

STUDY OF THE QUALITY OF WORKING LIFE AT THE LEVEL OF CRITERIA AND ITS RELATION WITH SOME DEMOGRAPHIC CHARACTERISTICS OF THE WORKERS IN HEALTHCARE ORGANIZATIONS IN BULGARIA

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ABSTRACT - *The aim of these study is to analyze the quality of working life at the level of criteria and its relation with some demographic characteristics of the workers in healthcare organizations. For this purpose, Egorishin's "Quality of working life" questionnaire was adapted. The results have shown that it is necessary to improve QWL. Links have been revealed between the QWL criteria surveyed and some of the key demographic characteristics.*

Keywords: health organizations, health workers, Quality of work life (QWL), work satisfaction

1. INTRODUCTION

The term "quality of working life" (QWL) is used to denote a wide range of problems and is defined differently from the researchers. Although the concept of QWL is constantly evolving, its overall direction of development is thought to be based on the creative nature of the work of workers and the need to create the most favorable conditions for the effective realization of their labor potential (Zonova, 2011).

In a competitive environment, an aging population and a very limited human resource, the viability and competitiveness of healthcare organizations depends on how they attract and retain their workforce. Healthcare managers are required not only to provide good wages but also to create the most beneficial and satisfying working environment possible for workers at all levels of the organization. Therefore, they are faced with the need to explore and analyze QWL and, depending on the results, to develop, implement and update plans and strategies to improve QWL.

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Efforts to raise QWL for healthcare workers can be rewarded because: QWL influences employee productivity across industries, including health organizations (Hsu, Kernohan, 2006; Gifford, et al., 2002; Huang, et al., 2007; Almalki, et al., 2012); the high level of QWL is essential for attracting new employees and retaining a workforce (Lees, Kearns, 2005); an improved QWL can lead to strengthening organizational commitment and improving the quality of health care (Almalki, et al., 2012).

A study of available literature shows a shortage of QWL studies among healthcare workers in Bulgaria despite their important role.

In a European Commission report (OECD/European Observatory on Health Systems and Policies, 2017), published in November 2017 and dedicated to the state of health in the European Union, the health profile of Bulgaria states: The (future) workforce is challenged by severe shortages and a persistent migration problem. Most notably, there are great regional disparities in the distribution of GPs and large shortages of nurses. Health professionals migrate to other countries in search of better career prospects and better pay. Policies to address these issues are needed so that an effective health workforce and skill mix can be guaranteed in the long term.

That is why studies that evaluate QWL among workers in healthcare organizations in Bulgaria are very important.

The study is part of a deeper study aimed at analyzing the subjective perception of the quality of life of health workers in order to improve their motivation for work and to increase their satisfaction. Therefore, the aim of this report is to show the quality of working life of workers in healthcare organizations in Bulgaria. Other parts of the study will be reflected elsewhere.

2. AIM

To analyze the quality of working life at the level of criteria and its relation with some demographic characteristics of the workers in healthcare organizations.

3. MATERIAL AND METHODS

The study was conducted through a questionnaire.. For this purpose, Egorishin's "Quality of working life" questionnaire was adapted (Egorshin, 2003). Quality of working life working in the health sector is examined using a scale QWL seven subscales. The questionnaire contains statements about different aspects of working life. Respondents are required to assess the degree of coverage for each aspect in terms of their satisfaction at the moment. The assessment of the actual condition of each listed criterion is a five-digit scale, where: the minimum score is "1 - very bad" and the maximum score is "5 - excellent". Calculate the aggregate number of points for each sub-sample presented in each employee's questionnaire, then calculate the average indicator for the respondents. Respondents are 510 workers. The study was conducted in eight health organizations - different in type of activity, ownership and number. All of them are located on the territory of Southern Bulgaria.

Statistical methods

The statistical characteristics for central trend (mean) and scatter (SD) are used to present the data. Frequency distributions were checked by the Kolmogorov-Smirnov test; two independent groups were compared to the Man-Whitney test; the comparisons of more than two independent groups the Kraskal-Wallis test was used.

Results with a level of significance $p < 0.05$ were considered statistically reliable. In statistical processing of the data we used SPSS version 16.

4. RESULTS

Of all respondents, 78.0% are women and men - 28.0%. Most respondents are aged 45-54 (27.8%), followed by 55-64 year olds (25.3%), 35-44 years (22.4%), 25-34 years (18.8%), over 65 years (2.9%) and under 25 years (2.7%). The average age is 45.63 years (SD=12.05), the youngest being 20 years old and the oldest at 75 years. The majority of them are family (72.2%) and unmarried are 27.8%. Most of them have a bachelor's degree (44.6%), a master's degree (30.0%), a secondary education (22.4%), a doctoral degree (2.0%) and primary education (1.2%). With over 19 years of service - 60.4% of respondents, followed by over 10-19 years of service (19.8%), under 5 years (12.2%) and 5-9 years (7.6%). The average total work experience is 22.03 years (SD=12.47).

Workforce

The average assessment of QWL in subscale „Workforce“ is 3.79 ± 1.03 .

The highest rating in this subscale is: first – *Compliance with internal regulations in the institution* (4.12 ± 0.897); second – *Teamwork* (4.08 ± 0.930) and third – *Relationship of support and mutual assistance* (4.04 ± 0.953) (Figure 1).

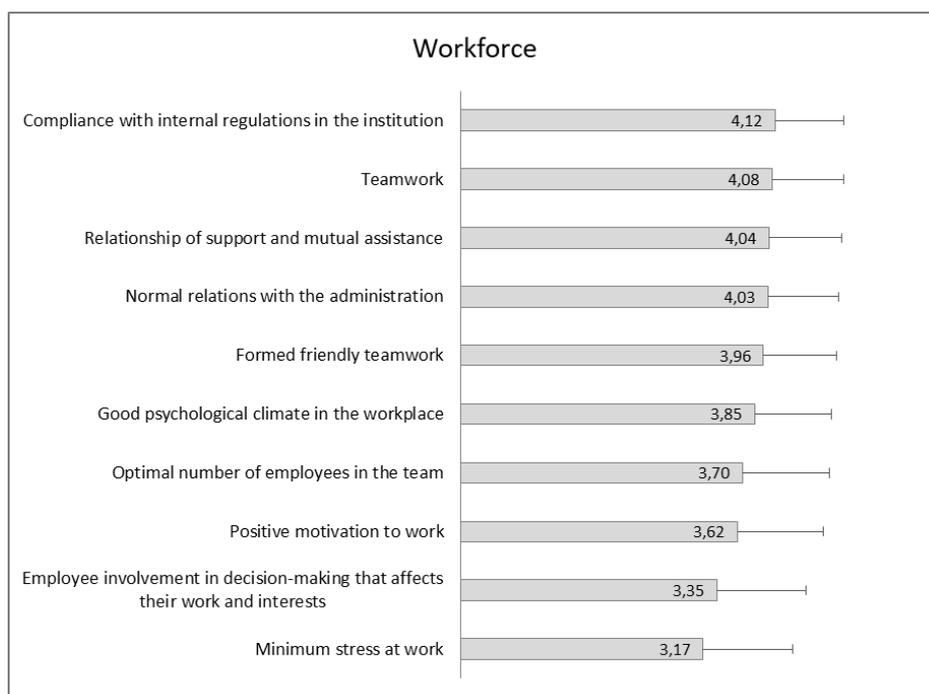


Figure 1. Mean and SD of QWL estimates by criteria in the "Workforce"

Men and women differ in their assessments on the criteria – *Compliance with internal regulations in the institution* ($p=0.008$), *Minimum stress at work* ($p=0.047$) and *Optimal number of employees in the team* ($p=0.001$), as in men they are higher. With regard to marital status, there are no significant differences in QWL estimates. Significant associations with age found in the following criteria: *Good psychological climate in the workplace* ($p=0.034$), *Normal relations with the administration* ($p=0.010$), *Minimum stress at work* ($p=0.018$) and *Positive motivation to work* ($p=0.002$). The link of the total work experience is significant in *Normal relations with the administration* ($p=0.005$) and *Positive motivation to work* ($p=0.015$) (Table 1).

Table 1. Comparison of respondents by demographic characteristics by each QWL criterion in "Workforce"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Good psychological climate in the workplace	-1.07	0.284	-0.33	0.74	12.05	5	0.034	4.75	3	0.191
Normal relations with the administration (no bureaucracy)	-1.28	0.202	-0.98	0.329	15.13	5	0.01	12.81	3	0.005
Employee involvement in decision-making that affects their work and interests	-1.27	0.206	-0.39	0.696	2.79	5	0.732	4.36	3	0.225
Compliance with internal regulations in the institution	-2.64	0.008	-0.81	0.415	5.96	5	0.31	3.55	3	0.315
Minimum stress at work	-1.99	0.047	-1.43	0.154	13.72	5	0.018	7.54	3	0.057
Positive motivation to work	-0.93	0.354	-1.81	0.07	18.91	5	0.002	10.47	3	0.015
Formed friendly teamwork	-1.21	0.225	-0.72	0.472	5.72	5	0.335	1.1	3	0.778
Teamwork	-1.65	0.098	-0.61	0.54	7.97	5	0.158	4.52	3	0.21
Optimal number of employees in the team	-3.34	0.001	-0.28	0.783	9.33	5	0.097	2	3	0.572
Relationship of support and mutual assistance	-1.87	0.061	-1.39	0.165	9.09	5	0.106	5.13	3	0.163

Remuneration

The average assessment of QWL in subscale „Remuneration“ is 3.14 ± 1.3 .

The highest rating in this subscale is: first – *Clear and transparent pay system* – 3.70 ± 1.23 ; second – *% of the remuneration for years of service* – 3.55 ± 1.40 and third – *Relationship between pay and qualifications* – 3.44 ± 1.19 (Figure 2).

There are no differences in respondents' assessments by gender and marital status. Significant associations with age and total work experience were found in the criteria: *Clear and transparent pay system* ($p < 0.05$), *Relationship between pay and qualifications* ($p < 0.05$), *% of the remuneration for years of service* ($p < 0.05$). Relationship to the total work experience is also observed under the criterion *A sense of economic well-being* ($p = 0.015$) (Table 2)

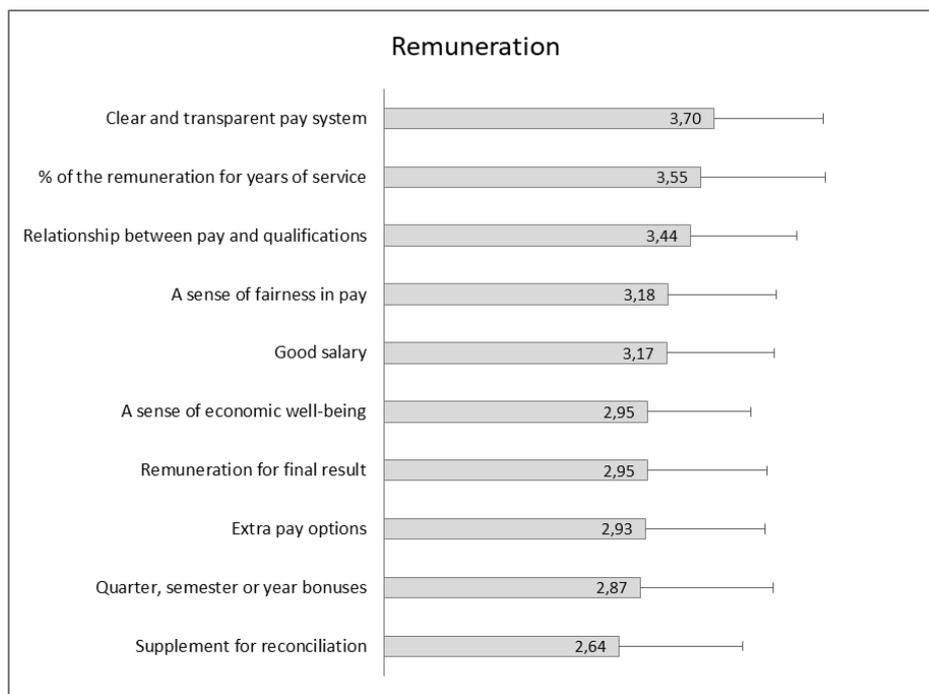


Figure 2. Mean and SD of QWL estimates by criteria in the "Remuneration"

Table 2. Comparison of respondents by demographic characteristics by each QWL criterion in "Remuneration"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Clear and transparent pay system	-0.68	0.499	-0.02	0.988	12.88	5	0.025	8.89	3	0.031
Relationship between pay and qualifications	-0.46	0.645	-0.8	0.424	15.12	5	0.01	8.05	3	0.045
Good salary	-0.93	0.351	-0.82	0.41	5.93	5	0.313	4.47	3	0.215
Extra pay options	-0.64	0.52	-0.93	0.355	6.32	5	0.277	1.76	3	0.624
Supplement for reconciliation	-0.12	0.906	-1.82	0.069	3.8	5	0.578	1.82	3	0.612
Remuneration for final result	-1.59	0.111	-0.77	0.444	10.9	5	0.053	6.72	3	0.081
Quarter, semester or year bonuses	-1.75	0.08	-0.95	0.344	11	5	0.051	6.46	3	0.091
% of the remuneration for years of service	-0.55	0.581	-1.4	0.162	61.62	5	<0.001	58.92	3	<0.001
A sense of fairness in pay	-0.39	0.694	-0.8	0.425	10.11	5	0.072	10.41	3	0.015
A sense of economic well-being	-0.91	0.364	-0.07	0.944	4.51	5	0.478	7.63	3	0.054

Workplace

The average assessment of QWL in subscale „Workplace“ is 3.75±1.09.

The highest rating in this subscale is: first – *Optimal work schedule* – 4.06±0.99; second – *Good organization of work* – 3.92±0.96 and third – *Safe working conditions* – 3.77±1.14 (Figure 3).

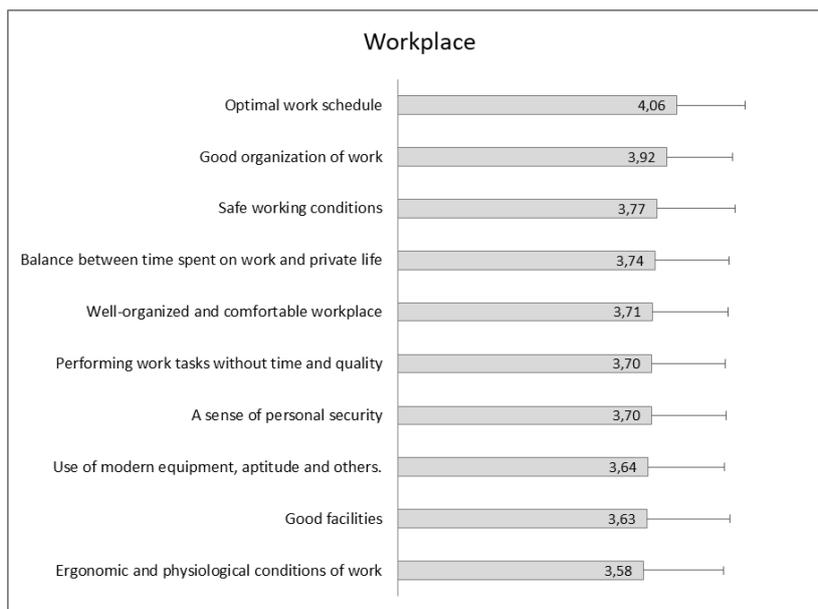


Figure 3. Mean and SD of QWL estimates by criteria in the "Workplace"

Differences in scores by gender observed in four of the ten criteria. These are: *Optimal work schedule* ($p=0.019$), *Good facilities* ($p=0.008$), *Use of modern equipment, aptitude and others.* ($p=0.048$) and *Performing work tasks without time and quality* ($p=0.004$). Significant relationship with age is observed in all criteria except the last one in this subclass *A sense of personal security* (Table 3). In six of the criteria established significant association with total work experience. Unmarried respondents have higher scores for the criterion *Optimal work schedule* ($p=0.028$).

Table 3. Comparison of respondents by demographic characteristics by each QWL criterion in "Workplace"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Optimal work schedule	-2.35	0.019	-2.2	0.028	16.18	5	0.006	18.36	3	<0.001
Good facilities	-2.66	0.008	-0.53	0.594	12.65	5	0.027	1.62	3	0.655
Use of modern equipment, aptitude and others.	-1.98	0.048	-0.12	0.902	14.34	5	0.014	1.85	3	0.604
Safe working conditions	-1.49	0.135	-0.9	0.369	16.62	5	0.005	12.17	3	0.007
Ergonomic and physiological conditions of work	-0.8	0.424	-0.29	0.768	14.25	5	0.014	14.6	3	0.002
Well-organized and comfortable workplace	-0.99	0.321	-0.27	0.784	12.25	5	0.031	7.58	3	0.055
Balance between time spent on work and private life	-1.52	0.129	-0.22	0.825	16.55	5	0.005	16.32	3	0.001
Performing work tasks without time and quality	-2.87	0.004	-1.71	0.088	16.59	5	0.005	15.57	3	0.001

Table 3. Cont.

Good organization of work	-1.93	0.054	-1.41	0.158	15.49	5	0.008	16.73	3	0.001
A sense of personal security	-0.92	0.357	-1.22	0.224	8.49	5	0.131	5.02	3	0.17

Organization management

The average assessment of QWL in subscale „Organization management“ is 3.92 ± 1.00 . The highest rating in this subscale is: first – *Good relations with the direct supervisor* – 4.27 ± 0.931 ; second – *Willing to work in the future in this organization* – 4.10 ± 0.922 and third – *Trust to the leader* – 4.06 ± 0.987 (Figure 4).

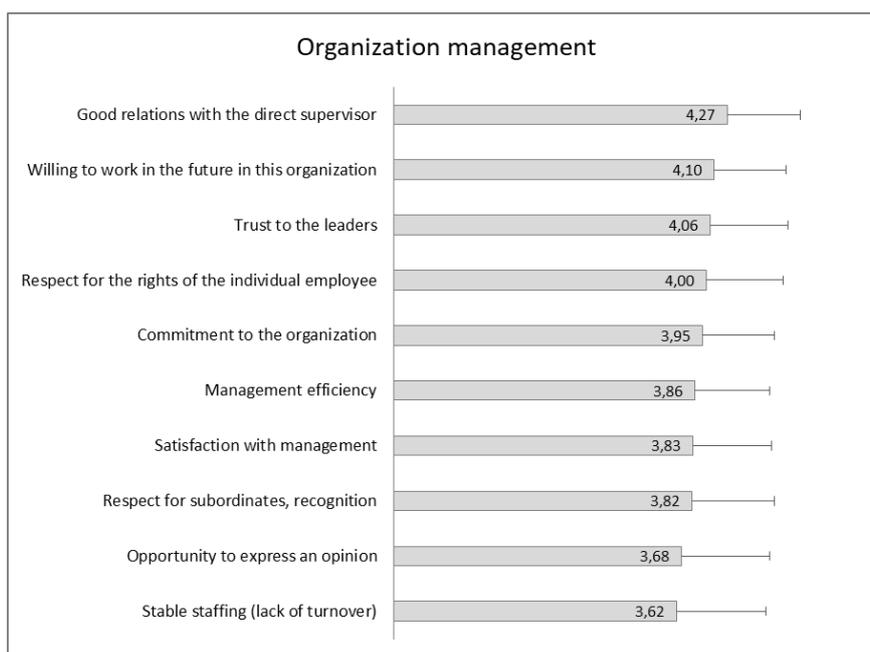


Figure 4. Mean and SD of QWL estimates by criteria in the "Organization management"

The sexes differ in their assessments solely upon criteria *Stable staffing* ($p=0.009$). Married and unmarried respondents do not differ in their assessments ($p>0.05$) in all criteria. Age and total work experience impact assessment in: *Trust to the leaders*; *Respect for subordinates, recognition*; *Commitment to the organization*; *Satisfaction with management*; *Management efficiency*, but in the criterion *Willing to work in the future in this organization*, the relationship is only with age (Table 4).

Table 4. Comparison of respondents by demographic characteristics by each QWL criterion in "Organization management"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Trust to the leaders	-1.23	0.219	-0.38	0.702	14.65	5	0.012	11.91	3	0.008
Good relations with the direct supervisor	-1.7	0.089	-0.29	0.775	9.21	5	0.101	3.09	3	0.378
Respect for the rights of the individual employee	-1.29	0.199	-0.96	0.338	8.55	5	0.128	7.65	3	0.054

Table 4. Cont.

Stable staffing	-2.62	0.009	-1.51	0.13	8.18	5	0.146	6.56	3	0.087
Respect for subordinates, recognition	-0.54	0.586	-1.55	0.12	16.11	5	0.007	8.15	3	0.043
Commitment to the organization	-1.18	0.24	-1.01	0.311	14.71	5	0.012	14	3	0.003
Satisfaction with management	-0.58	0.563	-1.8	0.072	11.56	5	0.041	9.12	3	0.028
Opportunity to express an opinion	-1.48	0.139	-0.76	0.447	4.6	5	0.466	4.62	3	0.202
Management efficiency	-1.57	0.116	-1.3	0.195	14.32	5	0.014	10.11	3	0.018
Willing to work in the future in this organization	-0.97	0.33	-0.67	0.503	11.34	5	0.045	6.98	3	0.072

Professional careers

The average assessment of QWL in subscale „Professional careers“ is 3.32 ± 1.19 . The highest rating in this subscale is: first – *Reluctance to change work* – 3.91 ± 1.021 ; second – *Management encourages career development* – 3.41 ± 1.207 and third – *Presence of clear criteria for career development* – 3.32 ± 1.186 (Figure 5).

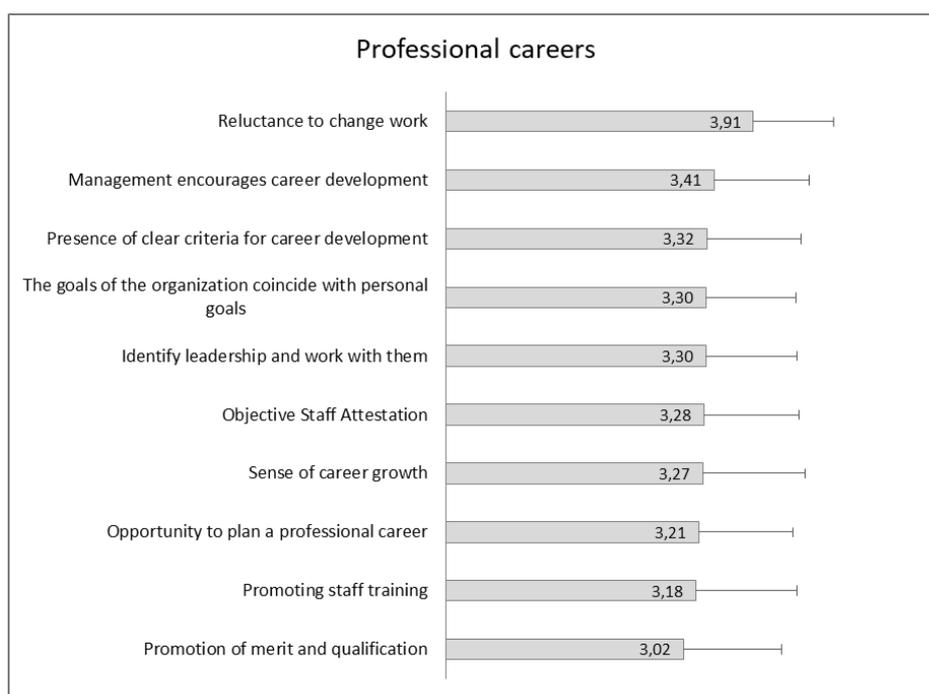


Figure 5. Mean and SD of QWL estimates by criteria in the "Professional careers"

Gender has an impact on ratings under the criteria *Identify leadership and work with them* ($p=0.027$). Married and unmarried do not differ in their assessments on all ten criteria ($p>0.05$). Age and total work experience impact assessment in *Reluctance to change work* (Table 5). Only age under the criteria *Presence of clear criteria for career development* ($p=0.044$) and *Sense of career growth* ($p=0.009$), and the total work experience under the criteria *The goals of the organization coincide with personal goals* ($p=0.029$) and *Promoting staff training* ($p=0.006$).

Table 5. Comparison of respondents by demographic characteristics by each QWL criteria in "Professional careers"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Presence of clear criteria for career development	-0.74	0.462	-0.42	0.671	11.41	5	0.044	7.54	3	0.057
Identify leadership and work with them	-2.22	0.027	-0.18	0.861	8.69	5	0.122	6.28	3	0.099
Opportunity to plan a professional career	-0.76	0.448	-0.64	0.524	5.13	5	0.4	5.21	3	0.157
Management encourages career development	-0.99	0.323	-0.08	0.933	7.34	5	0.196	2.65	3	0.449
The goals of the organization coincide with personal goals	-1.15	0.249	-1.39	0.165	9.23	5	0.1	8.99	3	0.029
Promoting staff training	-0.50	0.616	-0.70	0.485	10.67	5	0.058	12.37	3	0.006
Promotion of merit and qualification	-0.71	0.479	-1.10	0.27	7.02	5	0.219	3.3	3	0.347
Objective Staff Attestation	-1.55	0.12	-1.29	0.198	6.49	5	0.261	7.11	3	0.069
Reluctance to change work	-1.23	0.22	-0.77	0.44	13.73	5	0.017	13.14	3	0.004
Sense of career growth	-0.63	0.526	-1.03	0.301	15.4	5	0.009	4.21	3	0.24

Social guarantees

The average assessment of QWL in subscale „Social guarantees“ is 3.30±1.00. The highest rating in this subscale is: first – *Supplementary pension insurance* – 4.45±0.880; second – *Pay for overtime, work on public holidays and night work* – 4.40±0.937 and third – *Compensation in the event of an accident at work, occupational disease or death* – 4.31±0.991 (Figure 6).

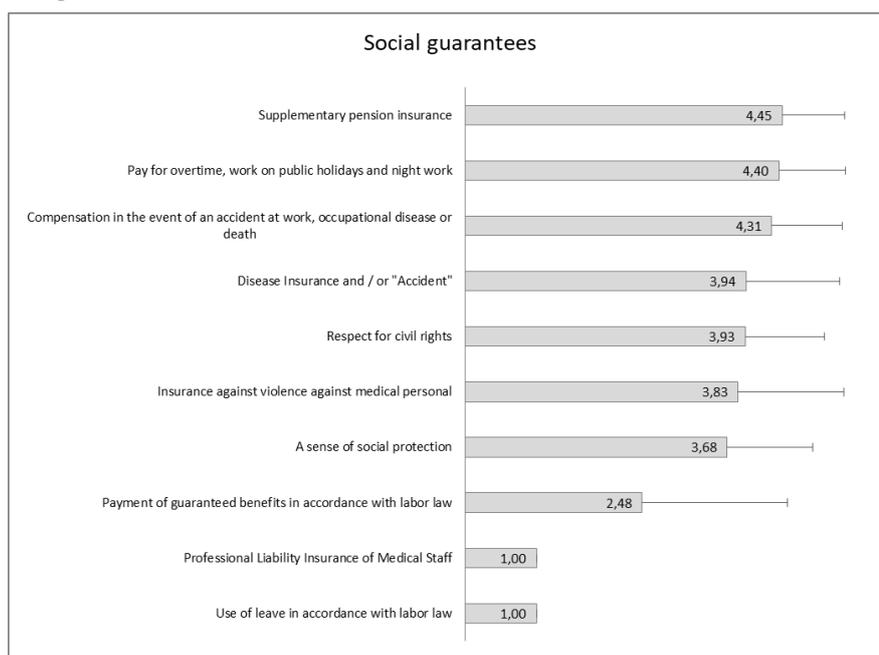


Figure 6. Mean and SD of QWL estimates by criteria in the "Social guarantees"

In all the criteria in this subscale no differences were observed in the assessments by sex ($p > 0.05$). Married and unmarried differ in their assessments in the first two criteria ($p < 0.05$) (Table 6). A significant relationship with age and total work experience was observed in seven of the criteria ($p < 0.05$).

Table 6. Comparison of respondents by demographic characteristics by each QWL criterion in "Social guarantees"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Pay for overtime, work on public holidays and night work	-0.8	0.424	-2.46	0.014	41.58	5	<0.001	38.87	3	<0.001
Compensation in the event of an accident at work, occupational disease or death	-0.18	0.857	-2.34	0.019	42.07	5	<0.001	40.27	3	<0.001
Supplementary pension insurance	-1.72	0.086	-1.29	0.197	26.47	5	<0.001	31.99	3	<0.001
Disease Insurance and / or "Accident"	-0.39	0.697	-0.79	0.432	28.05	5	<0.001	27.77	3	<0.001
Insurance against violence against medical personal	-0.97	0.334	-0.57	0.572	39.23	5	<0.001	42.32	3	<0.001
Use of leave in accordance with labor law	0	1	0	1	0	5	1	0	3	1
Payment of guaranteed benefits in accordance with labor law - Labor Code	-1.17	0.244	-0.43	0.666	6.23	5	0.285	2.49	3	0.478
Professional Liability Insurance of Medical Staff	0	1	0	1	0	5	1	0	3	1
Respect for civil rights	-1.29	0.198	-0.3	0.766	13.31	5	0.021	11.39	3	0.01
A sense of social protection	-1.2	0.229	-0.26	0.798	15.16	5	0.01	13.7	3	0.003

Social benefits

The average assessment of QWL in subscale „Social benefits“ is 2.27 ± 1.76 .

The highest rating in this subscale is: first – *Providing work clothes* – 3.14 ± 1.658 ; second – *Cash payment for holiday, Easter, Christmas* – 3.09 ± 1.857 and third – *A sense of social well-being* – 2.95 ± 1.236 (Figure 7).

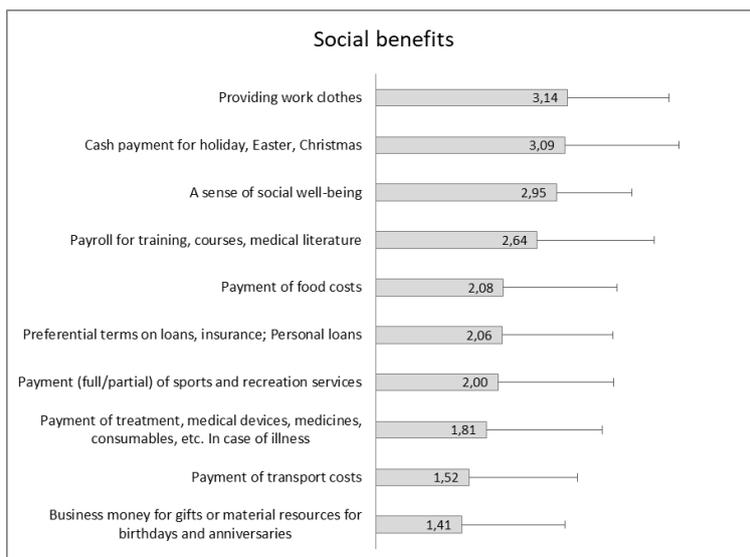


Figure 7. Mean and SD of QWL estimates by criteria in the "Social benefits"

There is a statistically significant difference between men and women at half of the criteria ($p < 0.05$). Only two criteria establish a significant relationship with age and total work experience ($p < 0.05$) (Table 7).

Table 7. Comparison of respondents by demographic characteristics by each QWL criterion in "Social benefits"

Criteria	Sex		Marital status		Age group			Total work experience		
	Z	p	Z	p	X ²	df	p	X ²	df	p
Cash payment for holiday, Easter, Christmas	-0.82	0.415	-1.25	0.212	9.82	5	0.081	6.7	3	0.082
Payment of treatment, medical devices, medicines, consumables, etc. In case of illness	-3.09	0.002	-0.43	0.669	7.43	5	0.191	5.23	3	0.155
Payment of sports and recreation services	-1.07	0.285	-0.69	0.493	4.84	5	0.436	1.85	3	0.603
Business money for gifts or material resources for birthdays and anniversaries	-2.32	0.02	-1.08	0.28	10.1	5	0.072	6.34	3	0.096
Preferential terms on loans, insurance; Personal loans	-2.1	0.036	-0.68	0.495	2.32	5	0.804	2.62	3	0.454
Payment of transport costs	-3.44	0.001	-0.41	0.679	3.72	5	0.59	1.01	3	0.799
Payment of food costs	-4.42	<0.001	-0.35	0.729	5.01	5	0.415	2.02	3	0.569
Providing work clothes	-1.88	0.06	-1.4	0.162	13.54	5	0.019	9.23	3	0.026
Payroll for training, courses, medical literature	-0.62	0.538	-0.98	0.325	17.47	5	0.004	12.48	3	0.006
A sense of social well-being	-1.87	0.061	-0.17	0.868	2.12	5	0.832	2.52	3	0.472

5. DISCUSSION

The results showed that, among the components of QWL, those of subscale " Remuneration" is a low level. Similar results were obtained in the studies of Sheykhbardsiri, Pourghaz.

Since wages are an important factor for improving QWL, it should pay attention to decent and fair remuneration – Mogharab proposes increasing, and Goudarzvand Chegini and Mirdoozandeh offer salary adjustments for inflation (Jahanbani, et al., 2017).

Also, attention should be paid to social benefits. The social infrastructure of the organization is a kind of bait, attracting and retaining the workforce, and also a motivator for productive work and achieving high results.

Age and total work experience have an impact on scores on almost all QWL criteria. Our results are consistent (Ahmad, 2017; Stamps, Piedmonte, 1986; Bolhari et al., 2011; Hossain, 1997) older workers generally enjoy a higher quality of working life compared to younger workers, and our study confirms them. The same result in work experience was observed by Ahmad (2017), Bharti et al. (2010), and by Rose et al. (2006) and other researchers (Hossain, 1997; Bolhari, et al., 2011).

Rose et al. (2006) found that there was a significant difference in QWL between married and unmarried. Our study does not confirm these findings - conversely, the results have revealed that family status has no influence (with few exceptions).

In the case of gender, impact on the assessments is observed in a relatively small part of these criteria. The relationship between QWL and gender is consistent with previous studies conducted by Bhuvaneswari et al. (2012), by Ahmad (2017) and Bolhari et al. (2011).

6. CONCLUSION

This study aimed to analyze the quality of working life at criteria level and its relationship to some demographic characteristics of workers in healthcare organizations. The survey data showed best estimates for QWL criteria in subscale "Organization management" and identified as a problem in QWL subscale "Remuneration" and "Social benefits". In fact, the results have shown that it is necessary to improve QWL. Links have been revealed between the QWL criteria surveyed and some of the key demographic indicators. The study has the potential value for further qualitative or combined research.

7. COLLABORATION

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