

Personality and psychological adjustment in formal caregivers. What is best for caring is also the best for caregivers?*

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Caring for a dependent person can involve a risk for the caregiver's psychological health. This risk is clarified by the individual differences in personality. These are stable but non-definitive personal characteristics, and their variability in efficiency depends on the context. The processes involved in caregivers' adaptation can facilitate or hinder general psychological adjustment and well-being. Objectives: To explore which caregiver characteristics are considered suitable to care for others and to contribute to caregivers' better functioning and well-being. Methods: 171 formal caregivers (mean age = 36.34, SD = 9.99) completed the Millon Index of Personality Styles, which assesses normal personality and offers a Clinical Index, to evaluate psychological adjustment; the Global Satisfaction scale; and the CUIDA, a questionnaire of the appropriate affective and cognitive variables to offer good care to others. Multiple stepwise linear regressions were carried out. Results: Caregiver characteristics related to Independence and Altruism explained poorer psychological adjustment, whereas Self-Esteem, Sociability, and Emotional Balance explained better personal adjustment. Self-Esteem and Sociability explained higher Global Satisfaction, whereas Openness explained lower Satisfaction. Conclusions: Some personal characteristics that may be important for caregiving may not facilitate good psychological adjustment and well-being in some caregiving contexts. Personal adaptation, as defined herein, depends on the context.

Keywords: *Caregivers, personality, psychological adjustment, satisfaction.*

* *Acknowledgements:* Research Project entitled "Personas cuidadores/as formales y familiares y salud" [Formal and familiar caregivers and health] (Ref. 18/09), funded by Ministry of Health, Social Policy and Equality.

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Personalidad y ajuste psicológico en cuidadores remunerados. ¿Lo mejor para el cuidado es también lo mejor para los cuidadores?

Cuidar de una persona en situación de dependencia puede suponer un riesgo para la salud psicológica de la persona que cuida. Este riesgo es matizado por las diferencias individuales en personalidad. Se trata de características personales estables pero no definitivas, y su eficiencia depende del contexto. Los procesos involucrados en la adaptación de las personas cuidadoras pueden facilitar o dificultar su ajuste y bienestar psicológicos. Objetivo: explorar qué características son apropiadas para cuidar de otras personas y para contribuir a un buen funcionamiento y bienestar psicológicos en los cuidadores. Método: 171 cuidadores remunerados (media de edad = 36.34, DT = 9.99) completaron el Inventario de Estilos de Personalidad de Millon, que evalúa personalidad normal y ofrece un Índice de Ajuste, que valora el ajuste psicológico; la Escala de Satisfacción Global; y el CUIDA, un cuestionario sobre las variables afectivas y cognitivas necesarias para cuidar bien de otras personas. Se utilizaron Regresiones Múltiples por pasos. Resultados: las características de los cuidadores relacionadas con Independencia y Altruismo explicaron un peor ajuste psicológico, mientras que Autoestima, Sociabilidad y Equilibrio emocional explicaron un mayor ajuste. Autoestima y Sociabilidad explicaron una mayor satisfacción global, mientras que Apertura explicó una peor satisfacción. Conclusiones: algunas características personales que pueden ser importantes para el cuidado pueden no facilitar un buen ajuste y bienestar psicológicos en algunos contextos de cuidado. La adaptación personal, tal y como es definida en este trabajo, depende del contexto.

Palabras clave: cuidadores, personalidad, ajuste psicológico, satisfacción.

Introduction

The topic of research of the health of caregivers of other people is of growing interest, increasingly since the magnitude and the need of care, both chronic and acute, and the development of welfare states have revealed the importance of “taking care of the caregivers”. In fact, caring for a dependent person is a stressful situation that requires psychological adaptation and can involve health risk for the caregiver (Pinquart & Sorensen, 2003). There is broad consensus that caring for a dependent relative is a risk factor for suffering from physical, psychic, and social alterations (García-Calvente, Mateo Rodríguez, & Eguiguren, 2004; Pinquart & Sorensen, 2003; Vitaliano, Zhang, & Scanlan, 2003). The study of professional or paid caregivers is not as profuse, although the available data suggest that there may also be health risks for this type of caregivers. For example, nursing staff presents a higher frequency of diabetes, heart and musculoskeletal problems, as well as greater prevalence of psychological alterations related to occupational stress (U.K. Bureau of Labor Statistics, 2006; Celentano & Johnson, 1987; Eriksen, 2003a, 2003b, 2006; Eriksen, Bjorvatn, Bruusgaard, & Knardahl, 2008; McNeely, 2005; Revicki & May, 1989).

Without belittling the effect that certain sociodemographic conditions, such as educational or socioeconomic level, may have on psychological adjustment or general well-being, the inclusion of the personality in the explanatory models of caregivers' distress has increased our knowledge about their psychological adjustment, especially in family caregivers (Hooker, Frazier, & Monahan, 1994; Löckenhoff, Duberstein, Friedman, & Costa, 2011), but also in paid caregivers (Narumoto *et al.*, 2008; Piedmont, 1993). The protector or risk role that personality variables may have for caregivers' health and for the adequate care of dependent people is studied from this approach. Personality characteristics are not considered to be inherently adaptive or maladaptive (Widiger, 1994), but instead, their efficacy depends on the context. Nevertheless, the body of research in this area is still limited.

Diverse assessment instruments have been used to appraise the personality characteristics caregivers. Standard personality tests, for example, the Big-Five model (McCrae & Costa, 1987), or the *Millon Index* (Millon, 1994) have been the most frequently used, although some specific instruments for caregivers have also been designed, for example, the *Cuestionario para la evaluación de adoptantes, cuidadores, tutores y mediadores* [CUIDA; in English, the "Questionnaire for the assessment of adopters, caregivers, tutors, and mediators"] (Bermejo *et al.*, 2008). The standard tests allow one to measure normal personality characteristics, to compare caregivers with the general population, and to detect protector and risk values, both for caregivers' well-being and for the caring task itself. The specific tests appraise not only the caregivers' personality but also the variables that are considered adequate to provide care to others.

One of the general personality instruments that has notable theoretical and empirical foundations (Millon, 2001) and that has shown its utility in the study of normal personality styles in family caregivers is the *Millon Index of Personality Styles* (MIPS; *vg.*, Sánchez-López, Cuéllar-Flores, Sánchez-Herrero, & Aparicio, 2009). This instrument provides an indicator, called the Adjustment Index, of the characteristics considered adequate to deal with life (according to theoretical and empirical criteria, see Cardenal & Fierro, 2001; and Millon, 2001). In fact, it has been shown that some personality styles are related with decreased psychological adjustment and health of people in general and caregivers in particular, because these variables have been related to caregiver burden (Ginsberg, Martínez, Mendoza Ferrás, & Pabón, 2005), parental adjustment (Limiñana, Corbalán, & Sánchez-López, 2009), and physical complaints in caregivers (Sánchez-López *et al.*, 2009).

In contrast, the CUIDA was specifically designed to measure caregivers' personal characteristics, defined as the emotional and cognitive variables that are necessary for caregiving (García, Estévez, & Letamendía, 2007). This instrument has shown its utility to differentiate parents who are immersed in the dynamics of violence from parents who are not involved in such dynamics (Cartié, Ballonga, & Gimeno, 2008). However, till now, this test has not shown that it can detect risk

or protector factors of caregivers' psychological adjustment and well-being, but only of the caring task itself.

The goal of this work is to examine the satisfaction and psychological adjustment of paid caregivers, and to discriminate, out of the characteristics considered appropriate to care for others, which ones contribute to caregivers' better functioning or psychological adjustment and greater well-being. For this purpose, the caregiver personality characteristics (assessed by the *CUIDA*) that best explain their psychological adjustment to the environment (measured by means of the Adjustment Index of the *MIPS*) and their satisfaction will be explored.

Method

Participants

The study comprised 171 paid caregivers of dependent adults who lived in the Region of Madrid (Spain); 141 were women (82.8%) and 30 were men (17.2%); these percentages reflect the unequal distribution of health- or care-related professions among men and women in the general population (73% of the health professionals and 85% of the professionals associated with social services in Spain are women; Ministerio de Sanidad y Consumo, 2008). Participants' age ranged between 21-59 years ($M = 36.34$, $SD = 9.99$) and they were mainly nursing staff (table 1). With regard to the care recipients, 40% were older people and 60% were dependent adults.

Instruments

Sociodemographic Data Questionnaire. Questions about age, sex, self-reported socioeconomic level, educational level, civil status and work situation.

Global Satisfaction Scale. This scale has one item that appraises a person's degree of global satisfaction from 1 to 10. This scale has been used previously in general population with satisfactory results (Sánchez-López, Aparicio, & Dresch, 2006).

MIPS - Millon Index of Personality Style (Millon, 1994, 2001). This scale assesses normal personality by means of 180 items and 24 bipolar scales that are grouped into three large areas: Motivational Goals, Cognitive Styles, and Interpersonal Behaviors. It has three validity indicators: Positive Impression, Negative Impression, and Consistency. The Consistency scale refers to validity of the data collected and whether they are consistent with the responses given to certain items, with a cut-off point established at a score of 3. It also provides an Adjustment Index, which is a measurement of some characteristics that are considered more adequate to deal with life and which is calculated by comparison with the group from the *general population* in the Expansion-Preservation scales (that belong to the Motivational Goals)

and all the Interpersonal Behavior scales. The construct validity of this index has been tested through its relation with measures of well-being and mental health (Cardenal & Fie-rro, 2001; Limiñana *et al.*, 2009; Millon, 2001). Its reliability ($\alpha=.72$ and Guttman coefficient $=.77$) and external validity, studied in Spanish population with the NEO-PI and the 16-PF, are adequate. With regard to internal and construct validity, the *MIPS* scales intercorrelate according to the theoretical model of Millon (Millon, 2001).

TABLE 1. CAREGIVERS' CHARACTERISTICS.

Sex	17.2% men 82.8% women
Civil status	38.8% single 51.5% married 7.3% separated 2.4% widowed
Educational level	6.4% primary 23.4% middle 70.2% higher
Profession	55.6% nurses 19.7% auxiliary nursing personnel 3.4% other health profession 21.3% professions other than health
Country of origin	94.1% Spain 5.9% other
Self-reported socioeconomic level	47% medium-low 53% medium-high
Characteristics of care recipient	40% older dependent (>65 years) 60% dependent adult

CUIDA - *Questionnaire for the assessment of adopters, caregivers, tutors, and mediators* (Bermejo *et al.*, 2008). This scale assesses the personality characteristics that are adequate to provide good care to others. It comprises 189 items that are rated on a 4-point Likert scale that ranges from *disagree* to *agree*. It has 14 scales (Altruism, Openness, Assertiveness, Self-esteem, Problem-solving capacity, Empathy, Emotional Balance, Flexibility, Independence, Reflexibility, Sociability, Frustration Tolerance, Capacity to Establish Affective Links, and Capacity to Resolve Bereavement (for a description, see table 2). It also has three second-order factors and one additional factor. The second-order factors are Responsible Care, Affective Care, and Sensitivity towards Others, and the additional factor is Aggressiveness. Further, it also includes various validation scales (Social Desirability, Inconsistency, and Invalidation). It was developed in general population and in adopter

population, and its authors recommend its use in fathers and mothers and in professional and family caregivers. Its reliability is acceptable (in the first-order factors $\alpha \geq .60$), and its concurrent validity has been examined with the 16PF and the NEO-PI, and its construct validity by means of confirmatory factor analysis.

TABLE 2. DESCRIPTION OF THE CUIDA SCALES.

Altruism	Functioning by which people behave disinterestedly towards others.
Openness	Interest in the outer and inner world, tolerance towards different values, styles, lifestyles, and cultures.
Assertiveness	Capacity to adequately express both positive and negative emotions, express and tolerate criticism, give and receive compliments, accept and reject requests, and show disagreement.
Self-esteem	People's favorable or unfavorable feelings about themselves as a result of their rating of their own self-concept.
Problem-solving capacity	The skill to identify a problem, study the different alternatives, act according to a plan, and be flexible and creative in the search for efficacious solutions.
Empathy	The capacity to recognize and understand the feelings and attitudes of others and the specific circumstances that affect them, without judging them.
Emotional balance	The ability to cope with the states of tension associated with emotive experiences and to maintain control over one's behavior in situations of conflict.
Flexibility	The capacity to adapt to changing situations, in the belief that there are different ways of understanding and acting upon reality.
Independence	The ability to make one's own decisions and to accept responsibility without needing to seek help or protection from others.
Reflexibility	The tendency to talk and act thoughtfully.
Sociability	Orientation towards people, the ease with which one establishes relations with others, a preference for others' company, a liking for social activities and social competence.
Frustration tolerance	The capacity to accept and assimilate a situation in which an expectation, a desire, a project, or an illusion are not fulfilled.
Capacity to establish affective links	The universal human capacity to forge affective links
Capacity of resolving bereavement	A natural process that occurs in people who suffer and deal with a loss, allowing its elaboration and resolution.

Note. Extracted from Bermejo *et al.* (2008).

Procedure

A descriptive and correlational study was performed using a non probabilistic sample of convenience. The inclusion criterion to select the participants was: Being a paid caregiver of one or various persons who were in a dependency situation at the moment of assessment. The caregivers were contacted through professionals who worked in hospitals or old people's residences, in associations of relatives of people with dementia or Parkinson, or through direct contact, requesting their participation. The participating institutions were as follows: *The Asociación Madrileña de Espina Bífida* (Madrid Spina Bifida Association; AMEB), the *Residence of Nuestra Señora de la Soledad y del Carmen* (Colmenar Viejo, Madrid), the *University Hospital of Getafe* (Madrid), the *Residence and Day Hospital Villaverde-Alzheimer* (Madrid) and the *Asociación Párkinson Madrid* (Parkinson Madrid Association).

All the participants gave their written informed consent after receiving the explanation of the purpose of the investigation, the procedure to be followed, and the guarantee of the voluntary nature of their participation and the confidentiality of their data. The participants were given an assessment protocol and asked to return it between one and three weeks later.

People who scored <3 in the "Consistency" validity index of the *MIPS* were excluded because this kind of score casts doubt on the consistency and truth of the responses given to the items when filling out this instrument (Millon, 2001). Seven caregivers were excluded.

Data analysis

The data were analyzed by means of the SPSS 15.0 statistical package. Firstly, possible statistically significant differences in the variables of psychological adjustment as a function of some sociodemographic variables were examined. Subsequently, the descriptive analysis of the variables under study was carried out using the habitual measures of central tendency and dispersion, and Psychological Adjustment and Global Satisfaction were compared with data from the general population extracted from previous studies (Millon, 2001; Sánchez-López *et al.*, 2006). Pearson correlations were also calculated between the *CUIDA* scales (raw scores), the Adjustment Index (prevalence scores), and Global Satisfaction (raw scores). Next, the assumptions of independence, non-multicollinearity, and normality of the data were explored. Subsequently, stepwise multiple regressions were carried out. Educational level was entered in the first step (for statistical control), and the scales of the *CUIDA* were included in a second step as independent variables in a hierarchical regression, the Adjustment Index of the *MIPS* was the dependent variable. Stepwise multiple regression was also applied to explain the variable Global Satisfaction by means of the *CUIDA* scales.

Results

Before conducting the analyses of the data, possible statistically significant differences in the variables of psychological adjustment as a function of the socio-demographic variables was examined, and no differences were found as a function of sex in adjustment ($t = 1.55, p = .12$) or in satisfaction ($t = 1.02, p = .30$). Nor were any differences found either in adjustment ($t = 1.58, p = .18$) or in satisfaction ($t = 1.32, p = .11$) as a function of the socioeconomic level. With regard to the type of care (old people or dependent adults), no differences in adjustment ($t = 0.76, p = .44$) or in satisfaction ($t = 1.80, p = .07$), or as a function of civil status were observed ($F = .16, p = .92$ and $F = 1.22, p = .30$) for adjustment and satisfaction, respectively. Age was not statistically correlated to adjustment ($r^2 = -.07, p = .35$) or satisfaction ($r^2 = -.05, p = .47$). No significant differences were found in satisfaction as a function of educational level ($F = 2.19, p = .11$), although such differences were found in psychological adjustment ($F = 4.87, p < .01$), and they increased with educational level.

When comparing the results of the paid caregivers' *Adjustment Index* and satisfaction with the data from the general population extracted from previous works (Millon, 2001; Sánchez-López *et al.*, 2006), statistically significant differences were found in Adjustment ($t = -22.184, p < .001$) and in *Global Satisfaction* ($t = 3.268, p < .01$). In this work, the paid caregivers obtained lower scores in the *Adjustment Index* and higher scores in *Global Satisfaction*.

Table 3 (next page) shows the descriptive statistics and Pearson correlations between the variables measured. The *Adjustment Index (MIPS)* is directly related to *Global Satisfaction* and to all the *CUIDA* scales assessed, whereas *Global Satisfaction* correlates positively with 10 of the *CUIDA* scales.

For the analysis of the assumptions prior to performing linear regression, the normality of the distribution of the variables was determined with the Kolmogorov-Smirnov test. With the exception of *Global Satisfaction*, no variable was significantly different from normal. The indicators of multicollinearity suggest that there was no great collinearity among the data (Tolerance values $> .50$, Condition indexes < 15 , and Eigenvalues $> .20$). However, the Durbin-Watson statistic was 2.05, indicating independence of residuals.

The results of the hierarchical regression show that some of the *CUIDA* scales explain Psychological Adjustment of the *MIPS* ($F = 50.54, p < .001$). The β values indicate that the *CUIDA* scales of Sociability, Self-esteem, and Emotional Balance better explain Psychological Adjustment, whereas Independence and Altruism are related to poorer Psychological Adjustment, and the rest of the independent variables remain constant. These five scales explain 64% of the variance of the *Adjustment Index* (see table 4).

TABLE 3. CORRELATIONS AMONG THE CUIDA SCALES, THE ADJUSTMENT INDEX OF THE MIPS, AND GLOBAL SATISFACTION.

	Mean	SD	Pearson correlations	
			Adjustment Index	Global Satisfaction
Adjustment Index	26.045	32.563	—	—
Global Satisfaction	7.73	1.291	.442**	—
Altruism	-0.1842	0.8947	.172*	.022
Openness	-0.4378	0.8468	.391**	.024
Assertiveness	-0.3628	0.7184	.553**	.336**
Self-esteem	-0.3522	1.0187	.719**	.422**
Problem-solving capacity	-0.4185	0.8192	.582**	.305**
Empathy	-0.2622	0.9073	.261**	.142
Emotional balance	-0.3855	0.8810	.551**	.301**
Independence	-0.3150	0.7730	.220**	.112
Flexibility	-0.2695	0.8433	.244**	.221**
Reflexibility	-0.3343	0.7629	.340**	.236**
Sociability	-0.4473	0.9275	.535**	.184*
Frustration tolerance	-0.3437	0.9193	.491**	.225**
Capacity to establish affective links or attachment	-0.4803	0.7340	.480**	.250**
Capacity of resolving bereavement	-0.5630	0.8566	.430**	.222**

Note. $N = 171$. The CUIDA scores and *Global Satisfaction* are raw scores, the *Adjustment Index* scores are prevalence scores. * $p < .05$. ** $p < .01$.

TABLE 4. MULTIPLE REGRESSION ANALYSIS. EXPLANATION OF THE ADJUSTMENT INDEX (MIPS) FROM THE CUIDA SCALES.

Step	Method	R^2	F
0 Educational level	Enter	.05	9.689**
1 Educational level	Enter	.519	163.944
Self-esteem	Stepwise	***	.70
2 Educational level	Enter	.582	26.031*
Self-esteem	Stepwise	**	.53
Sociability			.30
3 Educational level	Enter	.615	15.183*
Self-esteem	Stepwise	**	.39
Sociability			.28
Emotional balance			.23
4 Educational level	Enter	.627	6.366**
Self-esteem	Stepwise		.41
Sociability			.31
Emotional balance			.25
Altruism			-.12
5 Educational level	Enter	.639	6.321**
Self-esteem	Stepwise		.48
Sociability			.29
Emotional balance			.27
Altruism			-.15
Independence			-.13

Note. $N = 171$. * $p < .05$. ** $p < .01$. *** $p < .001$.

With regard to *Global Satisfaction*, the results of the multiple regression show that the *CUIDA* scales of Self-esteem and Openness explain 23% of its variability ($F = 14.447, p < .001$). Self-esteem and Sociability explain higher satisfaction, and Openness explains lower satisfaction, according to the β values (table 5). The *Adjustment Index* explains 19% of the variability of *Global Satisfaction* ($F = 34.064, p < .001$; table 6).

TABLE 5 MULTIPLE REGRESSION ANALYSIS. EXPLANATION OF GLOBAL SATISFACTION FROM THE CUIDA SCALES.

Step	Method	R^2	F	β	
1	Self-esteem	Stepwise	.178	34.233***	.42
2	Self-esteem Openness	Stepwise	.211	19.877***	.50 -.19
3	Self-esteem Openness Sociability	Stepwise	.233	14.447***	.42 -.30 .21

Note. $N = 171$. * $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 6. SIMPLE REGRESSION ANALYSIS EXPLANATION OF GLOBAL SATISFACTION FROM THE ADJUSTMENT INDEX OF THE MIPS.

	R^2	F	β
Adjustment Index	.189	34.064***	.43

Note. $N = 171$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The change of paradigm from only studying the care recipients to a broader perspective in which the caregiver is also included as an object of attention (the caregiver as a health user –Twigg, 1989) is justified by the current evidence that caregiving can be a health hazard (vg., Eriksen, 2003a, 2003b, 2006; Pinquart & Sorensen, 2003). The importance of contemplating the health and well-being of professional caregivers in the research and general attention makes it necessary for us to detect which characteristics are truly related to caregivers' better psychosocial functioning.

The results of this study allow us to state that the combination of some of the personal characteristics that are considered important for caring for others may

not facilitate good psychological adjustment and satisfaction in some care contexts, whereas other characteristics do facilitate this outcome. The personality attributes related to caregiving, Self-esteem, Sociability, and Emotional Balance, as measured with the *CUIDA*, seem to be related to the adjustment and well-being of the paid caregivers who participated in this work. The *CUIDA* scales of Sociability and Emotional Balance share similarities with the factors of Extraversion and Neuroticism, respectively, of the Big Five model (Bermejo *et al.*, 2008; McCrae & Costa, 1987). The latter have been shown to be related to various measures of psychological adjustment and well-being, in accordance with the results obtained in the present work (Cebriá *et al.*, 2001; Löckenhoff *et al.*, 2011; Narumoto *et al.*, 2008; Piedmont, 1993). In addition, in a previous work, Sociability has been shown to be useful to discriminate between fathers and mothers who are involved in violent dynamics (Cartié *et al.*, 2008). The level of self-esteem, as assessed in prior studies by means of specific instruments, has also been related to better psychological health in nursing staff (vg., Garrosa, Moreno, Rodríguez, & Morante, 2005).

However, other personality characteristics related to caring, such as the scales of Altruism, Independence, and Openness, which, taken alone are not related or are directly related to adjustment and satisfaction, when combined with the rest of the variables, they explain caregivers' poorer psychological functioning and lower satisfaction. In some prior works, relations were found between the personality characteristics related to Altruism and Openness (although with different instruments) and a lower level of occupational stress (Segura *et al.*, 2006; Cebriá *et al.*, 2001), in concordance with the correlations, taking each personality factor singly, that were found in this work. Nevertheless, if some personal attributes, such as those associated with the factors of Independence (making one's own decisions) or Openness (interest in other ways of living), or those that involve the factor of Altruism (behaving disinterestedly) clash with professional values, this may generate distress (Segura *et al.*, 2006) or, in the case of Altruism, caregivers may even function at some cost, risk, or personal sacrifice (Gaviria, 1996). Possessing the appropriate cognitive and affective variables for providing good care to others does not always lead to the caregiver's own psychological adjustment. In any event, more studies are needed to test the proposed interpretations.

However, it is important to note that psychological adjustment as assessed by the *MIPS* is not a measurement of well-being or of mental psychopathology but of some characteristics that are considered "better" to deal with life, based on theoretical and empirical criteria. Millon's logic for this index was revealed in previous works with general population (Cardenal & Fierro, 2001), and this is also the case for family caregivers (Limiñana *et al.*, 2009), contrasted by means of measures of well-being and mental health. The present work confirms these results, as the Adjustment Index is related to the Global Satisfaction of the paid caregivers who were assessed. Although the efficacy of the personality attributes is considered to

depend on the context (Millon, 1994; Widiger, 1994), the Adjustment Index has currently been shown to be an indicator that is at least as useful for caregivers as for the general population.

As for the clinical implications of this research, our findings provide more precise information of the way these caregivers respond to stressful situations, the efficacy of such strategies, and their effect on psychological adjustment and satisfaction. Furthermore, our study might lead to optimizing personal resources during counseling and supporting these workers and to including approaches better adapted to the specific needs of formal caregivers in staff selection process.

With regard to the limitations of the study, firstly, the sample used was heterogeneous but unbalanced with regard to the number of each sex of the caregivers. Although it reflects the unequal distribution of men and women in the health professions and social services in Spain (Ministerio de Sanidad y Consumo, 2008), this aspect restricts the generalizability of the results to the male population of caregivers. The same can be said about the different educational levels examined, and this is contemplated in future research because, although no differences were found in Global Satisfaction, there were differences in Psychological Adjustment. The use of self-reported measures, although frequent in this type of studies (vg., Garrosa *et al.*, 2005 or Narumoto *et al.*, 2008), is also a limitation compared to measures that use external or performance criteria.

REFERENCES

- Bermejo, F.A., Estévez, I., García, M.I., García-Rubio, E., Lapastora, M., Letamendía ... Velázquez de Castro, F. (2008). *CUIDA. Cuestionario para la evaluación de adoptantes, cuidadores, tutores y mediadores* [CUIDA. Questionnaire for the assessment of adopters, caregivers, mentors and mediators]. Madrid: TEA Ediciones.
- Cardenal, V., & Fierro, A. (2001). Sexo y edad en estilos de personalidad, bienestar personal y adaptación social [Sex and age on personality styles, personal well-being and social adjustment]. *Psicothema*, 13, 118-126.
- Cartié, M., Ballonga, J., & Gimeno, J. (2008). *Estudi comparatiu sobre competències parentals de famílies amb dinàmiques violentes vs. famílies amb dinàmiques no violentes ateses al SATAF* [A comparative study of families' parenting skills with violent dynamics vs. non-violent dynamics attended by the SATAF]. Barcelona: Centre d'Estudis Jurídics i Formació Especialitzada.
- Cebriá, J., Segura, J., Corbella, S., Sos, P., Comas, O., & García, M. (2001). Rasgos de personalidad y burnout en médicos de familia [Personality traits and burnout in family physicians]. *Atención Primaria*, 27, 459-468.
- Celentano, D.D., & Johnson, J.V. (1987). Stress in Health Care Workers. *Occupational Medicine*, 2, 593-608.
- Eriksen, W. (2003a). The prevalence of musculoskeletal pain in Norwegian nurses' aides. *International Archives of Occupational and Environmental Health*, 76(8), 625-30.
- Eriksen, W. (2003b). Service sector and perceived social support at work in Norwegian nurses' aides. *International Archives of Occupational and Environmental Health*, 76(7), 549-52.
- Eriksen, W. (2006). Work factors as predictors of persistent fatigue: A prospective study of nurses' aides. *Occupational and Environmental Medicine*, 63, 428-434.

- Eriksen, W., Bjorvatn, B., Bruusgaard, D., & Knardahl, S. (2008). Work factors as predictors of poor sleep in nurses' aides. *International Archives of Occupational and Environmental Health*, 81(3), 301-10.
- García, M., Estévez, I., & Letamendía, P. (2007). El CUIDA como instrumento para la valoración de la personalidad en la evaluación de adoptantes, cuidadores, tutores y mediadores [CUIDA as a tool for personality assessment in the evaluation of adoptants, caregivers, mentors and mediators]. *Intervención Psicosocial*, 16(3), 393-407.
- García Calvente, M.M., Mateo Rodríguez, I., & Eguiguren, A.P. (2004). El sistema informal de cuidados en clave de desigualdad [The informal system of care in key inequality]. *Gaceta Sanitaria*, 18(1), 132-139.
- Garrosa, E., Moreno-Jiménez, E., Rodríguez-Carvajal, R., & Morante, M.E. (2005). Variables predictoras del burnout en enfermería: importancia de los procesos emocionales de resistencia [Predictors of burnout in nursing: The importance of emotional processes of resistance]. *Medicina y Seguridad del Trabajo*, 51, 5-13.
- Gaviria, E. (1996). Conflicto interpersonal en grupos de niños [Interpersonal conflict in groups of children]. In E. Colmenares (Ed.), *Etología, psicología comparada y comportamiento animal* (pp. 478-485). Madrid: Síntesis.
- Ginsberg, J., Martínez, M.F., Mendoza Ferrás, A., & Pabón, J.L. (2005). Carga subjetiva percibida por el cuidador y su relación con el nivel de deterioro de pacientes con diagnóstico de demencia. Influencia de edad, estilo de personalidad y tipo de cuidador [Subjective burden perceived by the caregiver and their relationship to the level of impairment of patients with dementia. Influence of age, personality style and type of caregiver]. *Archivos venezolanos de psiquiatría y neurología*, 51, 104.
- Hooker, K., Frazier, I.D., & Monahan, D.J. (1994). Personality and coping among caregivers of spouses with dementia. *The Gerontologist*, 34, 386-392.
- Limñana, R.M., Corbalán, F.J., & Sánchez-López, M.P. (2009) Thinking styles and coping when caring for a child with myelomeningocele. *Journal of Developmental and Physical Disabilities*, 21(3), 169-183.
- Löckenhoff, C.E., Duberstein, P.R., Friedman, B., & Costa, P.T. (2011). Five-factor personality traits and subjective health among caregivers: The role of caregiver strain and self-efficacy. *Psychology and aging*, 26(3), 592-604.
- McCrae, R.R., & Costa, P.T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81-90.
- McNeely, E. (2005). The consequences of job stress for nurses' health: Time for a check-up. *Nursing Outlook*, 53(6), 291-299.
- Millon, T. (1994). *Millon Index of Personality Styles*. San Antonio, TX: The Psychological Corporation.
- Millon, T. (2001). *Inventario de Estilos de Personalidad de Millon, Manual*. [Millon Index of Personality Styles, Manual]. Spanish adaptation by M.P. Sánchez-López, J.F. Díaz-Morales, & M.E. Aparicio-García. Madrid: TEA Ediciones.
- Ministerio de Sanidad y Consumo (2008). *Informe Salud y Género 2006. Las edades centrales de la vida* [Health and Gender Report 2006. The central ages of life]. Madrid: Ministerio de Sanidad y Consumo.
- Narumoto, J., Nakamura, K., Kitabayashi, Y., Shibata, K., Nakamae, T., & Fukui, K. (2008). Relationships among burnout, coping style and personality: Study of Japanese professional caregivers for elderly. *Psychiatry and Clinical Neurosciences*, 62(2), 174-6.
- Piedmont, R.L. (1993). A longitudinal analysis of burnout in the health care setting: The role of personal dispositions. *Journal of Personality Assessment*, 61, 457-473.
- Pinquart, M., & Sorensen, S. (2003). Differences between caregivers and noncaregivers in psychological health and physical health: A meta-analysis. *Psychology and Aging*, 18(2), 250-267.
- Revicki, D.A., & May, H.J. (1989). Organizational Characteristics, Occupational Stress, and Mental Health in Nurses. *Behavioral Medicine*, 15, 30-6.

- Sánchez-López, M. P., Aparicio-García, M. E., & Dresch, V. (2006). Ansiedad, autoestima y satisfacción como predictores de salud: diferencias entre hombres y mujeres [Anxiety, self-esteem and satisfaction as predictors of health: Differences between men and women]. *Psicothema*, 18(3), 583-589.
- Sánchez-López, M. P., Cuéllar-Flores, I., Sánchez-Herrero, S., & Aparicio, M. (2009). Personality styles and health in female home caregivers. Preliminary data. In E. Rehulka (Ed.), *School and health* (pp. 289-296), Brno: MSD.
- Segura, J., Ferrer, M., Palma, C., Ger, S., Doménech, M., Gutiérrez, I., & Cebriá, J. (2006). Valores personales y profesionales en médicos de familia y su relación con el síndrome de burnout [Personal and professional values of family physicians and their relationship with burnout syndrome]. *Anales de Psicología*, 22, 45-51.
- Twigg, J. (1989). Models of carers: How do social care agencies conceptualize their relationship with informal carers? *Journal of Social Policy*, 18(1), 53-66
- U.K. Bureau of Labor Statistics (2006). *Work-related injury and illness statistics by industry*. Available at: www.bls.gov/
- Vitaliano, P.P., Zhang, J., & Scanlan, J.M. (2003). Is caregiving hazardous to one's physical health? A metaanalysis. *Psychological Bulletin*, 129, 946-972.
- Widiger, T.A. (1994). Conceptualizing a disorder of personality from the five-factor model. In P.T. Costa, & T.A. Widiger (Eds.), *Personality disorders and the five-factor model of personality* (pp. 311-317). Washington, DC: American Psychological Association.