

Assessment of psychosocial and neuropsychological variables in patients with neurocognitive disorders and chronic stress in caregivers

Valutazione delle variabili psicosociali e neuropsicologiche nei pazienti con disturbi neu-rocognitivi e stress cronico nei caregiver

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Key words: Alzheimer's disease, AD, caregiver burden, psychological distress, cognitive impairment.

ABSTRACT

Background: nowadays, there are plenty of programs and resources to prevent caregiver burden of patients with Alzheimer's disease. In spite of that, many caregivers suffer high levels of burden and stress, which leads to an earlier institutionalization of patients. This study aimed to explore how behavioral modules specific to Alzheimer's disease impact caregiver burden.

Materials and Methods: a longitudinal (T0-T1, follow up) dyadic design was adopted and a sample of 76 patient-caregiver dyads was recruited. Correlational analyses were used to model associations between variables. Burden was measured with a Caregiver Burden Inventory. Measures of patients' cognition, insight, depression, behavioral disturbances and functional ability were considered with specific scales (Cornell; Clinical Dementia Rating scale, CDR; Clinical Insight Rating Scale, CIRS).

Results: we found that there are behavioral modules specific to Alzheimer's disease that negatively influence the psycho-physical state of caregiver health. These include patient's mood ($r=0.4$; $p=0.001$), behavioral changes ($r=0.4$; $p<0.001$), cyclical functions ($r=0.3$; $p=0.007$) and social isolation ($r=0.3$; $p=0.02$).

Conclusions: despite study limits, interventions to reduce burden should be adapted to the specific needs of the Alzheimer patient and caregiver.

Background: al giorno d'oggi, esistono numerosi programmi e risorse per prevenire il carico assistenziale dei pazienti affetti da malattia di Alzheimer. Nonostante ciò, molti caregiver soffrono di alti livelli di carico e stress, il che porta a una istituzionalizzazione precoce dei pazienti. Questo studio mira a esplorare come i moduli comportamentali specifici della malattia di Alzheimer influiscano sul carico del caregiver.

Materiali e Metodi: è stato adottato un disegno longitudinale (T0-T1, follow-up) diadico ed è stato reclutato un campione di 76 diadi paziente-caregiver. Sono state utilizzate analisi correlazionali per modellare le associazioni tra le variabili. Il carico è stato misurato con un Caregiver Burden Inventory. Sono state considerate le misure della cognizione, dell'insight, della depressione, dei disturbi comportamentali e della capacità funzionale dei pazienti con scale specifiche (Cornell; Scala di Valutazione della Demenza Clinica, CDR; Scala di Valutazione dell'Insight Clinico, CIRS).

Risultati: abbiamo scoperto che esistono moduli comportamentali specifici della malattia di Alzheimer che influenzano negativamente lo stato psicofisico della salute del caregiver. Questi includono l'umore del paziente ($r=0,4$; $p=0,001$), i cambiamenti comportamentali ($r=0,4$; $p<0,001$), le funzioni cicliche ($r=0,3$; $p=0,007$) e l'isolamento sociale ($r=0,3$; $p=0,02$).

Conclusioni: nonostante i limiti dello studio, gli interventi per ridurre il carico dovrebbero essere adattati alle esigenze specifiche del paziente affetto da Alzheimer e del caregiver.

Introduction

The increase in average life length has led to a rise in neurodegenerative diseases typically found in old age. Dementia (or major neurocognitive disorder) is a chronic, progressive and irreversible dysfunctional process affecting the Central Nervous System (CNS), the result of which is a complex cognitive decline related to mood, personality and behavioral disorders.¹ Specifically, there is a significant impairment in memory and subsequently in planning, judgment, and a decreased ability to manage one's daily needs, including self-care. To date, more than 1 million people with dementia, including 600,000 diagnosed with Alzheimer's Disease (AD), live in Italy. In parallel, more than 3 million Italians are involved in the care of these patients, resulting in healthcare costs of 10-12 billion euros annually.^{2,3}

However, most dementia patients are cared for by their families, who are at higher risk of chronic stress (caregiver burden) than caregivers of elderly people with other conditions.⁴ Caregiver burden is a multidimensional construct and refers to a state of physical, psychological, and social suffering related to caregiving.⁵ Exposure to chronic stressors, such as patient's behavioral disturbances, depressive level, cyclic functions (night wandering), and social isolation, can result in a range of consequences for the caregiver in terms of physical health, psychological well-being, and cognitive functioning.⁶ A number of meta-analyses⁵⁻¹⁴ point out that increased cortisol levels lead, on the one hand, to repeated physiological activation with inefficient control of related responses, and, on the other hand, lead to the engagement of caregiver health risk behaviors (poor diet, sedentary lifestyle, drug abuse).

The Vitaliano *et al.* model⁷ shows that main effects of caregiving stress exposure, vulnerabilities and resources are directly related to psychosocial distress and unhealthy lifestyle adoption (Figure 1).

Although literature highlights how caregiving is a risk to families' mental and physical health, yet the causes of such stress are still not entirely clear. Indeed, several mediators are involved in this tricky relationship. Rymer *et al.*⁸ pointed out that increased awareness on the patient's part regarding his or her cognitive state has a larger negative effect on the caregiver's well-being.

Caregiver Stress Process Model⁹ explains how negative effects related to caregiver burden involve not only physical, psychological

and cognitive dimensions, but also emotional ones with a progressive impairment of relational satisfaction and loss of the affective relationship with elderly person (anticipated grief processing). This condition over time can worsen especially if psychoeducational interventions are not pursued, aimed at both reducing the extent of the caregiver's own vulnerability elements and increasing personal resources and coping strategies within a listening space.¹⁰

In addition, the lack of territorial services aimed at welcoming and supporting multidisciplinary caretaking of these "frail elderly," induces caregivers to embark on the painful path of institutionalization in nursing homes.

Through reviewing scientific contributions in the literature, our research aims to define and explore how patient awareness, social isolation and patient's mood state impact the caregiver burden condition, within a model of systemic and integrated caretaking of the disease, so as to foster the participation of all "actors" involved in the care pathway.

Materials and Methods

Study design and population

Participants were enrolled at the Center for Dementia and Cognitive Disorders (CDCD) (SOC Geriatrics) at the University Hospital "SS. Antonio e Biagio e C. Arrigo" of Alessandria. Recruitment methods and instruments used were within the clinical insight requirements useful to patient and caregiver, provided within the literature. The study did not involve any change in existing clinical practice at the Hospital.

Patients and caregivers were referred to CDCD for geriatric follow-up examinations, which included an assessment of the patient's physical condition, performed by the geriatric specialist physician, and, on the other hand, history and neuropsychological assessment of the subject's cognitive functioning by administering Mini-Mental State Examination (MMSE).¹¹

Patient-caregiver pairs were enrolled upon signed informed consent and their agreement to the study. The recruitment period was from 2022 to 2023, where were enrolled patients with diagnostic entity included in major neurocognitive disorder and aligned as closely as possible with the most recent consensus criteria for this diagnostic category.

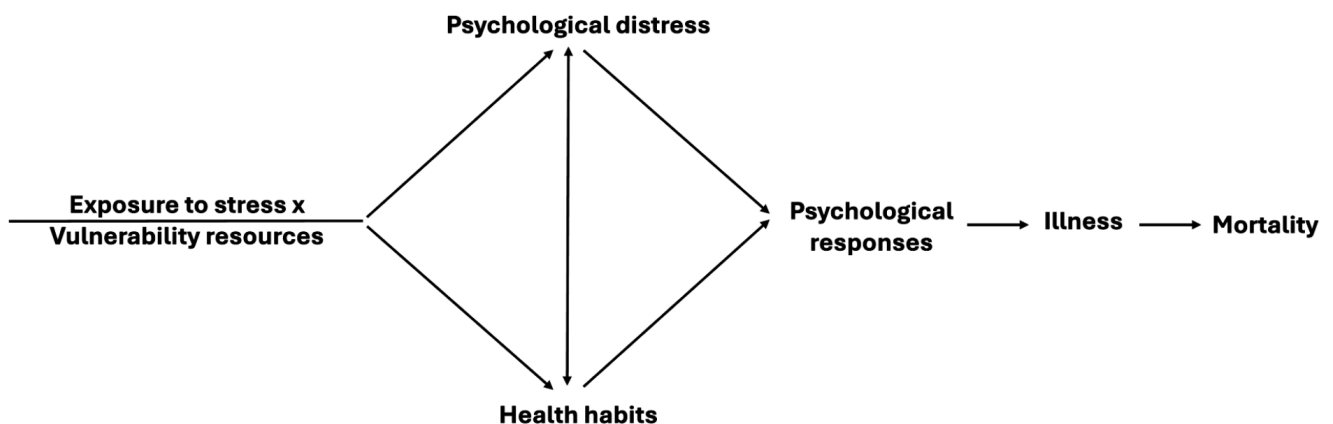


Figure 1. Theoretical stress and health/disease model.⁷

Ethical approval

The Institutional Review Board of Alessandria “SS Antonio e Biagio e Cesare Arrigo” Hospital approved the study (protocol number ASO.Psg.22.01, 24/03/2022).

The collection of an informed consent specific to the study was foreseen with a specific form to be submitted to all patients, at the time of recruitment.

The study was conducted in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments, and the Good Clinical Practices guidelines.

Patient administered tests

Mini Mental State Examination (MMSE)

MMSE¹¹ represents the best-known and most widely used brief screening tool for obtaining a comprehensive measure of a subject's cognitive impairment in clinical settings.¹² It consists in 11 questions related to different cognitive domains. It has, however, limitations that are widely recognized in the scientific community, both regarding multi-domain cognitive assessment and the identification of early dementia.¹¹

Clinical Dementia Rating scale (CDR)

Global scale developed to clinically denote AD presence and its severity. It was filled out by the investigator based on the interview with the subject. The clinical protocol involves semistructured interviews to obtain relevant information to assess the subject's cognitive performance in six domains: memory, orientation, judgment and problem solving, community life, home and hobbies, and personal care.¹³

Interviews jointly administered to patient and caregiver

Clinical Insight Rating Scale (CIRS)

Clinical instrument to assess the patients' awareness or insight. The questionnaire administration should be preceded by a clinical interview with caregiver in which the patient's awareness of the medical examination, the duration of the illness, and the mode of onset and progression of the different cognitive deficits are investigated. The Italian version has been validated by the Geriatric Research Group.¹⁴ The overall score ranges from 0 to 8. Cronbach's alpha is 0.81.¹⁵

Caregiver administered tests

Cornell Scale for Depression in Dementia (CSDD)

Clinical instrument consisting of 19 items, specifically designed to assess symptoms and signs of depression in patients with dementia, assessed through caregiver referrals. The Italian version was validated by Brescia Geriatric Research Group. Cronbach's alpha is good at 0.84.¹⁶

Caregiver Burden Inventory (CBI)

Self-report questionnaire useful for stress assessment of persons with major or minor neurocognitive disorders caregivers. This self-report questionnaire is to be completed by the primary caregiver, for example, a family member or the caregiver who provides most care to the patient. The Cronbach's alpha is good at 0.85.¹⁷

Social isolation interview

In addition, questions were asked to caregivers in order to obtain qualitative indices on the progress of social relationships exhibited by patients. It was developed specifically for this study and consisted of 9 questions.

Statistical analysis

Data were analyzed in anonymous and aggregate form.

A descriptive analysis was performed to summarize the socio-demographic characteristics of all subjects included in the study, the degree of cognitive decline and related disorders of the patients, and the degree of chronic stress of their caregivers (as measured by the assessment questionnaires). Missing data, due to their unavailability, were handled by the processing software using the pairwise method (missing data analysis by analysis). However, records with missing data, due to incomplete completion of the questionnaires, were excluded (listwise method) when calculating total scale scores. The respondent base of each variable was always indicated.

Categorical variables were reported as counts and percentages, and quantitative data as medians and Interquartile Ranges (IQR) based on their distribution evaluated with graphs and appropriate normality test (Shapiro-Wilk Test). To assess statistical significance regarding quantitative data Mann-Whitney test applied for comparisons between two groups. For categorical data (autonomy and isolation indices, socio-demographic characteristics) associations were analyzed through the χ^2 test, Fisher's exact test, or Cramer's V. Wilcoxon Matched Pairs Test was used to compare quantitative data collected at baseline (T_0) and six months follow-up (T_1). Correlations were investigated through Spearman's coefficient.

A two-sided p-value <0.05 was considered statistically significant.

All statistical analyses were performed using the IBM Statistical Package for Social Sciences (SPSS) version 25 for Windows.

Results

A total of 76 patients were enrolled. Sixty-eight point four percent were females, median age was 83 (IQR 78-86), age range 67-93. All were Italian, and the sample schooling ranged from 5 to 18 years. Caregivers involved were 76, 67.1% females, median age was 61 (IQR 54-75.5), age range 43-92. No significant gender differences were observed ($p>0.05$) in the average age of patients and caregivers. The main socio-demographic characteristics of the study population and the specific profile of caregivers are summarized in Tables 1 and 2.

Correlation between social isolation, patient's mood and caregiver burden

Spearman's Rho was evaluated on a total of 76 subjects in order to assess the association between social isolation, patient's mood (total Cornell score) and caregiver burden perceived level. Caregiver burden had a statistically significant and positive correlation, though moderate, with patient's social isolation ($r=0.3$; $p=0.020$) and depressive state ($r=0.4$; $p<0.001$). Specifically, among the Cornell subscales, mood changes ($r=0.4$; $p=0.001$), behavioral disorders ($r=0.4$; $p<0.001$), and cyclic functions ($r=0.3$; $p=0.007$) had a strong and significant association with caregiver burden (Tables 3 and 4).

Correlations regarding patient awareness

CIRS is negatively related to patient’s cognitive status, detected via MMSE ($r=-0.4$; $p=0.003$). There is, however, a statistically significant and positive association with behavioral disorders ($r=0.3$; $p=0.012$), patient’s cognitive and functional performance (CDR) ($r=0.3$; $p=0.009$) and his level of social isolation ($r=0.3$; $p=0.022$). CIRS and caregiver burden, on the other hand, were independent of each other ($r=0.2$; $p=0.062$) (Table 5).

Table 1. Personal characteristics of patients and caregivers.

	Patients, N=76 N (%)	Caregivers, N=76 N (%)
Gender		
Male	24 (31.6)	25 (32.9)
Female	52 (68.4)	51 (67.1)
Age		
Patients’ age groups		
≤82 years	37 (48.7)	-
>82 years	39 (51.3)	-
Caregivers’ age groups		
≤60 years	-	37 (48.7)
>60 years	-	39 (51.3)
Median (IQR)	83 (78-86)	61 (54-75.5)
Male	83 (77.25-86)	65 (55-82.5)
Female	82 (78-86.75)	59 (53-69)
Education		
Up to primary school	55 (72.4)	11 (14.5)
Middle school	18 (23.7)	22 (28.9)
High school	2 (2.6)	28 (36.8)
Bachelor’s degree	1 (1.3)	12 (15.8)
Unreported	0 (0.0)	3 (4.0)

IQR, interquartile range.

Table 2. Caregivers’ profile.

	Caregivers, N=76 N (%)
The caregiver is...	
The spouse	24 (31.6)
The child	42 (55.3)
Other relative	6 (7.9)
Unreported	4 (5.2)
Family status	
Married	51 (67.1)
Unmarried/currently unmarried	24 (31.6)
Unreported	1 (1.3)
Professional status	
In employment	54 (71.1)
Non-professional	21 (27.6)
Unreported	1 (1.3)
Self-reported economic conditions	
Sufficient	60 (78.9)
Insufficient	6 (7.9)
Unreported	10 (13.2)

Results in 6-month follow-up

Between T₀ and T₁ was observed a statistically significant difference from median overall score obtained in Cornell scale ($p=0.035$). Notably, a significant difference was also found in the subscale “mood tone alterations” ($p=0.021$) and “conceptual disorders” ($p=0.013$). In contrast, regarding behavioral disorders, physical signs, cyclic functions and conceptual disorders, no statistically significant differences were found (Table 6, Figure 2). This comparison is to be considered with methodological limitations due to the small sample size.

Table 3. Baseline (T0) patient and caregiver clinical indexes

Patients’ indexes	N	Median (IQR)
MMSE	68	20 (16.08-23.63)
CDR	76	1 (0.5-2.0)
CIRS	76	3 (2.0-5.0)
Total Cornell score	76	8 (5.0-12.0)
Mood-related signs	76	2 (1.0-4.0)
Behavioral disorders	76	8 (5-12)
Physical signs	76	1 (0.0-2.75)
Cyclic functions	76	2 (1.0-3.0)
Conceptual disorders	76	0 (0.0-1.0)
Patient’s social isolation	75	
Not at all/sometimes	61	81.3
Most of the time/absolutely yes	14	18.7
Caregivers’ indexes	N	Median (IQR)
Caregiver burden index	76	19.5 (11.0-41.8)

IQR, interquartile range; MMSE, mini-mental state examination; CDR, clinical dementia rating scale; CIRS, clinical insight rating scale.

Table 4. Correlation between patient’s social isolation, depression and caregiver burden.

Indexes	N	Caregiver burden correlation	p-value
Patient’s social isolation	76	0.3	0.020
Mood changes	76	0.4	0.001
Behavioral disorders	76	0.4	<0.001
Physical signs	76	0.2	0.175
Cyclic functions	76	0.3	0.007
Conceptual disorders	76	0.2	0.182
Total Cornell score	76	0.4	<0.001

Table 5. Correlation among variables (patient).

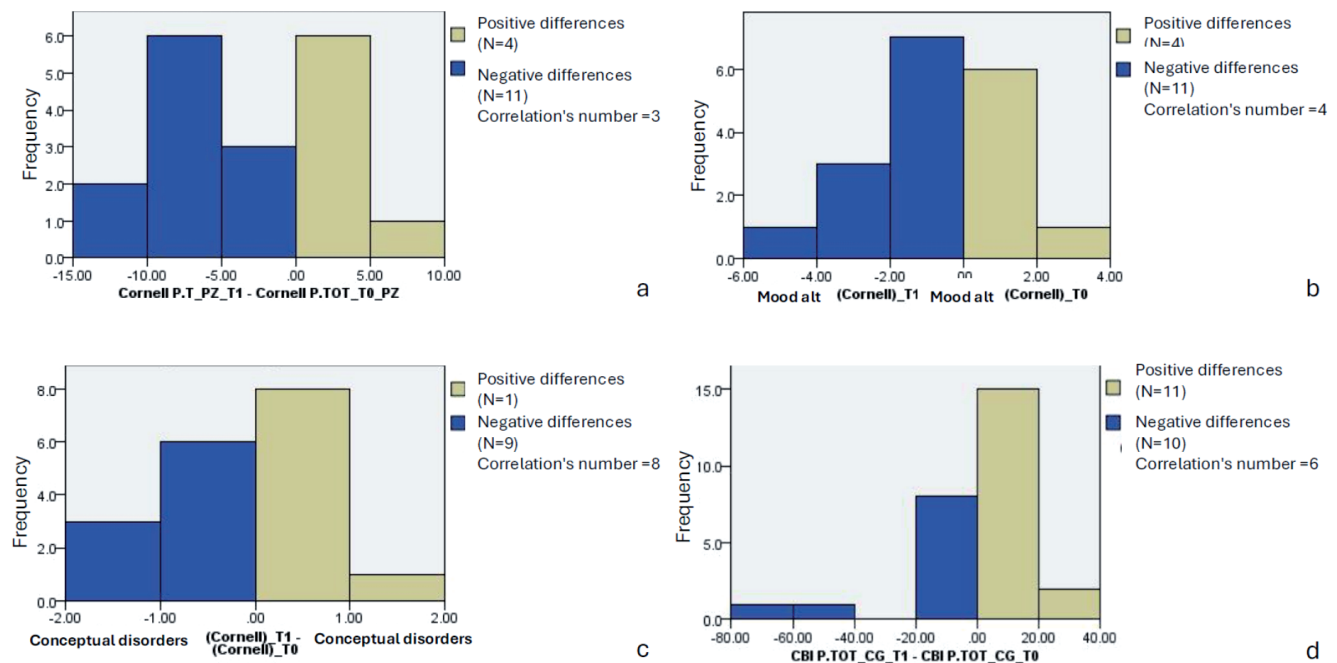
Indexes	N	CIRS	p-value
MMSE	76	-0.4	0.003
CDR	76	0.3	0.009
Social isolation	76	0.3	0.022
Behavioral disorders	76	0.3	0.012
Caregiver burden	76	0.2	0.062

MMSE, mini-mental state examination; CDR, clinical dementia rating scale.

Table 6. Significant results after 6-month follow-up.

Indexes	N	T0 Median (IQR)	T1 Median (IQR)	p-value
Total Cornell score	18	8.50 (2.75-12.5)	5.50 (1.75-7.5)	0.035
Mood tone alterations	18	2.00 (1-4.25)	1.00 (0-2)	0.021
Conceptual disorders	18	1.00 (0-1.25)	0.00 (n.c.)	0.013

IQR, interquartile range; n.c., not computable.

**Figure 2.** Results after 6-month follow-up related to Cornell score (a), mood tone alterations (b), conceptual disorders (c), caregiver burden index (d).

Discussion

Exposure to chronic stressors, such as patient's behavioral disorders, depressive status, and social isolation, can increase caregivers' risk of incurring caregiver burden.⁷ In addition, social isolation is a risk factor which may promote the development of depressive symptoms in person with AD.¹⁸ This condition over time may worsen especially if psychoeducational interventions are not implemented to recognize and empower patient and caregiver in their roles.

Analyses conducted, within our study, highlight how there are behavioral modules, specific to neurodegenerative disease, that negatively affect the caregiver's psychophysical health status. Among these, patient's mood, behavioral changes, and cyclic functions (night wandering) take on particular relevance.

Literature highlights how stress caused by the care-recipient's behavioral problems and the caregiving burden it entails can increase the caregiver's risk of incurring the development of cardiovascular disease.¹⁹ In addition, Caregiver Stress Process Model⁹ points out how exposure to a chronic stressful condition has negative

effects not only on the caregiver's physical and psychological health, resulting in experiences of anxiety, depression and exhaustion, but also on cognitive functioning (decreased attention and information processing speed), emotional dimension (difficulty tuning into elderly person) and organizational dimension (rethinking one's time in favor of care with the risk of withdrawal from social and working life). Indeed, chronic stress is associated with hyperactivity of the hypothalamic-pituitary-adrenal axis^{20,21} and in addition to possible "neurotoxic" effects, caused by high cortisol levels,²² it is also accompanied by a decrease in two neuroprotective substances, Dehydroepiandrosterone (DHEA) and Brain-Derived Neurotrophic Factor (BDNF).^{23,24} Alterations in cortisol, DHEA, and BDNF levels appear to have a significant impact on prefrontal and hippocampal dysfunction, leading to impairment of cognitive components such as attention, executive functions, and memory.²⁵

Studies conducted suggest, in addition, that both severity of disease presented by patient and amount of time family members spend on caregiving activities are not significant predictors of the caregiver's own mental and physical health consequences.⁶ The amount of time spent with the elderly person is, therefore, not enough to deter-

mine a condition of caregiver burden, but rather the quality of caregiving and the rethinking of the relationship in light of the pathology appear to be related factors.²⁶

Our data show that a higher level of awareness on the patient's part does not correlate with better cognitive functioning. Being more aware of one's illness leads people to isolate themselves more, driven by feelings of shame and fear about others' judgment. This trend toward social isolation also has implications for the caregiver's psychological well-being, who, feeling helpless and unsupported in the management of a nonnormative and unchosen event, feels an overload of commitments and responsibilities. It is, therefore, necessary to build a listening space in which to return patient how the level of awareness regarding the condition is not a limitation, but a resource to be leveraged to stimulate change both in terms of cognitive adaptation and in terms of promoting levels of agency. An increase in an elderly person's level of self-efficacy would help the caregiver feel less alone and, above all, recognized in "caring" role.^{6,27}

However, what serves as a "node" is represented by difficulties in being able to translate the agency feeling, which in a chronic condition is associated with the issue of acceptance of the diagnosis, into a feeling of assertiveness and not learned helplessness.²⁸ Failure to deal with symbolic aspects related to diagnosis trauma leads to a greater state of distress in both caregiver and patient, where unspoken anger prevents any form of situational awareness. Being denied appropriate time to elaborate on the diagnosis, with its painful aspects, can be a risk factor related to increased levels of depression, anxiety and social isolation. It is essential for the caregiver to have a listening space in which to be able talk about the trauma, thus rediscovering personal and relational resources that, until then, had been oppressed by feelings of distress, fear and anger.²⁹

The lack of processing also hinders the return of diagnosis to the patient, who, feeling lost for the disease, is unable to find in the caregiver a supportive figure. Due to progression of pathology there is, often, not only a difficulty in managing the elderly person, but also a deterioration of relational satisfaction and loss of affective relationship with decreased levels of subjective well-being and self-efficacy.⁹ Several studies³⁰⁻³² show how in AD, there is also neural-based affective impairment, with direct involvement of mirror neurons. The latter play a crucial role in promoting empathy as an inter-subjective experience.

However, patients diagnosed with AD show weaker activations in left brain regions specific to empathic simulation (ventral premotor cortex, anterior insula and frontal operculum), making it more difficult to attune to others' affective and cognitive states.³³

Neural changes in areas associated with motor and emotional simulation (including mirror neurons regions) are, therefore, a significant aspect of this disorder. It seems, therefore, relevant to be able to stimulate these patients not only cognitively, but also emotionally, trying to keep the ability to move easily in their environment and still feel part of the family system intact for as long as possible.

The lack of symbolic processing and relational co-construction factors, in light of the traumatic event, risks, otherwise, fostering a situation of bond stagnation in which the prevailing feelings are resignation, passivity and helplessness at the expense of self-efficacy and sense of mastery.³⁴ The availability of psycho-educational programs, aimed at providing caregivers with more knowledge related to the aspects that characterize normal and pathological aging, dementias, the numerous behavioral disorders related to them and their course, could be helpful in supporting them psychologically.³⁵

In addition, conducting psychological support groups for the caregiver, conceived as a silent patient in different social and health care settings (hospitals, day-care centers and nursing homes), can facilitate the process of elaborating the diagnosis, listening, justifying and containing the brought request for help, in order to promote a condition of interpersonal well-being, passing through the trauma and rethinking the bond with the elderly person.

Lastly, providing a space for a listening and support allows for the reconstruction, through personal stories, of "fracture" elements both in family experience and in relationships with dementia patient, restoring meaning and coherence to moments of difficulty, enhancing the resources and strategies implemented to overcome them, and strengthening feelings of appreciation for each other.

Limitations

Results presented within this paper must be read and considered in regard to several methodological limitations. First, the small sample size (especially in the 6-month survey) does not allow for statistically significant results. Second, the missing gender-balanced sample does not allow for testing any possible gender differences within associations found. The finding is in line with epidemiological reference regarding disease: a meta-analysis on the incidence of Alzheimer's in Europe found that about 13 out of every 1,000 women develop the disease each year, compared with 7 men.^{36,37} Third, it is necessary to consider the occurrence of a possible social desirability bias, which is structurally inherent in the self-report questionnaires completed by caregivers. Finally, the choice not to use an Actor Partner Interdependence Model (APIM)³⁸ design forecloses the possibility of investigating the interdependence of psychological constructs under investigation. The use of such designs, in the future, would help create more knowledge with regard to how each member's needs and expectations influence the functioning of the entire dyad.

Despite these limitations, the work also has several strengths. Indeed, it is a longitudinal study that investigates the evolution of relational processes over time and at different stages of neurodegenerative disease. In addition, the dyadic approach allows to capture the perspective of both patient and caregiver, so as to better understand each personal experience related to the pathology, focusing, in particular, on the diagnosis-trauma duo.

Further studies on this aspect, with a larger and more gender-balanced sample, could provide valuable insights not only related to the statistical significance of results obtained, but also to clinical significance and its impact on dyad daily life.

Conclusions

Our results suggest the importance of thinking up new ways to approach caregivers who are experiencing a nonregulatory, nonchosen event, so as to offer them a chance to work through this transition and psychological support that can increase involvement in the care pathway.

It is also essential to raise awareness among health professionals of how dyadic processes can affect patients' health, so as to deploy multidisciplinary projects construction able to take care of patients in their complexity. Recognizing the value placed on caregivers by supporting them through different stages of disease by focusing, at first, on dealing with diagnosis-related trauma, avoiding any feelings of anger and frustration being transferred directly to patients and,

subsequently, focusing on caregiver support for patient engagement, can become a valuable strategy to be used in shaping personalized programs which put the person, as a relational being, back at the core. Promoting, within elder care services, projects aimed at the psychological support of family members turns out to be a valuable resource to invest in, in order to reduce the impact that stressors could have on caregivers and patients themselves quality of life. In particular, several researches^{39,40} emphasize the centrality of narrative and autobiographical methods, which are functional in increasing family members' well-being. In this context, studies confirm, as very effective in improving resilience, autobiographical narrative techniques⁴¹ and expressive writing,^{42,43} which are able to unveil (disclosure) negative emotional experiences, encouraging the reorganization of thoughts into more coherent narrative structures. Educational moments in groups, therefore, make it possible to break the isolation and restore the caregiver's sense of fatigue related to caring for a dementia patient.

It is necessary, for the future, to implement social policies and territorial services centered on the psychological construct of the therapeutic triangle,⁴⁴ so as to support and guide the elderly patient and the family system in this uneasy phase, in light of what has been presented.

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