

Resilience in older adults despite COVID-19. A multidimensional approach

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Abstract

Researchers have mainly focused on aging risk factors and COVID-19 consequences. However, older adults have proved their ability to overcome adversities along their life. Resilience is a protective variable that dampens the impact of stress. Based on MacLeod's et al. (2016) approach, we aimed to analyze the relationship between older adults' resilience and COVID-19 related-stressors as well as their physical, mental, and social characteristics. 889 people aged 60 and over participated in this study. Older participants, women, having better perceived health and not losing a loved one because of the virus were associated with more resilience. Moreover, higher levels of gratitude, personal growth, life purpose and lower levels of depression were associated with greater scores in resilience. This study offers a change of perspective in which aging is perceived from a positive viewpoint by focusing on resources that may help older adults to cope with adverse situations.

Introduction

The COVID-19 pandemic is a highly stressful situation with potential long-term consequences on physical and psychological well-being. Available data shows a bigger threat to older adults. For this reason and the fact that traditionally aging has been linked to negative characteristics, most COVID-19 research has focused on older adults' negative consequences. However, not the whole group of older adults has been affected negatively. One of the most remarkable aging characteristics is its heterogeneity. For this reason, age is not enough criterion for predicting the direct impact of the virus. What is more, difficult situations older adults have faced along their lives may have strengthened them because of developing protective psychological resources, like resilience.

According to the American Psychological Association, resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress (APA, 2014). This consideration of resilience as a dynamic process has been generally accepted. Despite the increasing recognition of resilience like a key construct across the adult life span, the study of this phenomenon in older adults has flourished rather recently (Allen et al., 2018). Research results suggest that older adults have the capacity for high resilience despite age-related changes (role changes, illnesses, loneliness, and grief) (MacLeod et al., 2016).

Resilience has been considered as a multidimensional construct compounded by mental, social and physical factors and it is positively linked with successful aging and longevity (MacLeod et al., 2016). Regarding physical characteristics, several studies have found higher resilience in women stressing the idea that women have to face with more difficult situations along their lives which may strengthen and empower them (Hahn et al., 2011). In contrast, a very recent study found worse resilience in women facing COVID-19 (Plomecka et al., 2020). Other studies have suggested the association among resilience and better health, lower rate mortality and higher longevity even in the oldest old (Nygren et al., 2005; Zeng & Shen, 2010).

Within mental characteristics, it was found a significant positive relationship among resilience and optimal outcomes, such as psychological well-being, gratitude or acceptance. When facing life challenges, many people can find a sense of purpose and meaning and even to develop one's potential (Tomás et al., 2012). Furthermore, some research found a relationship between suffering and positive meaning and gratitude (Sacco et al., 2014). Gratitude is firmly associated with well-being, including personal growth, life purpose and self-acceptance (Wood, Froh, & Geraghty, 2010). Adaptive coping strategies, like acceptance, can also help older adults to adapt gradually to daily challenges and are critical to recovering from stressful events. On the contrary, these variables show a negative relationship with emotional distress (depression and anxiety) (Laird et al., 2019). Finally, contextual variables like warmth, support and family cohesion contribute to resilience (MacLeod et al., 2016).

This study aimed to assess physical, psychological and social factors related to resilience from a multidimensional approach. To our knowledge, the studies about aging and COVID-19 are mainly focused on older adults' negative consequences and risk factors, and none have considered a strengths-based approach yet.

Method

Participants

We used snowball sampling to recruit 889 people community-dwelling aged 60 and over from Spain three weeks following the lockdown restrictions. The mean age was 68.45 years old (SD = 6.06). We received responses from 937 respondents but 889 finally participated (94.87% response rate). 48 participants were excluded because they were under 60 years old. Most participants were women (62%), were living in their own home (92%) with their spouse or partner (62.5%) and reported a good (43.5%) or fair (34.1%) perceived health. 76 participants had COVID-19 symptomatology; 9 had been hospitalized, 170 had a close family member or friend who has been hospitalized and 93 reported the loss of a loved one by the virus.

Measures

We prepared an assessment protocol that included questions about **sociodemographic characteristics**, self-perceived health, and characteristics of the COVID-19 lockdown situation. Moreover, some standardized questionnaires were used:

- **Brief Resilient Coping Scale** (BRCS) (Sinclair & Wallston, 2004). This scale comprises 4 items to measure resilience, ranging from 1 = strongly disagree to 5 = strongly agree. In our sample it had an adequate internal consistency (Cronbach's $\alpha = .791$).
- **The Family APGAR** (Smilkstein, 1978). We used this scale in order to assess family functioning. It is a 5-item Likert scale with 3 response options (almost always, some of the time and hardly ever). It was found and adequate internal consistency in our study (Cronbach's $\alpha = .780$).

- **Gratitude subscale of the Values in Action Inventory of Strengths-Short Form** (Littman-Ovadia, 2015). It comprises 5 items and each of them is rated on a 5-point Likert scale and it was used to evaluate gratitude. In our research it showed good reliability (Cronbach's $\alpha = .841$).
- **The Acceptance and Action Questionnaire - II (AAQ-II)** (Bond et al., 2011). We used this reliable and valid instrument composed by 7 items with 7 response options to measure psychological inflexibility. In our sample it was found good internal consistency (Cronbach's $\alpha = .890$).
- **Ryff's Psychological Well-Being Scales**. We used two scales, personal growth and purpose in life assessed by 7 and 6 items respectively, to measure psychological well-being because Ryff's considers them the core elements to psychological wellbeing. Both scales were scored in a 7-point Likert (Ryff, 1989). It was found an adequate internal consistency for personal growth (Cronbach's $\alpha = .625$) and purpose in life (Cronbach's $\alpha = .808$).

Procedure

A cross-sectional web-based survey was carried out through social media (Twitter, WhatsApp, LinkedIn). The validity and reliability of Internet surveys for analyzing subjective well-being are comparable to paper-based versions (Howell et al., 2010). Participation was voluntary and no reward was given. Informed consent was obtained from all respondents, and confidentiality was explicitly guaranteed. The Ethics Committee of Universidad San Pablo-CEU approval the study (code approval: 436/20/26).

Results

Based on MacCleod's et al. (2016) resilience approach, the independent variables included in a linear regression model were the following: physical, COVID-19 related-stressors, mental and social characteristics. The variables related with sociodemographic and physical characteristics (age, sex and perceived health) were entered as a block in a first step; in a second step, controlling the effect of the first block variables, we introduced the COVID-19-related-stressors (fear to the virus, presence of symptomatology, being hospitalized, having a close family member or friend who has been hospitalized and losing a loved one by the virus); in a third step, controlling the effect of the previous ones, the variables associated with mental characteristics were introduced as a block (experiential avoidance, gratitude, personal growth, life purpose, anxiety and depression); and finally, in the fourth step, we included the variables related with social characteristics (family functioning).

In Table 1 are the descriptive statistics for the assessed variables.

Table 1
Descriptive statistics

Variable	Mean ± S.D.	Range
Age	68.45 ± 6.06	60–95
Resilience	15.78 ± 3.30	4–20
Personal growth	28.25 ± 4.38	13–41
Life purpose	27.89 ± 4,77	8–36
Avoidance experience	19.65 ± 6.77	7–49
Gratitude	22.21 ± 2.94	9–25
Family functioning	8.75 ± 1.85	0–10
Anxiety	5.13 ± 3,24	0–18
Depression	3.64 ± 2.82	0–17

The explained variance of resilience significantly increased in every step ($R^2_{Step1}=.066$; $R^2_{Step2}=.086$; $R^2_{Step3}=.108$; $R^2_{Step4}=.196$), but the main differences in the variance explained by the predictors can be found the fourth step ($\Delta R^2=.196$). The results of the final linear regression model can be found in Table 2. This linear equation model explained 30.4 % of the total resilience variace. All physical variables significantly contributed to explaining resilience. Participants who were older, female and those who indicated better perceived health also showed more resilience. Among the COVID-19-related-stressors variables, only losing a loved one was related to less resilience. Regarding mental characteristics, higher levels of gratitude, personal growth, life purpose and lower levels of depression were associated with greater scores in resilience.

Table 2
Results of the final linear regression model to predict resilience scores

Variable	β	SE	$s\beta$	t	p
Constant	3.83	1.87	-	2.05	.04
Age	.05	.02	.08	2.77	< .01
Sex (Men = 2)	-.58	.20	-.09	-2.95	< .01
Perceived health	.31	.13	.08	4.44	< .05
Fear to virus	-.18	.12	-.05	-1.45	.15
Presence of symptomatology	.01	.36	.00	.02	.98
Being hospitalized	-1.74	1	-.05	-1.74	.08
Close family member or friend hospitalized	.41	.27	.05	1.55	.12
Losing a loved one	-.71	.34	-.07	-2.06	< .05
Family functioning	-.01	.06	-.00	-.09	.93
Experiential avoidance	-.01	.02	-.02	-.42	.68
Gratitude	.12	.04	.11	3.44	< .01
Personal growth	.08	.02	.10	3.01	< .01
Life purpose	.18	.03	.26	7.36	< .01
Anxiety	-.07	.04	-.06	-1.53	.13
Depression	-.18	.05	-.15	-3.71	< .01

Discussion

Most information regarding older adults' psychological impact during the COVID-19 pandemic is based on risk factors. This study stresses the role played by protective factors considering the resilience multidimensional approach proposed by MacCleod's et al. (2016) that entails physical, COVID-19 related-stressors, mental and social factors.

This work points out that each group of variables obtain a differentiate explicative power, explaining a total of 30.4% of the resilience variance. The variables which more contributed to predicting it included: age, female and those who indicated better perceived health (physical characteristics), losing a loved one (COVID-19-related-stressors variables) and higher levels of gratitude, personal growth and life purpose and lower levels of depression (psychological characteristics). These results support the hypothesis that resilience results from a combination of multiple characteristics (Hahn et al., 2011; Laird et al., 2019; Nygren et al., 2005; Sacco et al., 2014; Tomás et al., 2012).

Our study also shows a positive perspective of ageing. We observed psychological resources that empowered older adults to handle very severe adversities along their lives, included the current pandemic situation, confronting the idea that “older adults are more vulnerable” (Masten, 2007).

Age should not be considered a weakness. The stressors across the life course that older adults must face might train them and provide an opportunity to build resilience and age successfully. This could help to eliminate aging negative stereotypes and attitudes. In this line, resilience could be considered as a protective or preventive factor to future adverse events (Acosta et al., 2017). The detection of protective factors could be the key to buffer the adverse psychological effect of COVID-19.

Although this research has generated interesting findings, some limitations need to be addressed. First, this is a cross-sectional study that does not allow the possibility to set temporal precedence and establish causal relationships. Longitudinal studies are required to ensure the stability of these results. Furthermore, it is based in a convenience and nonprobability sample which might not be representative of the whole Spanish population of 60 years and over. Although women life expectancy is higher than men, women are overrepresented in this study and a wider range of men sample is needed. Finally, the sample consisted of non-institutionalized people. These results could be not representative of the older adults living in long-term care facilities. Nevertheless, older Spanish adults' dwells in the community.

To conclude, this study provides a shift in the aging image, focusing on the importance of resilience as a dynamic process that helps to promote the process of successful aging and longevity (Alwin & Igarashi, 2015; Rowe & Kahn, 2000). It also emphasizes the need for developing policies and preventive and intervention programs that promote older adults' resilience and, in turn, protect their physical and psychological health from disasters and adversities. Finally, it would be very useful if resilience could be assessed along their lives and these programs were designed in collaboration with the older adult (Bolton et al., 2016).

Declarations

Ethics approval and consent to participate

Informed consent was obtained from all respondents, and confidentiality was explicitly guaranteed. The study was approved by the Spanish Ministry of Economy and Competitiveness and the University CEU San Pablo Ethics Committee. And all methods were performed in accordance with the relevant guidelines and regulations such as the Declaration of Helsinki.

Consent for publication

Not applicable.

Availability of data and materials section

The datasets generated and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Author Contributions

“Conceptualization, GPR and JL.; methodology, GPR, JL, CV, IC and CN; formal analysis, GPR, JL, CV, IC and CN; investigation, GPR, JL, CN, IC, LG, PLF and CV; writing—original draft preparation, GPR, JL, CV, IC and CN; writing—review and editing, GPR, JL, CN, IC, LG, PLF and CV”.

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