

# **Leisure time of the Caregivers of Alzheimer's disease patients: Literature Review.**

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## **Abstract**

*Alzheimer's Disease (AD) is a neurodegenerative disease that affects both patients - by causing dementia -, and their caregivers - by causing physical and mental deterioration. The purpose of this study is to turn the attention to caregivers, who are the "hidden patients" of AD, as their life is dramatically affected by the constant care and its demands. Although limited, the respective bibliography illustrated the significant physical and especially mental health effects on caregivers, caused by the care process. According to the above research findings, it is critical to focus on the positive outcome that can be brought on, namely, the allocation of caregivers' time in activities that allow them to socialize and express themselves. Therefore, free quality time engagement appears to be positively associated with balanced mental health throughout the progression of AD.*

Keywords: Caregivers, Dementia, Personal time, Quality of life, Mental health, Physical health

## **Introduction**

Complete memory loss, disorientation and difficulty recognizing friends and family are the most widely known symptoms of people with Alzheimer's disease (AD). The term AD refers to a severe degenerative brain disease that begins with a mild decline in a person's memory functions and as it progresses, activities of daily living (e.g., social relationships, self-care, sense of independence) are gradually affected. Eventually these difficulties become so obvious that the patient ends up being totally dependent on others. Additional to the above, there are behavioral disorders, apathy or aggression, sleep, appetite disorders and hyperactivity [4]. Dementia is a more general descriptive term, which refers to a series of symptoms that occur in diseases that destroy brain cells. Nowadays, dementia is a major medical, social and economic problem, affecting a large part of the elderly population worldwide [2]. In the context of caregiving for individuals with Alzheimer's disease (AD), the well-being of caregivers is an aspect often overlooked. Caregivers, also known as informal carers, play a critical role in supporting and caring for their loved ones affected by AD. However, they frequently face significant challenges and burdens, both psychosocially and personally. Caring for someone with AD can be emotionally depleting and time-intensive, leaving caregivers with limited personal or leisure time. Personal time refers to periods when individuals have no binding obligations or occupational commitments, allowing them to engage in self-selected activities that promote personal growth and social development. Recognizing the importance of personal time for caregivers becomes crucial in emphasizing its significance for their

well-being and that of the individuals they care for [13]. By prioritizing personal time, caregivers can engage in activities that bring them joy, relaxation, and a sense of fulfillment. These activities may vary depending on individual preferences and interests, encompassing hobbies, exercise, socializing, pursuit of personal goals or engaging in self-care practices. Devoting time to personal pursuits enables caregivers to rejuvenate themselves, reduce stress levels and maintain their physical and mental well-being. It affords them a sense of autonomy, fostering a positive self-identity beyond their caregiving role. Additionally, participating in leisure activities provides a much-needed respite from the demands of caregiving, allowing caregivers to replenish their energy and cope with the challenges they encounter [4]. Recognizing caregivers as the "hidden patients" of AD underscores the profound impact the disease has on their lives. While they may not experience the direct cognitive decline and memory loss associated with AD, caregivers face their own set of challenges and emotional burdens [1]. In this study, we will focus our attention on the people who care for AD patients and the importance of having and properly utilizing their personal time for the well-being of both themselves and people affected with AD. More specifically, the aim of this study is to examine the relationship between effective personal time management and caregiver well-being in individuals caring for people with Alzheimer's disease (AD).

### **Leisure time and caregivers**

The subjective well-being of caregivers is more affected by the restriction of activities for their personal satisfaction, than by the burden of caring for the person with AD. Previous research confirms that the provision of care and caregiving gradually leads to a reduction in leisure activities [29] and as a consequence, an increased risk of psychological burden appears [11]. Caregivers tend to prioritize helping patients, leaving limited personal time for themselves, considering it secondary and - sometimes - less important. Furthermore, it is common among caregivers to experience a cycle of negative emotions (e.g., guilt) caused by negatively charged thoughts (e.g., "time for myself is seen as neglecting the patient"), which contrast their responsibilities as caregivers with their personal satisfaction and well-being. Therefore, it appears that the reduction or lack of leisure time, combined with reduced sleep and low levels of rest resulting from long hours of care, are the greatest impact on the health - both mental and physical - of a caregiver of a person with AD [20]. Moreover, it is important to note that not all caregivers of people with AD have the same experiences and one explanation is the progression of dementia in patients. The stage of dementia affects the quality and quantity of leisure time caregivers have to offer for themselves. In carers and patients at a middle stage, for example, compared to those at an early stage, greater conflict within the family, withdrawal from social relationships, a reduction in personal time, a worse perception of their health, less tolerance of the patient's behavior and a greater desire to turn to another person for care can be observed. The greatest loss of control seems to occur in the personal and social lives of caregivers in late stage AD, where it most severely affects their quality of life and therefore that of the patients, creating a vicious cycle [35].

### **Methodology**

Methods and results were formulated according to PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines [30].

**Research strategies**

To conduct this literature review, data were searched and retrieved using the search engines Scopus, Pubmed, ResearchGate and Google Scholar. The following keywords were used: leisure time, personal time, caregivers, caregivers of people with Alzheimer's disease, Alzheimer's disease, dementia. They were used in Greek and English.

**Inclusion criteria**

The final selection was made exclusively from sources that: 1) are published from 1996 to 2022, 2) are written or translated in Greek and English, and 3) are relevant to caregivers of people with AD and the influence - absence, existence or increase - of leisure time on their lives.

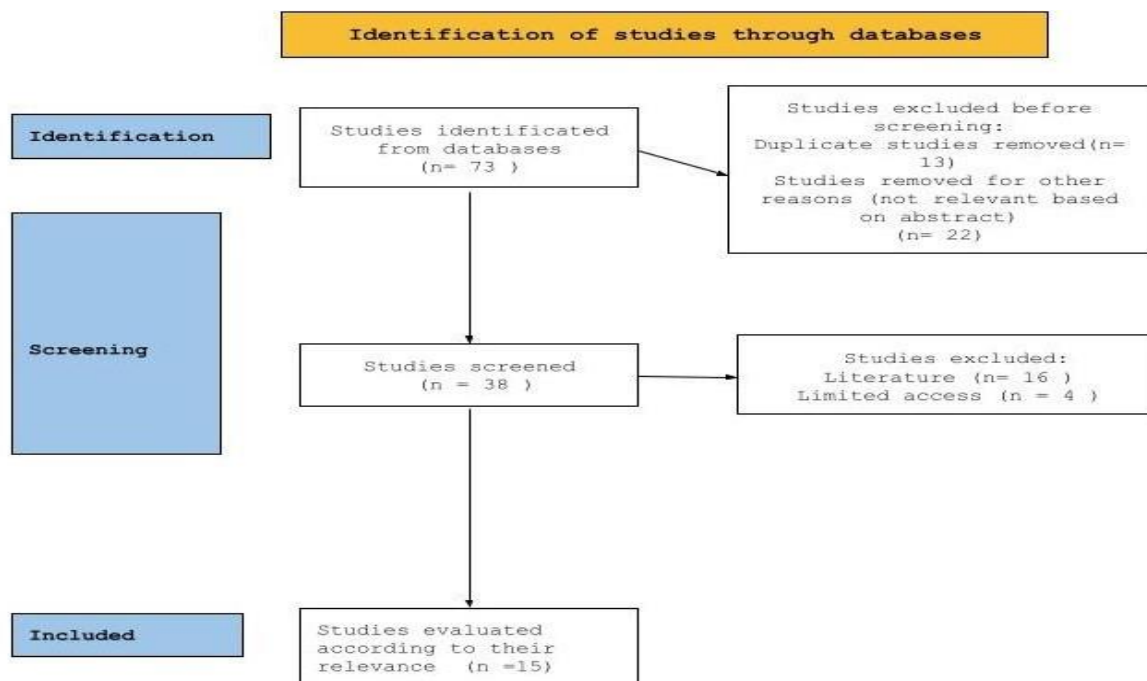
**Exclusion criteria**

Some studies (n=35) were excluded from the final screening, either due to limited access or for not being relevant based on the abstract. In addition, some studies were bibliographic and others were duplicated/overlapping, which prevented their inclusion in this study.

**Data extraction**

Based on the above criteria, 15 articles were selected.

**Table 1: Study flowchart for the selection of preferred references for systematic reviews and meta-analyses (PRISMA).**



**Results**

## Survey results

A total of 73 publications were reviewed. Of these, they were excluded after the initial screening either due to duplicate, overlapping records (13), or due to irrelevance based on the abstract (22). In addition, 38 full-text articles were assessed for relevance, while 4 studies with limited access were excluded, as well as 16 literature searches. Thus, after screening and after excluding all of the above, 15 studies appeared to meet the inclusion criteria.

## Research characteristics

The survey characteristics and findings of the primary study are summarized in Table 1. The sample size of the 15 studies ranged from 37 to 1,509 participants. The majority of study participants were over 18 years of age. The 15 studies were conducted in several countries, including Spain (n = 2), Italy (n = 1), Ireland (n = 1), Switzerland (n = 1), Japan (n = 1), Canada (n = 1), Colombia (n = 1) and the Netherlands (n = 1). However, most (n = 6) took place in the United States of America. The results obtained from the included studies were similar to each other. All studies highlighted the increased likelihood of anxiety disorders as well as depression in caregivers of people with Alzheimer's disease, while five of these studies focused on the symptoms of caregiving on the physical health of caregivers and four studies assessed mental distress in more detail. In addition, it was observed that eight studies focused on the pivotal importance of leisure activities on the physical and mental health of caregivers, while one study focused on the worsening of mental distress during the COVID-19 pandemic.

## Leisure - Physical Health

Findings from a five-year longitudinal study of caregivers of people with AD proves that caregivers who reported utilizing their leisure time through activities that satisfied them had lower mean arterial pressure (MAP) over time [23]. This is the first study to show longitudinal follow-up and eventual association between the two variables (leisure time and physical health), suggesting that sustained engagement in leisure time activities may have long-term benefits on caregivers' cardiovascular health (e.g., improved sleep quality, normal daily heart rate, etc.). Therefore, an association has been established between caregivers of people with AD, their engagement in more enjoyable leisure activities and lower blood pressure (compared to those less engaged in such activities). This finding suggests that something as simple as taking more walks in the park or spending more time reading books could protect physical health [23]. Furthermore, the mechanisms linking quality leisure activities to lower blood pressure in caregivers were examined, as well as the potential barriers that prevent them from participating in them. One possible explanation is that the caregivers may not give themselves 'permission' to take time away from patient care or may feel guilty or selfish for doing so. Another obstacle may be the lack of external help, along with insufficient external support [32]. However, it is known that as the disease progresses and advances, there is a steady decline in the cognitive function of those with the disease and most develop behavioral disorders, thus impairing their ability to meet the demands of daily life. Thus, the dependence of the patients on their carer increases in parallel with the degree of strain on the carer. The carer may develop feelings of anger,

sadness, loneliness and resentment to the point where their health and wellbeing is adversely affected. Important to this is the effect of anxiety and depression which worsens over time [28].

### **Leisure - Mental Health**

According to recent surveys [12][33] , more than 80% of all care services in European Union countries are provided by informal carers. These are caregivers without formal training and correspondingly unpaid, which means that providing care for someone with dementia can incur significant costs both financially and in terms of time. Carers experience mental health problems to a greater extent, than both the general population and carers of people with other chronic illnesses.

Limited information is available on factors that can positively modify the daily lives of caregivers of people with Alzheimer's disease, such as leisure activities and whether they feel satisfied with them. More specifically, one study [29] showed that informal care can lead to a reduction in leisure activities and an increased risk of psychological problems (e.g. they are at higher risk of depressive disorders compared to the average general population) [11]. It is often observed that caregivers are overwhelmed by their negative emotions and thoughts, with feelings of guilt "overwhelming" them because if they take time for themselves they do not adequately monitor the person with dementia, while at the same time feeling guilty for neglecting their self-care [31]. These deficits in leisure satisfaction have been linked to mental health indicators such as depression, anxiety [22] personal well-being [5] , and even risk of chronic disease.

An additional finding is that caregivers participate in fewer leisure activities than non-caregivers [37]. It is worth mentioning that female informal caregivers seem to be at the highest risk of developing such symptoms [19]. Moreover, caregivers of people with dementia appear to have high rates of anxiety, anguish and psychological distress. The Buffer Model of Leisure and Health [9] predicts that the experience of stress will lead to deterioration in caregivers' physical and mental health, if it is not met by activities that are satisfying and allow them to make creative use of their personal time. These activities are a means of coping with stressors, mainly because they offer a sense of companionship, socialization and self-care. The above suggests that activities involving other people may be particularly important for coping with and alleviating stress. Furthermore, it has been shown that being a member of groups, which are places where people can meet and exchange point of views with other members (e.g., sports clubs, music clubs or even religious groups), becomes a protective factor against the otherwise detrimental effects of caring for an Alzheimer's patient on his or her anxiety levels. The fact that anxiety is an important predictor of impaired mental health confirms a number of previous studies that have reported generally higher levels of depression [10] [16] [33] and anxiety [22], as well as lower levels of life satisfaction for caregivers of people with dementia, compared to the general population. Previous research has shown significant associations between involvement in leisure activities for carers and a reduction in depressive symptoms [15].

What is more, a study conducted during the pandemic period [24] is noteworthy and demonstrated that caregivers of people with dementia have experienced severe mental distress during the first wave of the

COVID-19 pandemic. Serious feelings of strain and anxiety have been identified, making it necessary to put in place targeted measures in order to enable carers to continue to do their work and cope with uncertainty, while maintaining their own wellbeing. Based on the literature, it is clear that caring for a person with Alzheimer's is associated with feelings of mental strain and stress, depression, loneliness, weaker immune function and cognitive decline. In the case of forced confinement, many reported an intense feeling of loneliness and isolation, which, combined with the absence of outside help, took a much greater toll on their mental health. These findings demonstrate that carers of people with AD are likely to be vulnerable to measures of restraint and social isolation, which may compromise their ability to provide care. Additionally, a large proportion of participants in this study reported feeling severe to extreme levels of anxiety, suggesting an increased risk of high levels of depression in caregivers as the pandemic progresses. Finally, a key finding is that the existence of a supportive social environment is a major protective factor against mental distress in caregivers. The creation of such an environment is particularly important and can be life-saving in difficult times, such as the quarantine - during which it was very important for everyone to keep their hope levels high, which was understandably facilitated by the creation and maintenance of positive relationships [36]. Social support is directly and positively related to well-being. This suggests that those carers whose relatives have dementia or severe memory loss, and consequently higher levels of functional dependency, tend to see their social support as more necessary, compared to carers of people without dementia and therefore with lower levels of functional dependency [7]. In particular, participation in groups that require connection with other people was shown to reduce the impact of burden and symptoms of distress felt by carers. These groups included charity, hobbies, social, sporting and ethnic clubs, as well as religious and cultural clubs and dance groups. Such activities are quite different from the caring role and therefore participation in them is recommended, as a group of people who share a similar interest can provide meaning, which in turn could reduce stress and comfort carers. Supporting this idea, a previous study [38] found that engagement in social activities, such as community groups and religious activity, had a positive impact on caregivers' well-being. Weekly participation in social activities was associated with higher levels of life satisfaction and lower levels of depression. It is worth noting that a plethora of studies demonstrate that participation in a self-help group reduces the effects of stress and mental strain caused by caregiving hours. A previous meta-analysis [8] has shown that participating in these groups effectively improves mental health issues for carers of people with dementia and at the same time self-help groups appear to relieve the mental burden of caring for people with dementia. In self-help groups, carers may receive social support [18] and the opportunity to discuss the tragedy and difficulties of the person with dementia with other carers who share this common experience.

## **Lack of free time and risk factors**

### **Physical health**

According to results from plenty of research, it seems that caregivers of patients with AD may not allow themselves to devote time to activities beyond caring for the patient or may be overwhelmed with feelings of guilt and selfishness, in case they do

[23]. The consensus of the above studies was the fact that the lack of help or adequate support from external sources were the main barrier. Furthermore, the dependence of patients on caregivers seems to be another risk factor, as it increases over time and causes the latter to experience feelings of anger, sadness, and loneliness to the point where their health and well-being are negatively affected [32].

### **Mental health**

Caregivers of people with AD are often overwhelmed by their negative feelings and thoughts about what they consider "right" and "wrong" in their personal time management and self-care which affects not only their physical, but also their mental health [31]. More specifically, since caregiving itself does not seem to leave much room for engagement in other activities beyond those necessary for patient care, there is an increased risk of psychological burden for caregivers [29] - such as depression and anxiety [22].

The mental state of caregivers of people with AD seems, according to the above research, to be exacerbated by the financial and time burden of ongoing patient care. Other predictors of poor mental health indicators are: gender - female carers are more vulnerable to developing anxiety or depressive disorders - [19], the type of carer-patient relationship - spouses of patients with dementia are four times more likely to be diagnosed with depression - [16] , and the amount of time carers spend caring for patients [20]. Caregiver's age is a controversial factor as in research data has been shown to be a predictor of impaired mental health [20], while others present age as a protective factor of good mental health, demonstrating that older caregivers seem to show emotional stability and are less affected compared to younger caregivers due to closer contact with their emotions [27].

Finally, findings on the influence of the Covid-19 pandemic [24] on the mental health of caregivers of people with AD confirmed their increased vulnerability to measures of restraint and social isolation, since this makes their ability to provide care even more difficult.

### **Quality leisure time and protective factors**

#### **Physical health**

With regard to the protective factors that emerged from the results of the surveys on the physical health of carers, the main one is the continuous and systematic involvement in leisure activities. An association seems to have been established between carers of people with AD, their involvement in more enjoyable leisure activities and lower blood pressure (compared to those less involved in such activities) [23].

#### **Mental health**

The most effective protective factor for eliminating mental distress in caregivers of AD patients, according to the literature, is not much different from those mentioned above. Most studies suggest positive modification of the daily life of these individuals, such as leisure activities, which allow them to use their personal time creatively. Supplementarily, significant associations between engagement in leisure activities for caregivers and reduction of

depressive symptoms emerged following a longitudinal study of people with major depression [15]. In addition, the "Buffer Model of Leisure and Health" [9], suggests that these activities are a means to address and alleviate stress factors, mainly because they provide a supportive social network, a sense of companionship, socialization and self-care. It has been shown that being a member of a supportive social network [18], as well as being a member of groups - whose members are likely to experience similar problems - becomes a protective factor against the detrimental effects of caring for an Alzheimer's patient regarding anxiety and depression. Additionally, participation in such groups and activities can reduce anxiety and contribute to: a) increasing levels of life satisfaction and b) reducing levels of depression, thus significantly improving the quality of life of the patient and the caregiver [38].



Table 2: Table of Results

Research	Country	Language	Type of research	Sample Size	Sample	Age	Research Tools	Findings
Arango-Lasprilla et al., 2010	Columbia	English	Cross-sectional research	37	Caregivers	18 y/o and above	The Patient Health Questionnaire (PHQ-9), the Zarit Burden Interview (ZBI), the Interpersonal Support Evaluation List Short Version (ISEL-12), the Satisfaction With Life Scale (SWLS)	Deficits in leisure satisfaction have been linked to mental health indicators such as personal well-being.
Covinsky et al., 2003	U.S.A.	English	Prospective observational study	2293	Hospital Patients	70 y/o and above (M 80)	Interviews	Many older people who are admitted to the hospital are being discharged with impaired function of activities of daily living since their admission.
Dunn & Strain, 2001	Canada	English	Quantitative Study	517	Informal caregivers of Adult Day Care patients	19 - 88 y/o (M 57.6)	Interviews	Time-related, mental strain on informal caregivers, due to caring for people within the immediate family circle.
Jacobson et al., 1996	U.S.A.	English	Longitudinal study	150	People with severe depression	18 y/o and above	Dysfunctional Attitude Scale (DAS)	Significant correlations between involvement in leisure activities and reduction of depressive symptoms.
Joling et al., 2010	The Netherlands	English	Longitudinal study	571	218 spouses of dementia patients and 353 spouses - of similar age and sex - of individuals	18 y/o and above	Incidence rates (IRs), hazard ratios (HRs)	Spouses of people with dementia are four times more likely to be diagnosed with depression, than spouses of people without dementia. The authors were unable to determine this, due to the limitation of the stress factor.

					without dementia			
Mahoney et al., 2013	U.S.A.	English	Quantitative Study	153	People with Alzheimer's Disease (AD) and their caregivers	60 y/o and above	Interviews	Caregivers, especially women, are more likely to experience anxiety disorders and/or depression. These are increased if combined with poor physical health or a poor relationship with the patient.
Martínez-Santos et al., 2021	Spain	English	Opportunity sampling survey	423	Caregivers of people with AD (at least 5 months).	18 y/o and above	Questionnaire (ICUB97-R)	Lack of leisure time, modifications to leisure activities, reduced sleep and interruption of family life, were presented as the biggest impacts on the caregiver's health. Caregiver's age and time devoted to the patients have a significant impact on the quality of care they can offer.
Mausbach et al., 2017	U.S.A.	English	Longitudinal study	126	Spouses caregivers of Alzheimer's patients	18 y/o and above (M 74,2)	Pleasant Events Schedule-Alzheimer's Disease (PES-AD), Pearlin Role, Overload scale, Rapid Assessment of Physical Activity (RAPA) scale	Greater involvement in leisure activities was associated with reduced blood pressure. Furthermore, blood pressure decreased significantly when care duties ended, as a result of patients being placed in nursing homes or dying.
Mausbach et al., 2012	U.S.A.	English	Multifactorial Research	126	Men and women who were married to a spouse diagnosed with potential AD.	55 y/o and above	Center for Epidemiologic Studies Depression scale (CESD-10), Revised Memory and Behavior Problems Checklist (RMBPC), Role, Overload scale, The Personal Mastery scale, Coping Self-Efficacy scale, The	Higher levels of anxiety were significantly associated with more depressive symptoms. Increased anxiety was also associated with reduced self-efficacy, as well as reduced personal activities.

Author(s)	Country	Language	Study Design	Sample Size	Participants	Age	Measures	Findings
Messina et al., 2022	Italy and Switzerland	Italian	On-line, Longitudinal study	571	Caregivers of individuals with AD collected by chain-referral sampling.	18 y/o and above	Interview and measurements with scales (DASS-21, UCLA LS3)	Caregiver's burden, anxiety symptoms, depression and feelings of loneliness were identified and intensified, during the first wave of the COVID-19 pandemic in two severely affected and bordering countries. Any differences in the impact of the pandemic on caregivers are due to social or cultural differences.
Ory et al., 1999	U.S.A.	English	Multifactorial Research	1509	Caregivers of people with dementia	18 y/o and above (M 46)	Phone survey, questionnaire	Caregivers of people with dementia are negatively affected by their caregiving responsibilities in terms of employment complications, caregiver strain, mental and physical health concerns, time for leisure and with other family members, and family conflict.
O'Sullivan et al., 2019	Ireland	English	Population study	252	Spouses of people with AD, control groups of non-caregivers.	50 y/o and above	Questionnaire and in-person assessment	Caregiving is not related to cognitive deficits caused by anxiety. In general, no statistically significant differences were observed between caregiver and non-caregiver cognitive performance.
Romero-Moreno et al., 2014	Spain	English	Sample survey	179	Caregivers of people with dementia	18 y/o and above	Questionnaire (CFQ)	Intense feelings of guilt, because on the one hand if they take time for themselves they do not adequately care for the person with dementia, while at the same time they feel guilty for neglecting their own self-

von Känelet. et al., 2014	Switzerland	English	Longitudinal study	121	Spouses - caregivers of people with AD.	55 y/o and above	Annual evaluations	care. Low satisfaction from leisure activities is associated with low levels of competent cardiovascular function.
Wakui et al., 2012	Japan	English	Correlational analysis	727	Family caregivers of the elderly.	18 y/o and above	Mail	The type and frequency of an activity is related to the caregiver's psychological health.

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## Discussion

In this literature review, we attempted to gather all the available data on the mental distress experienced by caregivers of people with AD and the importance of utilizing their leisure time - both for their mental relief and for the general improvement of their quality of life. Social isolation is a prevalent issue among caregivers, as their caregiving responsibilities often limit their opportunities for social interaction and support. They may find themselves increasingly isolated from their social circles and struggle to maintain meaningful connections outside of their caregiving role. This isolation can exacerbate feelings of loneliness, stress, and emotional strain, adding to the overall mental distress experienced by caregivers [14]. To provide good quality care, studies have shown that caregivers of people with AD need to pay attention to the needs of their loved ones and devote sufficient time and space for high quality care, which does not allow them to devote time for self-care. The limited availability of formal support services and resources further compounds the challenges faced by caregivers. Many caregivers do not have access to adequate support systems, such as respite care or home health services, which could alleviate some of their caregiving responsibilities and provide them with much-needed breaks. The absence of these resources places a heavier burden on caregivers, leaving them with little time for themselves and increasing their mental distress [14]. This kind of support can arise from both paid (e.g., primary care) and unpaid (e.g., other relatives) sources. Recognizing the importance of maintaining a healthy and balanced quality of life, both for the caregivers and the individuals with AD, is paramount. As the condition of their loved ones deteriorates over time, caregivers must find ways to take care of their own well-being. Engaging in leisure activities and self-care practices can provide caregivers with an opportunity to recharge, relax, and regain a sense of personal identity and fulfillment. Caregivers who describe having strong support systems appear to cope better with the progression of the disease compared to those with limited support, as it enables them to engage in activities beyond caregiving that are of exclusive benefit to them [14]. The care of AD patients by their family is a major social and clinical issue. These caregivers face great emotional, social and financial burdens and the negative consequences associated with caregiving are numerous. Given the projected increase in the number of people with dementia, there is a need to identify approaches in order to help families manage the challenges of caring for them. Primary health care providers have an important role to play in helping carers to overcome these barriers. Moreover, innovative public health policies are needed to meet the growing societal demands on the psychological and medical consequences of the burden on carers of people with AD [7].

In conclusion, dementia or severe memory loss, increased functional dependency and the associated increase in behavioral problems of care recipients, usually result in a decline in the quality of life of the caregiver and consequently, a reduced quality of care. It is therefore critical to focus on improving the quality of life of caregivers, through the use of their personal time, by engaging in activities that help them get in touch with themselves and their emotions, to reach mental balance. Only by identifying the mechanisms through which these primary stress factors operate and affect quality of life can appropriate and effective intervention policies be developed [7].

## Future Applications

According to the findings stated above, it is important to develop programs that will support caregivers of people with AD, offer them information, relief and the possibility of finding and utilizing their leisure time through activities of their choice. Such activities may include: exercise, play, some creative occupation or book reading and of course, interaction with other people who are experiencing a similar situation themselves [4][23]. These programs will contribute to enhancing the caregivers' sense of self-sufficiency, while improving their mental health and finding balance - thus improving their quality of life. The Galician Institute of Gerontology successfully implemented a program in collaboration with the Council of Santiago, the Galician Alzheimer's Association, and local universities [25]. It involved two parts: volunteers specialized in AD, providing support and care for the patients as well as for the caregivers, and professionals offering regular meetings covering various topics such as: information about the disease and nursing care, safety at home, coping with the progression of the disease, benefits and social services and group psychotherapy, among other topics. This program produced very encouraging and significant results. It improved caregivers' subjective well-being and self-esteem, although depression required additional intervention. It seemed that their self-esteem as caregivers improved, as they believed that they offered better care of high quality to the patient and were able to solve the majority of the daily problems regarding the care of the elderly person. However, it appeared that - maybe - the magnitude of the problems faced by caregivers is too great to successfully be eliminated or even dramatically be improved with any intervention. Nevertheless, the fact that carers indicated that they felt they were not alone is adequate to confirm the value of these support programs. Such programs can be justified on the basis that they have a positive impact on both the well-being of the caregiver and the older person receiving care - which is the ultimate goal of the gerontological intervention [25].

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