

# The Role of Perceived Burdensomeness, Thwarted Belongingness, and Giving Meaning to Life in Psychosocial Adjustment: The Mediating Role of Self-Care in the Elderly

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## Abstract

**Objective:** In old age, people suffer from many mental and physical illnesses, which make it important for the elderly to pay attention to adapting to these diseases. So, the aim of this research was to study the role of perceived burdensomeness, thwarted belongingness, and giving meaning to life in psychosocial adjustment, as well as the mediating role of self-care in the elderly.

**Method:** This research was descriptive and correlational, conducted through available sampling of 200 elderly people who lived in the city of Ardabil. After the necessary assessments in terms of mental disorders and inclusion criteria, they were chosen to conduct this investigation in 2020. The Meaning in Life Questionnaire, Psychosocial Adjustment Scale, Self-Care Questionnaire for the Elderly, and Interpersonal Needs scale were used to gather the data. The data were analyzed using SPSS25 and Amos24 software.

**Results:** The findings showed that perceived burdensomeness and thwarted belongingness have a negative and direct effect on elderly self-care [ $\beta = -0.25, P < 0.01$ ] [ $\beta = -0.20, P < 0.05$ ] and psychosocial adjustment [ $\beta = -0.0, P < 0.05$ ] [ $\beta = -0.12, P < 0.05$ ]. Also, giving meaning to life has a positive and direct effect on elderly self-care [ $\beta = 0.32, P = 0.01$ ] and psychosocial adjustment [ $\beta = 0.033, P < 0.01$ ]. The variable of self-care can play a mediating role in the relationship between thwarted belongingness [ $\beta = -0.174, P < 0.05$ ], perceived burdensomeness [ $\beta = -0.140, P < 0.05$ ], and giving meaning to life [ $\beta = 0.223, P < 0.05$ ] with psychosocial adjustment. Moreover, among the exogenous variables, thwarted belongingness and perceived burdensomeness by change in self-care have been able to reduce psychosocial adjustment. Giving meaning through self-care, however, has increased psychosocial adjustment.

**Conclusion:** The findings revealed that thwarted belongingness, perceived burdensomeness, and giving meaning to life are important variables in health and adaptability of the elderly, which draws attention to family-centered interventions and individual therapies.

**Key words:** Aged; Adaptation; Family; Health Promotion; Mental Disorders; Psychotherapy

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As the population ages, particular needs of the elderly including medication, psychological help, and rehabilitation are increasing. Due to old age, a person faces many mental and physical illnesses, which make it important for the elderly to pay attention to adaptation to these diseases (1). psychosocial compatibility is the process of maintaining a positive attitude toward oneself despite having problems (2). The adaptation process is a dynamic process that is influenced by individual and environmental stimuli, and the elderly can achieve more desirable self-control by increasing the level of adaptation in physical, social, family, sexual, and psychological dimensions (3). Proper adaptation allows the patient to make changes that ensure his or her health (4). Older people may experience low perceived social support, depression due to physical weakness and reduced ability to perform daily life tasks, more depression and anxiety, or some existential worries or crises (5) that, if left untreated, can be problematic (6). Meaning of Life is one of the existential concepts according to which man is defined to be aware of nature and the truth of life. Meaning of Life depends entirely on one's attitude toward life (7). Numerous studies have shown that Meaning of Life is an essential element in purposefulness of life and is associated with various dimensions of personality, physical and mental health, adaptation to stress, and behavioral disorders (8). Therefore, a meaningful life is an important factor in psychological health (9).

According to the psychological-interpersonal theory, a tendency toward death and emptiness is the result of a combination of two interpersonal states: thwarted belongingness and a sense of perceived burdensomeness (10). Perceived burdensomeness is defined by the individual's view that his or her existence is a burden to family members, friends, and society, and that they will perform better in his or her absence, and is associated with two factors of self-loathing and a sense of responsibility (11). The person with perceived burdensomeness feels insignificant and thinks that they are a burden to others and no one can rely on them (11). On the other hand, aging is a process associated with decreased individual functioning and independence, increased illness, and need for care, all of which can cause vulnerability in the elderly (12). Various studies have examined the relationship between burdensomeness and a component of suicide, its symptoms in the elderly, as well as its relationship with depression in the elderly (13-15). Thwarted belongingness has been defined as another psychological-interpersonal dimension; a sense of alienation from friends, family, and other valuable circles (11) and its relation to mental disorders and effects on psychological harm and self-harm behaviors. It indicates that it is important in people's mental and physical health (16). One factor that is likely to be affected by perceived burdensomeness, thwarted

belongingness and giving meaning to life in the elderly and can affect psychosocial adjustment is self-care. Self-care is a promising pathway that affects resilience in the elderly. Self-care means doing conscious and purposeful activities that people do to maintain and improve their health (17). Self-care activities can lead people to maintain health, self-care behaviors and adaptability and can help reduce disability and treatment costs. Research has shown that self-care behaviors directly improve health and quality of life and reduce the incidence of diseases and mortality (18). On the other hand, self-care behaviors that promote health can be dependent on psychological factors such as meaninglessness and loneliness (16). Research has shown a structural relationship between self-care and meaninglessness (17). Paying attention to components of psychological adjustment and disease in the elderly requires attention to physical health and psychological self-care, which can be affected by psychological variables. Considering the importance of health behaviors and mental health in promoting health and coping behaviors in the elderly, as well as the role of independent variables (perceived burdensomeness, thwarted belongingness, giving meaning to life) in health, few studies can be found that examine adaptation to disease in the elderly and factors affecting it, such as self-care behaviors, as a mediator between the variables of perceived burdensomeness, thwarted belongingness, and giving meaning to life. So, the aim of this research was to study the role of perceived burdensomeness, thwarted belongingness, and giving meaning to life in psychosocial adjustment, with a mediating role for self-care in the elderly. The findings of this study can be used as a basis for other studies and psychological-educational contexts.

## Materials and Methods

### Study design

### Procedure and Sample

This research was performed on elderly citizens of Ardabil in the year 2020. In this study, the Ardabil city was divided into 5 regions including north, south, east, west, and the center for sampling purposes. In order to determine the sample size in structural equation modeling, Müller (19) introduced the ratio of sample size to the number of free parameters of the model. He suggested the average ratio of 10: 1. With regard to 15 free parameters in the present model, the sample size of 150(15\*10) seems favorable. We recruited a larger sample than necessary to raise the generalizability of our findings and to offset possible drops in the sample. 208 elderly people were chosen from among the elderly citizens of Ardabil through availability sampling. Finally, 200 completed questionnaires were analyzed and eight questionnaires were discarded because they had not been completely filled and were not analyzed. The inclusion criteria were being over 60 years of age, living with the family and spouse, having Iranian nationality, residing in Ardabil, having no psychological

disorders, and having the willingness to participate. The participants' formal educational degrees included high school diplomas, post-diplomas, bachelor's degrees, or higher. The research was executed in agreement with the statement of Helsinki and was approved by the research committee of Ardabil University of Medical Sciences, Iran. We outlined the purpose of the study for the participants and ensured that participant information was kept secret. Also, a short clinical interview was conducted to confirm the absence of criteria for psychological disorders. The Structured Clinical Interview for DSM-5 (SCID-5) is a semi-structured interview guide for making the major DSM-5 diagnoses and is designed by the American Psychiatric Association (20). The elderly who fell within the inclusion criteria and were interested in participating in the research filled out the informed consent forms. Residence status, social class, and marriage were controlled in this study. Participants were able to quit the study at any time, and the research was conducted on the basis of the participants' rights, anonymity, and confidentiality.

### Measures

The survey instrument was selected based on the sample and the relevance of the measured values. This study included 5 tools: 1) The Structured Clinical Interview for DSM-5 (SCID-5), 2) Meaning in Life Questionnaire, 3) Psychosocial Adjustment Illness Scale, 4) Self-Care Questionnaire for the Elderly, and 5) Interpersonal Needs Questionnaire. In addition, demographic information including gender, marital status, and type of diseases was collected.

**1) The Structured Clinical Interview for DSM-5:** (SCID-5) is a structured interview guide for making the major DSM-5 diagnoses.

**2) Meaning in Life Questionnaire:** The Stiger Life Meaning Questionnaire (21) has ten items for the two factors of the existence of meaning in life and the search for meaning in life. There are 5 sections for each item. There is little correlation between the two factors of the existence of and the search for meaning in life. Also good internal validity has been reported for the subscales of existence [0.86] and search [0.78] (22). This scale is a 7-point Likert scale ranging from completely incorrect [1] to completely correct [7]. Based on the ranking of the answers, the total score in this test should be between 10 and 70. The sum of the scores of questions 2-3-7-8-10 determines the amount of effort a person has to find the meaning and the sum of the scores of questions 1-4-5-6-9 determines the meaning of one's life. In Iran, Ahmadi *et al.* (2016) calculated the reliability of the two subscales of existence and meaning of this questionnaire by the Cronbach's alpha method to be 0.79 and 0.71, respectively (23). The validity of this questionnaire was obtained for the subscales of existence and meaning by the internal consistency method to be 0.83 and 0.78, respectively (23).

**3) Psychosocial Adjustment Scale:** The scale has 46 questions, which are graded on a 4- Likert scale of 0 to

3, and includes the seven areas of health care, work environment, home environment, sex, family relationships, social environment, and psychological distress (24). In the main study, reliability using Cronbach's alpha for each of these areas was 47%, 76%, 77%, 62%, 83%, 80%, 85%, respectively, and the reliability among evaluators in patients was reported to be 74%, 68%, 61%, 86%, 56%, 82%, 84%, respectively (24). The structural validity of this scale was determined by exploratory factor analysis using the varimax rotational method, which explains a total of 63% of the total variance of the scale. In Iran, in a jurisprudential study by Fegghi *et al.* (2013), the reliability of this scale has been calculated by the Cronbach's alpha method for the whole scale to be 0.94 (25).

**4) Self-Care Questionnaire for the Elderly:** In this study, the self-care questionnaire prepared by Hemmati Maslak Pak and Hashemlo (26) was used, which contains 40 questions. Scoring is based on a five-point Likert type scale (I totally agree, I agree, I have no opinion, I disagree and I strongly disagree). The validity of the self-care questionnaire for the elderly was calculated in the research by Hemmati Maslak Pak and Hashemlo and was confirmed by the structural validity method with the factor analysis method. They also reported the validity of this scale through applying the Cronbach's alpha method to be 0.86 (26). The validity of the questionnaire in this study was obtained using the Cronbach's alpha coefficient which was 0.80.

**5) Interpersonal Needs Questionnaire (INQ):** An interpersonal needs questionnaire, which consists of 15 items, was used to assess Perceived Burdensomeness and thwarted belongingness (27). Participants are asked to choose the best possible option on a 7-point scale for their beliefs about how much they are currently interacting with others and how much they think they are overburdening others. The alpha coefficient of the questionnaire was reported to be 0.90 (28). In Iran, in a study by Kiani *et al.* (2016), the reliability of this scale was obtained by the Cronbach's alpha method for the above two subscales to be 0.60 (29). Also, the convergent validity of the overload perception subscale through correlation with anxiety and depression variables was 0.43 and 0.49, respectively, and the neutral belonging subscale with anxiety and depression variables was 0.24 and 0.18, respectively (29).

### Statistical Analyses

The obtained information was analyzed by way of path analysis and with the help of SPSS25 and Amos24 software.

### Ethical considerations

This research has an ethics code from Ardabil University of Medical Sciences [IR.ARUMS.REC.1399.018].

### Results

Among the 200 participants, 164 (82%) were male and 36 (18%) were female. 114 (57%) participants had a

high school diploma, 50 (25%) had a post-diploma, and 36 (18%) had a bachelor's degree or higher. Also, 30% had remarried and 70% lived with their first wife and family. Moreover, 58% had heart disease, 29% had chronic pain, and 13% had respiratory pain.

The correlation coefficients between variables are presented in Table 1. The correlation between the

variables shows that perceived burdensomeness, thwarted belongingness, giving meaning to life, and self-care have a correlation with psychosocial adjustment ( $P < 0.01$ ). The results of Table 2 showed that the model fitted well to the data.

**Table 1. Descriptive Indicators and the Correlation between Psychosocial Adjustment, Self-Care, Giving Meaning to Life, Thwarted Belongingness and Perceived Burdensomeness**

Variable	Mean	SD	1	2	3	4	5
Psychosocial adjustment	118.36	8.19	1				
Self-care	122.99	4.16	0.607**	1			
Giving meaning to life	67.98	8.90	0.490**	0.322**	1		
Thwarted belongingness	29.73	10.70	-0.213**	-0.225**	-0.052	1	
Perceived Burdensomeness	23.28	9.24	-0.200**	-0.292**	-0.010	0.508**	1

**Table 2. Model Fit Indices for Psychosocial Adjustment**

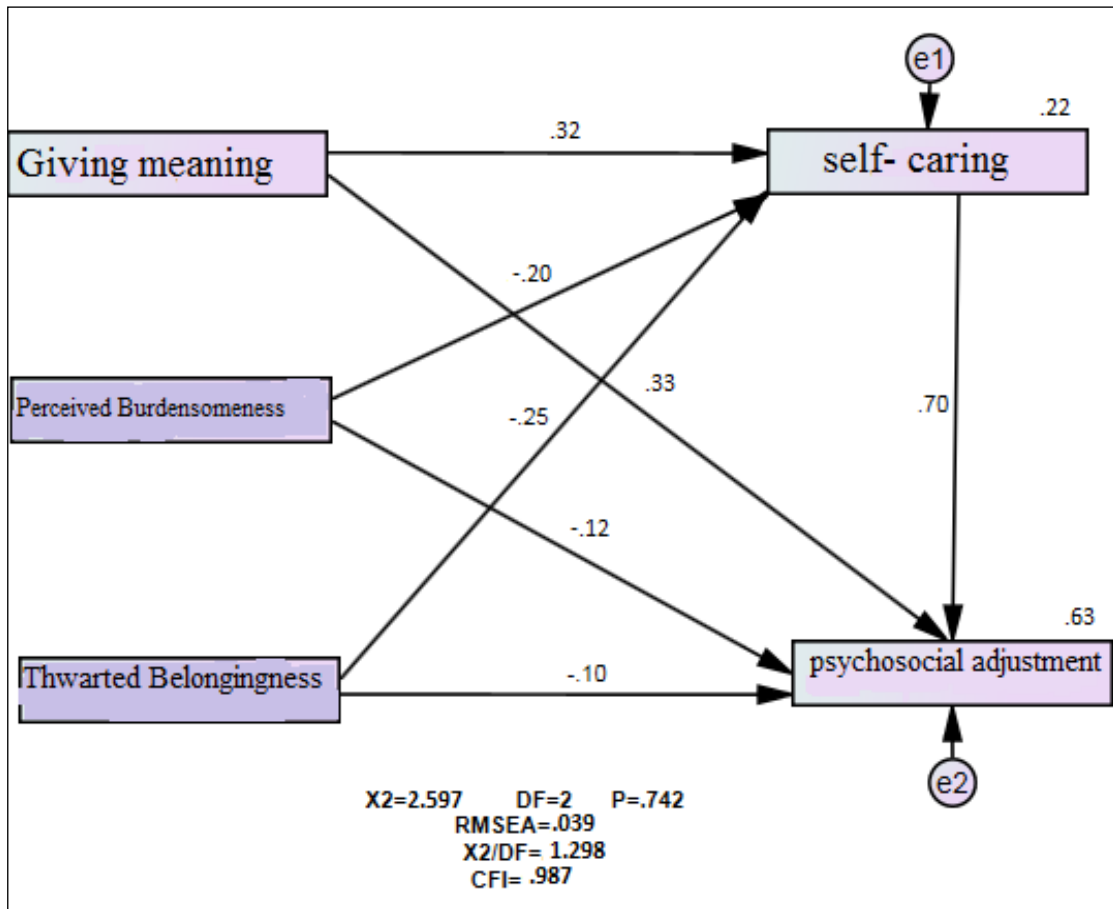
Fit Indicators	Model fit	Value	Ideal Values	Condition
K square	$X^2$	2.597	> 0.50	suitable
Degrees of freedom	df	1		
K square. Degrees of freedom	$X^2$ .df	1.298	< 3	suitable
The mean root of the approximation error of second power	RMSEA	0.039	< 0.08	suitable
Goodness of fit	< GFI	0.94	0.90	suitable
The goodness of the adjusted fit	< AGFI	0.98	0.90	suitable
Tucker and Lewis	< TLI	0.97	0.90	suitable
Comparative fit	< CFI	0.98	0.90	suitable
Increasing fit	< NFI	0.99	0.90	suitable

As shown in Figure 1 and Table 3, both thwarted belongingness [ $\beta = -0.20$  and  $P < 0.05$ ] and perceived burdensomeness [ $\beta = -0.25$  and  $P < 0.01$ ] have a negative and direct effect on self-care. Also, giving meaning to life [ $\beta = 0.32$  and  $P = 0.01$ ] has a positive and direct effect on self-care. The negative and direct

effect of thwarted belongingness [ $\beta = -0.12$  and  $P < 0.05$ ] and perceived burdensomeness [ $\beta = -0.0$  and  $P < 0.05$ ] on psychological adjustment were also confirmed. Also, giving meaning to life [ $\beta = 0.033$  and  $P < 0.01$ ] and self-care [ $\beta = 0.70$  and  $P < 0.01$ ] have a positive and direct effect on psychosocial adjustment.

**Table 3. Coefficients of Straight Directions for Giving Meaning to Life, Thwarted Belongingness and Perceived Burdensomeness, Self-Care and Psychosocial Adjustment**

Direction	Estimated Value	Standard Value	SE	C.R(T)	P
Give meaning to self-care	0.120	0.32	0.02	4.95	0.001
Thwarted belongingness to Self-Care	-0.105	-0.20	0.04	-2.62	0.002
Perceived Burdensomeness to Self-Care	-0.295	-0.25	0.08	-3.34	0.001
self-caring to Adjustment	0.525	0.70	0.07	7.54	0.001
Thwarted belongingness to Adjustment	-0.212	-0.12	0.10	-2.10	0.004
Give meaning to Adjustment	0.093	0.33	0.01	6.03	0.001
Perceived Burdensomeness to Adjustment	-0.085	-0.10	0.04	-2.07	0.005



**Figure 1. The Final Model of Standard Estimation Coefficients for Psychosocial Adjustment based on Giving Meaning to Life, Thwarted Belongingness and Perceived Burdensomeness with the Mediating Role of Self-Care**

According to Table 4, the coefficient of determination of the psychosocial adjustment variable is 0.63, which shows that predictive and intermediate variables can predict 63% of changes in psychosocial adjustment. Also, the coefficient of determination of self-care is 0.22%, which shows that the self-care variable can play a mediating role in the relationship of psychosocial

adjustment with thwarted belongingness, perceived burdensomeness, and giving meaning to life. Also, among the exogenous variables, by a change in self-care, thwarted belongingness and perceived burdensomeness reduced psychosocial adjustment. Giving meaning to life through self-care, however, has led to an increase in psychological adjustment.

**Table 4. Bootstrap Results Regarding the Mediating Role of Self-Care in the Relationship between Giving Meaning to Life, Thwarted Belongingness and Perceived Burdensomeness with Psychosocial Adjustment**

Predictor Variable	Variable Intermediate Variable	Criterion Variable	Estimated Value	Standard Value	Lower Limit	Upper Limit	P	R <sup>2</sup> Self-Caring	Compatibility
Give meaning to life	Self-Caring	psychosocial adjustment	0.063	0.223	0.138	0.341	0.001		
Thwarted belongingness			-0.155	-0.174	-0.279	-0.081	0.005	0.22	0.63
Perceived Burdensomeness			-0.045	-0.140	-0.213	-0.057	0.007		

## Discussion

The purpose of this research was to study the role played by perceived burdensomeness, thwarted belongingness, and giving meaning to life as well as the mediating role of self-care in the elderly in psychosocial adjustment. The results showed that perceived burdensomeness, thwarted belongingness, and giving meaning to life are related to self-care in the elderly. Thus, with increasing perceived burdensomeness and thwarted belongingness self-care in the elderly decreases, and increasing giving meaning to life increases self-care in the elderly. These findings are consistent with the findings of the researches by Brian (10) and Cukrowicz (14). Based on their results, perceived burdensomeness and loneliness have led to an increase in suicidal ideation in people, especially the elderly. Lack of perceived burdensomeness is one of the indexes of health in old age that makes the elderly pay more attention to themselves and enjoy their existence (30). Therefore, it can be said that the feeling of burdensomeness in the elderly can be considered as the result of others' dissatisfaction with the presence of the elderly, which causes them to lose the feeling of being useful in the family.

The sense of belonging is a subset of the structure of communication. Also, the feeling of connection and sense of belonging lead to the perception in individuals that others respect them, which is a kind of positive perception about self and others and can be one of the factors and reasons for increased care and attention to themselves and reduced vulnerability (29).

Regarding the significant relationship between giving meaning to life and self-care in the elderly, it can be said that when people's lives have more meaning, they can cope better with the challenges of life, it becomes easier for them to process new information and they can have a broad and positive perspective about their future lives. So, having a meaningful life allows people to take more care of their health so that they can enjoy good times and endure bad times (31). This finding is consistent with the results of previous studies which have reported that giving meaning to life by activating appropriate coping mechanisms increases resilience in the face of stressors in patients (32), and this is an important factor of self-care in the elderly (33).

Results of this study also showed that thwarted belongingness and perceived burdensomeness have a negative and significant effect on adjustment in the elderly. This finding is consistent with the findings of the research conducted by Van Jordan *et al.* (13). It can be said that perceived burdensomeness and thwarted belongingness cause an individual to develop a certain tendency to die, and thus, they make no attempt for adjustment and the person falls in complete isolation and thinks of nothingness and emptiness (13). Numerous studies have provided empirical evidence for interpersonal psychological theory throughout life, including late life. Cukrowicz *et al.* found that among

the elderly living in the community, burdensomeness and thwarted belongingness are the causes of suicidal ideation even beyond other important risk factors, including symptoms of depression and hopelessness (14). To confirm this point, research shows that in old age, being isolated and lacking in social connections increases the risk of suicide and self-harm (34). On the other hand, giving meaning to life and self-care are directly and significantly related to psychosocial adjustment. This finding is consistent with the findings of the researches by Yeh Ho and Chebong (35) and Mak *et al.* (18). The meaning of life plays four important roles in human's life: 1) creating goals for life; 2) creating new values for self-evaluation; 3) increasing control over self and life; and (4) experiencing self-esteem (36). It can be said that giving meaning to life can provide a framework for responding and processing the harms and sufferings of life. People who experience higher levels of meaning in life can easily cope with difficult situations such as diseases because having a reason to live makes a person cope and adapt to any problem (35). Lutz *et al.* also concluded based on their research findings that older people who have a positive outlook on the future may reduce their anxiety and in this way, despite having dysfunction and depression, they face a lower risk of injury (37). Moreover, considering the role of self-esteem and death anxiety in coping with the disease in the elderly, research shows that meaning in life can play an important role in the psychological adjustment of the elderly by reducing death anxiety and increasing their self-esteem (38).

Our findings also showed that self-care in the elderly has a direct and positive effect on psychosocial adjustment, which is consistent with the findings of Depner *et al.* (17), Macabasco *et al.* (18), and Barghi Irani *et al.* (39). Further, self-care in the elderly can first strengthen a person's awareness of illnesses and the right coping methods, which increase their mental health and adaptability. Various studies suggest that internal control and self-efficacy are important foundations for psychological problem-solving skills when dealing with stressful life events (40). Therefore, self-care improves the physical and mental ability of the elderly to cope with old age by increasing the role of the individual in his health and sense of control over life.

Thwarted belongingness and perceived burdensomeness can reduce psychosocial adjustment by a negative impact on self-care, but giving meaning to life can increase the psychological adjustment through a positive impact on self-care. Therefore, one with perceived burdensomeness and thwarted belongingness considers themselves insignificant in the eyes of others, which reduces self-esteem, leads to depression, and can reduce one's self-care ability and affect one's social and psychological well-being. But giving meaning to life leads to a sense of integrity, and as a result, it gives the person a sense of completeness and usefulness, which in turn leads to more attention to life, increased self-care,

and ultimately adjustment. Overall, the results showed that perceived burdensomeness, thwarted belongingness, and giving meaning to life were associated with self-care in the elderly and were also associated with psychological adjustment in the elderly both directly and indirectly.

### Limitation

Participants were evaluated using a self-assessment scale, which may not be sufficient to provide actual information. The present study was a cross-sectional research. The relationship between the variables studied may be resulting from other factors, which can only be monitored by investigating the function of each of them in future studies. Since the present research was performed between the elderly citizens of Ardabil City, generalization of the results to other societies should be done with caution.

### Conclusion

To increase self-care in the elderly to develop their adjustment, special programs are recommended to increase their meaning of life and to reduce their perceived burdensomeness and thwarted belongingness.

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### Conflict of Interest

None.

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