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ARAŞTIRMA MAKALESİ/RESEARCH ARTICLE

Mental health issues among geriatric offenders (Azerbaijan case)

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Abstract

This study constructed a measured quality of life elderly inmate in the Azerbaijan penitentiary system. Incarcerated people often face financial, social and emotional costs due to the imprisonment, and this issue influence their mental health, also interpersonal relationships.

Aim: The aim of this research was to examine health issues, the quality of life of older prisoners, and the stimulus that influence their daily mood, especially interpersonal relationship domains. For this purpose, various literature sources were analyzed to answer the main research questions.

Method: 54 inmates from 2 different regimes were involved in the research. In order to obtain data questionnaires about quality of life (QOL), and depression were used. WHOQOL –BREF, and consists of 26 questions related to 4 domains: physical health, psychological, social relationships, and environment. Patient Health Depression Questionnaire (PHQ-9) was used to determine depression level of inmates

Conclusion: As a result, it was determined that there was a relationship between interpersonal support and QOL features. Another hand, a negative correlation between interpersonal support factors and depression scores. The base on analyzing literature and collecting data, some items were identified as future recommendations.

Keywords: geriatric offenders, elderly prisoners, quality of life features, interpersonal relationship and quality of life, depression factor and quality of life.

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1. INTRODUCTION

United Nations recognizes that the growth in the number of elderly inmates is expected to continue in the upcoming years, and it is essential that government shoul develop policies and strategies to address the needs of this vulnerable group, and particularly in those countries where the increase in the number of older prisoners is sizable (United Nations,2009). When discussing aging paradigm, the most important change was the recognition of different aspects in the aging process, such individual differences, and flexibility. Some of them have severe problems in midlife, while others participate in different social activity.

The purpose of this article is to review QOL (quality of life), and psychosocial factors that observed older offenders. QOL (quality of life) factors related to physical health, psychological, social relationship, and environmental domains; as psychosocial factors depression, isolation, and social support were addressed in this article.

The literature review and explanatory part of the research try to answer following questions:

- What is optimal aging?
- What factors influence aging process?
- How are Quality of life domains in geriatric offenders observed?
- Social support and QOL factors, how can the association between 2 variables be described?

2. METHODS

2.1. Participants

All of them had Azeri nationality, and participants' mean age was 60,9 ±4,2 (range 55-78). 16 of them had been incarcerated life sentence (29,6%of participants), and mean duration imprisonment was 9,7±3,7 years in 38 of them (70,4% of participants). Inmates who arrested before theirs 55 years and grow old in prisons are 33 (61,1%) of the participants, and who convicted crime after their 55 years are 21 (38,8%). Further details on respondents' characteristics are presented in table.

2.2. Instruments: The survey is divided by 8 following components related to the prison life and relationships:

1) The environmental factors in prisons,

Table 1. Socio-demographic factors of inmates

Socio demographic factors		
Age	55-78 (60,9±4,2)	
Nationality (Azeri)	54	100%
Religiousness (Islam)	54	100%
Partner/married		100%
Married	43	79,6%
Divorced	9	16,7%
single	2	3,7%
	Criminological factors	
Previous incarceration	28	51,9%
First incarceration	26	48,1%
Offence against person	30	55,6%
Crimes Against property	5	9,2%
Drug related crimes	16	29,6%
Sexual offence	3	5,6%
	Institutional factors	
Sentence 1	18	33,3%
Sentence 15	18	33,3%
Qobustan prison	18	33,3%
Life-sentence	16	29,6%
imprisonment	38 (9,7±3,7)	70,4%
	Clinical factors	
Previous illness	51	94,4%
No previous illness	3	5,6%

2) Health conditions
3) Level of interpersonal relationships with prison staff and other inmates
4) Level of support and communication with family members,
5) The type visits (short and long visits),
6) Daily mood,
7) Depression level,
8) Hope for future as long term perspective plans
Long-lasting and with moderate and high level of depression may become a serious health condition. It can be reason of person's suffering greatly and poor function at work, at school and in the family. At its worst, depression can be one of the main causes to suicide (WHO, 2018). Considering that it is short and easy for respondents, and can be applied in multiple patient populations, so Patient Health Depression Questionnaire (PHQ-9) was used to determine depression level of inmates.

QOL measurement scale that used in the research was Likert scale, made based on WHO-QOL –BREF, and consists of 26 questions related to 4 domains: physical health, psychological, social relationships, and environment.

2.3. Procedure and design

Survey and measurement scales were developed in Azerbaijan correctional facilities, with elderly inmates in 2018-2019 years. Before the survey each of the inmates had been informed about the main target of research and asked their permission to use these results, and publish. Considering the ethical guidelines the survey and measurement scales were realized.

3. RESULTS AND DISCUSSION

What is optimal aging?

Rowe and Kahn (1997) appropriately described healthy aging as absence of any illness and good physical function, unaffected cognition process, and active involvement and participating in life events and activities (Rowe and Kahn, 1997)

On another hand, Lawton (1999) argued these definitions and didn't accept how previous authors explained changes in older ages (Lawton et.al.1999). The authors mentioned that good physical health is related to activities of daily living (ADLs) and cognitive abilities, Vaillant (2003) used a similar definition, highlighted these factors of successful aging. Using data from the *Nun Study*, Snowdon (2001) noted that successful, optimal agers were observed by positive psychological features, despite sometimes suffering any illness. These psychological features included happiness, intellectual curiosity, deep spirituality, and communication skills (Snowdon et.al.2001).

Levenson and co-authors (2005) found correlations with emotional stability and spirituality, and associated with better health in later life stages (Levenson et.al, 2005).

Baltes (1996) suggested that the term "optimal aging" may be more appropriate than "successful aging", because of a definition of the second term focuses on one model only, and may be too limited. However explaining optimal aging, authors focused on different facets of the life, depending on main goal and targets (Brandstadter & Rothermund, 2003).

Answering the first question, image of optimal aging can be explained by individual differences and flexibility in the aging process.

What factors influence aging process?

The authors mentioned wisdom that increases with age, as a gain of aging (Spiro,2001; Aldwin, 2006; Mokdad, 2004).

Spiro (2001) explained life scan perspective on health by axioms:

- Health is a lifelong process;
- Health is characterized by multidimensionality;
- Study of health is inherently multidisciplinary;
- There are always gains and losses in development (Aldwin, 2006).

Mokdad and colleagues (2004) estimate the importance of factors that influence aging such: smoking, poor diet, and limited physical activity (Aldwin, 2006). 3 broad types of factors affecting the rate of aging are:

- Personality;
- Religiousness/ spirituality;

- Stress and coping process.

When the authors estimate personality factors, they explain relationship between hostility and higher rate of both cardiovascular morbidity and mortality than less hostile individuals. Wilson and colleagues (2004) mentioned that neuroticism predict mortality of hostility and have an important role in later life. In other resources Freidman (2000) suggest anxiety and neurotic behaviors may be observed under conditions of environmental stress. Anxiety is related to heart diseade and death sudden cardiac attack (Kawachi et al, 1994). Gorman and Sloan (2000) reviewed evidence that person with high anxiety have poorer heart rate regulation, and this fact due to overreaction to stressors (Gorman et.al.2000) .

Another factor that influences aging process is depression fact. These symptoms in late life tend to be very unsteady (Blazer et al., 2001). Authors mentioned that as patients recover from depression; it influence their mortality risks effectively (Lesperance et al., 2002).

Older adults are more vulnerable than other population members in stressful events (Aldwin and Gilmer,2004). Their immune systems' issues are the main factors, especially who are also depressed, are more vulnerable to stress. The authors explained effective copiers who more likely to be coping with physical, psychological and other problems(Aldwin and Gilmer,2004).

Spirituality and religiousness is related and have strong influence on social institutions and the personal lives (Koenig, 2000). Different researchers improved the argument that level of religiousness in older people is typically higher than in younger's (Pargament, 1997). In recent years, researchers have determined links between religiousness and lower rates of some health problems such cancer, cardiovascular disease, alcohol and drug using, also mental illness, meanwhile higher health related to high level of QOL (quality of life), and higher levels of healthy life style (George et al.,2002).

Miller and Thoresen (2003) state that there is association religious attendance with lower rates of different disease, such alcoholism, cardiovascular disease, hypertension, and others. The study that was realized open-heart surgery patient found that, strength and comfort from religious belief was related to a decreased risk of dying, and it influence their daily mood (Oxman, Freeman &Manheimer, 1995). Although some studies found association between religious belief and recovery, but a number of other studies mentioned null findings, and any correlations between these variables (Powell et al., 2003).

The authors found that work issues and family problems as divorce may influence personality stability negatively and can be reasons of some issues (Clausen and Jones, 1998). This fact was proved in Martin and Mroczek (2005) research, too.

How are Quality of life domains in geriatric offenders observed?

The policy papers and studies identify three main categories of older prisoners:

- The first group consists of those who were sentenced to long prison terms while they were young and got older in the prison conditions. However, those prisoners experience difficulties in social reintegration after release, the reason of the problem related to the long period of institutionalization, loss of family and relatives' links and limited work practice.

- The second group members are habitual offenders, who have been in and out of correctional facilities.

- The third group consists of those who have been convicted of a crime in later life. Their crimes are usually serious. (U.N. Handbook on prisoners special needs, 2009).

All these groups' members have different needs and their physical and mental problems can be different. In prison condition different factors influence their mental health: accommodation, health care, family links, prisoner programs, and others.

To answer ***the third research question*** not only literature analyzing and survey was realized, because of the main aim of the research is to determine older offenders' quality of life domains.

Quality of life assessment tool consists of 26 items, and 4 domains. The assessment tool was made based on WHO QOL assessment survey model.

In first group - "Physical health", the data on inmates' health problems, and their approach about the pain and discomfort, sleep and rest, work capacity features were collected. Descriptive analysis of the results show that, inmates in those prisons aren't satisfy their health, sleep, capacity of work, daily activity, and they mentioned their need to medical treatment.

Second group- "Psychological features". This group contains inmates' answer about themselves, their image and appearance, self-esteem, personal beliefs and their subjective assessment of cognitive skills and abilities.

Third group includes data on social relationship domain (Personal relationships, Social support and Sexual activity).

Forth group - Environment factors covered person's attitudes about prison accommodations (pollution / noise / traffic / climate), human rights, physical safety and security, opportunities for acquiring new information, also leisure activity resources.

To answer the last questions third group factors were analyzed in detail. The choices of the the offenders participated in the research were negative, and more than 18 percent were changeable; so nearly 72% of them were dissatisfied, only approximately 9% were satisfied with their personal relationship. None of them have positive attitude towards their sexual life, 98% were dissatisfied, 2% didn't confirmed any opinion. We can see the similar results from question about friends' support, more than half of respondents were dissatisfied with friendship relationships, when minority confirmed satisfaction with friends' support, 66% and 6% respectively.

Table 2. Social relationship domain features

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
How satisfied are you with your personal relationships?	13 (24,1%)	26 (48,1%)	10 (18,5%)	5 (9,3%)	
How satisfied are you with your sex life?	37 (68,5%)	16 (29,6%)	1 (1,9%)		
How satisfied are you with the support you get from your friends?	10 (18,5%)	26 (48,1%)	10 (18,5%)	8 (14,8%)	

Association between the first question (how would you rate your quality of life) and the social relationship group questions was demonstrated in the table 3.

The figures demonstrate that offenders who were dissatisfied their personal relationship, their attitudee to their quality of life was assessed as "very poor" and "poor". Minority consisting of 5 people confirmed satisfaction with their personal relationship, meanwhile they estimated their quality of life " neither poor nor good", and "good". The answer "very satisfied" was not confirmed by anyone. As nobody estimated the high level quality of life.

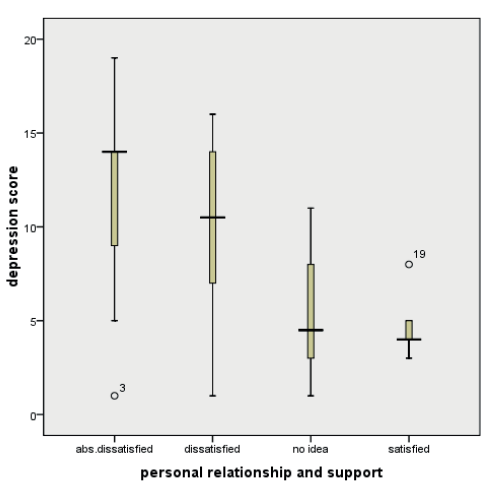
When asking question about their sex life, dissatisfying with that sphere was revealed. So those people sex life influence their quality of life figures, respectively none of them was satisfied and estimate their quality of life good and very good level. The next question in this group survey was about friends' support. Older prisoners who didn't have positive thought about their friends' help, their quality life features were "very poor" and "poor level", too. These figures let me say personal relationship, family and relatives support can influence quality of life level. The more family support and relationship can lead the high quality of life features.

During the previous research depression level of older prisoners was tested by Patient Health Depression Questionnaire (PHQ-9), so it was used to determine depression level of inmates. Inmates who were absolutely dissatisfied their personal relationship, their depression score was 11,85±5,3; who were dissatisfied their depression

Table 3. Quality of life and social relationship features.

		How would you rate your quality of life				
		Very poor	Poor	Neither poor nor good	Good	Very good
How satisfied are you with your personal relationships?	Very dissatisfied	-	10	3	-	
	dissatisfied	1	16	9	-	
	Neither satisfied nor dissatisfied	-	1	7	2	
	Satisfied	-	-	2	3	
	Very satisfied	-	-	-	-	
How satisfied are you with your sex life?	Very dissatisfied	1	26	10	-	
	dissatisfied	-	1	10	5	
	Neither satisfied nor dissatisfied	-	-	1	-	
	Satisfied					
	Very satisfied					
How satisfied are you with the support you get from your friends?	Very dissatisfied	-	9	1	-	
	dissatisfied	-	16	10	-	
	Neither satisfied nor dissatisfied	1	1	5	3	
	Satisfied	-	1	5	2	
	Very satisfied					

score 10,27±4,1; elders who were unsure their result changed between 5,2±3,1; and the last group who were satisfied, their depression score was lower than others, 4,8±1,92.



Picture 1. Depression vs. relationships factor.

The correlation between two factors- depression score and personal relationship, support factor was estimated in next step of analyzing, and correlation cofficent was negative(r= -0, 515, p<0,005). This figure show that family and relatives support influece depression score, the more positive interpersonal relationship and support, the less depression score can be observed. All items of social relationship group questions and depression score were described in the table.

Meanwhile people who were dissatisfied their personal relationship, their depression score were higher than others. Elderly inmates, whose family members regularly visit their depression score is lower than others, whose relatives never visit, and meet with them.

3.CONCLUSION, LIMITS OF THE STUDY, AND RECOMMENDATIONS

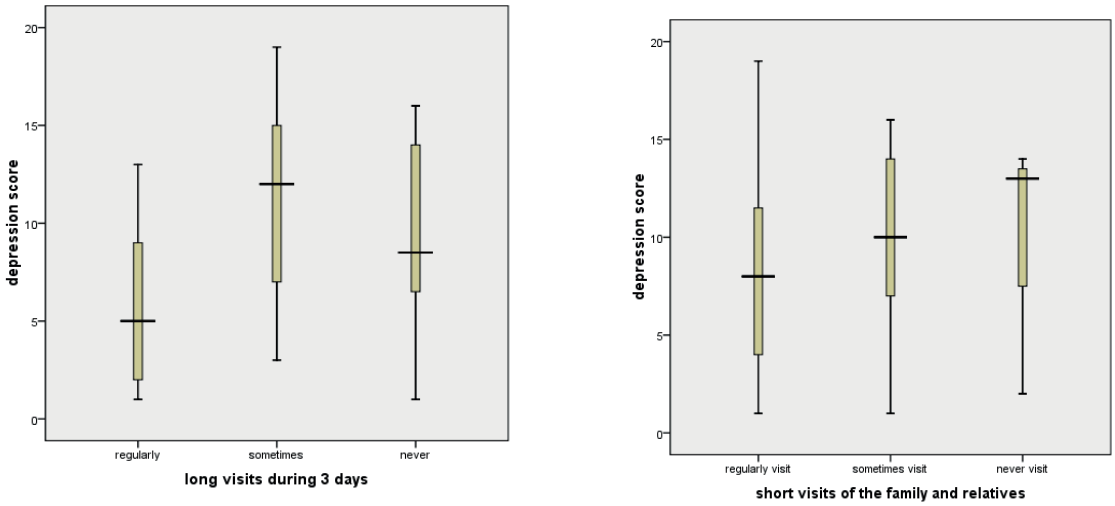
Before discussing the findings, **limitations** of the study were mentioned: As in any research, limitations of this study must be noted. First, this research was conducted in Azerbaijan correctional facilities, so those findings cannot be reliable and valid to other groups or geographic areas. Second, only male inmates participated in the research, generalization to female inmates cannot be made. The last limitation was participants' numbers; limited number of them, only 54 elderly inmates from 3 facilities conducted to survey.

Based on the literature review and descriptive analyzing of survey results, the main findings and recommendations are the followings :

- Aging, successful aging have different definitions, absence of disease, good physical function, active social life are features of optimal aging;

- Various factors influence aging process; especially biological, environmental, social, psychological determinants;

- Older adults are vulnerable group who suffer from various stressors and depression, and authors related it with their immune systems (Aldwin and Gilmer,2004);



Picture 2. Depression level and family short and long visits.

Table 4. Social relationship items and depression score.

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
How satisfied are you with your personal relationships?	11,85±5,3	10,27±4,1	5,2±3,1	4,8±1,92	-
How satisfied are you with your sex life?	10,84±4,6	5,38±3,0			-
How satisfied are you with the support you get from your friends?	13,30±4,1	10,19±4,6	6,3±2,5	4,5±2,5	-

- Spirituality and religiousness have strong influence in this period. Level of religiousness is typically higher in older people than in younger's (Koenig, 2000, Pargament, 1997);

- Older offenders have various health problems, addictions and disease. So aging process begins in that group before than others (Aday,2003; Fabelo,1999; Fattah and Sacco, 1989; Fazel et al,2001; Grant,1999);

- Their quality of life domains consists of physical, psychological, social and environmental factors;

- Majority of older offenders who participated in research were dissatisfied their personal relationship. This attitude affected their daily mood, and quality of life;

- People who get more support by family members and relatives their depression score was lower than others, respectively 4,8±1,92 and 11,85±5,3;

- Considering limitation of research in the next step is needed to increase the number of study participants, and extending the list of features of quality of life domains.

Reflecting on the findings, decreased contact with a loved one, family members and relatives, lack of support might lead to depression, which could result social isolation, different mental health problems. This point encourages us to draw inferences to importance interpersonal relationships and its influence quality of life. Emotional costs of incarceration on relationships continued even as men's prison sentences came to an end (International Review of the Red Cross,2016). So this study can be reason of concentrating on special program about elderly inmates mental health, and interpersonal relationships.

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Appendix 1.

Quick Guide to the Patient Health Questionnaire - 9 (PHQ-9)

Description:	The items on the PHQ-9 follow the criteria for a Major Depressive Episode listed in the DSM-IV. Symptom severity is rated by indicating the frequency that depressive symptoms have been experienced during the last 2 weeks on a scale of 0 "*Not at all*" to 3 "*Nearly every day*". An additional single item is rated to determine the impact of depressive symptoms on psycho, social, and occupational functioning.
Purpose:	The PHQ-9 is used to screen for depression, aid in diagnosis, and monitor change in symptoms over time.
Target Population:	Adolescents, adults, older adults
Languages:	The PHQ-9 has been translated into over 30 languages and can be downloaded from the PHQ website: www.phqscreeners.com
Scoring and Interpreting:	The total score is computed by first producing a sum for each column (e.g. each item chosen in column "*More than half the days*" = 2), then summing the column totals. Total Scores range from 0 to 27, and indicate the following levels of depression severity: **Total Score** — **Depression Severity** 0-4 None 5-9 Mild depression 10-14 Moderate depression 15-19 Moderately severe depression 20-27 Severe depression In addition to the patient's Total Score, the responses to Question #9 (suicidality) and Question #10 (the impact of symptoms on the patient's daily functioning) should be reviewed to determine appropriate treatment interventions.
When to use:	As indicated to screen for depression
Recommended Interventions:	Ask patient about preferences for addressing troubling symptoms. Offer behavioral strategies (for example, planning and engaging in more pleasurable, social, and mastery activities as well as exercise) and cognitive behavioral strategies (for example, taking a systematic approach to solving life problems). For patients with higher levels of severity and/ or with greater negative impact on ability to function, explore patient interest in combined treatment.

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: _____ **DATE:** _____

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(use"✓" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly everyday
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, irritable, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite, weight loss, or overeating	0	1	2	3
6. Feeling bad about yourself - or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as school work, reading, or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way	0	1	2	3
add columns:		+	+	
TOTAL:				

10. If you checked of any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	
	Not difficult at all _____
	Somewhat difficult _____
	Very difficult _____
	Extremely difficult _____

PHQ-9 is adapted from PRIME MD TODAY, developed by Drs Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues, with an educational grant from Pfizer Inc. For research information, contact Dr Spitzer at rls8@columbia.edu. Use of the PHQ-9 may only be made in accordance with the Terms of Use available at http://www.pfizer.com. Copyright ©1999 Pfizer Inc. All rights reserved. PRIME MD TODAY is a trademark of Pfizer Inc.

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Appendix 2.

Questionnare for elderly inmates

1	Name, surname	
2	Date of birth, age	
3	Article of improsonment	
4	Length of conviction	
5	Are you suffering any desease?	
6	Are you respected, treated differently in sentence due to your age?	
7	Are you satisfied with medical service in prison?	
8	Are you satisfied personelle atitude towards prisonners?	
9	Are you satisfied with other prisonners relationship?	
10	Do you have communication with family members and relatives?	
11	Do your family members and relatives visit you (short-term visits)?	
12	Do your family members and relativies visit you long-term (3 days)?	
13	How can you describe your daily mood?	
14	How to you see yourself in long term perspectives?	