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THE COMPARATIVE ASPECTS QUALITIES OF LIFE IN RESIDENTS OF TURKESTAN REGION (SOUTH OF KAZAKHSTAN) DEPENDING ON GENDER, AGE AND GEOGRAPHICAL LOCATION

Abstract: Investigated the differences between urban and rural population by the quality of life in Turkestan region (South of Kazakhstan), depending on such determinants as age and gender.

Key words: quality of life, SF-36, urban population, rural population, Kazakhstan.

Language: English

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Background. Currently, the definition of the level of quality of life is one of the major healthcare problems. At the same time, in recent years, foreign literature has more research on the impact of health-

related quality of life (HRQL) on public health and medicine [1, p.18; 2. p.8; 3. p.47; 4 p.55]. This situation stems from the fact that the concept of "health" should not be taken unilaterally. Since



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together with this concept, we must take into account many factors such as favorable or adverse environmental effects and the ability to maintain health at a certain level [5, p.48; 6, p.6; 7, p.98; 8, p.71]. According to the WHO definition “Quality of life – it is an integral characteristics of the physical, psychological, social and emotional status of the human, estimated on the basis of its subjective perception” [9, p.293]. Modern doctors are paying particular attention to the study of the impact of quality of life in health, because for the human in time of illness, can affect various aspects of life [10, p.7; 11, p.25; 12, p.17; 13, p.41; 14, p.81; 15, p.102, 16, p.84; 17, p.97]. At the same time, one of the main problems of modern society is to study the quality of life and the opportunity to receive full-fledged medical services, depending on the place of residence of the urban and rural population [18, p.202; 19, p.168; 20, p.7].

The aim of the study is to determine the differences in the quality of life of the urban and rural population of the Turkestan region, South of Kazakhstan, depending on age and gender differences.

Materials and methods. Design of the study – cross-sectional. The sample type – pre-planned non-probability sampling.

The study involved 972 residents (mean age – 51,9±13,7) Turkestan region, South of Kazakhstan (Turkestan, Karashyk, Kumtyuin etc.). Including 398 men (mean age – 50,1±13,7) and 574 women (mean age – 52,1±13,7). Of these, 571 - the inhabitants of the city (Turkestan) and 401 - the inhabitants of the villages (Karashyk, Kumtyuin etc.). Each study participant signed the papers of agreement to participate in the study.

Table 1
General information about the inhabitants of Turkestan region who participated in the study.

№	Indicators	Men (n=398) M (SD)	Women (n=574) M (SD)
1	Average age	50,1±13,7	52,1±13,7
2	Urban population	238	333
3	Rural population	160	241

In this study to determine the quality of life we used – SF-36 (*The Short Form-36*). The SF-36 is a multi-purpose, short-form health survey with only 36 questions. It yields an 8-scale profile of functional health and well-being scores as well as psychometrically-based physical and mental health summary measures and a preference-based health utility index. The eight sections are: physical functioning (PF), role-physical functioning (RP), bodily pain (BP), general health (GH), vitality (VT), social functioning (SF), role-emotional (RE) and mental health (MH). All eight sections are combined into 2 groups: Physical Health (PH) – PF,

RP, BP, GH and Mental Health (MH) – MH, RE, SF, VT [22, p.2].

Statistical analysis was performed by Student’s T test using proscale package SPSS Statistics 17.0 (Trial Version). The Confidence Interval (CI) – 95% (p=0,05).

Results and discussion. The study revealed significant differences in quality of life (SF-36) between inhabitants of Turkestan region (n=972), depending on the place of residence (urban or rural), age and gender.

Table 2
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region (n=972).

The quality of life (SF-36)	Urban population (Turkestan) n=571 M (SD)	Rural population (Karashyk, Kumtyuin etc.) n=401 M (SD)	p (95% CI)
Physical Functioning	72,5 (28)	74,8 (28,6)	0,216
Role-Physical Functioning	68,5 (41,5)	69,9 (40)	0,593
Bodily pain	79 (24,2)	78,8 (24)	0,862
General Health	60,5 (17)	58,5 (18,6)	0,089
Vitality	62,2 (15)	63,2 (16,2)	0,294
Social Functioning	76,9 (20,4)	74,6 (19,7)	0,078

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Role-Emotional	70,1 (40,8)	70,7 (39,1)	0,830
Mental Health	65,2 (13,2)	62,8 (14,6)	0,012*

Note. * - Significant in relation to the control 95% CI

The statistical significance of the relationship of quality of life (SF=36) between urban and rural residents of the Turkestan region (n=972) on a scale of Mental Health (MH) corresponded with 95% CI (p=0,012). In the other scales of SF-36 did not reveal 95% CI: Physical Functioning (PF) - p=0,216; Role-Physical Functioning (RP) - p=0,593; Bodily pain (BP) - p=0,862; General Health (GH) - p=0,089; Vitality (VT) - p=0,294; Social Functioning (SF) - p=0,078; Role-Emotional (RE) - p=0,830. In the

study Mu H. and co-authors (China) was revealed the level of assessment of quality of life between urban and rural populations. As a result of research at the scale of General Health (GH) on the urban and rural residents was the same. However, indicators of scales Vitality (VT) and Mental Health (MH) in rural areas, compared to urban, were lower. Living conditions in rural areas families have led to an increase in their quality of life [21, p.38].

Table 3
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region (n=972) associated with the gender difference.

	Common indicators of the SF-36 questionnaire								
	Gender	PF	RP	BP	GH	VT	SF	RE	MH
City	Men (n=238) M (SD)	78,5 (26,9)	74,2 (39,6)	83,6 (22,5)	63 (17,3)	65,1 (15,9)	80,3 (18,8)	74,6 (39,4)	67,1 (13,3)
Village	Men (n=160) M (SD)	78,8 (27,8)	71,8 (39,9)	80,9 (23,1)	60,6 (20,1)	65,3 (16,9)	75,5 (19,7)	74 (39,1)	63,6 (15,8)
	p (95%CI)	0,920	0,547	0,254	0,226	0,909	0,017*	0,864	0,024*
City	Women (n=333) M (SD)	68,3 (28,1)	64,3 (42,4)	75,8 (24,9)	58,6 (16,5)	60,1 (14)	74,6 (21,2)	66,9 (41,4)	63,8 (13)
Village	Women (n=241) M (SD)	72,2 (28,8)	68,6 (40)	77,4 (24,5)	57 (17,5)	61,9 (15,5)	74 (19,8)	68,5 (39)	62,3 (13,8)
	p (95%CI)	0,105	0,219	0,458	0,263	0,153	0,765	0,635	0,201

Note. * - Significant in relation to the control 95% CI

The statistical significance of the relationship of quality of life (SF-36) between the urban male population and rural male population of the Turkestan region (n=972) on a scale Social Functioning (SF; p=0,017) and on a scale of Mental Health (MH; p=0,024) corresponded with 95% CI. Thus, the study defined that the men of the urban population as compared to men of the rural population social status and mental health was higher, and the Mental Health component was higher than the Physical Health component. With respect to other parameters, there is no statistical significance was found in these scales: Physical Functioning (PF; p=0,920); Role-Physical Functioning (RP; p=0,547);

Bodily pain (BP; p=0,254); General Health (GH; p=0,226); Vitality (VT; p=0,909) and Role-Emotional (RE; p=0,864).

With regard to the quality of life between rural and urban females corresponded to the following scales: Physical Functioning (PF; p=0,105); Role-Physical Functioning (RP; p=0,219); Bodily pain (BP; p=0,458); General Health (GH; p=0,263); Vitality (VT; p=0,153); Social Functioning (SF; p=0,765); Role-Emotional (RE; p=0,635) and Mental Health — MH; p=0,201) in which any differences have been identified, thereby no being statistically significant.

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Table 4
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region of young age (<44 years; n=332).

The quality of life (SF-36)	Urban population (Turkestan) n=191 M (SD)	Rural population (Karashyk, Kumtyuin etc.) n=141 M (SD)	p (95% CI)
Physical Functioning	86,2 (20,2)	88,6 (17,5)	0,241
Role-Physical Functioning	86,4 (30,3)	84,4 (30,8)	0,559
Bodily pain	87,8 (21)	87,8 (18,9)	0,994
General Health	67 (15,2)	64,7 (16,7)	0,216
Vitality	66,6 (14,6)	69 (15,2)	0,143
Social Functioning	83,1 (18,8)	81,5 (16,5)	0,418
Role-Emotional	85 (32,6)	82,1 (32,8)	0,420
Mental Health	68,2 (12,5)	64,9 (14,7)	0,032*

Note. * - Significant in relation to the control 95% CI

Table 5
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region of middle age (45-59; n=375).

The quality of life (SF-36)	Urban population (Turkestan) n=212 M (SD)	Rural population (Karashyk, Kumtyuin etc.) n=163 M (SD)	p (95% CI)
Physical Functioning	76,7 (23,4)	75,2 (27,4)	0,561
Role-Physical Functioning	74,4 (37,5)	70,3 (39,3)	0,301
Bodily pain	80,7 (22,4)	76,8 (24,2)	0,110
General Health	60,8 (15,5)	56,3 (18,7)	0,014*
Vitality	62,5 (13,5)	61 (15,8)	0,329
Social Functioning	77,6 (19,4)	73,3 (20,1)	0,038*
Role-Emotional	74,5 (36,5)	69,6 (38,9)	0,214
Mental Health	64,8 (12,4)	62,1 (14,7)	0,059

Note. * - Significant in relation to the control 95% CI

The quality of life (SF-36) of the rural population of the Turkestan region in the young (<44) and middle (44-59) age groups, scales of SF-36: Mental Health (MH; p=0,032 (<44)), General Health (GH; p=0,014 (45-59)) and Social

Functioning (SF; p=0,038 (45-59)) was lower than urban population, with significant in relation to the control 95% CI.

Table 6
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region of elderly age (60-74; n=191).

The quality of life (SF-36)	Urban population (Turkestan) n=129 M (SD)	Rural population (Karashyk, Kumtyuin etc.) n=62 M (SD)	p (95% CI)
Physical Functioning	57 (26,9)	63,5 (27,2)	0,124
Role-Physical Functioning	45,6 (43,4)	52,6 (43)	0,296
Bodily pain	70,6 (24,4)	73,9 (24,5)	0,391

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General Health	54,8 (16,3)	52,9 (19)	0,494
Vitality	58,5 (14,1)	60,3 (15,3)	0,454
Social Functioning	71,5 (19,5)	71 (18,5)	0,849
Role-Emotional	54,3 (44,2)	60,1 (43)	0,387
Mental Health	62,9 (14,1)	61,6 (12,2)	0,513

Table 7
The relationship of quality of life (SF-36) between urban and rural residents of the Turkestan region of senile age (75-89; n=69).

The quality of life (SF-36)	Urban population (Turkestan) n=36 M (SD)	Rural population (Karashyk, Kumtyuin etc.) n=33 M (SD)	p (95%CI)
Physical Functioning	37,2 (30,1)	38 (31,7)	0,919
Role-Physical Functioning	25,7 (38,5)	39,4 (42,4)	0,166
Bodily pain	57,2 (23,5)	61,8 (26,7)	0,458
General Health	45,3 (18)	52,5 (17,1)	0,091
Vitality	51 (18,2)	54,9 (16,4)	0,349
Social Functioning	61,1 (23,9)	59,6 (21,2)	0,784
Role-Emotional	24,1 (38,7)	48,4 (41,7)	0,015*
Mental Health	59,8 (13,6)	60 (17,5)	0,953

Note. * - Significant in relation to the control 95% CI

All SF-36 scales in elderly people (60-74) are not statistically significant, while the rural population of senile age (75-89) compared to the urban population only scale Role-Emotional (RE; p=0,015) was significant in relation to the control 95% CI.

Conclusion:

1. In the 95% CI the statistical significance of the relationship of quality of life (SF-36) between the urban and rural male population on a scale Social Functioning (SF; p=0,017) and Mental Health (MH; p=0,024) corresponded; although, in females such changes are not detected.

2. In relation to the control 95% CI the statistical significance of the relationship of the quality of life of the rural population of the Turkestan region, the young (<44) and middle (45-59) age groups, scales of SF-36: Mental Health (MH; p=0,032 (<44)), General Health (GH; p=0,014 (45-59)) and Social Functioning (SF; p=0,038 (45-59)) was lower than urban population, while the rural population of senile age (75-89) compared to the urban population only scale Role-Emotional (RE; p=0,015). All scales in elderly age groups (60-74) have no statistical significance.

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