





## Article

# Well-Being in Family Caregivers of Dementia Patients in Romania

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## Abstract

**Background:** The rising prevalence of neurodegenerative conditions such as dementia underscores the impact of population aging. Consequently, long-term care needs have increased and are often met by family members through informal caregiving, thereby supporting formal care systems by reducing associated costs. These caregivers face physical and mental health challenges, raising concerns about their psychological well-being and prompting interest in both clinical and psychosocial research. Ryff's eudaimonic model offers a robust framework for the assessment of psychological well-being; yet, in Romania, data on this population segment remain limited. **Objective:** This study aimed to compare the psychological well-being of Romanian dementia family caregivers with a reference population from the Romanian adaptation of the 54-item Ryff Psychological Well-Being Scale, and to explore how sociodemographic characteristics relate to relevant differences across well-being dimensions. **Methods:** A cross-sectional study was conducted among 70 Romanian family caregivers recruited from a single clinical hospital in Bucharest, Romania. Caregivers completed the 54-item Ryff Scale (Romanian adaptation), and scores were compared to reference values using one-sample *t*-tests with bootstrap confidence intervals. The most relevant dimension (purpose in life) was dichotomized and further examined in relation to sociodemographic and caregiving variables using Chi-squared and Fisher's exact tests. **Results:** Caregivers reported significantly lower scores compared to the reference population in purpose in life ( $p < 0.001$ ,  $d = -1.01$ ), personal growth ( $p < 0.001$ ,  $d = -0.91$ ), and positive relations ( $p = 0.01$ ,  $d = -0.30$ ). The most pronounced deficit was observed in purpose in life, with 85.7% of caregivers scoring below the reference mean. This dimension was further examined in relation to caregiver characteristics. Retirement status showed a statistically significant association with Purpose in Life, with retired caregivers more likely to report lower scores ( $\chi^2(1) = 4.04$ ,  $p = 0.04$ ), supported by the likelihood ratio test ( $p = 0.01$ ) and a linear trend ( $p = 0.05$ ). Additional marginal associations were found for household income ( $p = 0.14$ ) and whether the patient slept in a separate room ( $p = 0.15$ ), suggesting possible links between caregiver well-being and economic or environmental conditions. **Conclusions:** The study findings highlight notable psychological vulnerabilities among Romanian dementia caregivers, particularly in purpose in life and personal growth. Associations with structural and contextual factors such as retirement status, income, and caregiving environment suggest that caregiver well-being is shaped by broader socioeconomic conditions. While the magnitude of these deficits may be underestimated due to elevated stress levels in the reference group, the findings underscore the need for targeted



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clinical, social, and policy-level interventions aimed at strengthening existential meaning and personal development in culturally specific settings.

**Keywords:** dementia; family caregivers; well-being; purpose in life; reference values; cross-sectional study

## 1. Introduction

Dementia is recognized as a major global public health concern. Evidence from global estimates demonstrates a marked increase in burden over recent decades [1], while more recent projections indicate that prevalence will triple by 2050 [2]. This demographic trend is expected to intensify the demand for informal caregiving, most often provided by family members who attend to the daily needs of individuals with dementia [3–5]. Informal caregiving is far more than emotional support; it involves ongoing, often complex care that evolves alongside the progression of dementia. Caregivers frequently assist with daily living activities, medication management, behavioral symptoms, and medical coordination [3,6,7]. The cumulative and chronic nature of this caregiving role places a significant burden on caregivers' physical health (e.g., increased risk of cardiovascular disease, immune dysregulation, chronic pain, and sleep disturbance), and psychological health (e.g., chronic stress, elevated depressive and anxiety symptoms, and greater social isolation), as well as their economic situation [6–8]. Given this role, increasing attention has been paid to caregivers' own well-being. Recent reviews further emphasize the multidimensional toll of caregiving, highlighting the need for tailored interventions [9–11]. A comprehensive theoretical framework that captures this aspect is Ryff's wellbeing model, which is increasingly recognized as a complex and multidimensional construct rooted in the eudaimonic tradition, which emphasizes meaning, personal growth, and human flourishing rather than the pursuit of pleasure or positive affect alone [12–14]. The model encompasses six core dimensions of psychological well-being: autonomy, environmental mastery, personal growth, positive relations with others, self-acceptance, and purpose in life. This conceptualization has been widely used in research across diverse cultural contexts to better understand psychological adjustment and optimal functioning, demonstrating both theoretical robustness and empirical validity across diverse populations [15–18]. A widely used instrument based on this model is the 54-item scale, providing balanced coverage and solid psychometric properties of each dimension and maintaining satisfactory psychometric properties [12,15,16,19,20]. While this model has demonstrated validity and reliability, growing evidence suggests that well-being scores are also shaped by contextual influences. Nevertheless, a substantial body of evidence indicates that contextual factors like stress, caregiving burden, and social support significantly impact scores on psychological well-being [17,21–25]. Consequently, recent theoretical perspectives emphasize moving beyond broad cross-cultural generalizations toward a context-sensitive science of well-being, one that acknowledges local meanings, values, and social structures shaping how well-being is defined and experienced, and that resists the universalization of psychological constructs without empirical or cultural justification [26–28]. In this context, studies employing established models, such as Ryff's, are increasingly expected to situate their findings within specific sociocultural realities.

Considered in applied contexts, these principles underscore their relevance for regions where contextual constraints are particularly pronounced. These considerations are particularly pertinent for Eastern European countries such as Romania, where caregivers face structural challenges, including limited institutional support, financial strain,

and restricted access to mental health services [5,29–35]. In this context, the care system relies heavily on families to provide long-term assistance; however, services targeting informal or unpaid caregivers remain underdeveloped and insufficiently integrated into public policy [28,30–33]. A recent Cost-of-Illness study estimated that the average annual cost of caring for a patient with dementia ranges between 53,787–67,554 RON ( $\approx 12,000$ – $15,000$  EUR/year, at the exchange rate of 1 EUR  $\approx$  4.49 RON), depending on caregiving arrangements and the strength of support networks [36]. To contextualize these costs relative to household incomes, as of November 2023, annual net amounts were as follows: minimum wage  $\approx$  24,948 RON ( $\approx 5000$  EUR/year), average wage  $\approx$  52,944 RON ( $\approx 10,589$  EUR/year), minimum public pension  $\approx$  13,500 RON ( $\approx 2700$  EUR/year) and average public pension  $\approx$  25,356 RON ( $\approx 5071$  EUR/year) (with all Euro values calculated at an exchange rate of approximately 1 EUR  $\approx$  5 RON) [37]. These figures reflect a complex and context-sensitive interplay of factors shaped by local socioeconomic conditions, infrastructural disparities, and the absence of a coherent national strategy [30,32,38].

Considering these aspects, there is a clear need for empirical research on the psychological well-being of Romanian family caregivers of individuals with dementia in context-specific settings. To address this gap, the present study aimed to compare their scores with available reference population values from the Romanian adaptation of the 54-item Ryff Psychological Well-Being Scale, and to explore how sociodemographic characteristics relate to the most relevant differences across well-being dimensions.

## 2. Materials and Methods

### 2.1. Study Design and Instruments

This cross-sectional study aimed to evaluate the psychological well-being of caretakers of individuals with dementia, using the 54-item Ryff Scale adapted for Romania [39], in order to compare their scores with these reference values. A secondary aim was to explore how the most relevant differences across well-being dimensions relate to variables concerning both the caregiver and the patient.

Two instruments were used for data collection. An anthropological questionnaire was developed to gather sociodemographic, economic, and contextual information about both caregivers and patients, including caregiver/patient gender, age, place of residence (urban or rural), occupational status (employed, retired), education level (secondary school, high school, higher education), caregiving structure (individual or family-based), and declared household income (up to 400 EUR,  $400 \leq \text{income} < 1000$  EUR, Equal to or above 1000 EUR), state-provided financial support. Prior to the main data collection, the questionnaire was pretested on a small, representative sample of 15 subjects to assess clarity, relevance, and comprehensibility of the items, as well as the time required for completion. Feedback obtained during the pretest led to minor revisions in wording and format, enhancing respondent understanding and ensuring data quality.

The psychological well-being of family caregivers was assessed using the 54-item version of Ryff's Scale, adapted for Romania. This standardized self-report instrument allows individuals to evaluate their own well-being across six dimensions: autonomy, personal growth, positive relations with others, self-acceptance, purpose in life, and environmental mastery, offering a comprehensive and subjective perspective [12,39]. According to Ryff's model, each domain reflects a distinct facet of positive functioning: Self-Acceptance refers to a positive attitude toward oneself and one's past (e.g., "In general, I feel confident and positive about myself."); Positive Relations refers to the capacity to establish warm and trusting interpersonal relationships (e.g., "People would describe me as a giving person, willing to share my time with others."); Autonomy reflects self-determination and independence (e.g., "I judge myself by what I think is important, not by the values of others.");

Environmental Mastery refers to effectively managing life situations (e.g., “I am quite good at managing the responsibilities of my daily life.”); Purpose in Life reflects having meaning, direction, and goals (e.g., “Some people wander aimlessly through life, but I am not one of them.”); and Personal Growth reflects an individual’s sense of ongoing development, openness to new experiences, and the perception that they are growing and evolving over time (e.g., “For me, life has been a continuous process of learning, changing, and growth.”). Each dimension is measured through 9 items rated on a 6-point Likert scale (from 1 = strongly disagree to 6 = strongly agree), with 28 items reverse-scored. Higher scores indicate greater well-being in each domain, while lower scores reflect challenges or vulnerabilities in that area.

The Romanian adaptation of the 54-item Ryff Scale has demonstrated construct validity (via factor analysis) and satisfactory psychometric properties in a 2018 validation study [39]. In that study, Cronbach’s alpha coefficients ranged from 0.629 to 0.759 across subscales (Self-Acceptance  $\alpha = 0.759$ ; Positive Relations  $\alpha = 0.695$ ; Autonomy  $\alpha = 0.650$ ; Purpose in Life  $\alpha = 0.629$ ; Environmental Mastery  $\alpha = 0.747$ ; Personal Growth  $\alpha = 0.650$ ). In our caregiver sample, internal consistency was somewhat lower for some subscales, with the following Cronbach’s alpha values: Self-Acceptance  $\alpha = 0.378$ ; Purpose in Life  $\alpha = 0.575$ ; Personal Growth  $\alpha = 0.609$ ; Positive Relations  $\alpha = 0.729$ ; Environmental Mastery  $\alpha = 0.824$ ; and Autonomy  $\alpha = 0.590$ . While some of these values, particularly for Self-Acceptance, are relatively low, similar findings have been reported in other studies using shortened versions of the Ryff scales. Because Cronbach’s alpha is sensitive to both the number of items and the heterogeneity of the construct, these coefficients nonetheless provide evidence of adequate measurement reliability within our sample and help situate our findings within the broader context of prior validation work. Moreover, the Ryff Scale, including its 54-item version, has been widely used and validated across diverse cultural contexts, particularly in studies involving older adults and family caregivers of individuals with chronic conditions [14,40–42].

## 2.2. Participants and Data Collection

This study focused on family caregivers of individuals diagnosed with moderate to severe dementia, aged over 30 years, who accessed medical services at the Neurology-Psychiatry Department of the “C.F.2” Clinical Hospital in Bucharest between November 2023 and April 2024. A total of 70 caregivers were selected based on predefined inclusion and exclusion criteria. Eligible participants were required to be over 30 years of age (since at caregiving onset they were at least 25 years old, an age typically associated with neurobiological, psychological, and financial maturity [43–45], to have provided care for at least five years to a dementia patient aged 65 or older, and to give written informed consent. Exclusion criteria included non-family caregiver status, caregiving for individuals under the age of 65, or incomplete questionnaire responses. All data were collected within the hospital setting, with questionnaires administered in the presence of the physician-researcher to ensure compliance and accuracy. The relatively small sample size reflects recruitment from a single clinical hospital, strict eligibility criteria, and the practical challenges of enrolling family caregivers, rather than methodological limitations.

All participants provided written informed consent, and the study protocol was approved by the Ethics Committee of C.F.2 Clinical Hospital (Ref. Number: 1781/06.02.2023).

## 2.3. Statistical Analysis

Statistical analyses were conducted using IBM SPSS Statistics (version 26.0) and Microsoft Excel. Descriptive statistics were calculated to summarize the sociodemographic characteristics of the sample and the distribution of psychological well-being scores. Prior

to conducting the inferential analyses comparing the well-being of family caregivers with the reference population values reported in the published Romanian adaptation of the 54-item Ryff Scale, we performed preliminary checks were conducted to assess the normality and the structural coherence of the psychological well-being constructs within the sample. Normality was assessed using the Shapiro–Wilk test, supplemented by visual inspection of Q–Q plots. As an indicator of structural coherence, Pearson’s correlations were computed to examine interrelationships among the six Ryff dimensions.

To address the first research objective, one-sample *t*-tests were conducted for each of the six dimensions. to identify which showed statistically and practically meaningful differences from reference values. Given the relatively small and uneven group sizes across some variables (e.g., gender, residence, caregiving structure and the dichotomous purpose-in-life classification), several robust analytical approaches were applied. Specifically, bias-corrected and accelerated (BCa) bootstrap confidence intervals were used to enhance the robustness of inferential estimates [46,47]. For categorical variables, Pearson’s Chi-squared, Fisher’s exact test, the Likelihood Ratio and linear-by-linear association tests were conducted as appropriate, depending on expected cell counts and distribution requirements. Based on statistical significance ( $p < 0.05$ ), effect size magnitude (Cohen’s *d*), and theoretical considerations, the purpose in life dimension was selected to explore associations with selected sociodemographic, economic and contextual variables (e.g., main caregiver gender, residence, education, caregiving structure, household Income).

#### 2.4. Classification of Well-Being Status

The Purpose in Life dimension was operationalized using a mean-based dichotomization. Although a three-level classification based on standard deviations is sometimes used in similar research, this approach was not feasible due to the limited sample size ( $n = 70$ ) and the risk of sparse category frequencies, which would have undermined the validity of subsequent inferential tests [48,49]. Initial classification attempts using  $\pm 0.5$  or  $\pm 1$  standard deviation thresholds from the reference population mean resulted in substantial imbalance, with middle categories comprising fewer than 10% of the sample, rendering group-level comparisons impractical. A binary classification was therefore applied: scores below the reference population mean were coded as “low well-being” (0), and scores equal to or above the mean were coded as “elevated well-being” (1), in order to ensure sufficient group sizes and allow for robust association testing using Chi-squared and Fisher’s exact tests, when expected cell counts were below recommended thresholds [47]. This classification strategy aligns with previous studies that have employed mean-based thresholds in well-being research [50].

All tests were two-tailed, with statistical significance set at  $p < 0.05$ . Given the exploratory nature of this study, *p*-values between 0.05 and 0.10 were interpreted as marginally significant, while those up to 0.15 were noted as indicative of potential trends [51,52].

While this approach offers a pragmatic solution in the absence of established clinical cut-offs, we acknowledge the limitations associated with mean-based categorizations, particularly in small samples or non-normally distributed data. In our dataset, all well-being dimensions met normality assumptions except Purpose in Life, which deviated from normality, with most participants scoring in the lower range and a few higher scores extending the upper tail (Shapiro–Wilk  $p = 0.01$ ).

### 3. Results

#### *Descriptive Statistics*

This study included 70 family caregivers identified as the main contact person with the attending physician. Caregivers ranged in age from 30 to 87 years, while the patients



ranged from 66 to 95 years. Most caregivers were women (74.3%), with the majority residing in urban areas (67.1%) and having at least a high school education (92.9%). Regarding occupational status, 74.3% of these caregivers were employed, while 25.7% were retired. A large majority (95.7%) provided care within a family context, either in extended family settings (64.3%) or with support from another female family member (31.4%). In 84% of cases, the total household income was below 1000 EUR per month, supplemented by state-provided benefits, including the Disability Allowance for the person with dementia and a caregiver indemnity. Together, these benefits amounted to less than 500 EUR per month [37]. The sociodemographic and caregiving characteristics of the family caregivers included in this study are summarized in Table 1.

**Table 1.** Sociodemographic and Caregiving Characteristics ( $n = 70$ ).

Variable	$n$ (%)
Gender of dementia patient	
Male	21 (30.0%)
Female	49 (70.0%)
Gender of Contact Caregiver	
Male	18 (25.7%)
Female	52 (74.3%)
Occupational Status of Contact Caregiver	
Employed	52 (74.3%)
Retired	18 (25.7%)
Place of Residence of Contact Caregiver	
Rural	23 (32.9%)
Urban	47 (67.1%)
Caregiving Structure	
Family-based caregiving	45 (64.3%)
Assisted by a female caregiver	22 (31.4%)
Single caregiver	3 (4.3%)
Education Level of Contact Caregiver	
Secondary education	5 (7.1%)
High school education	38 (54.3%)
Higher education	27 (38.6%)
Declared Household Income/per month	
Up to 400 EUR	14 (20%)
$400 \leq \text{income} < 1000$ EUR	45 (64.3%)
Equal to or above 1000 EUR	11 (15.7%)
state-provided financial support	
Received	70 (100.0%)

Note. Data are presented as number (percentage). EUR = Euros.

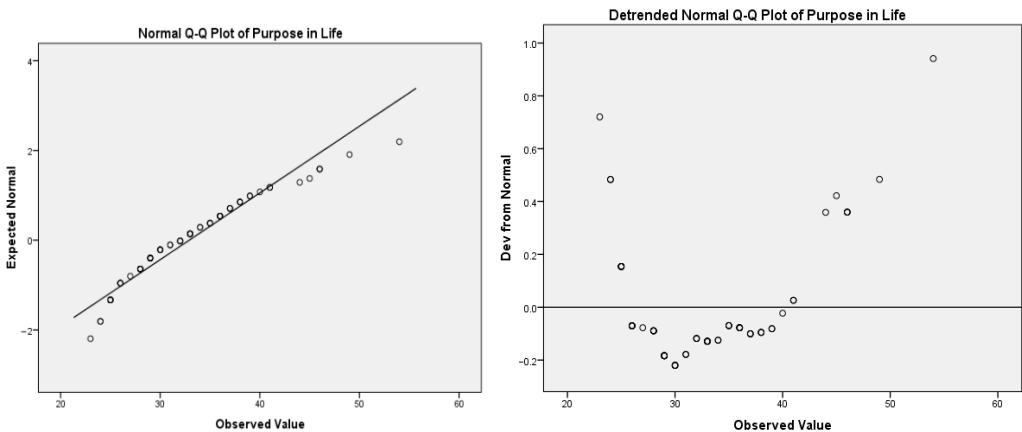
As shown in Table 2, results from the Shapiro–Wilk test indicated that most dimensions did not significantly deviate from a normal distribution ( $p > 0.05$ ), except for purpose in life ( $W = 0.983$ ,  $p = 0.002$ ).

Visual inspection of the Normal Q-Q Plot and the Detrended Q-Q Plot (Figure 1) revealed minor, randomly distributed deviations without systematic bias. Given the robustness of the  $t$ -test to moderate violations of normality in samples larger than 30 participants ( $n = 70$ ), we proceeded with the parametric analysis while acknowledging this limitation.

**Table 2.** Descriptive Statistics and Normality Assessment for Ryff’s Well-Being Dimensions.

Dimension	Mean	SD	Skewness	Kurtosis	Shapiro–Wilk
Self-Acceptance	37.67	7.97	0.29	−0.78	0.98 ( $p = 0.22$ )
Positive Relations	37.41	7.57	−0.17	−0.08	0.99 ( $p = 0.96$ )
Purpose in Life	32.91	6.72	0.86	0.50	0.98 ( $p = 0.01$ )
Personal Growth	33.31	6.71	0.13	1.02	0.97 ( $p = 0.12$ )
Environmental Mastery	38.03	8.78	−0.32	−0.14	0.98 ( $p = 0.45$ )
Autonomy	36.21	6.49	0.48	−0.33	0.97 ( $p = 0.09$ )

Note. Skewness values within  $\pm 2$  and kurtosis values below 3 are generally considered acceptable for assuming normality. A Shapiro–Wilk  $p$ -value  $> 0.05$  indicates no significant deviation from normality.



**Figure 1.** Normal and detrended Q–Q plots for the Purpose in Life dimension. Note. The Normal Q–Q plot shows mild deviations from the diagonal line. Although departures are visible in the detrended plot, they fall within a range where parametric tests remain robust with larger samples. This is consistent with the Shapiro–Wilk test ( $p = 0.01$ ), which indicated a modest departure from normality.

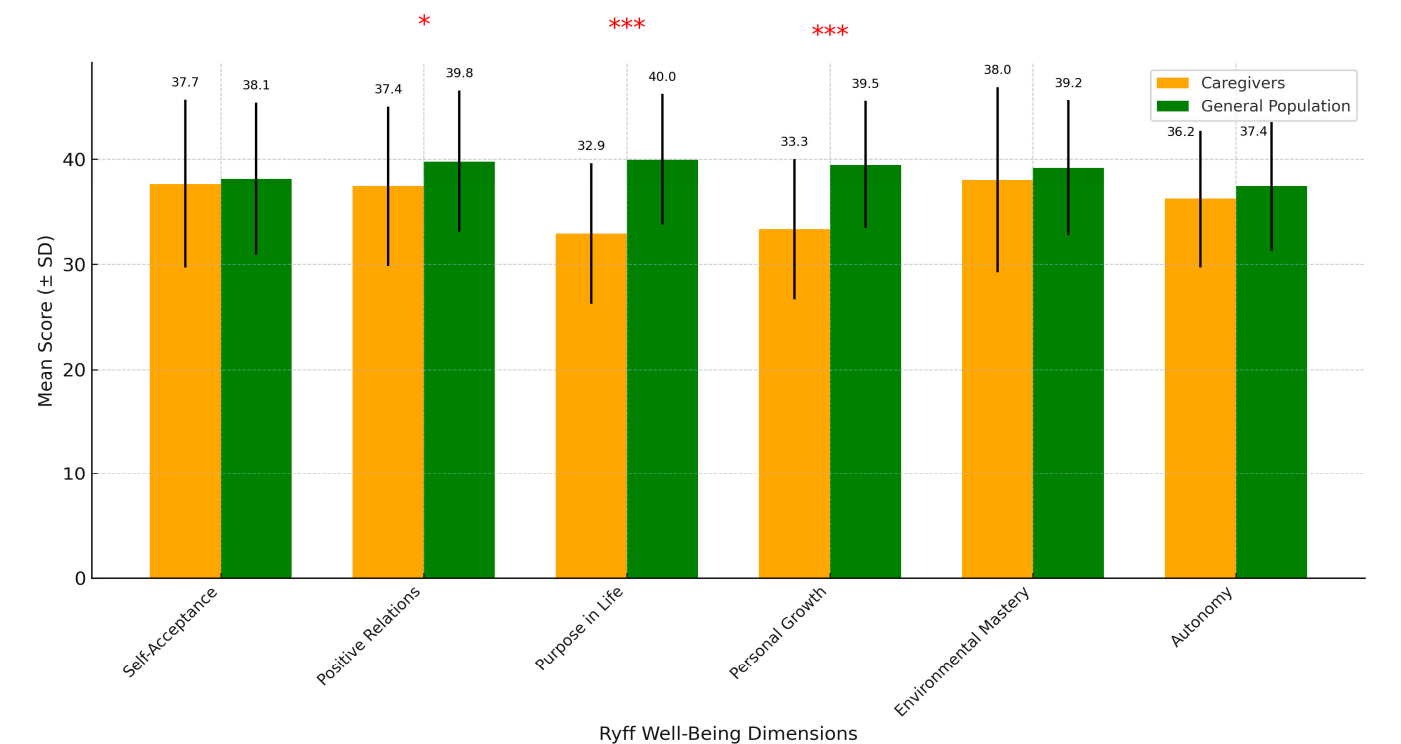
As shown in Table 3, dementia family caregivers reported mean scores broadly comparable to the reference population for Self-Acceptance (37.67 vs. 38.14), Environmental Mastery (38.03 vs. 39.17), and Autonomy (36.21 vs. 37.39). In contrast, notable deficits emerged for Purpose in Life (32.91 vs. 39.96) and Personal Growth (33.31 vs. 39.47), with a smaller reduction observed for Positive Relations (37.41 vs. 39.78). These findings indicate that caregivers experience the greatest deficits in Purpose in Life and Personal Growth, and to a lesser extent in Positive Relations, highlighting these domains as areas of relative vulnerability.

**Table 3.** Ryff’s Well-Being: Comparative Scores for Caregivers and Reference Population.

Dimension	Dementia Family Caregivers’ Sample				Reference Population			
	Mean	SD	Minimum	Maximum	Mean	SD	Minimum	Maximum
Self-Acceptance	37.67	7.97	21	54	38.14	7.21	14	54
Positive Relations	37.41	7.57	16	54	39.78	6.72	19	53
Purpose in Life	32.91	6.72	23	54	39.96	6.22	23	54
Personal Growth	33.31	6.71	13	54	39.47	6.05	24	54
Environmental Mastery	38.03	8.78	13	54	39.17	6.42	16	53
Autonomy	36.21	6.49	23	52	37.39	6.14	20	53

Note. Values represent means and standard deviations (SD). Reference data are drawn from the Romanian adaptation of Ryff’s Psychological Well-Being Scale [39].

A comparative bar chart was constructed to display mean scores ( $\pm$ SD) of dementia family caregivers alongside reference values across the six Ryff dimensions. This graphical representation highlights selective vulnerabilities and preserved strengths in the well-being profiles of dementia caregivers (Figure 2).



**Figure 2.** Comparison of dementia family caregivers and reference population across Ryff’s psychological well-being dimensions. Caregivers scored significantly lower in purpose in life and personal growth (\*\* $p < 0.001$ ) and moderately lower in positive relations (\* $p < 0.05$ ). No significant differences were observed for self-acceptance, environmental mastery, or autonomy.

Pearson’s correlations among the six dimensions of Ryff’s Psychological Well-Being Scale were all positive and statistically significant ( $p < 0.01$ ), indicating a coherent internal structure within the dementia family caregiver sample (Table 4).

**Table 4.** Correlation matrix of Ryff well-being dimensions among caregivers.

Dimension	Self-Acceptance	Positive Relations	Purpose in Life	Environmental Mastery	Personal Growth	Autonomy
Self-Acceptance	1					
Positive Relations	0.74 **	1				
Purpose in Life	0.66 **	0.64 **	1			
Environmental Mastery	0.83 **	0.83 **	0.69 **	1		
Personal Growth	0.67 **	0.79 **	0.61 **	0.73 **	1	
Autonomy	0.62 **	0.55 **	0.51 **	0.55 **	0.52 **	1

Note. All dimensions were positively correlated. Correlations marked with \*\* are statistically significant at  $p < 0.01$ .

The results of the one-sample  $t$ -tests comparing dementia family caregivers’ well-being scores to reference values are summarized in Table 5.

Significant differences were found for positive relations, purpose in life, and personal growth, with caregivers reporting lower scores compared to reference values. No significant differences were observed for self-acceptance, environmental mastery, or autonomy (all  $p > 0.05$ ).



**Table 5.** One-Sample *t*-Test Results for Ryff’s Psychological Well-being Dimensions.

Variable	Sample Mean	Reference Mean	Mean Difference	t-Value	Df	p-Value	95% BCa Bootstrap CI
Self-Acceptance	37.67	38.14	−0.47	−0.49	69	0.62	−2.37 1.43
Positive Relations	37.41	39.78	−2.37	−2.62	69	0.01	−4.17 −0.56
Purpose in Life	32.91	39.96	−6.82	−8.77	69	<0.001	−8.65 −5.44
Personal Growth	33.31	39.47	−6.05	−7.68	69	<0.001	−7.75 −4.56
Environmental Mastery	38.03	39.17	−1.14	−1.09	69	0.26	−3.24 0.95
Autonomy	36.21	37.39	−1.18	−1.52	69	0.13	−2.72 0.37

Note. BCa = bias-corrected and accelerated bootstrap confidence intervals based on 1000 resamples. *p*-values < 0.001 are reported as “<0.001”.

The mean score for Positive Relations was significantly lower than the reference mean ( $M = 37.41$  vs.  $39.78$ ;  $t = -2.62$ ,  $p = 0.01$ ; Cohen’s  $d = -0.31$ ), indicating a modest reduction. Caregivers scored substantially lower on Purpose in Life ( $M = 32.91$  vs.  $39.96$ ;  $t = -8.77$ ,  $p < 0.001$ ; Cohen’s  $d = -1.05$ ) and Personal Growth ( $M = 33.31$  vs.  $39.47$ ;  $t = -7.68$ ,  $p < 0.001$ ; Cohen’s  $d = -0.92$ ), both reflecting large effect sizes and significant impairments compared to the reference population.

Among these dimensions, purpose in life exhibited the largest mean reduction and effect size, and thus was selected for further analysis, using the operationalization described in the Methods section. A descriptive classification showed that 85.7% of caregivers ( $n = 60$ ) scored below the reference mean; this binary categorization was used in the subsequent Chi-squared and Fisher’s exact tests.

In summary, dementia family caregivers showed selective psychological vulnerabilities, with a substantial proportion scoring below reference levels. These findings underscore the psychological impact of caregiving and support the examination of associations between well-being and sociodemographic characteristics using categorical analyses.

To explore the association between Purpose in Life status and key sociodemographic, economic and contextual characteristics, Pearson’s Chi-squared and Fisher’s exact tests were conducted, depending on cell size and distribution requirements. A statistically significant association was observed between Occupational Status of Contact Caregiver and Purpose in Life status (Pearson’s  $\chi^2(1) = 4.04$ ,  $p = 0.04$ ), further supported by the Likelihood Ratio test ( $p = 0.01$ ). Although one cell had an expected frequency less than 5, Fisher’s Exact Test yielded a marginal result ( $p = 0.05$ ). The linear-by-linear association test also revealed a significant trend ( $p = 0.05$ ), suggesting that individuals who are beyond retirement age may be more likely to report lower purpose in life well-being. Also, two factors showed marginal significance, suggesting possible trends. Specifically, declared household income ( $p = 0.14$ ), and whether the patient slept in a separate room ( $p = 0.15$ ) were marginally associated with differences in well-being status.

Although these findings should be interpreted with caution due to the limited sample size, they may indicate trends that may become significant with larger samples. These preliminary findings highlight the potential role of economic and living environment factors in shaping caregivers’ psychological well-being. All other variables, including caregiver and patient gender, place of residence, caregiving structure, and education level, showed no significant associations ( $p > 0.20$ ).

A full overview of associations and *p*-values is presented in Table 6. Variables with  $p < 0.10$  are considered marginally significant, and those  $< 0.05$  are highlighted in bold.

**Table 6.** Sociodemographic and Contextual Factors Related to Purpose in Life.

Sociodemographic and Contextual Variable	Pearson's $\chi^2$ (df)	Pearson's <i>p</i> -Value	Fisher's Exact <i>p</i> -Value	Interpretation
Gender of Contact Caregiver	—	—	0.54	Not significant
Gender of patient	—	—	0.63	Not significant
Occupational Status of Contact Caregiver	4.04 (1)	0.04	<b>0.05</b>	Significant/Marginal
Education Level of Contact Caregiver	—	—	0.28	Not significant
Place of Residence of Contact Caregiver	—	—	0.28	Not significant
Caregiving Structure	—	—	0.23	Not significant
Declared Household Income	—	—	0.14	Marginally significant
Patient sleeps in separate room	—	—	0.15	Marginally significant

Note. Pearson's Chi-squared test results are presented where expected cell counts were adequate; Fisher's Exact Test *p*-values are reported otherwise. Values in bold indicate  $p < 0.05$ .

Taken together, these findings suggest potential associations between purpose in life and certain sociodemographic and contextual factors, notably the occupational status of the caregiver, declared household income, and whether the patient sleeps in a separate room, while no significant associations were observed for caregiver gender, education level, place of residence, or caregiving structure. However, due to the modest sample size and exploratory nature of this study, these results should be interpreted cautiously and warrant replication in larger, more representative samples.

#### 4. Discussion

This study aimed to compare the psychological well-being of Romanian family caregivers, caring for a family member with dementia, with reference population values and to explore how sociodemographic characteristics relate to relevant differences across well-being dimensions.

The results revealed significant deficits in two core dimensions of psychological well-being: Purpose in Life and Personal Growth, which are conceptually distinct but closely interrelated. Personal Growth captures an individual's sense of ongoing development and openness to new experiences. Lower scores among caregivers likely reflect the heavy demands of caregiving, which restrict opportunities for self-development, leisure, and exploration of new activities. Previous studies have also reported that caregiver burden is linked to reduced opportunities for personal growth and self-actualization [7,8]. Consistent with Ryff's theoretical framework, having a sense of purpose in life is viewed as a cornerstone for ongoing personal growth and psychological health; deficits in one of these dimensions may exacerbate difficulties in the other, thereby amplifying overall psychological vulnerability [12,14]. Given its theoretical centrality and the magnitude of its effect, we focused additional contextual analyses on Purpose in Life. In fact, over 85% of participants scored below the reference mean on this dimension (Cohen's  $d = -1.05$ ), indicating a significant impairment in this critical aspect of psychological well-being. This study also complements previous person-centered approaches applied within the same population segment [53,54], where purpose in life emerged as one of the key dimensions differentiating caregiver well-being profiles. Its recurrence in the current variable-centered analysis reinforces its pivotal role in psychological vulnerability, as consistently emphasized in both the theoretical and empirical literature.

This finding is consistent with conceptual frameworks that identify Purpose in Life as a core dimension essential for psychological resilience, life satisfaction, and overall well-being [12,14,55]. Moreover, this dimension is particularly sensitive to psychosocial strain.

Psychological states such as a diminished sense of purpose can impact biological processes through stress regulation pathways, affecting neuroendocrine, immune, and autonomic functions [56,57]. This biopsychosocial framework highlights how psychological well-being and biological health are deeply interconnected, with psychological factors modulating physiological systems that underlie overall health.

Empirical evidence also supports that chronic psychosocial stressors, such as those experienced by informal caregivers through role captivity and social isolation, can exacerbate deficits in purpose in life, thereby influencing both psychological and physiological health [3,21,22,57]. Role captivity, understood as the subjective perception of being confined to the caregiving role with limited freedom of choice, is one of the key psychosocial stressors in this context. The marked reduction in purpose in life scores observed in our sample (Cohen's  $d = -1.01$ ) may reflect a loss of personal direction and life goals, a phenomenon frequently reported by caregivers facing prolonged stress [21,58]. Providing care for a person with dementia often requires a fundamental restructuring of one's personal life, including a reduction in social and occupational activities and increased isolation, all of which contribute to the erosion of existential meaning and purpose [3,7,14].

Thus, the pronounced deficit in Purpose in Life observed in our sample highlights the existential cost of long-term caregiving and underscores the need for targeted interventions aimed at restoring caregivers' sense of purpose and meaning.

To better understand the psychological vulnerabilities associated with low purpose in life scores, this study also explored the influence of sociodemographic, economic, and caregiving context variables from an anthropological perspective.

In our sample, occupational status was the only variable significantly associated with caregivers' sense of purpose. None of the retired participants reported high purpose scores, whereas nearly one in five of those still professionally active did. This pattern suggests that ongoing occupational engagement may serve as a source of structure, identity, and social integration—protective factors that help sustain existential meaning in the context of caregiving [56,59].

In addition to occupational status, two other factors showed marginal associations with purpose in life well-being: household income and whether the care recipient slept in a separate room. Although these trends did not reach conventional levels of statistical significance, they point to potential socio-environmental factors shaping caregivers' sense of purpose in life. This interpretation aligns with previous research highlighting the psychological toll of financial hardship and the erosion of personal space, both of which have been linked to increased emotional strain, caregiver burden, and diminished coping capacity [3,7,18]. Such results call for a deeper, context-sensitive understanding of how economic pressure and environmental constraints intersect with existential dimensions of well-being. Even seemingly modest household conditions, such as sharing a bedroom with the care recipient, may contribute to persistent stress and undermine caregivers' ability to sustain meaning and direction in their life.

These findings underscore their relevance in settings where structural constraints shape the lived experience of caregiving, and highlight the importance of interpreting caregiver well-being within the specific socio-economic and sociocultural environment in which care is provided.

Structural barriers to caregiving are particularly salient in Eastern European contexts, including Romania, where informal care remains the primary form of support for individuals with dementia, often in the absence of adequate institutional and psychological resources [5,31,60]. National estimates indicate that the average annual cost of dementia care in Romania places a substantial financial burden on families [36,37]. Even with

state-provided support, this financial gap remains evident in our sample, highlighting a structural mismatch that disproportionately affects economically vulnerable households.

In such conditions, caregivers often lack the time, energy, or resources for personal development or community engagement. While recommendations such as volunteering or civic participation [16,57,59] may be normatively valuable, they are largely unfeasible for those facing chronic role strain and economic precarity [3,5,7,8].

These challenges reflect a broader, context-sensitive interplay of socioeconomic pressures, infrastructural disparities, and the absence of a coherent national strategy for long-term care [5,31,35,36].

This interpretation aligns with Alexandrova's argument for a context-sensitive approach to well-being, a view also supported by Huppert and by Nussbaum's capabilities approach and echoed in recent policy analyses, one that accounts for the material and structural constraints experienced by informal caregivers, highlighting the need for more robust financial support measures [5,18,26,27,35].

These challenges illustrate the importance of a context-sensitive approach to well-being, which acknowledges the material and structural constraints faced by informal caregivers and highlights the need for targeted support measures

These findings highlight key areas of psychological vulnerability among family caregivers, particularly in purpose in life and personal growth. Although we used a culturally adapted and validated measure, internal consistency for Purpose in Life ( $\alpha = 0.58$ ) and Personal Growth ( $\alpha = 0.61$ ) was modest in our sample. Because low reliability typically attenuates effects and the reference population values were derived from populations already exposed to stress [39], the large Cohen's  $d$  values observed for Purpose in Life ( $-1.05$ ) and Personal Growth ( $-0.92$ ) likely represent conservative estimates of the true magnitude of these differences rather than inflated results. These findings reinforce the need for context-sensitive interventions that go beyond clinical care, including financial support, respite services, and measures to maintain autonomy and engagement. Future studies with larger and more diverse caregiver populations should further examine the scale's psychometric properties and confirm the generalizability of these results.

## 5. Limitations

While this study advances the current knowledge by contributing to the limited body of research on the well-being of dementia family caregivers in Romania, through the use of reference values and a context-sensitive perspective, several limitations must be acknowledged. The sample, though limited in size and drawn from a single clinical unit, reflects the constraints of clinical recruitment and strict eligibility criteria rather than weaknesses in study design. As a cross-sectional study, it allows for the identification of associations but does not support inferences about their direction or causality. These factors may also have limited the ability to detect more subtle associations with sociodemographic or contextual variables. The use of sample means as cut-off points, though practical, also has limitations in small samples. Together, these considerations support analyzing sociodemographic factors at an exploratory level and point to directions for future research. Replication studies conducted in more diverse contexts are needed to confirm and extend these findings. Nevertheless, the present study offers a useful foundation for more targeted and context-sensitive interventions. Recognizing these contextual limitations may help future research and policy design more effective and supportive strategies for caregivers navigating significant caregiving burdens.

## 6. Conclusions

This study adds to the limited research on the well-being of dementia family caregivers in Romania by using reference values and a context-sensitive lens. Clinically relevant deficits were identified in purpose in life and personal growth, with over 85% of participants showing diminished scores in existential well-being. Our findings also complement previous person-centered research conducted in the same population, supporting the consistent relevance of purpose in life as a core aspect of caregiver vulnerability. They further support recent calls for a context-sensitive approach to well-being science, recognizing that universal well-being models may fall short when applied to caregivers operating under persistent structural constraints. These findings underscore the psychological costs of caregiving and the need for structurally informed, multi-level interventions, such as caregiver stipends, respite care, and community-based services, aimed at alleviating the structural, economic, and psychological strain of caregiving.

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**Disability Language/Terminology Positionality Statement:** We used person-first language (e.g., “dementia patient(s)”, “person(s) with dementia”, “dementia family caregivers”) throughout this article, consistent with internationally accepted recommendations for respectful and inclusive language in dementia research and care. Person-first language underscores the primacy of the individual over the condition, conceptualizing dementia as one contextual attribute within a multifaceted identity rather than as its defining marker. We avoided using acronyms for people and stigmatizing expressions, aiming to promote clarity, dignity and inclusivity in all references to participants.

## Abbreviations

BCa	Bias-Corrected and Accelerated Bootstrap Confidence Interval
C.F.2	Railway Clinical Hospital No. 2, managed by the Ministry of Transport of Romania
Ryff’s Scale	Scale for Assessing Well-Being
WHO	World Health Organization

## References

1. Nichols, E.; Szeke, C.E.I.; Vollset, S.E.; Abbasi, N.; Abd-Allah, F.; Abdela, J.; Aichour, M.T.E.; Akinyemi, R.O.; Alahdab, F.; Asgedom, S.W.; et al. Global, Regional, and National Burden of Alzheimer’s Disease and Other Dementias, 1990–2016: A Systematic Analysis for the Global Burden of Disease Study 2016. *Lancet Neurol.* **2019**, *18*, 88–106. [[CrossRef](#)] [[PubMed](#)]
2. Nichols, E.; Steinmetz, J.D.; Vollset, S.E.; Fukutaki, K.; Chalek, J.; Abd-Allah, F.; Abdoli, A.; Abualhasan, A.; Abu-Gharbieh, E.; Akram, T.T.; et al. Estimation of the Global Prevalence of Dementia in 2019 and Forecasted Prevalence in 2050: An Analysis for the Global Burden of Disease Study 2019. *Lancet Public Health* **2022**, *7*, e105–e125. [[CrossRef](#)] [[PubMed](#)]



3. Schulz, R.; Sherwood, P.R. Physical and Mental Health Effects of Family Caregiving. *Am. J. Nurs.* **2008**, *108*, 23–27. [\[CrossRef\]](#) [\[PubMed\]](#)
4. Chiao, C.-Y.; Wu, H.-S.; Hsiao, C.-Y. Caregiver Burden for Informal Caregivers of Patients with Dementia: A Systematic Review. *Int. Nurs. Rev.* **2015**, *62*, 340–350. [\[CrossRef\]](#)
5. European Commission; Directorate General for Employment, Social Affairs and Inclusion; London School of Economics and Political Science (LSE). *Informal Care in Europe: Exploring Formalisation, Availability and Quality*; Publications Office: Luxembourg, 2018.
6. Fonareva, I.; Oken, B.S. Physiological and Functional Consequences of Caregiving for Relatives with Dementia. *Int. Psychogeriatr.* **2014**, *26*, 725–747. [\[CrossRef\]](#)
7. Brodaty, H.; Donkin, M. Family Caregivers of People with Dementia. *Dialogues Clin. Neurosci.* **2009**, *11*, 217–228. [\[CrossRef\]](#)
8. Bressan, V.; Visintini, C.; Palese, A. What Do Family Caregivers of People with Dementia Need? A Mixed-method Systematic Review. *Health Soc. Care Community* **2020**, *28*, 1942–1960. [\[CrossRef\]](#) [\[PubMed\]](#)
9. Gallagher-Thompson, D.; Choryan Bilbrey, A.; Apesoa-Varano, E.C.; Ghatak, R.; Kim, K.K.; Cothran, F. Conceptual Framework to Guide Intervention Research Across the Trajectory of Dementia Caregiving. *Gerontologist* **2020**, *60*, S29–S40. [\[CrossRef\]](#)
10. Cheng, S.-T.; Zhang, F. A Comprehensive Meta-Review of Systematic Reviews and Meta-Analyses on Nonpharmacological Interventions for Informal Dementia Caregivers. *BMC Geriatr.* **2020**, *20*, 137. [\[CrossRef\]](#)
11. Cheng, S.-T.; Au, A.; Losada, A.; Thompson, L.W.; Gallagher-Thompson, D. Psychological Interventions for Dementia Caregivers: What We Have Achieved, What We Have Learned. *Curr. Psychiatry Rep.* **2019**, *21*, 59. [\[CrossRef\]](#)
12. Ryff, C.D. Happiness Is Everything, or Is It? Explorations on the Meaning of Psychological Well-Being. *J. Personal. Soc. Psychol.* **1989**, *57*, 1069–1081. [\[CrossRef\]](#)
13. Ryff, C.D.; Keyes, C.L.M. The Structure of Psychological Well-Being Revisited. *J. Personal. Soc. Psychol.* **1995**, *69*, 719–727. [\[CrossRef\]](#)
14. Ryff, C.D. Psychological Well-Being Revisited: Advances in the Science and Practice of Eudaimonia. *Psychother. Psychosom.* **2014**, *83*, 10–28. [\[CrossRef\]](#)
15. Abbott, R.A.; Ploubidis, G.B.; Huppert, F.A.; Kuh, D.; Wadsworth, M.E.; Croudace, T.J. Psychometric Evaluation and Predictive Validity of Ryff's Psychological Well-Being Items in a UK Birth Cohort Sample of Women. *Health Qual. Life Outcomes* **2006**, *4*, 76. [\[CrossRef\]](#) [\[PubMed\]](#)
16. Van Dierendonck, D.; Lam, H. Interventions to Enhance Eudaemonic Psychological Well-being: A Meta-analytic Review with Ryff's Scales of Psychological Well-being. *Appl. Psych. Health Well* **2023**, *15*, 594–610. [\[CrossRef\]](#)
17. Lindfors, P. Positive health in a group of swedish white-collar workers. *Psychol. Rep.* **2002**, *91*, 839. [\[CrossRef\]](#) [\[PubMed\]](#)
18. Huppert, F.A. Challenges in Defining and Measuring Well-Being and Their Implications for Policy. In *Future Directions in Well-Being*; White, M.A., Slep, G.R., Murray, A.S., Eds.; Springer International Publishing: Cham, Switzerland, 2017; pp. 163–167, ISBN 978-3-319-56888-1.
19. Ryff, C.D.; Singer, B. Psychological Well-Being: Meaning, Measurement, and Implications for Psychotherapy Research. *Psychother. Psychosom.* **1996**, *65*, 14–23. [\[CrossRef\]](#)
20. Van Dierendonck, D. The Construct Validity of Ryff's Scales of Psychological Well-Being and Its Extension with Spiritual Well-Being. *Personal. Individ. Differ.* **2004**, *36*, 629–643. [\[CrossRef\]](#)
21. Pinquart, M.; Sorensen, S. Correlates of Physical Health of Informal Caregivers: A Meta-Analysis. *J. Gerontol. Ser. B Psychol. Sci. Soc. Sci.* **2007**, *62*, P126–P137. [\[CrossRef\]](#)
22. Pinquart, M.; Sorensen, S. Differences between Caregivers and Noncaregivers in Psychological Health and Physical Health: A Meta-Analysis. *Psychol. Aging* **2003**, *18*, 250–267. [\[CrossRef\]](#)
23. Gallagher, M.W.; Lopez, S.J.; Preacher, K.J. The Hierarchical Structure of Well-Being. *J. Personal.* **2009**, *77*, 1025–1050. [\[CrossRef\]](#)
24. Chang, S.O.; Kim, E.Y. Rediscovering One's Identity: A Qualitative Meta-Synthesis Study on the Resilience Experiences of Family Caregivers of Patients with Dementia. Available online: <https://www.researchsquare.com/article/rs-1260102/v1> (accessed on 10 February 2022).
25. Cheng, C.; Lau, H.-P.B.; Chan, M.-P.S. Coping Flexibility and Psychological Adjustment to Stressful Life Changes: A Meta-Analytic Review. *Psychol. Bull.* **2014**, *140*, 1582–1607. [\[CrossRef\]](#)
26. Alexandrova, A. Well-Being as an Object of Science. *Philos. Sci.* **2012**, *79*, 678–689. [\[CrossRef\]](#)
27. Alexandrova, A. *A Philosophy for the Science of Well-Being*; Oxford University Press: Oxford, UK, 2017; Volume 1, ISBN 978-0-19-930051-8.
28. Ryan, R.M.; Deci, E.L. On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annu. Rev. Psychol.* **2001**, *52*, 141–166. [\[CrossRef\]](#)
29. World Health Organization. *Dementia: A Public Health Priority*; World Health Organization: Geneva, Switzerland, 2012.
30. World Health Organization. Dementia. Available online: <https://www.who.int/news-room/fact-sheets/detail/dementia> (accessed on 18 September 2025).
31. World Health Organization. Country Case Study on the Integrated Delivery of Long-Term Care: Romania. Available online: <https://www.who.int/europe/publications/i/item/WHO-EURO-2022-5261-45025-64131> (accessed on 18 September 2025).
32. Alzheimer's Association. *2022 Alzheimer's Disease Facts and Figures*; Alzheimer's Association: Chicago, IL, USA, 2022.



33. Wimo, A.; Guerchet, M.; Ali, G.; Wu, Y.; Prina, A.M.; Winblad, B.; Jönsson, L.; Liu, Z.; Prince, M. The Worldwide Costs of Dementia 2015 and Comparisons with 2010. *Alzheimer's Dement.* **2017**, *13*, 1–7. [CrossRef]
34. Philipp, J. Mental Health in Romania: Issues and Solutions. The Borgen Project 2023. Available online: <https://borgenproject.org/mental-health-in-romania/> (accessed on 19 September 2025).
35. Jönsson, L.; Tate, A.; Frisell, O.; Wimo, A. The Costs of Dementia in Europe: An Updated Review and Meta-Analysis. *PharmacoEconomics* **2023**, *41*, 59–75. [CrossRef] [PubMed]
36. Onetiu, V.; Aurelian, S.M.; Capisizu, A.; Cristescu, F.; Zus, I.C.; Kissimova-Skarbek, K. Cost of Dementia in Romania: A Cross-Sectional Cost-of-Illness Study Undertaken in Bucharest. *Zesz. Nauk. Ochr. Zdrowia 204 Zdr. Publiczne Zarządzanie* **2016**, *14*, 204–226.
37. National Institute of Statistics, Romania. *Romanian Statistical Yearbook 2024*; National Institute of Statistics: Washington, DC, USA, 2025.
38. Reform of Long-Term Care Services for Older People—European Commission. Available online: [https://commission.europa.eu/projects/reform-long-term-care-services-older-people\\_en](https://commission.europa.eu/projects/reform-long-term-care-services-older-people_en) (accessed on 18 September 2025).
39. Costea-Bărluțiu, C.; Bălaș-Baconschi, C.; Hathazi, A. Romanian Adaptation of the Ryff's Psychological Well-Being Scale: Brief Report of the Factor Structure and Psychometric Properties. *J. Evid.-Based Psychot.* **2018**, *18*, 21–34. [CrossRef]
40. Bradburn, N. *The Structure of Psychological Well-Being*; Aldine Publishing Company: Chicago, IL, USA, 1969.
41. Babnik, K.; Benko, E.; Von Humboldt, S. Ryff's Psychological Well-Being Scale. In *Encyclopedia of Gerontology and Population Aging*; Gu, D., Dupre, M.E., Eds.; Springer International Publishing: Cham, Switzerland, 2021; pp. 4344–4349, ISBN 978-3-030-22008-2.
42. Baltes, P.B.; Baltes, M.M. (Eds.) *Successful Aging: Perspectives from the Behavioral Sciences*, 1st ed.; Cambridge University Press: Cambridge, UK, 1990; ISBN 978-0-521-37454-5.
43. Arnett, J.J. Emerging Adulthood: A Theory of Development from the Late Teens through the Twenties. *Am. Psychol.* **2000**, *55*, 469–480. [CrossRef] [PubMed]
44. Steinberg, L. The Influence of Neuroscience on US Supreme Court Decisions about Adolescents' Criminal Culpability. *Nat. Rev. Neurosci.* **2013**, *14*, 513–518. [CrossRef]
45. Blakemore, S.-J.; Robbins, T.W. Decision-Making in the Adolescent Brain. *Nat. Neurosci.* **2012**, *15*, 1184–1191. [CrossRef]
46. DiCiccio, T.J.; Efron, B. Bootstrap Confidence Intervals. *Statist. Sci.* **1996**, *11*, 189–228. [CrossRef]
47. Field, A. *Discovering Statistics Using IBM SPSS Statistics*, 5th ed.; SAGE Publications Ltd.: Thousand Oaks, CA, USA, 2018.
48. Altman, D.G.; Royston, P. The Cost of Dichotomising Continuous Variables. *BMJ* **2006**, *332*, 1080. [CrossRef]
49. Agresti, A.; Finlay, B. *Statistical Methods for the Social Sciences*, 4th ed.; Pearson Prentice Hall: Upper Saddle River, NJ, USA, 2009; ISBN 978-0-13-713150-1.
50. OECD. *OECD Guidelines on Measuring Subjective Well-Being*; OECD: Paris, France, 2013; ISBN 978-92-64-19164-8.
51. Cumming, G. The New Statistics: Why and How. *Psychol. Sci.* **2014**, *25*, 7–29. [CrossRef]
52. Greenland, S.; Senn, S.J.; Rothman, K.J.; Carlin, J.B.; Poole, C.; Goodman, S.N.; Altman, D.G. Statistical Tests, P Values, Confidence Intervals, and Power: A Guide to Misinterpretations. *Eur. J. Epidemiol.* **2016**, *31*, 337–350. [CrossRef]
53. Tatomirescu, L.F.; Glavce, C.S.; Prada, G.I.; Borosanu, A.; Turcu, S. Socio-Demographic Factors Linked to Psychological Well-Being in Dementia Caregivers. *Healthcare* **2025**, *13*, 2235. [CrossRef] [PubMed]
54. Tatomirescu, L.F.; Prada, G.-I.; Glavce, C.S.; David-Rus, R.; Borosanu, A. Well-Being Profiles of Family Caregivers of Patients with Dementia from Romania: A Latent Profile Analysis. *Cureus* **2025**, *17*, e83103. [CrossRef] [PubMed]
55. Nair, A.K.; Adluru, N.; Finley, A.J.; Gresham, L.K.; Skinner, S.E.; Alexander, A.L.; Davidson, R.J.; Ryff, C.D.; Schaefer, S.M. Purpose in Life as a Resilience Factor for Brain Health: Diffusion MRI Findings from the Midlife in the U.S. Study. *Front. Psychiatry* **2024**, *15*, 1355998. [CrossRef]
56. Ryff, C.D.; Singer, B.H. Know Thyself and Become What You Are: A Eudaimonic Approach to Psychological Well-Being. *J. Happiness Stud.* **2008**, *9*, 13–39. [CrossRef]
57. Ryff, C.D. A New Direction in Mental Health: Purposeful Life Engagement. In *Encyclopedia of Mental Health*; Elsevier: Amsterdam, The Netherlands, 2023; pp. 629–637, ISBN 978-0-323-91498-7.
58. Pearlin, L.I.; Mullan, J.T.; Semple, S.J.; Skaff, M.M. Caregiving and the Stress Process: An Overview of Concepts and Their Measures. *Gerontologist* **1990**, *30*, 583–594. [CrossRef]
59. Hammell, K.W. Opportunities for Well-Being: The Right to Occupational Engagement. *Can. J. Occup. Ther.* **2017**, *84*, 209–222. [CrossRef] [PubMed]
60. Alzheimer's Association. 2023 Alzheimer's Disease Facts and Figures. *Alzheimers Dement.* **2023**, *19*, 1598–1695. [CrossRef] [PubMed]

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