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Supplementary grandparent caregiving and psychological wellbeing: the role of character strengths

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Abstract

Objective This study analyses the role of character strengths in grandparents' psychological wellbeing. Following the Lazarus and Folkman's stress model, we included three groups of variables that may be related to grandparents' psychological wellbeing: personal characteristics (sex, age, and marital status), stressful event (conducting a caregiver or non-caregiver role) and coping strategies (character strengths).

Methods A sample of 536 Spanish grandparents participated. The average age was 70.23 ($SD = 7.17$). We conducted a multiple regression analysis.

Results Multiple regression analysis evidenced that the character strengths optimism, humour, courage, justice and problem solving explained the 34.7% of grandparents' psychological wellbeing variance.

Conclusions The results have shown that, when faced with a stressful event, such as the supplementary care of grandchildren in this case, personal characteristics or the stressful event itself are not as relevant as the strategies available to the person to cope with the event.

Keywords Grandparents, Grandparenthood, Grandparent-grandchildren relationships, Supplementary care, Wellbeing

Background

Social and demographic changes have currently led to a reorganization of family relationships. A significant shift in the dynamics between grandparents and their own children is the transformation of grandparents into key figures of practical and economic support, facilitating parents' reconciliation of personal and professional lives, as well as providing assistance during economic difficulties [1]. In terms of grandparent-grandchild relationships,

the involvement of grandparents in their grandchildren's lives has increased, with many grandparents becoming caregivers and having a closer and more affective bond with their grandchildren [2, 3].

The Survey of Health, Aging and Retirement in Europe (SHARE) indicates that 60% of grandparents serve as supplementary caregivers for their grandchildren, providing additional care alongside that of the parents (e.g., while they are working). Specifically, 30% of grandparents care for their grandchildren for at least 30 h per month. Among those who regularly care for their grandchildren, i.e. those who care daily, the percentage in Spain is 12%, ranking just below Portugal (13%), Croatia (14%), Poland (14%) and Italy (17%) [4].

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Literature suggests that the lack of responsibility of grandparents regarding the education and upbringing of their grandchildren is a significant factor in their wellbeing. Not being the primary caregivers enables them to engage in their grandchildren's lives, while retaining the freedom to pursue other vital interests [5–7]. Thomas [7] further noted that excessive responsibility could negatively impact on grandparents' satisfaction with their role. Although grandparents providing supplementary care are not the main responsible for grandchildren education, they are exposed to various responsibilities than can be potential stressors. Typical caregiving tasks of supplementary grandparents include: (1) Direct attention, such as feeding, bathing, or taking grandchildren to school; (2) indirect attention, in which help is provided to grandchildren through their parents; and (3) sociocultural attention, such as playing with grandchildren, reading, or assisting them with homework [8–11].

While literature has underscored the importance of the grandparent-grandchild bond, there remains no consensus on the effects of providing supplementary care on grandparents. Some studies have reported adverse consequences, including higher levels of stress, emotional distress, functional limitations, and poor self-rated health [12, 13]. Conversely, there is substantial agreement on the positive effects of supplementary caregiving on grandparents' life satisfaction, emotional state and self-rated health [14–17]. In this regard, the reality of caregiving grandparents has been addressed both through Goode's Role Strain Theory [18] and Moen et al.'s Role Enhancement Theory [19]. According to the first one, an excess of social roles, along with their corresponding functions and obligations, can generate stress in individuals when these roles become overwhelming and exceed their physical and psychological resources. In contrast, the latter suggests that the development of diverse roles promotes individual wellbeing by providing gratification, a sense of belonging and social support.

Giving that supplementary caregiving for grandchildren can be a source of stress for grandparents, we have employed the Lazarus and Folkman stress model [20]. This model states that an individual's response to a stressful event is influenced by three elements: personal characteristics, stressor and coping strategies. From this perspective, primary stressors create the conditions under which emotional distress may arise; however, the extent to which the person experiences distress, or wellbeing will depend on their assessment of the event and the resources available to cope with the stressor. Applying this model to our study, we hypothesise that character strengths will explain grandparents' psychological wellbeing to a greater extent than their personal characteristics (character strengths) and the stressor (caregiving).

Grandparent's wellbeing

Wellbeing can be conceptualised from two perspectives, subjective wellbeing and psychological wellbeing. These terms were already differentiated by Aristotle, when he distinguished between hedonism and eudaimonia in his *Nicomachean Ethics* [21].

On the one hand, hedonism refers to the satisfaction of desires, the enhancement of pleasure and the suppression of pain, consisting of people's cognitive and emotional evaluation of their affection and life satisfaction. Consequently, it is assessed by indicators such as happiness, positive and negative affect or life satisfaction. On the other hand, eudaimonia refers to a person's feelings and behaviours aimed at developing their potential, striving to give meaning and direction to their life, and self-fulfilment. Thus, the key concepts of psychological wellbeing are self-knowledge, self-fulfilment, striving to develop one's virtues and talents, and seeking meaning in adversity [22, 23].

The present study focuses on Ryff's Model of Psychological Wellbeing (eudaimonia), according to which wellbeing is composed of six dimensions: self-acceptance (having positive attitudes towards oneself despite of one's limitations), positive relationships (creating stable and trusting bonds), autonomy (having self-determination, independence, and personal authority), environmental mastery (developing favourable contexts for satisfying one's desires and needs), personal growth (developing one's potential and continuing to growing and reach the maximum of one's capabilities), and purpose in life (setting goals that give meaning to one's life) [23, 24].

Most research studying grandparents' wellbeing has predominantly focused on subjective wellbeing, considering indicators such as life satisfaction [14–17], depressive symptoms [17, 24] and self-rated health [25]. In general, literature agree that grandparental childcare is positively associated with higher subjective wellbeing, if the care is not perceived as a source of hardship [2, 25]. In contrast, some authors have observed a mixed or negative impact of supplementary grandparenting, finding positive consequences such as joy, fun, and gratitude, but also negative ones, including physical and psychological fatigue and annoyance at the grandchild's behaviour, especially as the intensity of care increased [8, 26].

Moreover, most studies have compared the wellbeing of supplementary caregiving grandparents who provide care for varying numbers of hours, with few investigations analysing the differences in wellbeing between supplementary caregiving grandparents and non-caregiving grandparents, as is done in the present study [12–14, 17, 27]. When comparing caregiving and non-caregiving grandparents' wellbeing, different results appear. Komonpaisarn and Loichinger found lower wellbeing among regular grandparent caregivers. This study

organised grandparents depending on their caregiving frequency (“never,” “sometimes,” or “regularly”), comparing those who answered “never” and “regularly” to obtain a clear distinction. Considering the finding, the authors suggested that the amount of care provided should be considered, as its effects on wellbeing may vary depending on it [12]. Tang et al. also reported lower wellbeing in grandparent caregivers, particularly if the caregiving role was not voluntarily chosen [13].

About psychological wellbeing, the literature review conducted within the scope of this study has only found two studies that have analysed the psychological wellbeing of grandparents providing supplementary care following Ryff’s model [23, 24]. The first one found high levels of psychological wellbeing in its participants [28]. The second one found a significant relationship between personal growth (one dimension of psychological wellbeing) and generativity [29]. However, both studies are focused on grandparents providing supplementary care for middle-aged grandchildren. Therefore, we do not know whether these results can be generalized to grandparents who care for grandchildren of other ages.

In summary, exploring the psychological wellbeing of supplementary caregiving grandparents is particularly interesting for two reasons. Firstly, the literature on this topic is still quite limited, having mainly focused on personal growth, which is one dimension of psychological wellbeing, rather than the construct as a whole. Secondly, some authors have found a positive relationship between generativity and personal growth in grandparents [16]. Generativity is the desire to contribute to future generations, ensuring their wellbeing and continuing one’s own legacy [30]. Caring for grandchildren, and more specifically, the transmission of values, allows grandparents to engage with and guide the new generation, thereby promoting generativity.

Character strengths

In addition to the influence of caregiving intensity on grandparents’ wellbeing, as previously described, another relevant variable in the literature are grandparents’ resources to manage caregiving difficulties. Recent research suggests that is not only the quantity of care provided by grandparents that matters, but also the strategies they employ to cope with their caregiver role [2, 25].

Following the mentioned model of stress of Lazarus and Folkman, the way a person copes with a stressful event depends on three elements: personal characteristics, the stressful event and coping strategies [20]. In this case, personal characteristics are the grandparents’ sociodemographic variables, the stressful event is the caregiver role, and the coping strategies are the character strengths. Peterson and Seligman proposed the existence of a series of virtues and strengths, which can be learned

and enhanced, that help people to have good character. On the one hand, the virtues are defined as the core characteristics valued throughout history by philosophers and religious people as the basis for people to have good character. On the other hand, character strengths are the psychological mechanisms or processes that enable the development of virtues [31].

Although literature agree that character strengths act as protective factors of wellbeing, research focusing on the target population of this study is quite limited. To our knowledge, there is only one study that has analysed the relationship between grandparents’ character strengths and their health-related quality of life [32], whereas no study has analysed the relationship between character strengths and wellbeing. The previous research found that character strengths mediated the relationship between the amount of supplementary care provided (regular caregivers vs. occasional caregivers) and health-related quality of life (physical and mental dimensions) [32]. However, this study considered character strengths as a total score, so the specific role of individual character strengths is unknown.

Although research on grandparents’ character strengths is scarce, recent studies have addressed the relationship between character strengths and subjective wellbeing (happiness and life satisfaction) and psychological wellbeing in adult and older individuals; however, these studies focus mainly on subjective wellbeing. Blanchard et al. pointed out a positive relationship between subjective wellbeing and hope, gratitude, leadership, love, spirituality, and vitality [33]. Wagner et al. reported a positive relationship between all the character strengths, except humility and modesty and prudence, and subjective wellbeing [34]. Pezirkianidis et al. found that all character strengths, except humility and modesty, love of learning, appreciation of beauty and self-regulation, had a positive relationship with subjective wellbeing [35]. Rey et al. [36] described a positive relationship between emotional intelligence and subjective wellbeing, and Castillo et al. [37] between humor and subjective wellbeing. Regarding psychological wellbeing, only two studies have been identified that analyse the relationship between character strengths and psychological wellbeing in adults and older individuals, demonstrating a positive relationship between humour and emotional intelligence and wellbeing, both subjective and psychological [38, 39].

Sociodemographic variables

Regarding sociodemographic variables, grandparents’ sex has been extensively studied. In general, literature indicates that grandmothers are more likely to care for grandchildren, having more contact than grandfathers and providing them with more emotional support [14, 40, 41]. However, the different effects of grandchildren

care on grandmothers and grandfathers are inconclusive. On the one hand, some studies found benefits for grandmothers' wellbeing, such as lower risk of depressive symptoms, better self-rated health, fewer functional limitations, and stable life satisfaction [17, 42, 43], whereas others showed higher levels of stress, depressive symptoms, poor self-rated health, and lower life satisfaction on grandmothers [44, 45]. On the other hand, Grundy et al. reported higher life satisfaction on grandfathers compared to grandmothers [42]. In contrast, Notter and Carr concluded that, unlike grandmothers, grandfathers' mental health does not benefit from regular care of grandchildren [46]. Finally, Muller and Litwin found no significant relationship between grandparents' sex and their subjective wellbeing [45]. The discrepancy between the previous research may be due to the frequency and type of care provided by the participants in each study. According to literature, caring too little or too much for grandchildren is associated with lower life satisfaction, whereas spending a balanced amount of time with grandchildren increased grandparents' life satisfaction [47].

With respect to grandparents' age, there are also mixed results in the literature. While Coleman-Reed and Nelson-Gardell found a positive relationship between grandparents' age and life satisfaction, i.e., older grandparents (>60 years old) reported higher life satisfaction than younger grandparents (<60 years old) [15], Muller and Litwin found no significant relationship between grandparents' age and their subjective wellbeing [45].

Finally, few studies have considered the relationships between grandparents' marital status and their wellbeing. While Coleman-Reed and Nelson-Gardell found no significant influence [15], Moore and Rosenthal reported that having a partner with whom to share grandparenthood increases life satisfaction [16].

Based on the above, it can be concluded that knowledge regarding the impact of supplementary care of grandchildren on grandparents' wellbeing is limited and has primarily concentrated on subjective wellbeing. The few studies that have examined this issue through the lens of Ryff's model have focused on the dimension of personal growth, rather than on overall psychological wellbeing, as this study does. Furthermore, research on the association between character strengths and psychological wellbeing in this population is scarce, with no known studies investigating which character strengths are associated with the psychological wellbeing of grandparent caregivers.

Present study

The overall objective of this research was to analyse the role of character strengths in grandparents' psychological wellbeing. One of the main strengths of the present study lies in its exploration of the psychological wellbeing of grandparent caregivers, which is significant for two

reasons: firstly, the existing literature on this topic is still limited, and secondly, the role of caregiving grandparents has been linked to generativity, which in turn enhances psychological wellbeing.

Based on Lazarus and Folkman's stress model [20], we included three groups of variables that may be related to grandparents' psychological wellbeing: personal characteristics (sex, age, and marital status), stressful event (conducting a caregiver or non-caregiver role) and coping strategies (character strengths). We hypothesized that character strengths would be associated with grandparents' psychological wellbeing to a greater extent than their personal characteristics and the stressful event.

Method

Participants

Participants in the present study were 536 grandparents with, at least, one grandchild under 18 years old. The average age of the participants was 70.23 ($SD=7.17$), with a higher percentage of women (59.9%). Most of the participants were married or living with their partners (73.9%), had a medium socioeconomic status (65.5%) and were retired (60.1%) (Table 1).

Regarding the intergenerational characteristics, the average number of grandchildren was 5.37 ($SD=4.663$), and most of the group of grandchildren was between 6 and 12 years of age. The mean age of the grandchildren cared by their grandparents was 7.67 ($SD=3.3$). Most of the participants had contact with their grandchildren weekly (58%) and desired to share more time with them (75.4%) (Table 2).

Instruments

Socio-demographic data

The following variables were included: age, sex, marital status, socioeconomic status, job status and educational level.

Intergenerational data

The following variables were included: number of grandchildren, grandchildren's age, frequency of contact, desire to share more time with their grandchildren, and whether they were supplementary caregivers of their grandchildren or not.

Character strengths

We used the Psychological Resources Inventory (IRP-77) [48]. This 77-items instrument measures character strengths through 14 factors: optimism (tendency to expect positive results in the life), humour (perception of an experience as humorous, even in adverse conditions), spirituality (to behave in congruence with a transcendental conviction), courage (acting according to one's opinions), forgiveness (to forgive those who have

Table 1 Demographic characteristics of grandparent caregivers and non-caregivers

Category	Total sample	Caregivers	Non-caregivers
	(n = 536)	(n = 417)	(n = 119)
	Mean (SD) / n (%)	Mean (SD) / n (%)	Mean (SD) / n (%)
Age Mean	70.23 (7.167)	69.58 (7.118) ***	72.48 (6.907) ***
Gender			
Men	215 (40.1)	170 (40.8)	45 (37.8)
Women	321 (59.9)	247 (59.2)	74 (62.2)
Marital status			
Single	2 (0.4)	1 (0.2)	1 (0.8)
Married or living together	396 (73.9)	308 (73.9)	88 (73.9)
Divorced	37 (6.9)	34 (8.2)	3 (2.5)
Widowed	101 (18.8)	74 (17.7)	27 (22.7)
Socioeconomic status			
Low	2 (0.4)	2 (0.5)	-
Medium-Low	45 (8.4)	37 (8.9)	8 (6.7)
Medium	351 (65.5)	270 (64.8)	81 (68)
Medium-High	135 (25.2)	105 (25.2)	30 (25.2)
High	3 (0.6)	3 (0.7)	-
Job status			
Working full or part time	48 (9)	44 (10.6)	4 (3.4)
Self-employed worker	13 (2.4)	12 (2.9)	1 (0.8)
Unemployed	8 (1.5)	8 (1.9)	-
Housewife	144 (26.9)	112 (26.9)	32 (26.9)
Retired	322 (60.1)	240 (57.6)	82 (68.9)
Inability to work	1 (0.2)	1 (0.2)	-
Educational level			
Without studies	34 (6.3)	29 (7)	5 (4.2)
Primary studies	107 (20)	74 (17.7)	33 (27.7)
Secondary studies	166 (31)	130 (31.2)	36 (30.2)
University studies	229 (42.7)	184 (44.1)	45 (37.8)

*** $p \leq .001$ **Table 2** Intergenerational characteristics of grandparent caregivers and non-caregivers

Category	Total sample	Caregivers	Non-caregivers
	(n = 536)	(n = 417)	(n = 119)
	Mean (SD) / n (%)	Mean (SD) / n (%)	Mean (SD) / n (%)
Number of grandchildren	5.37 (4.663)	5.09 (4.401)	6.27 (5.358)
Grandchildren's age			
0–6	336 (62.7)	271 (65)	65 (54.6)
6–12	403 (75.2)	304 (72.9)	99 (83.2)
13–18	193 (36)	136 (32.6)	57 (47.9)
Frequency of contact			
Daily	112 (20.9)	110 (26.4)	2 (1.7)
Weekly	311 (58)	286 (68.6)	25 (21)
Monthly	87 (16.2)	17 (4.1)	70 (58.8)
Annually	26 (4.9)	4 (1)	22 (18.5)
Desire to share more time			
Yes	404 (75.4)	299 (71.7)	105 (88.2)

harmed us), creativity (to produce original ideas and behaviours), vitality (to have physical and psychological energy), justice (taking part in civic activities), self-control (to regulate desires, emotions, needs and impulses when is necessary), emotional intelligence (to know one's

emotional world in order to be able to guide behaviour), problem solving (to cope with the situations using the most adequate skills and knowledge), love (to love and be loved), open mind (to seek various options and strategies according to the objectives), and social intelligence

(to understand the motivations and behaviours of others). Items are scored from 0 “strongly disagree” to 3 “strongly agree”. An example of an item is: “I analyse situations from various points of view”. In our sample, all the subscales showed good reliability: optimism (*Cronbach's* $\alpha=0.93$), humour (*Cronbach's* $\alpha=0.76$), spirituality (*Cronbach's* $\alpha=0.9$), courage (*Cronbach's* $\alpha=0.87$), forgiveness (*Cronbach's* $\alpha=0.82$), creativity (*Cronbach's* $\alpha=0.78$), vitality (*Cronbach's* $\alpha=0.83$), justice (*Cronbach's* $\alpha=0.77$), self-control (*Cronbach's* $\alpha=0.77$), emotional intelligence (*Cronbach's* $\alpha=0.73$), problem solving (*Cronbach's* $\alpha=0.72$), love (*Cronbach's* $\alpha=0.77$), open mind (*Cronbach's* $\alpha=0.71$), and social intelligence (*Cronbach's* $\alpha=0.71$).

Psychological wellbeing

We used the Ryff Scale of Psychological Wellbeing (1989; brief version) [49]. This 29-items instrument was used to measure the total score of psychological wellbeing. Psychological or eudaimonic wellbeing is related to the development of human potential, which, according to Ryff's model, is composed of six dimensions: self-acceptance, positive relationships, autonomy, mastery of the environment, personal growth, and purpose in life. Items are scored from 1 “strongly disagree” to 6 “strongly agree”. An example of an item is: “In general, I feel I am responsible for the situation in which I live”. In our sample, this instrument showed good reliability (*Cronbach's* $\alpha=0.70$).

Procedure

First, the project was approved by [edited out for blind review] University Ethics Committee (516/21/40). Immediately, we proceeded to the recruitment of the sample. We used a convenience sample. Data were obtained from different organizations, social centres, universities for seniors and schools, and using the snowball sampling technique. Next, the participants completed a self-administered questionnaire (either electronic, 53.5%, or in paper format, 46.5%), which took between 20 and 30 min. Participants answered the questionnaire based on the grandchildren they have cared for in the last 12 months. Informed consent was obtained from all respondents and confidentiality of their data was explicitly guaranteed.

Data analysis

Descriptive statistics for sociodemographic variables were examined. T-Student, Chi-Square and one-factor ANOVA analyses were conducted to examine the differences between grandparent caregivers and non-caregivers on the sociodemographic variables (sex, age, and marital status) and psychological wellbeing. Differences on psychological wellbeing by sociodemographic variables were tested using T-Student, Chi-Square, and

one-factor ANOVA. Then, Pearson Correlation Coefficients were calculated across all variables to investigate associations between psychological wellbeing and character strengths (optimism, humour, spirituality, courage, forgiveness, creativity, vitality, justice, self-control, emotional intelligence, problem solving, love, open mind, and social intelligence). Finally, the variables showing statistically significant relationships with psychological wellbeing were included in a multiple regression analysis.

Results

When examining the differences between grandparent supplementary caregivers and non-caregivers by sociodemographic variables (sex, age and marital status), results showed significant differences only in age ($t=3.941$; $p<.001$), being higher the average age of non-caregiver grandparents ($M=72.48$, $SD=6.907$) than caregivers ($M=69.58$, $SD=7.118$).

Likewise, differences between grandparent caregivers and non-caregivers on psychological wellbeing were assessed. Results showed significant differences between the groups ($t=-2.806$; $p<.01$), being higher the average score of grandparent caregivers ($M=133.04$, $SD=16.44$) than non-caregivers ($M=127.92$, $SD=17.28$). Regarding sociodemographic variables, only a significant negative relationship between age and psychological wellbeing was found ($r=-.112$, $p<.05$).

To check potential differences due to the questionnaire administration (paper or online), Chi-Square and T-Student analyses were conducted. No differences were found in the target variables.

Character strengths relation to psychological wellbeing

Pearson Correlations were conducted to analyse whether character strengths were significantly related to grandparents' psychological wellbeing. Results showed that all the character strengths were significantly correlated with psychological wellbeing: optimism ($r=.502$, $p<.01$), humour ($r=.424$, $p<.01$), spirituality ($r=.114$, $p<.05$), courage ($r=.468$, $p<.01$), forgiveness ($r=.311$, $p<.01$), creativity ($r=.379$, $p<.01$), vitality ($r=.399$, $p<.01$), justice ($r=.182$, $p<.01$), self-control ($r=.377$, $p<.01$), emotional intelligence ($r=.372$, $p<.01$), problem solving ($r=.401$, $p<.01$), love ($r=.224$, $p<.01$), open mind ($r=.289$, $p<.01$), and social intelligence ($r=.324$, $p<.01$).

Role of statistically significant variables in psychological wellbeing

Multiple regression analysis was used to explain the influence of age, caregiver role and character strengths on grandparents' psychological wellbeing. Following the stress model of Lazarus and Folkman [20], we included three groups of variables: personal characteristics (age),

Table 3 Multiple regression analysis of psychological wellbeing

	B	SE	β	t	R ²	AR ²
Model					0.347***	0.323***
Constant	83.464***	8.906		9.372		
Age	−0.012	0.096	−0.005	−0.122		
Caregivers or non-caregivers	2.799	1.564	0.071	1.790		
Optimism	0.588***	0.183	0.220	3.215		
Humour	0.416**	0.147	0.145	2.836		
Spirituality	−0.165	0.166	−0.046	−0.994		
Courage	0.837**	0.312	0.154	2.680		
Forgiveness	0.408	0.372	0.061	1.098		
Creativity	0.066	0.279	0.013	0.236		
Vitality	0.335	0.273	0.067	1.226		
Justice	−1.486***	0.393	−0.195	−3.778		
Self-control	−0.199	0.381	−0.030	−0.522		
Emotional intelligence	0.812	0.563	0.073	1.443		
Problem solving	0.979*	0.510	0.105	1.921		
Love	0.111	0.532	0.010	0.208		
Open mind	0.042	0.585	0.004	0.071		
Social intelligence	0.831	0.610	0.074	1.363		

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$

stressful event (conducting a caregiver or non-caregiver role), and coping strategies (character strengths).

As can be observed in Table 3, the character strengths optimism, humour, courage, justice and problem solving explained the 34.7% of psychological wellbeing variance, $F = 14.530$, $p < .001$, $AR^2 = 0.323$.

While the relationship of optimism, humour, courage and problem solving with psychological wellbeing was positive, meaning that higher scores in these strengths explain higher levels of psychological wellbeing, the relationship between justice and psychological wellbeing was negative, with higher scores in justice explaining lower levels of psychological wellbeing.

Discussion

The overall objective of this research was to analyse the role of character strengths on grandparents' psychological wellbeing. Following the stress model of Lazarus and Folkman [20], we included three groups of variables and analysed their relationship to grandparents' psychological wellbeing: personal characteristics (sex, age, and marital status), stressful event (conducting a caregiver or non-caregiver role) and coping strategies (character strengths). We hypothesized that grandparents' psychological wellbeing would be mainly explained by grandparents' character strengths, rather than by their personal characteristics or the stressful event.

To our knowledge, there is only one study that has analysed grandparents' character strengths. Studying supplementary grandparent caregivers of middle-aged grandchildren in Spain, the authors evidenced that character strengths mediated the relationship between the

intensity of the care and the grandparents' health-related quality of life (mental and physical) [32]. However, the authors only considered the total score of character strengths, not analysing the specific role developed by each character strength. In line with the previous research, in our study we found a positive and significant relationship between all the character strengths and the grandparents' psychological wellbeing. Moreover, we found that the character strengths optimism, courage, humour, justice and problem-solving were the ones that explained grandparents' psychological wellbeing. These results are congruent with recent studies on the subjective wellbeing of adults (18 years and older) [34, 35].

There is previous literature that supports the relationship between wellbeing and optimism and humour, either in grandparents or in older people. Firstly, in relation to *optimism*, research demonstrated that new grandparents' optimism is related to greater mental health [49, 50]. Optimism allows people to better adapt to life transitions or challenging situations, such as grandparenthood, being a protective shield against these situations [51].

Secondly, *humour* encourages people to interpret the world in a positive way, expecting to obtain satisfactory results in their lives, which help them to continue coping with difficult situations and achieving their goals. Humour has been associated with greater psychological and subjective wellbeing, as well as greater mental health [52, 53]. Concretely, some authors found a relationship between humour and psychological and subjective wellbeing (happiness and satisfaction with life) in Spanish people aged 17 to 77 years [39]. Again, these data are

consistent with our findings of humour as a factor that explain grandparents' psychological wellbeing.

We did not find studies which analyse the rest of character strengths (courage, justice and problem solving) in grandparents or older people, but literature on middle-aged adults could support our results. Courage has been described by religious and philosophical traditions as a basic virtue for building a quality life [54]. Peterson and Seligman explain that courage enables people to face threatening situations and to be authentic in the way they show themselves to the outside world [31]. Research studying adult populations with somatic symptoms found a positive relationship between courage and psychological wellbeing [54].

Peterson and Seligman [31] describe *justice* as the ability to treat everyone in the same way, regardless of one's opinions, problems, or values. The moral process includes the capacity to know what is ethically right and wrong, according to one's values and principles, the circumstances and the bond with the people involved. Developing justice strength enhances four domains of healthy psychological development: (1) Moral identity formation and self-esteem, acting out one's ideal contributes to the development of self-esteem and the maintenance of moral identity; (2) perspective taking, the development of moral identity includes the capacity to conceive moral issues and contexts from different perspectives and the ability to understand each person's perspective from his or her shoes; (3) self-reflection, trying to understand others' perspectives allow us to check and change our perspectives; and (4) problem solving strength, the last step of the moral process is to find a solution.

In contrast to the aforementioned literature, a negative relationship has been evidenced between justice and the psychological wellbeing of grandparents. According to Martínez (p. 94) [48], justice is "the ability to engage in civic activities that extend beyond individual interactions and a person's relationship with broader groups, such as family, community, nation, and the world. It represents a sense of identification with obligations that benefit both personal and collective interests; a feeling of responsibility is generated at a collective level." In this sense, and in line with the principle of non-interference [5], it is possible that the findings relate to the limited opportunity for caregiving grandparents to advocate for their own interests, to the detriment of the family's overall wellbeing. Various studies show that grandparents, even if they do not fully agree with the parenting styles of their children, recognise their authority as primary educators and choose not to interfere [55, 56]. This non-interference, with grandparents assuming only a supportive role, helps maintain pleasant family relationships and ensures a consistent upbringing for the grandchild [56–58]. Thus, grandparents may exercise less justice as a means of

ensuring family balance, ultimately benefiting their psychological wellbeing.

Finally, regarding *problem solving* strength, authors conceive the human being as a problem solver, highlighting how this strength enhances self-esteem, self-efficacy, and social competence, optimizing personal functioning [59]. Peterson and Seligman point out that problem solving strength is essential for understanding and getting along with others [31]. Although we cannot find studies that relate problem-solving to grandparents' psychological wellbeing, considering that literature shows how this strength helps people cope with stressful or controversial situations, this may explain our findings. As mentioned, the typical caregiving tasks of supplementary grandparents encompass a wide range of activities (direct, indirect, and sociocultural attention) [8–11]. Consequently, it was to be expected that having greater problem-solving skills would promote psychological wellbeing.

It is also important to mention that we did not find differences in psychological wellbeing among supplementary caregivers and non-caregivers. This result supports that the stressor itself (being a supplementary caregiver or not) is not as relevant as having the resources to cope adequately with caregiving. The few studies that have compared the wellbeing of supplementary caregivers and non-caregivers' grandparents show mixed results. While some found that grandparental supplementary child-care is associated with higher subjective wellbeing [15, 27], others evidenced the opposite [12, 13]. Our results are consistent with those suggesting that grandparents' wellbeing only decreases if grandchild care is perceived as a stressor [2, 25]. According to Lazarus and Folkman, it is not so much the stressor event itself that is relevant, but rather the person's evaluation of the event and the resources he or she uses to cope with it [20].

Regarding sociodemographic variables, there are mixed results when comparing the different effects of grandparenthood between grandmothers and grandfathers, with grandmothers benefiting in some cases [17, 42, 43], grandfathers in others [42], and no relationship being found between these variables in other cases [45]. Our results are congruent with the latter, as we found no relationship between grandparents' sex and their psychological wellbeing.

According to age, we found a negative relationship with psychological wellbeing, that is, the older the person was, the lower their psychological wellbeing was. This result does not correspond with previous literature on grandparents' wellbeing. While Coleman-Reed and Nelson-Gardell found a positive relationship between grandparents' age and life satisfaction [15], Muller and Litwin did not find any significant relationship between these variables [45]. However, these two studies were focused on subjective wellbeing (life satisfaction), while

ours focuses on psychological wellbeing (self-realization). Frazier et al. evidenced that, with age, self-acceptance, personal meaning, personal growth, and positive relationships can increase if the person has goals that motivates his or her future [60]. Ryff concluded that progressing through adulthood is related to greater psychological wellbeing, although in older ages purpose in life and personal growth decline [61]. In addition, the author states that psychological wellbeing depends on several psychological processes, such as the coping strategies that the person has for dealing with the challenges of adulthood. Finally, our results indicate that marital status does not relate to grandparents' psychological wellbeing, as Sheppard and Monden suggested [17].

Limitations

Several limitations should be mentioned for further research. First, this study included a non-probabilistic sample. Many grandparents who have agreed to participate in the study likely have a satisfactory experience with their grandparental role. Therefore, it is important to keep in mind that the results may be biased, as those grandparents with negative experiences are more unlikely to participate. Second, this is a cross-sectional study, so we cannot know whether our findings may be stable over time. Longitudinal studies should be developed in the future to support or not these results. Thirdly, regarding the method of data collection, although no significant differences were found in the variables depending on whether the questionnaire was completed on paper or online, it should be borne in mind that the use of two different methods may constitute a limitation in the research design and data collection procedure. Fourthly, the results are from Spanish grandparents. Grandparents' involvement in the care of grandchildren tends to be more intense in Spain, compared with other countries in Europe. These differences are explained by the lack of part-time job opportunities, parental leave benefits for working parents, insufficient formal childcare resources and strong family ties [62]. Consequently, it is important to be cautious when generalizing these results, considering contextual and cultural differences. Finally, for future studies it would be appropriate to use a theoretical model that would allow the variables of the grandchildren cared for, such as their age, to be included in the analyses.

Despite these limitations, this study provides useful insights into the association between character strengths and grandparents' psychological wellbeing.

Firstly, this is an original study focusing on psychological wellbeing, as although there are some studies that address this issue, they are still very scarce, as most of the literature deals with subjective wellbeing. Moreover, they have focused on personal growth, one of the dimensions of psychological wellbeing, and not on total psychological

wellbeing. The perspective of successful aging seeks to enable people to age with security, dignity, initiative, and freedom, so that old age is conceived as an active stage of life, in which individual autonomy and self-realization are possible. Second, it increases knowledge about the role of grandparents as supplementary caregivers, whereas research has tended to focus on grandparents as primary caregivers. Third, these results contradict the tendency to attend to the negative consequences that caring for grandchildren may have for grandparents. In contrast, this study contributes to a new and increasingly relevant path in psychology: focusing on protective factors, rather than negative effects.

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Author contributions

L. G. and C. N. were responsible of the study conceptualization, data collection, data preparation, data analysis and report writing. J. L. y G. P. R. were responsible of the study conceptualization, data analysis and report writing.

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Data availability

The datasets generated and/or analysed during the current study are available in the OSF Home repository, https://osf.io/unjr4/?view_only=6610a675552b4b59bdbc4e66885143a4.

Declarations

Ethics approval and consent to participate

San Pablo-CEU University Ethics Committee approved this project (Committee's reference number: 585/22/56). The informed consent was obtained from all individual adult participants included in the study.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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