Relationship of Self-efficacy with Life Expectancy and Death Anxiety in Elders over 60 years old of Resident in Nursing Homes of Rasht City

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Research Article

Abstract

Purpose: This study aims to investigate relationship of self-efficacy with life expectancy and death anxiety in elders over 60 years old who resident in nursing homes of Rasht City.

Method: The research method is correlational and the statistical population comprises 486 male and female elders resident in nursing home of Rasht City in 2015. 225 individuals were selected by stratified random method and responded to questionnaires of General Self-efficacy, Death Anxiety and Life Expectancy. The obtained results were analyzed in SPSS by Pearson analysis method and bivariate regression.

Result: The research results indicate that, with 99% confidence and error level lower than 0.01, there is relationship between self-efficacy with life expectancy and death anxiety in elders. Also with 99% confidence and error level lower than 0.01, there is relationship between self-efficacy and death anxiety in elders. The value of this equation, -0.182 was reverse and negative. However, with 99% confidence and error level lower than 0.01, there is relationship between self-efficacy and life expectancy in elders. The value of this equation, 0.132, was direct and positive. The predicator variables of functional thinking with regression correlation of 0.148 and strategic thinking with regression correlation of 0.348 have been influenced by criterion variable of self-efficacy.

Keywords: Self-efficacy; Life expectancy; Death anxiety; Elders.

1. Introduction

At the present era, according to developments of various sciences there are witnessing dramatic changes in psychology and its various offshoots. So that after the emergence of positive psychology movement, theorists and researchers have been able to provide appropriate solutions in many fields rather than just focusing on experiences or negative perceptions, investigate structures such as self-control, spirituality, happiness, optimism and hope. On the other side, according to progress and improvement of nutrition, health and welfare are witnessing increase of life expectancy and world's population getting aged, especially in developed countries and even under-developing countries. So that aging phenomenon is one of the important and general topics of the present century and our country is of no exception. Since in present decade, elders' population of country increased nearly 2 to 3% and it is predicted that at present rate, nearly 10 percent of country's population will be occupied by elders till the year of 1400. This aging process of population requires appropriate substrates in order to grow and promotion of physical, psychological, and social health of elders. Therefore, authorities and planners in all societies consider this issue in various aspects because particular attention to this group leads to promotion of health level in society.

Considering changes, nowadays, made in elders' life style, special institutes are established entitled as nursing homes and way of habitation and efficiency of elders is of importance in these institutions. Aging is a natural process of changes related to time which begins at the birth and continues through the whole life and includes all experiences of individuals. Efficiency is one of the individuals' experiences in life. The extent to which we meet our behavior standards, determines our feeling of efficiency. In Bandoura's system, feeling of efficiency refers to feelings of adequacy, suitability and capability of coping life. People, in order to judge their self-efficiency on their performance are affected by various factors such as hardness of work, amount of effort, favorable and unfavorable conditions, amount of external assistance they received, their physical and emotional states during working and the quality of their fail and success are among these factors. Also, individual's positive and negative attitude towards themselves and way of calling successes and fails, affects judgment on efficiency. Those who

believe they can control these potential pressures do not let disturbing thought patterns to enter their minds therefore, they will not get anxious. But contrariwise, those who do not believe in their efficiency to control potential threats, these threats lead to stress and anxiety [1].

Self-efficacy, as one of subcategories of the component of personal ability is one of the positive characteristics of man which plays important role in confronting life's tensions and threats and their unfavorable effects. So that it possesses special position in the field of developmental psychology, family psychology, and mental health. The beliefs on self-efficacy determines that how much effort people spend in their activities, how long they continue their effort, how they show their resistance in confronting difficult situations [2]. Low self-efficacy can destroy motivation, mitigate wishes, interfere with cognitive abilities, and have negative impact on physical health. Self-efficacy is somehow associated with feeling happy. It seems that individuals' efficient movement towards their objectives, is cause of positive changes in their welfare and happiness. Generally, attempts towards inner objectives leads to promotion of welfare and happiness [3].

Self-efficacy includes belief in abilities in order to achieve objectives in specific field [4]. Bandoura defines self-efficacy as individual's belief and judgment on their ability to perform specific task [5]. Self-efficacy is motivational belief which has decisive role in learning various sciences. From standpoint of social-cognitive theorists, people with high feelings of self-efficacy, who grow using confronting interpersonal tensions and demands, are less vulnerable against social tension and functioning. Also, people with strong felling of personal self-efficacy in life, such as educational performance and social interactions, less likely develop tension and anxiety [6].

Hope is part of life which without it, life and human itself loses their meaning and concept and cannot continue living. Thus, life quality and life expectancy created by spiritual and emotional consciousness are amongst the principles of life improvement which is necessary for survival. Therefore, as success in sciences demands talent and intelligence, life expectancy and life quality demands spiritual and emotional consciousness [7].

Life expectancy is the most important motivation in life which is considered as the best features of health development and can be assumed as average life [8]. Actually, life expectancy is a statistical indicator which shows the average lifespan in society or, in other words, how much lifespan each member of society. The more health and treatment indicators improve, the more life expectancy will increase. Therefore, these indicators are considered as one of indicators of assessing countries' progress and backwardness [9].

The increase of life expectancy is both an opportunity and threat; it is an opportunity in terms of transferring knowledge and ability to the younger generation, and it is threat if authorities do not perform required planning. In this case, elders' dignity and worth will get harmed and they will be left unsupported in society [10].

To man, death anxiety is not only a far-off anxiety which expects him at the end of the way, but it is hidden anxiety which penetrates depth of feelings to extent as if man tastes the death favor in everything. At end of life, elders think about death and talk about it. Physical changes, more weakness against diseases, disability and loss of relatives and friends are further evidences on death in adulthood. Having bit of anxiety on death is natural, but if this anxiety is severe, it weakens effective adaptability [11].

Death is inevitable fact and each individual can have unique impression and reaction towards it. Death, due to its nature of full of ambiguity, resembles as a threat to most of people. Anxiety and fear of death is common in all cultures and different groups and religions deal with it differently [12].

Since death is never being experienced and no one ever clearly touched it clearly, all people are kind of anxious about it. But based on certain factors, they experience different levels of death anxiety. Death anxiety, as big and unusual fear, is defined associating with feelings of fear of death or apprehension when think about process of dying or things happening after death [13].

Death anxiety includes thoughts, fears, and emotions associated with the end of life. Such anxiety has multidimensional concept. In this regard, Hoelter and Hoelter, according to Furer, Walker & Stein, consider eight dimensions for it: 1) fear of the dying process, 2) fear of early death, 3) fear of death of loved ones, 4) morbid fear of death, 5) fear of depravity, 6) fear of the body after death, 7) fear of death being unknown, and 8) fear of dead [14].

Since aging is universal phenomenon, therefore, special attention to this group is necessary. Because, if favorable condition is provided for elders to live independently, hopeful and away from sense of loneliness and separation sadness, social issues decreases and consequently family problems decreases.

According to above illustrations and importance of promotion of physical and psychological health of elders, what affect this golden age of living more than specific physical disorders are psychological and cognitive disorders such as death anxiety. Lack of hope can affect psychological health of individuals and underlie depression and anxiety. On the other side, according to importance of feeling being efficient in elders, especially for those who are resident in nursing homes, the author's motivation on conducting this research was to investigate the

relationship of self-efficacy with life expectancy and death anxiety in elders over 60 years old and resident in nursing homes of Rasht City in 2015.

In this regard, three hypotheses were proposed:

Main hypothesis: There is a relationship between self-efficacy with life expectancy and death anxiety.

1st secondary hypothesis: There is relationship between self-efficacy and death anxiety in elders.

2nd secondary hypothesis: There is relationship between self-efficacy and life-expectancy in elders.

2. Methods

The research method is correlational.

2.1 Statistical population and sampling method

The statistical population comprises all male and female elders resident in nursing home located in Rasht City in 2015. 225 individuals were selected by stratified random method and responded to questionnaires of General Self-efficacy, Death Anxiety and Life Expectancy.

Additional information is illustrated in Table 1:

Table 1. Specifications of Statistical Population.

Elders Institutions Institutions	Numbers	Total
Kosar	48	48
Maryam	45	45
Shalizar	58	58
Tali'e Mandegar	11	11
Salhaye Talai	30	30
Sayeshgah Maloulin	294	294
Total		486

The sample population of this research includes a group of female and male elders resident in nursing home located in Rasht City in 2015. Morgan Table was used to select sample size. The additional information is illustrated in Table 2:

Table 2. Specifications of Sample Population.

Elders Institutions	Numbers	Total
Kosar	21	21
Maryam	20	20
Shalizar	26	26
Tali'e Mandegar	5	5
Salhaye Talai	13	13
Sayeshgah Maloulin	129	129
Total		214

The information stated in above table show that number of total sample population is 214 people.

Therefore, sample population size would be 225.

In this research, due to extensiveness of population and dispersion of institutions, and avoiding the possibility of accumulation of sample in a special pole, and also due to inequality of people in population, stratified random sampling was applied.

At first, all institutions of elderly care located in the area of Rasht were identified, and then the number of elders resident in each center was counted. Next, based on participation share of each one of elders in institution and calculating proportion formula, actual number of samples in each institution was determined and studied.

2.3 Tools

According to research hypotheses, questionnaires were used as below:

General self-efficacy scale: This questionnaire is created by Sherer et al. is possesses 17 questions in 5-point Likert scale (Strongly agree, agree, neutral, disagree, and strongly disagree). Thus, the highest score for self-efficacy in this scale is 85 and the lowest score is 17. The reliability coefficient of this questionnaire, using Cronbach's Alpha, is reported as 0.86 by Sherer et al. In a study, Jelodaran calculated the reliability coefficients of this questionnaire, using Cronbach's Alpha and split-half 0.88 [15].

The of death anxiety questionnaire: this questionnaire is designed by Templer and includes 15 items which assesses attitude subjects according to death. Respondents determine their answers by choosing Yes or No. The Yes answer indicates high anxiety of people about death. Therefore, this scale's scores are among the range of 0 to 15 which the high score indicates high anxiety of people about death. Surveys carried out on reliability and validity of the scale of death anxiety show that this scale possesses acceptable reliability. In the original culture, reliability coefficient of retesting scale is 0.83 and the concurrent validity of it, based on correlation with scale of manifest anxiety is 0.27 and by scale of depression it is reported as 0.40. Thomas et al. also calculated the reliability of this questionnaire, using test-retest method as 0.76 [16].

The questionnaire of life expectancy: This questionnaire is designed by Snyder et al. and includes 12 questions. From these questions, 4 are for measuring functional thinking, 4 are for measuring strategic thinking, and 4 of them are detour. The scores of each question are in the range of 1 to 5. Thus, in this questionnaire highest score of life expectancy is 60 and the lowest score is 12. Snyder and Lopez calculated reliability of this questionnaire, using test-retest coefficient as 0.80. Also Kermani calculated correlation of this questionnaire with questionnaire of despair as 0.51 and with questionnaire of depression 0.42 [17].

3. Result

According to meaningfulness of this hypothesis and in order to determine the density of relationship, parametric multivariable regression test was applied (Table 3-6).

Table 3. The calculation of Pearson correlational coefficient between self-efficacy with life expectancy and death anxiety.

	Death Anxiety	**Life expectancy and self-efficacy**
Person Correlational Coefficient	1	0.387
Self-Efficacy		0.000
Significance Level (2 domain) The number of sample population	225	225
Person Correlational Coefficient	0.387	1
Life expectancy and death anxiety	0.000	
Significance Level (2 domain) The number of sample population	225	225

Table 4. The calculation of Pearson Correlational Coefficient between self-efficacy and death anxiety.

	Death Anxiety	Self-efficacy
Person Correlational Coefficient Self-Efficacy	1	-0.182
Significance Level (2 domain)		0.006
The number of sample population	225	225
Person Correlational Coefficient death anxiety	-0.182	1
Significance Level (2 domain)	0.006	
The number of sample population	225	225

Table 5. The calculation of Pearson correlational coefficient between self-efficacy and life expectancy.

	Life expectancy	**Self-efficacy**
Person Correlational Coefficient Self-Efficacy	1	0.132
Significance Level (2 domain)		0.049
The number of sample population	225	225
Person Correlational Coefficient Life Expectancy	0.132	1
Significance Level (2 domain)	0.049	
The number of sample population	225	225

The above table indicates summary of the model. The value for correlational coefficient (R) among variables is 0.348 which shows mean correlation among set of

Table 6. The summary of concurrent regression model in terms of correlational coefficient and determination coefficient.

Model	R	R²
1	0.348	0.113a

predictor variables and criterion variable. On the other side value for adjusted determination coefficient (R2) is 0.113 which indicates that predicator variable was able to establish 11.3 percent of whole changes of criterion variable (Table 7).

The data of above table shows that the regression model of research is an appropriate model and by the

Table 7. The results of variance analysis.

Model	Total squares	df	Mean of Squares	F	Significance Level
Regression	557.648	2	278.824	15.329	0.000a
Residual	4038.112	222	18.190		
Total	4595.760	224			

help of it we are able to establish changes of criterion variable of life expectancy based on the predicator variable of self-efficacy (Table 8).

The data of above table indicate that predicator variables of functional thinking with regression coefficient of 0.148 and strategic thinking with regression coefficient of 0.348 are affected by the criterion variable of self-efficacy.

According to results of above table and meaningfulness of F in table of variance analysis and the value of t in the mentioned table, regression equation for model is as below:

Self-efficacy = 53.094 + 0.148 (functional thinking) + 0.348 (strategic thinking).

4. Discussion and Conclusion

According to obtained results for table of correlational matrix, based on data of table 3, calculated correlational coefficient at level of P<0.05 is significant. This result indicates that there is relationship between self-efficacy with life expectancy and death anxiety in elders. On the other side, this value equals to 0.387 which is direct (positive).

Ghorbani et al. [18] concluded that there is significant negative correlation between hope and death anxiety. Also, Pajares and Miller [19] found that the more level of self-efficacy is higher.

To explain these findings, it can be said that the ones who have higher self-efficacy believe that they can effectively confront events or situations they face. Since they expect success in confronting their problems, they will resist in tasks and they mostly perform at high level. The researches indicated that if person's self-efficacy is higher, the possibility of

Table 8. The results of the coefficients of the effect of regression of predicator variable on criterion variables.

Criterion Variables	Non-standard Coefficients		standard Coefficients	T	Sig.
	Beta Coefficient (β)	Standard Error	Beta Coefficient (β)		
Constant Number	53.094	4.893		10.851	0.000
Functional Thinking	0.394	0.171	0.148	2.305	0.022
Strategic Thinking	0.693	0.128	0.348	5.403	0.000

higher effort in beginning the task person starts is more and it is more likely to resist harder when in problems [20].

Also, based on the data of table 4, the calculated correlational coefficient at the level of P<0.05 is significant. This result shows that there is relationship between self-efficacy and death anxiety in elders. On the other side, value for this relationship is 0.182 and reverse (negative). It means that by increasing score of self-efficacy in elders, level of death anxiety among them will decrease. Salajagheh and Raghibi found that combined therapy of spiritual and cognitive group-treatment is effective on mitigation of death anxiety.

Ghasempour et al. [21] concluded that there is significant correlation between cognitive emotion regulation strategies with death anxiety.

Ardelt [22] concluded that internal and external religious orientation has positive correlation with welfare subjects and has negative correlation with fear of death and avoiding dying.

Hassan and Zehi [23], in research, showed that despair and instability has meaningful and positive relationship with death anxiety. Also Ghorbanalipour and Esmaili [24] found that logo therapy was effective on reduction of death anxiety.

Based on data of table 5, calculated correlational coefficient at the level of P<0.05 is significant. These results indicate that there is a relationship between self-efficacy with life expectancy in elders. On the other side, the value for this relationship is 0.132 and direct (positive). It means that the increase in the score of self-efficacy in elders leads to the increase of life expectancy among them.

Based on studies conducted in this domain, Jamalzadeh and Golzari [25] concluded that hope therapy is effective on increase of happiness and satisfaction of life among women living in nursing home.

Ghasemi and Dehkordi [26] in their researches revealed that group training based on Snider's hope theory had a significant effect on happiness and life expectancy of elders.

Firoozeh moghadam [27] showed that training happiness leads to the increase of hope and life satisfaction among elders.

Shervin et al. [28] stated that group therapy based on hope, increases the functional thinking, the meaning of life, self-esteem, and happiness in elders while decreases signs of depression and anxiety among them.

Researchers, by using correlational and casual-comparative designs indicated that blockage of goals leads to negative emotional responds for each person. But very hopeful persons compared to those who have lower hope show lesser negative emotional reactions when their goals face obstacles. One reason is that very hopeful people, compared to less hopeful people, are skillful in finding alternative ways for their main goals. But those with lower hope are confused about how to achieve their goals and they are less likely to know what to do when their goals are blocked.

However, inability of elders resident in nursing home in achieving external social and emotional supports brings widespread anxiety which gradually leads the person to doubt their capabilities and lose their required confidence at the time of coping with social situations and could not fulfill their social needs.

Therefore, considering that each year, the number of elderly people is growing and since general self-efficacy has a close relationship with various dimensions of man's life, including life expectancy, independence in daily activities, life quality, death anxiety depression and importance of addressing such issue is essential in the elderly age.

According to the obtained results, it is recommended that some parts of spare times in elderly institutions be assigned to informing and justifying elders towards self-efficacy and educating them and performing self-efficacy promotion programs. Also, using expert psychologists and skilled social workers is recommended in order to consult elders, especially about how to confront death anxiety and educating hope and hopefulness through occupational therapy using occupational therapists.

References

[1] Aghamohammadi Somayeh, Kajbaf Mohammad Bagher, Neshat Doust Hamid, et al. (2011). The effectiveness of self-efficacy training on social relationship of runaway girls. *Journal of Clinical Psychology*. **2**: 21-44.

[2] Pajares F. (1996). Role of Self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Eductional psychology*. **86**: 193-203.

[3] Ryan A, Deci RJ. (2010). The Science of subjective well-being. New York: Guilford press.

[4] Dorman JP. (2010). Associations between Classroom Environment and Academic Efficacy. Learning Environments Research. **4**: 243-257.

[5] Ayiku TQ. (2011). The relationships among college self-efficacy, academic self- efficacy and athletic self-efficacy. Unpublished M.A. dissertation, Maryland University.

[6] Marino P, Sirey JA, Raue P, et al. (2008). Impact of social support and self-efficacy on functioning in depressed older adults with chronic obstructive pulmonary disease. *International Journal of COPD*. **4**: 713-718.

[7] Sohrabi, Faramarz. (2008). Foundations of Spiritual Intelligence. *The Quarterly Journal of Mental Health*.

[8] Najafi, Reza. (2009). The study of the effect of behavioral-cognitive training and life expectancy of couples in reduction of tendency to drugs in addict patients in Esfahan City. M.A thesis of clinical psychology, Esfahan University.

[9] Doroudi H (2010). The effectiveness of hope-based group couple therapy on the increase of marital satisfaction in couples in which the husband is addict. M.A. thesis of Rehabilitation Counseling, University of Welfare and Rehabilitation Sciences of Tehran.

[10] Hallajian, Zohreh. (2007). The study of the relationship of life expectancy and happiness in thalassemic and normal patients of Ramsar. B.A. thesis of psychology. Payam Noor university of Ramsar.

[11] Inci F, Oz F. (2009). Effect of death education nurseś death anxiety, depression regarding death, and attitudes towards the dying patient. *Anatolian Journal of Psychiatry*. **10**: 253-260.

[12] Huerta G, Yip L. (2006). Death attitudes across the life-span: The development and validation of the Death Attitude Profile (DAP). *Omega J Death and Dying* **18**: 113-159.

[13] Rice B. (2009). Rehabilitation counselors' experiences with client death and death anxiety – statistical Data included. *J Rehabil*. **66**: 44-45.

[14] Soleiman Nejad, Akbar. (2010). Fear of death in Hypochondriasis and anxiety disorders patients. *Oroumieh Medical Journal*. **21**: 273-279.

[15] Gheibi Masoumeh, A'arefi Mahboubeh, Danesh Esmat. (2012). The relation of methods of learning and self-efficacy of students of various educational groups. *The Quarterly Journal of Applied Psychology*. **6**: 53- 69.

[16] Rajabi Gholamreza, Bahrani Mahmoud. (2001). Factor analysis of questions of death anxiety. *Journal of Psychology*. **20**: 331- 344.

[17] Kermani, Zahra. (2009). The study of the role of hope in relationship between perceived social support and meaning in life with suicidal thoughts. M.A thesis, University of Shahid Beheshti.

[18] Ghorbani Elaheh, Sa'adatmand Saeid, Sepehrian Azar, et al. (2013). The relationship of hope and death anxiety with mental health in studets of university of Oroumieh. *Medical Journal of Oroumie*. **24**: 607-616.

[19] Pajares F, Miller. (2009). Role of Self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational psychology*. **86**: 193-203.

[20] Luthan S, Peterson A. (2012). The revised scale for care giving self-efficacy: reliability and validity studies. *Journal of Gerontology: Psychological Sciences.* **57**: 74-86.

[21] Ghasempour Abdollah, Soureh Jamal, Seyyed Tazeh Kand, et al. (2012). Predicating death anxiety base on Cognitive emotion regulation strategies. *Journal of Knowledge and Research in Applied Psychology*. **2**: 63-70.

[22] Ardelt M. (2013). Effects of Religion and Purpose in Life on Elders' Subjective Well-Being and Attitudes toward Death. *Journal of Religious Gerontology*.**14**:125-129.

[23] Hassan Zehi, Elham. (2012). Predicting death anxiety based on demographic features and spiritual components in elders. M.A. thesis of clinical psychology. University of Educational Science and Psychology. Shiraz

[24] Ghorbanalipour Masoud, Esmaili Ali. (2012). Determining the effectiveness of logotherapy on death anxiety in elders. *Journal of Counseling Culture and Psychotherapy*. **9**: 53-68.

[25] Jamalzadeh Razieh, Golzari Mahmoud. (2014).The effectiveness of hope therapy on the increase of happiness and life satisfaction among elderly women resident in nursing homes of Boroujen. *Scientific-Research Quarterly Journal of Woman and Society*. **2**: 31-48.

[26] Ghasemi Dehkordi, Afshan. (2010). The study of the impact of group training, based on Snider's hope theory, on happiness and life expectancy of elders resident in nursing home of Esfahan. M.A thesis of Consulting, Islamic Azad University of Marvdasht.

[27] Firouzeh Moghadam, Sara. (2010). The effectiveness of happiness training on the increase of hope and life satisfaction among elders. M.A thesis of General Psychology, Alameh Taba Tabai University.

[28] Shervin ED, Elliott TR, Rybarczyk BD, et al. (2006). Negotiating the reality of care giving: hope. Burnout and nursing. *Journal of social and clinical psychology*.**11**:129-139.