Grandparenting during pandemic times: pros and cons for mental health

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ABSTRACT

Background The COVID-19 pandemic and associated lockdown measures posed an unprecedented challenge to the crucial role of grandparenting in family-oriented cultures, such as Italy. Reduced contact with grandchildren during this period potentially threatened grandparents' mental health and well-being.

Methods We analysed data from the LOckdown and lifeSTyles in Lombardia cross-sectional study conducted in November 2020. The study included a representative sample of 4400 older adults from Lombardy, Italy, of which 1289 provided childcare to their grandchildren.

Results A decrease in self-reported grandparenting was associated with an increased likelihood of experiencing depressive symptoms among grandparents (OR 1.50, 95% CI 1.01–2.24). Conversely, an increase in grandparenting was linked to poorer sleep quality (OR 11.67, 95% CI 5.88–23.17) and reduced sleep quantity (OR 2.53, 95% CI 1.45–4.41).

Conclusions Despite the barriers posed by the pandemic, grandparenting played a beneficial role in maintaining the mental health and well-being of older adults. However, it is crucial to recognise specific vulnerabilities, such as gender, feelings of hopelessness and overcrowding, which can have detrimental effects during and beyond emergency situations. Careful attention to these factors is essential for developing targeted support systems and interventions aimed at safeguarding the mental health of older adults and enhancing their resilience in crises.

Keywords COVID-19, grandpareting, mental health, depression, sleep disorders, cross-sectional studies, Italy

Introduction

The COronaVIrus Disease-2019 (COVID-19) pandemic and associated stay-at-home orders have had significant effects on older adults' health,[1] behaviours, social functioning and coping strategies. Older adults often play an active role,[2] providing supplementary or occasional care: grandparenting has been shown to be beneficial for their health and well-being.[3] In the Italian family-centred social context,[4–6] where elderly populations are actively involved in younger generations' family life[7] by replacing weak welfare policies[8] and providing emotional and informational support,[9] the restrictions implemented to face the pandemic (i.e., selected

regional lockdowns) might have overturned this involvement.

In a previous study, we reported the detrimental impact of reduced help from grandparents in childcare on parents' mental health.[10] This study aims to examine the association between disruptions in grandparenting experiences during the pandemic and mental health outcomes, such as depression, anxiety and sleep quality and quantity, among older adults.[11] Limited research is available on this topic[12] and highlights the challenges in playing active roles due to containment measures.[13] Given that over 30% of grandparents reported a reduction in contact with grandchildren during COVID-19,[12] it is important to consider the potential negative consequences.

Methods

We utilised data from the LOckdown and lifeSTyles (LOST) in Lombardia project,[14–22] a large cross-sectional study conducted on a representative sample of older community-dwelling people living in the Lombardy region during the autumn of 2020 (from the 17th to the 30th of November 2020). The study participants (4400 subjects aged 65 or over) were randomly selected from the Doxa (Worldwide Independent Network/Gallup International Association) panel. Deterministic quotas were used to guarantee the sample's representativeness for sex by age group, and province by municipality size.

Computer-assisted telephone interviews (CATI) were conducted by trained interviewers, who ensured clear comprehension of the questions. The questionnaire covered demographic and socioeconomic characteristics, lifestyle factors, and involvement in family life. Psychological aspects were assessed using validated scales. Sleep quality and quantity were measured using the Pittsburgh Sleep Quality Index with item number 6 (component-global score correlation 0.83) and item number 4 (component-global score correlation 0.80).[23] Anxiety symptoms were evaluated using the 2-item Generalised Anxiety Disorder (GAD-2) scale (Cronbach's $\alpha = 0.77$),[24] while depressive symptoms were assessed using the 2-item Patient Health Questionnaire (PHQ-2) (Cronbach's $\alpha = 0.81$).[24,25] Hopelessness was measured using the 4-item Beck's Hopelessness Scale (BHS-4) (Cronbach's $\alpha = 0.81$).[26,27] Mental health indicators were collected for two time points: the interview period (November 2020) and the previous year (November 2019).

The main exposure of interest was the change in grandparenting activities, specifically the care provided to grandchildren.[28] Participants were asked: 'Compared to before the pandemic, today how do you help your family take care of grandchildren?'. Response options included: 'I didn't help, and I still don't'; 'Less than before'; 'The same as before'; 'More than before'. Based on their responses, respondents were categorised into three groups: (i) increased grandparenting, (ii) unchanged and (iii) reduced grandparenting during the COVID-19 pandemic compared to November 2019 (i.e., before the pandemic).

The outcomes of interest were changes indicating reduced sleep quantity (≤6 hours/night), poor sleep quality (defined as poor or very poor), depressive (PHQ-2 ≥ 3) and anxiety symptoms (GAD-2 ≥ 3) by comparing responses between the interview time and the pre-pandemic period. The reference category was 'increased or unchanged'. The potentially associated factors considered were sex, age group, educational level, marital status, number of household members, retirement status and the BHS-4 score.

After excluding participants who reported no involvement in caring for their grandchildren before and during the pandemic, we estimated odds ratios (OR) and 95% confidence intervals (CI) for the worsening of the four mental health outcomes using four separate multivariable logistic regression models. The models were adjusted for covariates, including sex, age group, level of education, marital status, number of household members, retirement status and BHS-4 score. A statistical weight was applied to generate representative estimates for the older population in Lombardy. All statistical analyses were performed using Stata software version 16.0 (Stata Corporation, College Station, Texas, USA).

Results

Among the 4400 older individuals in the sample, 1289 (29.3%) engaged in grandparenting activities, while 3111 (70.7%) did not provide childcare for their grandchildren before and during the pandemic. Table 1 displays the changes in grandparenting during COVID-19. Overall, 677 (52.5%) participants maintained their role as grandparents, 138 (10.7%) reported an increase in grandparenting and 474 (36.8%) a decrease.

Table 1 also reports the weighted proportions and ORs for worsening sleep quality, sleep quantity, depressive and anxiety symptoms, taking into account potentially associated factors among those involved in grandparenting. (Supplementary Table 1 provides variable distribution for those not engaged in grandparenting.) The percentage of individuals experiencing worsened sleep quality and quantity was higher among those who increased their grandparenting activities (OR 11.67, 95% CI 5.88–23.17 and OR 2.53, 95% CI 1.45–4.41, respectively) compared to those with an unchanged level. Conversely, older individuals who reduced grandparenting more frequently reported increased depressive symptoms (OR 1.50, 95% CI 1.01–2.24).

Table 1 Distribution of 1289 older adults (65 years and over) who reported helping their families with grandparenting, according to the change in their caring activities to help their family and selected covariates. Corresponding OR and 95% CI for having worsened their sleep quality, sleep quantity, depressive symptoms and anxiety symptoms during the COVID-19 lockdown were also shown (Lombardy, 2020)

Characteristics during the lockdown	N	Subjects worsening sleep quality (decreased self-reported sleep quality)		Subjects worsening sleep quantity (decreased number of slept hours/night)		Subjects worsening depressive symptoms (increased PHQ-2)		Subjects worsening anxiety symptoms (increased GAD-2)	
		%	OR (95% CI)[b]	%	OR (95% CI)[b]	%	OR (95% CI)[b]	%	OR (95% CI)[b]
Total	1289	4.3	—	8.6	—	10.3	—	16.3	—
Grandparenting									
Increased	138	26.2	**11.67 (5.88–23.171)**	19.5	**2.53 (1.45–4.41)**	7.9	0.49 (0.22–1.09)	15.6	0.74 (0.40–1.34)
Unchanged	677	1.6	1[a]	6.3	1[a]	8.5	1[a]	15.4	1[a]
Reduced	474	1.7	0.65 (0.23–1.83)	8.7	1.40 (0.87–2.27)	13.7	**1.50 (1.01–2.24)**	17.9	1.16 (0.83–1.61)
Age									
65–74 years	739	2.8	0.93 (0.47–1.77)	8.6	1.10 (0.71–1.71)	10.0	1.07 (0.73–1.55)	16.5	1.12 (0.81–1.55)
75 years and over	550	6.2	1[a]	8.7	1[a]	10.8	1[a]	16.1	1[a]
Sex									
Male	561	4.1	1[a]	8.0	1[a]	7.6	1[a]	13.1	1[a]
Female	728	4.5	0.93 (0.49–1.79)	9.1	1.20 (0.78–1.85)	12.4	**1.76 (1.15–2.70)**	18.9	**1.66 (1.20–2.30)**
Educational level									
None/primary school	191	5.3	1.16 (0.39–3.50)	9.1	0.78 (0.42–1.44)	10.7	0.86 (0.49–1.49)	19.7	1.04 (0.66–1.63)
Secondary school	441	7.2	1[a]	7.9	1[a]	12.6	1[a]	14.7	1[a]
High school/university degree	657	2.0	2.01 (0.93–4.35)	8.9	0.70 (0.43–1.15)	8.7	1.24 (0.81–1.90)	16.5	0.77 (0.54–1.10)
Marital status									
Married	1001	4.0	1[a]	8.2	1[a]	10.3	1[a]	15.8	1[a]
Single/widowed/separated/divorced	288	5.3	0.52 (0.26–1.06)	10.0	1.08 (0.42–2.18)	10.4	0.58 (0.29–1–19)	18.1	1.55 (0.92–2.63)
Household members									
1	199	6.7	**2.97 (1.18–7.48)**	9.3	1.18 (0.50–2.74)	12.6	2.01 (0.92–4.40)	14.5	0.55 (0.29–1.05)
2	839	4.2	1[a]	6.9	1[a]	9.5	1[a]	15.3	1[a]
3 and more	251	2.8	0.48 (0.17–1.33)	13.8	**2.59 (1.55–4.33)**	11.4	1.66 (1.00–2.73)	21.4	**1.66 (1.13–2.46)**
Retirement status									
Retired	1096	4.8	1[a]	7.5	1[a]	9.4	1[a]	13.2	1[a]
Unretired	193	1.6	0.38 (0.10–1.52)	8.8	0.80 (0.43–1.48)	10.5	0.87 (0.50–1.51)	16.9	0.70 (0.44–1.12)
BH-4 score									
<6	1158	1.6	1[a]	6.7	1[a]	8.1	1[a]	14.6	1[a]
≥6	131	2.8	**13.24 (6.89–25.45)**	26.1	**4.87 (2.93–8.11)**	30.5	**5.72 (3.48–9.43)**	31.4	**3.07 (1.92–4.89)**

[a]Reference category.
[b]ORs and 95% CIs were estimated using logistic regression models adjusted for sex (male, female), age group (65–74 years, 75 years and over), level of education (none/primary school, secondary school, high school/university degree), marital status (married, single/widowed/separated/divorced), number of household members (1, 2, 3 and more), retirement status (retired, unretired) and Beck's Hopelessness Scale score (<6, ≥6) and weighting for sex, age and municipality size. Estimates in bold are statistically significant at 0.05 level.

We found significant associations between female sex and worsened depressive (OR 1.76, 95% CI 1.15–2.70) and anxiety symptoms (OR 1.66, 95% CI 1.30–2.30). Living alone was associated with lower sleep quality (OR 2.97, 95% CI 1.18–7.48), while living with two or more individuals was linked to fewer hours of sleep per night (OR 2.59, 95% CI 1.55–4.33) and anxiety symptoms (OR 1.66, 95% CI 1.13–2.46). A BHS-4 score higher than 6 consistently

and significantly correlated with worsened mental health outcomes.

Discussion and conclusion

Main finding of this study

This is the first study investigating the impact of the pandemic on three dimensions of mental health (i.e., depression, anxiety and sleep) in relation to changes in grandparenting among a large representative sample of older Italian adults. Our findings indicate that compared to grandparents who maintained unchanged or increased grandchild care provision during the pandemic, those who did not look after grandchildren during the lockdowns, as well as those who reduced their involvement, reported generally poorer mental health clinical indexes, specifically displaying more depressive symptoms.

What is already known on this topic

Our results are consistent with the findings of Di Gessa et al. [12] and support the notion that abrupt changes in society and family routines, as explained by the 'ambiguous loss' theory,[29] are associated with poorer mental health outcomes. The frustration and distress experienced by grandparents are likely linked to the loss of control over their caring activities, which typically provide opportunities for spending time with their grandchildren.

What this study adds

During the period of physical distancing measures, grandparents were either excluded from their active role or faced an increased involvement in grandparenting, especially when parents continued working.[30] Both circumstances may have had adverse effects on mental health.[31,32] Reduced grandparenting and limited face-to-face contact with grandchildren contributed to worsened depressive and anxious symptoms, particularly among women, who often assume significant or exclusive caregiving roles within families, leading to gendered implications in childcare.[33–35] Conversely, an increase in grandparenting, with added responsibilities depending on the age of grandchildren, was associated with worsened sleep disorders, likely due to the worries and difficulties experienced in overcrowded households,[36] where parents alternated between working from home and being absent due to their jobs.[37] The increased risk of severe COVID-19, financial insecurity and an uncertain future fostered feelings of hopelessness in older adults, contributing to the deterioration of mental health, as supported by our findings in line with existing literature.[38] The number of household members played a complex role, with individuals living alone experiencing worsened sleep quality, possibly due to concerns about being alone and separated from their families. Those living with more than two persons reported reduced sleep quantity and increased anxiety symptoms, likely attributable to the reduction of personal space and a daily chaotic routine,[39,40] although changes in family composition due to lockdown implementation were not accounted for in our study.[41] The non-significant role of educational level, marital and retirement status[42–44] suggests that the impact of changes in grandparenting on mental health is independent of socioeconomic status.[45]

Strengths and limitations

The LOST in Lombardia project represents the first multidisciplinary study in Italy conducted on a large representative sample exploring pandemic effects on grandparents, allowing for the generalisation of results to other countries with similar family-oriented cultures. The study design, employing a quasi-natural experimental approach through a pre–post analysis within a cross-sectional study,[46] capitalised on the COVID-19 pandemic as a unique context. Potential selection bias was minimised by the CATI method, which was most suitable for our older population with limited digital literacy. Additionally, the use of validated evidence-based tools ensured rigorous assessment of the variables collected. However, there are limitations to consider. The cross-sectional nature of our data restricts our ability to establish robust causal relationships, and the absence of information on grandchildren (e.g., housing, age, number) limits a more comprehensive analysis. Other limitations include potential information bias due to self-reported responses and the possibility of social desirability recall bias, as participants were asked to report their pre-pandemic habits and psychophysical well-being during the interview.

Implications for public health and research

Beyond the challenges posed by the pandemic and the specific context of Italy, our analysis highlights the beneficial effects of grandparenting on the mental health and well-being of older individuals. Thus, the promotion of grandparenting should be sustained while also considering the specific vulnerabilities we have identified (e.g., female sex, hopelessness, overcrowded households). The efficacy of timely and targeted social welfare interventions should be explored in future longitudinal studies to minimise detrimental outcomes and preserve the resilience of older adults.

Supplementary data

Supplementary data are available at the *Journal of Public Health* online.

Conflict of interest

Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent or licensing arrangement) that might pose a conflict of interest in connection with the submitted article.

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Authors' contributions

GPV and AO conceptualised and designed the study. GPV, together with AA, PB and AO, contributed to the implementation of the research and the analysis of the results. GPV, together with AO, AA and PB, wrote the first draft of the manuscript. AO supervised the work. All authors provided essential contributions for the interpretation of findings and contributed to the final version of the manuscript. All authors carefully revised the final version of the manuscript. All the authors read and approved the last version of the manuscript.

Data availability

The datasets supporting the conclusions of this study are available from the corresponding author upon request.

Statements and declarations

Ethics approval and consent to participate and for publication

Ethics approval and consent to participate and publication for this non-interventional study derived from the Ethics committee of Fondazione IRCCS Istituto Neurologico Carlo Besta, Milan, Italy; file number 76, October 2020. The authors declare that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2000.

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