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Job motivation and related factors among healthcare workers

Mina Norozi Khalili[1]; *Mohammad Mehdi Izadpanah[2]; Mohammad Reza Ghahhar[3]; Peyman Naderi[3]

[1]*Community Medicine Specialist, Public Health Department, Mashhad University of Medical Sciences, Mashhad, Iran.*
[2]*Vice Chancellory for Health, Mashhad University of Medical Sciences, Mashhad, Iran.*
[3]*Public Health Department, Mashhad University of Medical Sciences, Mashhad, Iran.*

Abstract

Introduction: Attention to motivational factors causes the survival and effective function of people working in the organization, and therefore it is necessary to identify the related factors of these conditions. Considering the key role of health workers in the health improvement of society, this study was conducted to investigate the factors related to job motivation in this group.

Materials and Methods: This cross-sectional study was conducted during 2024. The study population consists of all healthcare professionals from the Mashhad University of Medical Sciences, Iran. Personal information checklist and Herzberg Job Motivation Questionnaire were used for data collection. We entered the data into SPSS statistical software.

Results: In this study, 354 questionnaires were completed, of which 86 (24.3%) were men and 268 (75.7%) were women. The mean age of the participants was 38.99 ± 7.78 years. Most of the participants (> 90%) had moderate job motivation. The total score of job motivation was related to the variables of age, gender, education level, place of employment (city and village) and job grouping.

Conclusion: The findings of this study can be used as a guide for policymakers in planning to increase the job motivation of healthcare workers working in comprehensive health service centers.

Keywords: Comprehensive health service centers, Healthcare workers, Job motivation

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Introduction

Human resources are the main factors in advancing the health care system. The sufficient, competent, and satisfied healthcare professionals are necessary factors to achieving international and national health-related goals (1). Health worker motivation is an important determinant of health worker satisfaction and performance and, consequently, the quality, efficacy, efficiency, accessibility, and viability of health services. Therefore, it is crucial to consider personnel motivation as a critical issue in health policy (2,3). Motivation is defined as a person's degree of willingness to achieve and maintain an effort along with organizational goals, and the underlying behavior for this can

***Corresponding Author:**
Vice Chancellory for Health, Mashhad University of Medical Sciences, Mashhad, Iran.
izadpanahmm1@mums.ac.ir
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be intrinsic or extrinsic (3,4). The job motivation of health system workers has been widely evaluated (2,5-9). The results of study in Tanzania indicated that 45% of the healthcare workers had low job motivation. They stated that major factors for dissatisfaction were low salaries, work environment conditions, and insufficient facilities for doing professional tasks (2). Herzberg's two-factor theory of motivation drives total job motivation. Intrinsic motivational factors include recognition for achievement, achievement, responsibility, work features, and personal advancement. Extrinsic motivational factors are referred to context of work and include supervision, interpersonal relationships, policies and administration, status, working conditions, security, personal life, and remuneration (1). The evidences have also indicated that professionals' sociodemographic characteristics are associated with healthcare workers' job motivation (1,2,10,11). The findings of a study in central Ethiopia revealed that healthcare workers with master's or doctorate degrees had the highest motivation. Professionals with job history less than five years had less motivation (2). The impact of age varies extensively, and there is no consensus in the studies about age as a determinant factor of job motivation. Some studies suggest that job motivation increases with age (3-5), whereas others indicated no relationship between age and motivation (4,7), and even others concluded that job motivation reduces with age (6,7). Regarding gender, some evidences suggest higher motivation among men than women (12), and other studies depict similar motivation level for both genders. However, some studies reveal that gender does not affect job motivation (13,14).
Evaluating motivation is complex due to various determinant factors (3). The job motivation of healthcare workers has been widely studied, but past studies have focused on physicians and nurses working at hospitals, mostly in high-income countries (1). In addition, there is no consensus in the literature about determinant factors of job satisfaction (14). Thus, this study aimed to investigate the job motivation among healthcare workers in comprehensive health centers and the factors related to job motivation.

Materials and Methods

The study population of this cross-sectional study which conducted from April 10 to June 10, 2024, consists of all healthcare professionals of Mashhad University of Medical Sciences, including physicians, healthcare providers, nurses, laboratory personnel, nutrition, mental, and environmental health experts working in comprehensive health service centers, as well as employees who had administrative and management responsibilities and employed at Public Health Department. We selected the participants using a three-stage (clustered-proportional-convenient) sampling design. First, clusters of comprehensive health service centers in the area covered by Mashhad University of Medical Sciences were selected in urban, suburban, and rural areas. Then, the sample size was included in proportion to the number of employees working in each area using a convenience sample method. The sample size was estimated using the formula for estimating a mean. A pilot study determined the sample size of 30 healthcare personnel, and the standard deviation was estimated as 21.7. The precision (d) of this study was considered 0.12 standard deviations. Thus, considering a confidence level of 95% and after adjusting for a 10% non-response rate, the calculated sample size was 325 people. Inclusion criteria were health care professionals working full-time in the Public Health Department and comprehensive health service centers for more than three months. The exclusion criteria included incomplete questionnaires and unwillingness to participate.

Research instruments

A) The Demographic Checklist: This checklist includes questions of sociodemographic status (such as age, sex, marital status, educational status, work position, and years of work experience).

B) Herzberg Job Motivation Questionnaire: This questionnaire consists of 40 closed-ended items based on a five-point Likert scale (1= strongly disagree to 5= strongly agree). The total score was gained by summing up the answer points for each question (range of 40 to 200). A higher score indicates greater motivation. Subscales included recognition, professional development, promotion, responsibility, features of the work itself, remuneration, supervision, interpersonal relationships, health and safety, organizational policies, work conditions, and living conditions items. The responses were coded into three levels (40 to 80= poor motivation, 80 to 160= moderate motivation, and 160 to 200= good motivation) (3,12). Bakhshi et al. validated this

questionnaire in Iranian population. The Cronbach's alpha of scale and subscales ranged from 0.71 to 0.96 and α=0.92 for the total scale (12). Data were exported to SPSS (v.16) statistical software for analysis. First, the characteristics of all participants and each group were described with central and dispersion indices and were presented by tables. Then, for quantitative variables, the K-S test assessed the normality of data. Independent sample t-tests and ANOVA were used to evaluate associations between workers' characteristics (age, gender, education, and job-related subgroups such as work experience, marital status, workplace type, and work experience) and composite mean scores on motivation total score and subscales. In the case of non-normal distribution, the equivalent non-parametric tests (Mann-Whitney and Kruskal-Wallis) were used.

Results

Demographic and work-related characteristics of all participants are shown in Table 1. The total score of job motivation and its subscales in all participants are shown in Table 2. Scores by demographic and work-related variables are displayed in Table 3.

Table 1. Demographic characteristics and other factors related to job among healthcare workers

Variable		
Age range (Mean ± SD)		21-59 (38.99 ± 7.88)
Gender	Male	86 (24.3%)
	Female	268 (75.7%)
Education	Diploma	37 (10.5%)
	Associate	31 (8.8%)
	Bachelor	209 (59.0%)
	Master	41 (11.6%)
	Doctorate and above	36 (10.2%)
Marital status	Single	62 (17.5%)
	Married	292 (82.5%)
Location	City	268 (75.7%)
	Village	86 (24.3%)
Location of employment	Public Health Department	34 (9.6%)
	Comprehensive health center	266 (75.2%)
	Healthcare center	54 (15.3%)
Work position	Professionals working in Public Health Department	34 (9.78%)
	Physician	33 (9.5%)
	Health care provider	179 (50.6%)
	Health care job	48 (13.6%)
	Psychologist	11 (3.1%)
	Nutritionist	11 (3.1%)
	Health safety environment and occupational hygiene engineer	20 (5.6%)
	Laboratory staff	10 (2.9%)

Table 2. The descriptive results for job motivation among healthcare workers

Variable	Range	Mean ± SD
Remuneration	5-13	6.18 ± 2.68
Organizational policies	5-13	8.40 ± 2.568
Interpersonal relationship	10-24	17.93 ± 2.19
Health and safety	4-20	10.69 ± 3.30
Work conditions	3-15	7.88 ± 2.71
Supervision	5-25	15.91 ± 4.10
Recognition	5-25	13.00 ± 4.41
Professional development and promotion	4-20	10.90 ± 3.11
Features of the work itself	3-15	11.39 ± 2.26
Responsibility	3-15	9.05 ± 2.59
Job position	2-10	9.42 ± 1.82
Job motivation	53-189	118.04 ± 23.6

Table 3. The results of analytic tests to compare the mean score of job motivation and its subscales by demographic and job-related variables

Variable	Remuneration	Organizational policies	Interpersonal relationship	Health and safety	Work conditions	Supervision	Recognition	Professional development and Promotion	Feature of the work	Responsibility	Job position	Job motivation
Age												
20-29	6.82 (2.94)	8.82 (2.76)	18.61 (1.96)	11.09 (3.63)	7.82 (3.04)	16.88 (4.1)	13.86 (4.22)	10.95 (2.91)	11.28 (2.18)	9.66 (2.46)	7.13 (1.56)	123.65 (22.62)
30-39	5.89 (2.65)	8.31 (2.54)	17.49 (2.22)	10.55 (3.41)	7.86 (2.7)	16.06 (4.11)	12.41 (4.75)	10.24 (3.28)	11.6 (2.22)	8.83 (2.71)	6.35 (1.72)	115.57 (24.60)
40-49	6.23 (2.67)	8.23 (2.63)	17.92 (2.23)	10.51 (3.17)	7.81 (2.71)	15.14 (4.09)	12.93 (4.25)	11.15 (2.94)	11.06 (2.36)	8.97 (2.64)	6.20 (1.98)	116.64 (23.29)
50-59	6.36 (2.46)	8.78 (2.25)	18.76 (1.74)	11.39 (2.85)	8.26 (2.39)	16.89 (3.71)	14.31 (3.54)	12.41 (2.70)	11.89 (1.98)	9.36 (2.01)	6.65 (1.64)	125.92 (20.21)
P*	0.22	0.42	0.002	0.39	0.83	0.22	0.056	0.001	0.11	0.24	0.02	0.03
Gender												
Male	5.54 (2.41)	8.50 (2.38)	18.28 (2.26)	11.74 (2.69)	8.75 (2.49)	16.43 (3.69)	13.82 (4.19)	11.57 (2.70)	11.84 (1.88)	9.45 (2.25)	6.80 (1.53)	123.65 (19.39)
Female	6.39 (2.73)	8.36 (2.64)	17.82 (2.16)	10.35 (3.40)	7.60 (2.72)	15.74 (4.22)	12.73 (4.46)	10.69 (3.20)	11.25 (2.35)	8.92 (2.68)	6.30 (1.89)	116.37 (24.57)
P**	0.01	0.67	0.09	0.001	0.001	0.17	0.04	0.02	0.03	0.09	0.02	0.01
Education												
Diploma	6.29 (2.19)	8.43 (2.29)	19.10 (2.13)	11.43 (3.27)	8.67 (3.04)	16.67 (4.10)	14.16 (4.10)	10.83 (2.74)	12.56 (1.70)	9.54 (2.16)	7.08 (1.27)	124.81 (20.63)
Associate	7.03 (2.16)	8.96 (2.65)	18.00 (2.42)	11.83 (3.62)	8.83 (3.11)	17.09 (4.11)	14.33 (4.75)	11.83 (3.67)	11.74 (2.328)	10.06 (2.46)	6.67 (2.03)	126.87 (27.15)
Bachelor	6.22 (2.68)	8.27 (2.65)	17.75 (2.16)	10.38 (3.39)	7.62 (2.71)	15.51 (4.09)	12.44 (4.42)	10.77 (3.21)	11.11 (2.33)	8.84 (2.61)	6.24 (1.85)	115.42 (24.35)
Master	6.31 (3.27)	8.60 (2.48)	17.4 (1.95)	10.29 (2.84)	7.87 (2.67)	15.56 (3.71)	12.9 (4.23)	10.55 (2.8)	11.41 (2.03)	8.58 (2.19)	6.24 (1.89)	116.1 (20.2)
Doctorate and above	4.97 (2.55)	8.36 (2.52)	18.3 (2.08)	11.22 (2.67)	7.72 (2.52)	16.83 (3.09)	14.00 (4.19)	11.28 (2.50)	11.47 (2.17)	9.38 (2.59)	6.8 (1.67)	120.86 (19.56)
P*	0.03	0.68	0.004	0.06	0.06	0.09	0.03	0.38	0.007	0.054	0.052	0.03
Location												
City	6.09 (2.80)	8.21 (2.54)	17.70 (2.10)	10.32 (3.14)	7.58 (2.69)	15.43 (4.10)	12.52 (4.14)	10.71 (3.06)	11.13 (2.29)	8.67 (2.46)	6.19 (1.77)	114.92 (22.78)
Village	6.48 (2.27)	8.96 (2.62)	18.65 (2.32)	11.83 (3.51)	8.81 (2.57)	17.39 (3.75)	14.48 (4.90)	11.50 (3.18)	12.20 (1.95)	10.22 (2.66)	7.15 (1.77)	127.79 (23.57)
P**	0.18	0.01	0.0001>	0.0001 >	0.0001 >	0.0001 >	0.0001 >	0.04	0.0001 >	0.0001 >	0.0001>	0.0001>
Marital status												
Single	6.14 (2.85)	8.26 (2.7)	17.59 (2.19)	10.2 (3.42)	7.80 (2.63)	15.28 (4.55)	11.98 (4.07)	10.46 (3.22)	11.16 (2.59)	8.44 (2.53)	6.22 (2.00)	113.88 (23.25)
Married	6.14 (2.67)	8.35 (2.56)	17.98 (2.19)	10.73 (3.23)	7.88 (2.67)	15.94 (3.99)	13.12 (4.4)	10.96 (3.03)	11.44 (2.18)	9.12 (2.59)	6.45 (1.80)	118.45 (23.38)
P*	0.98	0.99	0.25	0.28	0.83	0.27	0.08	0.28	0.40	0.08	0.40	0.20
Work experience (Year)												
< 5	6.70 (2.85)	9.05 (2.63)	18.67 (1.89)	11.20 (3.26)	7.87 (2.61)	17.18 (3.76)	14.33 (4.14)	11.38 (2.95)	11.57 (2.09)	9.90 (2.36)	7.27 (1.48)	125.83 (20.62)
5-9	5.72 (2.56)	8.33 (2.41)	17.76 (2.06)	10.51 (3.44)	7.77 (2.91)	16.34 (3.97)	12.38 (4.61)	9.98 (3.14)	11.28 (2.28)	8.61 (2.68)	6.28 (1.84)	115.26 (24.13)
10-19	6.42 (2.85)	8.33 (2.72)	17.51 (2.25)	10.67 (3.28)	7.85 (2.65)	14.95 (4.28)	12.77 (4.53)	11.10 (3.06)	11.27 (2.39)	9.00 (2.72)	6.06 (1.93)	116.2 (24.31)
20-29	6.18 (2.32)	8.26 (2.51)	18.45 (2.32)	10.63 (3.12)	7.96 (2.54)	15.83 (3.92)	13.45 (3.76)	11.88 (2.85)	11.68 (2.1)	9.22 (2.18)	6.67 (1.56)	120.32 (22.39)
P*	0.09	0.24	0.002	0.65	0.99	0.004	0.04	0.0001>	0.57	0.02	0.0001>	0.03
Work position												
Healthcare job	6.54 (2.22)	8.52 (2.16)	18.81 (2.36)	11.54 (3.16)	8.95 (2.43)	16.91 (3.63)	14.14 (4.19)	10.58 (2.74)	12.52 (1.73)	9.62 (2.2)	6.91 (1.66)	125.35 (20.54)
Physician	4.90 (2.63)	8.39 (2.54)	18.30 (1.99)	11.27 (2.52)	7.78 (2.54)	16.96 (2.86)	14.18 (3.94)	11.31 (2.46)	11.54 (2.23)	9.51 (2.59)	6.78 (1.69)	121.56 (18.47)
Health care provider	6.24 (2.75)	8.19 (2.72)	17.74 (2.15)	10.20 (3.57)	7.57 (2.84)	15.44 (4.31)	12.25 (4.64)	10.65 (3.28)	10.25 (2.38)	8.74 (2.83)	6.02 (1.91)	114.55 (25.86)
Professionals working in Public	6.58 (3.15)	8.15 (2.62)	17.15 (2.4)	10.74 (3.11)	8.51 (2.69)	14.51 (4.13)	12.92 (3.49)	11.97 (3.07)	10.84 (2.24)	9.02 (2.34)	6.41 (1.74)	116.82 (23.77)

Health Department												
Health safety environment and occupational hygiene engineer	6.70 (2.45)	9.85 (2.08)	17.95 (2.06)	11.60 (2.85)	8.05 (2.89)	17.15 (4.29)	14.30 (3.88)	12.10 (2.53)	11.95 (2.16)	9.60 (2.32)	7.20 (1.6)	125.45 (18.38)
Nutritionist	6.63 (2.83)	8.81 (2.71)	18.81 (1.77)	11.90 (1.92)	6.72 (1.90)	17.09 (3.75)	14.09 (3.08)	10.18 (3.37)	12.18 (1.32)	9.72 (2.32)	7.36 (1.36)	123.55 (18.60)
Psychologist	5.45 (2.16)	9.18 (1.72)	18.54 (1.21)	9.72 (2.00)	7.18 (1.99)	18.18 (2.96)	14.18 (4.95)	9.81 (2.56)	12.63 (1.62)	8.18 (1.99)	7.18 (1.07)	120.27 (15.44)
Laboratory staff	5.50 (1.60)	7.62 (2.77)	16.37 (1.40)	10.12 (3.48)	7.25 (1.38)	13.5 (4.07)	11.00 (4.84)	8.5 (3.29)	11.00 (2.43)	8.75 (1.66)	6.12 (1.24)	105.5 (18.53)
P***	0.049	0.20	0.005	0.09	0.04	0.06	0.054	0.054	0.004	0.36	0.20	0.07

Discussion

Most participants were middle-aged. So, we compared our findings with studies with middle-aged professionals (14). Based on the results of this study, 3.4% of cases had good levels of job motivation, while >90% had moderate job motivation levels. The job motivation level among healthcare workers was comparable with the studies in Southern and Central Ethiopia (2,15,16), in which less than half of workers were motivated by their job (15), but lower than the results were reported in studies in Malawi and Gaza (17,18). This inconsistency seems to be due to methodological differences between studies.

The aspects of job motivation related to age showed the total score of job motivation was highest in the 50-60 age group, 20-29 and 40-49 age groups, respectively. The lowest score was in the 30-39 age group. Similar to the results of our study, Carrillo-García et al. found that the most motivated healthcare professionals were the youngest and the oldest (14). Also, in line with the findings of a similar study conducted by Lambrou among medical and nursing staff of the Nicosia General Hospital indicated that those >55 years of age reported higher job motivation compared to the other groups (19). A study in public health facilities in Ethiopia showed that nurses older than 29 years had higher motivation scores (1). In contrast, López MP et al. showed that workers in the intermediate age range have the highest satisfaction levels (20). Based on our results, we suggest that the greater experience of older professionals allows them to better adapt to the job in many cases. For younger professionals, the desire to learn and acquire more experience gives them a more positive perspective on certain aspects of their job (14).

In our study, women represented three-quarters of the total professionals in our sample, consistent with other studies. We found that men were more motivated than women regarding their jobs, except for the remuneration subscale, in which women showed statistically significant higher levels, which could be due to their lower expectations of their pension. Some studies demonstrated that men are more motivated than women in their jobs. While, numerous studies demonstrated that women tend to express higher motivation than men. Carrillo-García et al. reported higher levels of job motivation among women than men in Spain (14). This inconsistency relies on gender-related societal differences (3-5,10,12,21).

The total score of job motivation and its subscales in healthcare workers with diploma and associate education level was higher than other groups, except for the remuneration subscale, in which physicians had lower motivation than other groups. This finding is consistent with a similar study conducted among medical and nursing staff of General Hospital in Zambia, which showed that nurses were highly motivated compared to physicians (22). However, the study conducted in Cyprus indicated that physicians had higher intrinsic motivation than other professional categories. This issue can be due to differences in cultural and socioeconomic environments and the amount of pay to healthcare workers across regions (23).

We also revealed that rural health professionals were significantly more motivated than urban health workers. Mathauer and Imhoff showed that place of work is a crucial factor affecting the job motivation of health professionals (24). In contrast to the results of our study, a survey in Central Serbia indicated that urban health workers had significantly higher job motivation than rural health professionals (19). These disparities

could be related to the differences in the amount of payments and benefit packages.

There was a significant relationship between years of work experience and job motivation, as total score and communication, recognition, responsibility, supervision, and professional development subscales were higher for those with less than 5 years of work experience. In line with our results, Ayalew et al. studied nurses in public health facilities in Ethiopia. They reported that nurses with 5 to 10 years of occupational history were less likely to be satisfied with their jobs than nurses with fewer years of experience (1), which was consistent with a study conducted in Cyprus (19). One possible explanation could be that after starting work, healthcare workers may find that their expectations regarding payment, benefits, and continuing professional development have not been met; thus, their motivation gradually decreases (1).

In this study, professionals in the Public Health Department and healthcare providers working in comprehensive health service centers had lower motivation scores than those working as other health workers. Several studies have shown that job motivation is related to features of the work itself, the professional category, and the type of place careers work in (1,23). Issues such as inadequate benefits and payment, limited work development opportunities, workload, career environment, and lack of superior support and opportunity to change workplace are anti-motivational factors (15).

A strength of our study was that we gathered the data from all work positions among healthcare workers. However, there are some limitations. First, it was a cross-sectional study, evaluating the current situation, restricting us from examining changes over time and drawing causal conclusions. In addition, no interview was conducted to prove the true level of motivation. Finally, some professionals refused to participate, which could affect the strength of this study.

Conclusion

In conclusion, we revealed that professionals at the extreme ends of the age range had the highest levels of motivation. The gender results demonstrated that men were more motivated than women, and rural health professionals were more motivated than urban health workers. Motivation is a complex variable affected by individual, organizational, and social factors. Health workers' policies to increase job motivation should focus on getting more assistance and support according to their gender, age, and place of work.

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Conflict of Interest

There was no conflict of interest to be declared.

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Ethical Considerations

Consent to conduct this study came from the Ethical Clearance Review Committee of Mashhad University of Medical Sciences. Data gathering was conducted via an anonymous and self-administered questionnaire and was voluntary. Workers were assured that the study data were strictly confidential. This article is based on a research project approved by the Research Council of the Health Vice-Chancellor of Mashhad University of Medical Sciences.

Code of Ethics

IR.MUMS.REC.1403.021

Authors' Contributions

Study concept and design: Mina Norozi Khalili and Mohammad Mahdi Izadpanah. Data acquisition: Mohammad Reza Ghahhar and Peyman Naderi. Analysis and interpretation of data: Mina Norozi Khalili. Drafting and revising the manuscript for important intellectual content: Mina Norozi Khalili; Mohammad Mahdi Izadpanah; Mohammad Reza Ghahhar; Peyman Naderi.

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