et al., 2021; Zucca et al., 2021), and parent caregivers (Beach et al., 2021; Zucca et al., 2021).

2.2.4 Other findings

As it was previously highlighted, informal caregivers found themselves in an unknown and unpredictable situation, in which they are faced with the needs of adapting by changing some of the ways in which they used to provide care before the COVID-19 pandemic.

For instance, discontinuity of care led caregivers to be more vulnerable to stress as they had to shift to different ways of receiving assistance by professionals. This resulting stress was found in the study conducted by Zucca et al. (2021), who reported that discontinuity in assistance in their participants was associated with isolation/abandonment (OR 3.58), overwhelmed/helplessness (OR 2.57) and irritability (2.34). Similarly, the study by Kowanda et al. (2021) reported that "77.8% of caregivers were either extremely or moderately overwhelmed by the disruptions in their child's services" (Kowanda et al., 2021, p.5). Another interesting aspect that is worth taking into account is the negative impact that COVID-19 had on informal caregivers' financial well-being, and this is reported both by Beach (2021) and by Kowanda (2021), who reported that 33.3% of the caregivers participating to their study experienced a negative impact on finances as a consequence of COVID-19.

2.3 Impact of COVID-19 on women who are informal caregivers

Having clearly depicted how unbalanced the situation already was for women who are informal caregivers and the reasons that led to that, it comes across as a logical consequence that the recent Covid-19 pandemic contributed to a worsening of their condition.

2.3.1 Perpetuation of gender stereotypes during COVID-19

First, it is important to describe the additional burdens that fell upon women who are informal caregivers. Even though it is true that initial findings report that women are generally at decreased risk of severe infection and death with Covid-19 (Purdie et al., 2020), the perpetuation of gender stereotypes makes it difficult for them to balance their roles of workers and informal caregivers in this unprecedented time that, because of the measures of containment of the virus, forced everyone to change some of their habits. Gausman and Langer (2020) reported that, as women are more frequently found as the primary caregivers within a household, this might increase their risk of exposure. Indeed, the gender stereotypes contribute to cultural expectations that see women as those who should prioritise family and caregiving and men as those who should put work first. Stefanova et al. (2021) reported that women are expected to make caregiving their priority, and this might have been increased by the current pandemic as work and home lives are more often than before found together during lockdown. Similarly, Summers (2020) described how women who are informal caregivers for their children are almost always seen as the main caregiver, even when they are employed.

2.3.2 Increase in caregiving intensity

Another aspect that can be blamed as one of the causes that led to a worsening of the situation of women who are informal caregivers is the closure of schools and day-care centres for their dependents. Farré et al. (2020) noted how women's caregiver responsibilities are exacerbated due to closure of schools and childcare centres. Similarly, Gausman and Langer (2020) reported that containment policies such as closing day-care facilities or not providing paid sick leave might have as a consequence increased exposure to the disease.

As it was explained, the share of the additional caregiving tasks has not been divided in an equal manner between men and women, and as a result female caregivers, despite greater men's involvement, completed more housework and caregiving (Adams-Prassl et al., 2020). Likewise, the research conducted by Stefanova et al. (2021) supported these findings: as it is evident from Figure 6, women spent a significantly greater part of their day on caregiving activities (*M* = 43.24%, *SD* = 15.89) than men (*M* = 26.79%, *SD* = 14.24).

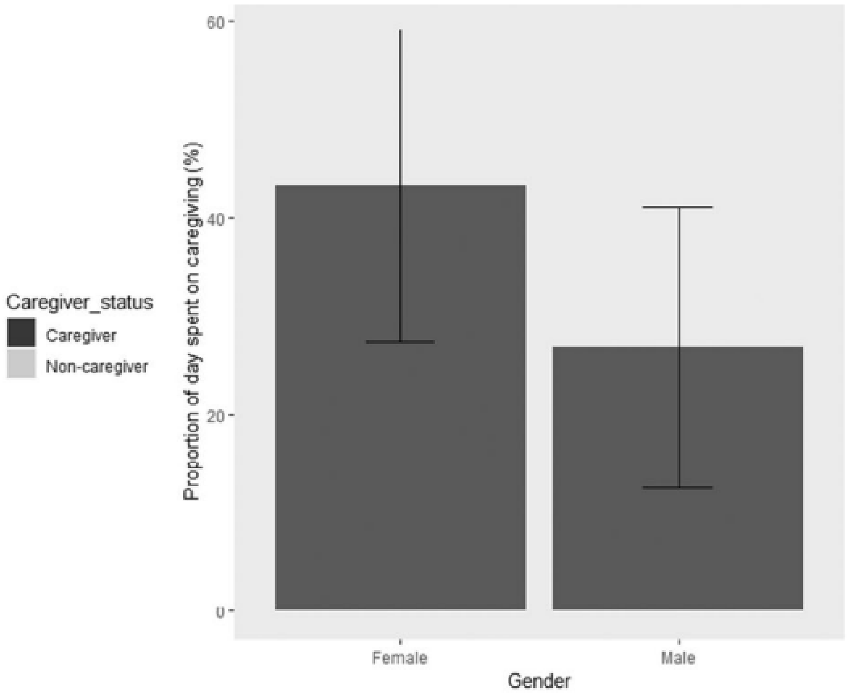


Figure 6. Proportion of the day spent on caregiving during the lockdown. (Stefanova et al., 2021)

This same pattern was also observed by Raiber et al. (2021), who conducted their study in the Netherlands and observed that there was a significant group of caregivers who increased their intensity of care provision: 18% of the women cared more, compared to 14% of men. Similar findings were observed in Spain, where women reported a higher increase than men in caregiving intensity (44% vs 27%) (Del Río-Lozano et al., 2020), and in Canada, where the average woman with children stated to have spent nearly 50 more hours per week on caregiving activities than the average men (Johnston et al., 2020).

This observed increase in caregiving duties and housework can, in turn, impact upon time management for female informal caregivers paid work. One study to support this statement was conducted by Collins et al. (2020) and it depicted how mothers, in order to accommodate the additional tasks that surfaced due to measures as lockdowns, reduced their paid work hours four to five times more than fathers. In a similar fashion, as it can be noted in Figure 7, Stefanova et al. (2021) reported that female informal caregivers spent significantly less time on paid work both compared to female non-caregivers and to male caregivers

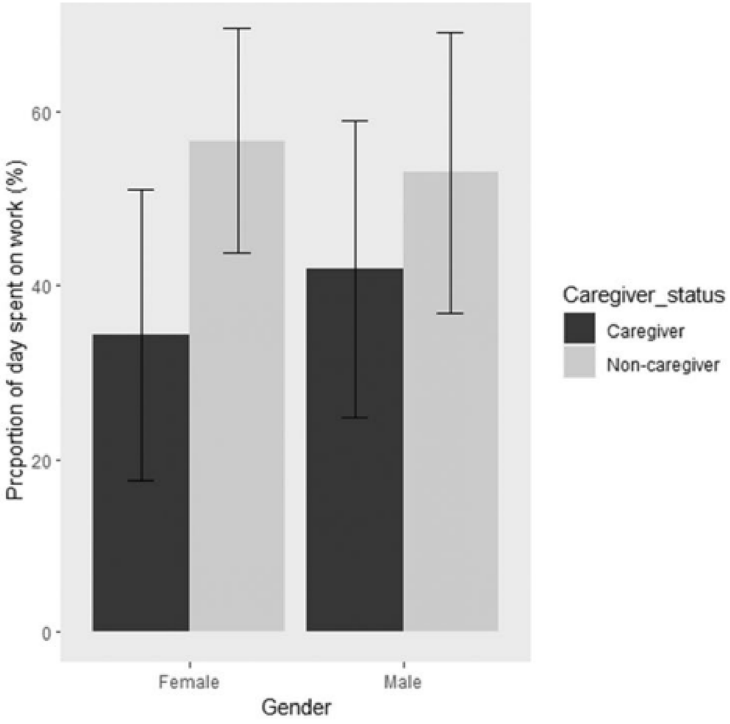


Figure 7. Proportion of the day spent on paid work. (Stefanova et al., 2021).

Consistently with these findings, also Xue and McMunn (2021) reported that mothers were more likely than fathers to reduce their working hours (21% vs 11%) or changed their employment schedules (32% vs 18%).

2.3.3 Impact of COVID-19 on female informal caregivers' paid work

One expected consequence of these imbalances was a lowering in job satisfaction and career expectations. Even though women might be able to handle additional hours of caregiving tasks by sacrificing leisure time, so that it will not affect their paid work, an additional hour or two on top of that might lead to an exceeding of a critical threshold, thus ending up interfering with women's work (Feng & Savani, 2020). Therefore, after the outbreak of the Covid-19 pandemic, women who are informal caregivers, were less productive and less satisfied with job than men. In line with these findings are the results reported by Stefanova et al. (2021): a significant direct effect of caregiving on career outcomes was observed, where the more the caregiving performed by women during lockdown compared to other activities, the more negative career outcomes they had. One problem that this might lead to is the perpetuation of the assumption that female caregivers are less committed to their jobs, thus consequently limiting their career opportunities even once the pandemic is over.

2.3.4 Impact of COVID-19 on female informal caregivers' mental health and wellbeing

As it might be expected, female informal caregivers witnessed a worsening of their condition due to the outbreak of the Covid-19 pandemic. In the study conducted by Stefanova et al (2021), women were found to have experienced more burnout (M = 2.58, Mdifference = 0.27) compared to men. In a similar way, Wade et al. (2021) reported that female caregivers were found to be more impacted by COVID disruption compared to male caregivers and they also showed significant differences on mental health difficulties reported: on average, female caregivers revealed more distress and anxiety compared to male caregivers. The study conducted in Spain by Del Río-Lozano et al. (2022) also depicted a similar situation: a significantly higher proportion of female informal caregivers reported that the pandemic negatively impacted their emotional wellbeing (75% vs 56% for men) and that they had an increased perception of caregiver burden, leading to a greater likelihood of poor self-perceived health. Comparable results were observed also in the study conducted in Germany by Zwar et al. (2022): female caregivers reported significantly more depressive and anxiety symptoms than male caregivers, lower quality of life and higher caregiver burden. Findings from one research conducted in the USA also support this same pattern: female caregivers had a higher likelihood of increased caregiver burden due to COVID-19 (56%) as opposed to male informal caregivers (52%) (Cohen et al., 2021).

As it is evident from what has been explained so far, the added burden faced by women is manifold as it comprises different aspects of their lives and has several negative consequences. Hence, it is necessary to underline how these findings should have practical implications. As it is explained by Stefanova et al. (2021), new gender-aware policies could be implemented to take into account the gender imbalance in household duties during the lockdown, and more flexible working arrangements could be requested for women who are informal caregivers.

Conclusions

The scope of this thesis was to investigate whether additional burdens due to the COVID-19 pandemic could be found among informal caregivers and to understand if gender imbalances within that population worsened during this same period. This section summarises the findings made, highlights which areas should be further investigated in future studies, giving relevant recommendations according to the results that were discovered, and addresses limitations. Overall, findings supported the hypothesis that informal caregivers during the pandemic have been subject of additional and unexpected stressors; furthermore, women who are informal caregivers, confirming trends already observable before the pandemic, were among the ones who suffered the most because of COVID-19 and all of the measures that had to be implemented.

Nowadays, even taking in consideration the aforementioned difficulties that might be encountered when trying to assess the prevalence of informal caregivers, it is a well-known fact that, given the increase in the number of older people (WHO, 2021), the percentage of people belonging to the population of informal caregivers is very high (see: OECD, 2013), and so is the burden they feel (Hirst, 2005; Schulz et al., 2020; Vitaliano et al., 2004). Therefore, this provided a good starting point for understanding why it became necessary to understand how the implementation of measures against the diffusion of COVID-19 might enhance even more their psychological and physical strains.

Through the analysis of different studies, it appears that caregivers were able to identify at least some of the causes that led to a worsening of their condition during the pandemic. Among these factors, some of the most frequently mentioned were the fact that informal caregivers, in order not to increase the risk of contagion, had to rely on fewer formal supporters (Cipolletta et al., 2021; Lightfoot et al., 2021), and thus that led to fearing the consequences that discontinuation of care might have on their dependents (Kowanda et al., 2021; Zucca et al., 2021). As discussed, this caused major consequences for informal caregivers, regarding mostly their heightened feeling of stress (Frangiosa et al., 2020; Park et al., 2021; Zucca et al., 2021), and somatic physical symptoms (Frangiosa et al., 2020; Park et al., 2021; Todorovic et al., 2020). One of the most important reasons that underline why it is important to analyse their situation is that, if informal caregivers have to bear all of these negative feelings, this will likely negatively impact their ability to care for their dependents, and therefore it appears necessary to find the most suitable ways to try and solve this.

Other relevant findings that were made clear in this review refer to the discovery of the subgroups that were found to be the most impacted by this situation. These are informal caregivers of people living with dementia (Beach, 2021; Budnick et al., 2021; Frangiosa et al., 2020; Zucca et al., 2021), and women who are informal caregivers (for example: Stefanova et al., 2021; Wade et al., 2021).

Furthermore, some of the possible explanations that identified female informal caregivers as more prone to increased negative consequences during this pandemic are the fact that women are expected to make caregiving a priority, and the unequal division of additional tasks that had to be performed (Stefanova et al., 2021). Such findings are so important, especially because some of the consequences were already observable in that population: the additional caregiving hours that women had to handle exceeded a critical threshold, interfering with their paid jobs (Feng & Savani, 2020), and leading to more negative career outcomes (Stefanova et al., 2021).

The broad implication of the present research is that these findings should help in the planning of interventions aimed at alleviating the increased burden felt by informal caregivers during the COVID-19 pandemic. Having highlighted how hard the situation became for informal caregivers, it appears evident that much should be done in order to help them reduce the negative feelings that they encountered. First of all, it is important to take into consideration the fact that social isolation has a high negative impact on informal caregivers (Newman et al., 2019), and therefore it would be of paramount importance to let them have some respite from their caregiving duties and support to help them ease their sufferings. Even though the measures such as social distancing, implemented to contain the pandemic, help in protecting the vulnerable populations from the virus, they increase the stress felt by informal caregivers in the ways that were previously described, and therefore some alternative ways of easing their sufferings would be needed. One such way might be the implementation of online measures that could be accessed by informal caregivers without leaving their houses, thus not increasing the risk of contagion.

What is more, in the phase that follows the pandemic, governments should be aware of the gender imbalances that have been exacerbated in the informal caregivers population, and therefore they should consider such findings as to allocate resources in such a way that might help female informal caregivers in recovering from the increased burden that fell on them. This is necessary for different reasons. For example, as Esplen (2009) described, existing gender norms are perceived as barriers for men that prevent them to assuming the role of informal caregivers and so, if no measure is implemented that will support women to help them detach from the stereotype that they should be the ones taking the greatest share in the caregiving duties, this situation will never change. Moreover, as Stefanova et al. (2021) suggest, female informal caregivers should be granted more flexible working arrangements which could help decrease the negative impact that caregiving has been shown to exert on career progression.

The main limitations that might hinder the generalizability of the results mainly reflect problems caused by COVID related factors that were encountered in the analysed articles. First of all, most of the studies had to recruit participants online and they had to use phone calls and videocalls for interviews because of the measures that implied limitations of face-to-face encounters, and thus this led to some limitations. For example, being interviewed online through videocalls posed some technical problems (Cipolletta et al., 2021). Furthermore, online recruitment must be addressed as another important limitation because this restricted the sample only to informal caregivers who had access to the internet (Irani et al., 2021) and possibly led to the neglect of older informal caregivers who are not familiar with such technologies (Zwar et al., 2022), and thus it is not possible to establish whether different backgrounds in the participants might have led to different results. Another aspect worth mentioning is the fact that researchers had to rely on self-reported and retrospective measures (Cohen et al., 202; Feng & Savani, 2020), because direct observation, given the aforementioned problems, was not possible.

For these reasons, it is important that future research will address such limitations, so to improve the current situation. Collecting longitudinal data after some measures in favour of informal caregivers have been implemented might be beneficial to understand whether they are working and to establish whether there was a direct correlation between COVID-19 pandemic and increased burden in informal caregivers.

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