

Palestinian Resident Doctors' Job Satisfaction and Quality of Working Life in the West Bank Hospitals

Mohanad Saleh¹, Rami A Misk² and Tareq Z Alzughayyar^{3*}

¹College of Pharmacy, Hebron University, Palestine

²Department of Medicine, An-Najah National University, Palestine

³Department of Medicine, Al Quds University, Jerusalem, Palestine

Abstract

Introduction: Resident doctors play an important role in hospital care, working under difficult situations of sleep deprivation and work, a 47-item questionnaire regarding job satisfaction was formulated based on a Canadian doctor feedback questionnaire, the new questionnaire was reviewed by 5 experts, and was completed twice by 10 residents for reliability check. 296 questionnaires were distributed on residents across the five hospitals affiliated with the Palestinian Medical Council. For data analysis SPSS ver.17 was used.

Results: 186 residents completed the questionnaire with 62.8% response rate. The quality of working life and overall satisfaction was high in 31.1%, moderate in 50.6%, and low in 15.3% of sample. The younger population had increased overall job satisfaction. Number of on call night shifts and salary had inverse relation with overall job satisfaction, Palestinian medical complex of Ramallah had the highest overall job satisfaction, and lowest at Hebron Governmental hospital.

Conclusion: Job satisfaction was high to moderate in majority of resident doctors with effect of demographic and work variables.

Keywords: Satisfaction; Quality of working life; West bank; Palestinian doctors

Introduction

Palestinian medical residency system is a relatively new system that was formulated by the Palestinian medical council in 2006, except for Al-Makassed hospital that was affiliated with the Jordanian Medical council since 1988, the program underwent many changes in few years, still doctors face same unchangeable factors of rapidly increasing population size and lack of new medical facilities.

Information provided regarding residents quality of life and overall satisfaction is limited to personal opinions provided by residents, but no other study as far as we know has ever provided statistical evidence to level of satisfaction of resident doctors in the Palestinian healthcare system.

This study evaluated residents' satisfaction with their specialty programs, and many of the other factors that potentially influence and contribute to job satisfaction such as work policies, work relationships, reward and recognition, community appreciation.

This study is conducted to identify overall satisfaction with residency program according to specialties, identify degree of job satisfaction according to year level of training, identify factors that affect residents job satisfaction, assess level of quality of provided healthcare, determine areas in residency program that need improvement and development, and to assess the relationship between overall satisfaction and selected demographic variables.

Review of literature

In most countries medical services have been changing dramatically over the last two decades, some changes are in favor of doctors and healthcare providers, while, the administrative burden has put more stress and time restrictions on daily services that has affected doctors' satisfaction with their career [1-4].

Doctors' satisfaction is associated not only with doctors health [5] and well-being, but also with team behavior, [6] patient satisfaction,

[7] physician turnover, [8] morale of health care workers and staff, and quality of care in general [1,9].

Other factors include situational factors [organizational commitment, job resources e.g. Salary and health insurance packages, workload, role conflict and ambiguity, career progression, supervisors feedback, and individual characteristics (demographic variables, personality characteristics, job satisfaction, social support), with the effect of the situational factors being stronger [10,11].

Iran has a very similar residency program to the Palestinian program, and in 2012 a study was done for the first time on the quality of working life of residents in Tehran University of Medical sciences affiliated hospitals, 263 residents (84%) completed the questionnaire. The quality of working life was very well in 18%, well in 32%, moderate in 31%, low in 14% and very low in 5% of residents. Pediatric residents had the highest and urology and internal medicine residents had the lowest quality of working life. The QWL was high in the majority of residents, but the QWL was not desirable in a significant proportion of them [12] and by looking back in literature we found a very short list of research that compared the satisfaction of doctors by a comprehensive list of specialties altogether for comparison purposes, in 2003 a 17-item work satisfaction questionnaire was developed that addressed five dimensions of satisfaction: patient care, work-related burden, income, personal rewards and professional relations with colleagues. The questionnaire was administered by mail to 1904 doctors practicing in

*Corresponding author: Tareq Z Alzughayyar, Department of Medicine, Al Quds University, Jerusalem, Palestine, Tel: +972592989006; E-mail: a172442@gmail.com

Received September 09, 2019; Accepted October 07, 2019; Published October 15, 2019

Citation: Saleh M, Misk RA, Alzughayyar TZ (2019) Palestinian Resident Doctors' Job Satisfaction and Quality of Working Life in the West Bank Hospitals. J Community Med Health Educ 9: 667.

Copyright: © 2019 Saleh M, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Geneva, Switzerland; 1184 (59%) responded. In general, physicians were more satisfied with aspects of their current work situation: patient care, professional relations and personal rewards (intellectual stimulation, opportunities for continuing medical education, enjoyment at work). The lowest satisfaction scores were found for work-related burden (workload, time available for family, friends or leisure, work-related stress, administrative burden) and work-related income and prestige, interestingly; Age and sex had only a minor influence on satisfaction scores [13].

Working hours per week makes a great influence on doctors job satisfaction, working hours per week tend to decrease for almost all hospitals in the US, 42-52 hours per week [14] and Europe with an average of 48 hours per week with no more than 60 hours per week for Eastern Europe countries [15].

In one of the fewest longitudinal studies on doctor's satisfaction, in Norway, showed that there were important differences among specialties in their job satisfaction; general practitioners and psychiatrists were significantly more happy than other doctors. Anesthesiologists and other hospital-based doctors did not show the trend of increasing job satisfaction found among psychiatrists and primary care doctors [16].

Methodology

A cross-sectional descriptive quantitative design was used. It is used to describe the extent to which residents are satisfied with the residency programs. Cross-sectional design reflects the existing facts at the same point of time of data collection, it consumes less time than other longitudinal studies. This approach emphasizes objectivity in the collection of data and analysis of information. It also allows us to analyze data using numerical information through statistical procedures. According to Beck "the purpose of descriptive studies is to observe, describe, and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for hypothesis generation".

Study instrument

A 47-item questionnaire that included demographic information and specific questions regarding resident job satisfaction was designed. The questionnaire mainly developed using Canadian health system resident evaluation and it was modified to suits the study purpose. The questionnaire was reviewed by 5 experts. The internal consistency of the questions was assessed by Cronbach's Alpha test. The internal reliability for overall satisfaction (30 items) is 0.92. Table 1 shows the reliabilities of the subscales.

Data collection

Self-administered questionnaires were distributed to 296 residents in 4 general Palestinian hospitals. Subjects used 5-point scales, ranging from 1='strongly disagree' to 5='strongly agree', to report how much they agreed with particular statements.

	Items	No. of items	Cronbach's alpha
Overall Satisfaction	-	30	0.92
Satisfaction with the specialty	18,20,21,22,35	5	0.79
Quality of services	29,30,31,32,34,36	6	0.77
Motivation & Incentives	24,25,27,28,33,37	6	0.72
Management support	19,38,39	3	0.72
Social interaction	41,45,47,48,49	5	0.7
Interpersonal relationships	26,40,42,43,44	5	0.64
Notes: Two items delete after factor analysis (23 & 44)			

Table 1: Internal reliability of questionnaire (Cronbach's alpha).

Hypothesis

There is no significant difference in job satisfaction components and overall job satisfaction at $\alpha \leq 0.05$ related to demographic variables of respondents.

There is no significant difference in job satisfaction components and overall job satisfaction at $\alpha \leq 0.05$ related to organization-related variables.

Population and sampling

All residents who are in the residency program (296) between October 2012 and June 2013 at five general hospitals (Hebron Governmental hospital, Health complex at Ramallah, Makassed Islamic hospital and Rafidia Governmental Hospital, Alwatani Governmental hospital) in the following residency program: internal medicine, surgical, orthopedics, anesthesiology, obstetrics and gynecology, pediatrics and radiology.

Ethical consideration

The reviewing committee of the Public Health School at Al-Quds University approved this study and participants signed an informed consent in which they were assured that anonymity and confidentiality would be maintained at all times, and the data provided by them would be used for research purposes. No names or codes or any other mechanisms would be used to trace responses back to an individual participant. Informed consent included information about the nature of the study, importance of the study, method of data collection and a statement assuring voluntary participation. Participants had the chance to ask questions they had, related to the research by providing telephone numbers for participants to call.

Data analysis

Statistical package for social sciences (SPSS version 17) was used for data entry and to support cleaning and analysis. Descriptive statistics, t-test, and ANOVA were used to analyze the data and test hypothesis.

Results

The questionnaire was distributed to 296 residents out of which 186 questionnaires returned. Response rate 62.8%. Age ranged from 24-38 and means 27.7 ± 2.47 . Tables 2-11 show the characteristics of the respondents.

Hypothesis testing results

Table 12 shows that there are no significant differences at the level ($\alpha=0.001$) between the means of interpersonal relationships component attributed to Age. However, there are significant differences at the level ($\alpha=0.001$) between the means of motivation and incentives attributed to age. The differences were between age group 24-27 and 32-38 in favor of 24-27 and between the age group 28-31 and 32-38 in favor of 28-31.

There are differences at the level ($\alpha=0.001$) between the means of social interaction between age group 24-27 and 32-38 in favor of 24-27.

There are differences at the level ($\alpha=0.001$) between the means of management support between age group 24-27 and 32-38 in favor of 24-27 and between age group 28-31 and 32-38 in favor of 28-31.

There are differences at the level ($\alpha=0.001$) between the means of quality between age group 24-27 and 32-38 in favor of 24-27. And there are differences at the level ($\alpha=0.001$) between the means of Satisfaction with the expected outcome of work and specialty between age group 24-27 and 32-38 in favor of 32-38 and between age group 28-31 and 32-38 in favor of later. Moreover, there were differences at the level ($\alpha=0.001$) between the means of overall job satisfaction between age group 24-27 and 32-38 in favor of 24-27 between age group 28-31 and 32-38 in favor of 32-38 as shown in the Table 13.

Variables		N (%)
Age	Mean ± SD	27.71 ± 2.47
	Min/Max	24-38
Gender	Male	145 (78.0%)
	Female	41 (22.0%)
Marital status	Single	84 (45.2%)
	Married	62 (33.3%)
	Engaged	34 (18.3%)
	Divorced/ Separated/ Widowed	6 (3.3%)
Place of permanent residential	North of West Bank "Nablus, Tulkarem, Jenin, Qalqilia"	66 (35.5%)
	Central of West Bank "Jerusalem, Ramallah"	62 (33.3%)
	Southern of West Bank " Hebron, Bethlehem"	52 (28%)
	Eastern of West Bank "Jericho, Jordan Valley"	6 (3.2%)
Number of family members who live at the same house with you	3-4	85 (45%)
	1-2	39 (21%)
	5-6	34 (18.3%)
	7-8	18 (9.7%)
	9-10	7 (3.8%)
	more than 10	2 (1.1%)
Do you provide financial support to other?	No	129 (69.4%)
	Yes	55 (29.6%)
Monthly income from this job and others if available	4000-<5000 NIS	105 (56.5%)
	5000-<6000NIS	47 (25.3%)
	<4000 NIS	29 (15.6%)
	6000 NIS or more	4 (2.2%)
Do you have any other jobs either full or part-time?	No	159 (85.5%)
	Yes	27 (14.5%)

Note 1 Merge: Engagement, divorce, and separated together

Table 2: Respondents characteristics (N=186).

Department and years in residency		Frequency	Percent
Department of Specialty	Surgery	45	24.2
	Pediatrics	39	21.0
	Orthopedics	32	17.2
	Internal Medicine	31	16.7
	Obstetrics and Gynecology	18	9.7
	Anesthesiology	15	8.1
Years in residency program	Radiology	6	3.2
	First year	53	28.5
	Third year	45	24.2
	Second year	43	23.1
	Fourth year	25	13.4
	Fifth year	9	4.8
	Sixth year	2	1.1

Table 3: Respondents' residency program variables.

Feeling	Frequency
Very important part of my life	78 (41.9%)
Important part of my life	76 (40.9%)
Uncertain about its importance in my life	14 (7.5%)
Somehow important in my life	18 (9.7%)
Total	186 (100%)

Table 4: General feeling for current program.

Wish to keep working	Frequency
Till the end of contract	78 (41.9%)
Till I find a better place	78 (41.9%)
Till I am done with financial commitments, schooling loans. etc.	13 (7%)
Others	15 (8.1%)
Missing	2 (1.1%)
Total	186 (100%)

Table 5: Distribution of respondents according to their wish to keep working at this institute.

Level of satisfaction	High 3.7-5	Medium 2.7-3.6	Low 1-2.6
Satisfaction with interpersonal relation (178)	122 (68.5%)	47 (26.4%)	9 (5.1%)
Satisfaction with motivation and incentives (179)	33 (18.4%)	90 (50.3%)	56 (31.3%)
Satisfaction with quality (176)	78 (44.3%)	65 (39.9%)	33 (18.8%)
Satisfaction with social interaction (182)	22 (12%)	80 (44%)	80 (44%)
Management support (180)	83 (46.1%)	55 (30.6%)	42 (23.3%)
Satisfaction with expected outcome of work and specialty (175)	56 (32%)	72 (41.1%)	47 (26.9%)
Overall satisfaction (164)	51 (31.1%)	83 (50.6%)	30 (18.3%)

Table 6: Distribution of residents according to their level of satisfaction.

Satisfaction with expected outcome	Mean
When I consider my initial attraction to apply to the hospital I am working in now, I am satisfied with my decision.	3.6
I have a good understanding of what is expected of me both by the peers within my service, other medical staff and administration.	3.4
Lifestyle change is a common reason cited by providers choosing to work here. The lifestyle I found after employment is what I had hoped for.	2.6
When I consider my expectations when I joined the staff. I am pleased with how things turned out.	2.8
I feel it is possible to fulfill my personal aims through this residency program.	3.2
Overall	3.1

Table 7: Satisfaction with expected outcome of work and specialty (175).

Satisfaction with quality of services	Mean
Generally, I am satisfied with the level of medical service I provide.	3.7
Generally, I feel that the medical service I provide is good and satisfactory	3.6
I feel satisfied with my chief's work in training me and level of medical education I receive.	3.0
Considering my practice today, I feel the chief of my service does a good job of communicating the responsibilities and promptly notifies me of updates and changes.	3.1
I think it would be valuable to my work to have the same nurse with me in the clinic, to facilitate my work	3.6
When I consider my practice setting, I feel I receive adequate support while performing my job functions and taking care of my patients	3.0
Overall	3.3

Table 8: Satisfaction with quality of services.

Satisfaction with motivation & incentives	Mean
I feel the benefits package including insurance, sick leave, vacation and holidays is competitive considering my knowledge of other medical practice scenarios.	2.6
The medical staff incentives provided by the Health System are important to my over-all job satisfaction.	2.1
When I consider the policies and processes that affect my medical practice, I feel I am provided an opportunity for adequate input into decision-making and policy formation.	3.1
In my clinic setting, I am satisfied with the equality of patient load, hospital admissions (if applicable), and on-call responsibilities (if applicable).	2.8
I feel satisfied with my current relations with chief and supervisors.	3.6
I feel valued and appreciated.	3.5
Overall	3.0

Table 9: Satisfaction with motivation & incentives.

Satisfaction with motivation & incentives	Mean
When I interviewed for employment, I was made to feel welcome, felt free to ask questions and had an opportunity to visit my work location to tour the site and visit with staff.	3.3
I receive the level of administrative support needed to accomplish my daily workload and provide a high level of service for my patients	3.0
I receive both formal and informal support and recognition from my peers and administration	3.3
Overall	3.2

Table 10: Satisfaction with the management support.

Satisfaction with social interaction	Mean
I am comfortable with the level of social activity outside of work with my peers. It is adequate for me to feel welcome, nurture friendships and makes me feel like an integral part of the medical staff.	3.0
I feel my work-load accommodates both my needs and the needs of my family	2.4
I would welcome the opportunity to speak at a high school and encourage young people to enter the medical field	2.5
I am able to enjoy the leisure activities that are important to me	2.9
I receive the level of administrative support needed to accomplish my daily workload and provide a high level of service for my patients	3.0
Overall	2.8

Table 11: Satisfaction with social interaction.

Satisfaction interpersonal relationships	Mean
I think it would be important to have a member of the medical staff assigned as a mentor to new physicians.	3.8
I would like to collaborate with Nursing to improve the relationship between the nursing staff and medical staff.	3.9
Is it important for me to have interaction with my medical staff colleagues during the work-day?	4.0
I feel accepted and welcomed into the community.	3.9
I feel accepted and appreciated by the patient population I serve	3.6
Overall	3.8

Table 12: Satisfaction interpersonal relationships.

Variables	Age			F value	p-value
	24-27	28-31	32-38		
	Mean				
Motivation & incentives	3.07	2.78	2.35	7.36	0.001*
Social interaction	2.95	2.78	2.35	3.36	0.03*
Management support	3.27	3.19	2.36	5.75	0.004*
Quality of services	3.45	3.27	2.85	4.15	0.018*
Satisfaction with expected outcome of work and specialty	3.22	3.26	2.58	2.68	0.028*
Interpersonal relationships	3.76	3.71	3.81	0.17	0.84
Overall Job satisfaction	3.28	3.20	2.68	5.12	0.007*

Table 13: Participants' satisfaction according to age.

Variables	Income				F value	p-value
	<4000	4000-<5000	5000-<6000	>6000		
	Mean					
Motivation & incentives	3.04	2.82	3.17	3.00	2.89	0.03*
Social interaction	3.02	2.67	2.85	2.20	2.19	0.09
Management support	3.36	3.19	3.04	3.22	0.78	0.5
Quality of services	3.57	3.35	3.14	3.08	2.01	1.07
Satisfaction with expected outcome of work and specialty	3.48	3.09	3.00	3.15	2.04	0.11
Interpersonal relationships	3.97	4.00	3.49	3.60	14.77	0.001*
Overall Job satisfaction	3.98	3.19	3.08	3.08	1.33	0.26

Table 14: Participants' satisfaction according to income.

There are significant differences at the level ($\alpha = 0.001$) between the means of motivation and incentives attributed to income as shown in Table 14. The differences were between those earn 4000-<5000 and 5000-<6000 in favor of those who earn 5000- <6000. And there are significant differences at the level ($\alpha=0.001$) between the means of interpersonal relationships attributed to income. The differences were between those earn <4000 and 5000- <6000 in favor of those who earn <4000 and between those earn 4000- <5000 and 5000- <6000 in favor of those who earn 4000-<5000 as shown in Table 15.

There are differences at the level ($\alpha=0.001$) between the means

Department	Interpersonal relationships		
	Mean	F-value	p-value
Internal Medicine	3.90	2.84	0.008*
Orthopedics	3.54		
Surgery	3.84		
Pediatrics	4.05		
Anesthesia	3.54		
Obs & Gyn	3.91		
Radiology	3.93		

Table 15: Participants' satisfaction according to department.

of interpersonal relationships attributed to the department. The differences were only between Orthopedic & pediatric in favor of pediatric as shown in Table 16.

There are differences at the level ($\alpha=0.001$) between the means of interpersonal relationships attributed to the place of work. The differences were only between Makassed and Hebron in favor of Hebron hospital and between Ramallah and Makassed in favor of Ramallah hospital and between Rafidia and Makassed in favor of Rafidia as shown in Table 16.

There are differences at the level ($\alpha=0.001$) between the means of motivation and incentives attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between Hebron and Makassed in favor of Makassed. Moreover, there are differences between Makassed and Ramallah in favor of Makassed and between Rafidia and Makassed in favor of Makassed.

There are differences at the level ($\alpha=0.001$) between the means of social interaction attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between Hebron and Makassed in favor of Makassed hospital. Moreover, there are differences between Makassed and Rafidia in favor of Makassed as shown in Table 16.

There are differences at the level ($\alpha=0.001$) between the means of management support attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between Hebron and Makassed in favor of Makassed hospital. Moreover, there are differences between Ramallah and Rafidia in favor of Ramallah and between Makassed and Rafidia in favor of Makassed as shown in Table 16.

There are differences at the level ($\alpha=0.001$) between the means of management support attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between Hebron and Makassed in favor of Makassed hospital. Moreover, there are differences between Ramallah and Rafidia in favor of Ramallah and between Makassed and Rafidia in favor of Makassed.

There are differences at the level ($\alpha=0.001$) between the means of satisfaction with the expected outcome of work and specialty attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between Hebron and Makassed in favor of Makassed hospital. Moreover, there were differences between Ramallah and Rafidia in favor of Ramallah.

There are differences at the level ($\alpha=0.001$) between the means of overall job satisfaction attributed to the place of work. The differences were between Hebron and Ramallah in favor of Ramallah and between

Hebron and Makassed in favor of Makassed hospital. Moreover, there are differences between Ramallah and Rafidia in favor of Ramallah as shown in Table 16.

There are differences at the level ($\alpha=0.001$) between the means of interpersonal relationships attributed to the number of night shifts worked. The differences are between those who worked 6-8 and more than 12-night shifts in favor of 6-8 and between 9-12 and more than 12 in favor of 9-12 as shown in Table 17.

There are differences at the level ($\alpha=0.001$) between the means of Motivation and incentives attributed to the number of night shifts worked. The differences are between those who worked 6-8 and 9- 12 night shifts in favor of 9-12.

There are differences at the level ($\alpha=0.001$) between the means of the quality of work attributed to the number of night shifts worked. The differences are between those who worked 6-8 and 9-12 night shifts in favor of 6-8.

There are differences at the level ($\alpha=0.001$) between the means of social interaction attributed to the number of night shifts worked. The differences are between those who worked 6-8 and 9-12 night shifts in favor of 9-12. There are differences at the level ($\alpha=0.001$) between the means of management support attributed to the number of night shifts worked. The differences are between those who worked 6-8 and 9-12 night shifts in favor of 6-8.

There are differences at the level ($\alpha=0.001$) between the means of satisfaction with the expected outcome of work and specialty attributed to the number of night shifts worked. The differences are between those who worked 6-8 and 9-12 night shifts in favor of 6-8. There are differences at the level ($\alpha=0.001$) between the means of overall satisfaction attributed to number of night shifts worked. The differences are between those who worked 6-8 and 9-12 night shifts in favor of 6-8 and between 6-8 and more than 12 night shifts in favor of 6-8 as shown in Table 17.

Discussion

This study showed that the quality of working life and job satisfaction was high to moderate in majority of residents working at general hospitals in the west bank, overall satisfaction was high in 31.1%, moderate in 50.6%, low in 18.3% of all sample population, which is similar to results of Zare et al. [12].

According to the current residency program, 82.8 % of residents think that their residency program is an important part of their life. Interestingly 41.9% of them committed to complete the residency program within the same hospital, and 41.9% are waiting to find a better place, which means that around half of resident doctors are looking to leave the program if a better opportunity is available.

Variables	Income				F value	p-value
	Hebron	Ramallah	Makassed	Rafidia		
	Mean					
Motivation & incentives	2.43	3.00	3.37	2.67	11.94	0.001*
Social interaction	2.05	2.88	3.10	2.54	10.22	0.001*
Management support	2.54	3.47	3.24	2.71	11.49	0.001*
Quality of services	2.92	3.64	3.14	2.97	11.89	0.001*
Satisfaction with expected outcome of work and specialty	2.47	3.40	3.20	2.75	11.24	0.001*
Interpersonal relationships	4.08	4.05	3.25	3.79	26.20	0.001*
Overall Job satisfaction	2.75	3.41	3.21	2.88	11.31	0.001*

Table 16: Participants' satisfaction according to place of work.

Variables	Number of Night shifts			F value	p-value
	6-8	9-12	More than 12		
	Mean				
Motivation & incentives	3.02	3.81	2.94	6.03	0.003*
Social interaction	3.25	2.51	2.73	18.34	0.001*
Management support	3.60	2.95	3.10	11.47	0.001*
Quality of services	3.65	3.16	3.12	8.69	0.001*
Satisfaction with expected outcome of work and specialty	3.57	2.87	3.15	15.19	0.001*
Interpersonal relationships	3.90	3.87	3.20	8.37	0.001*
Overall Job satisfaction	3.53	3.00	3.04	16.61	0.001*

Table 17: Participants' satisfaction according to number of night shifts.

Satisfaction in fields of motivation, incentives, social interaction, and management support provided, and quality of services provided increases with younger age groups 24-27 years. Better than (28-31 years) and 23-38 years respectively in order in an inverse relation with the age of residents. While; satisfaction with the expected outcome of work and specialty increase in group age 28-31 years, and interpersonal relationships satisfaction was highest in the age group 32-38 years.

Income affects job satisfaction in a great extent, but in our study the highest job satisfaction was in the group of <4000 shekels, and lowest satisfaction in groups that receives a salary more than 6000 shekels, due to low motivation and incentives, low social interactions, and interpersonal relationships, and greater hospital responsibilities on the higher salary group.

There was a minor difference in overall job satisfaction among different departments in all hospitals; the pediatric department had the highest level of job satisfaction, followed by radiology, Obstetrics and gynecology, internal medicine, and surgical departments respectively. Lowest job satisfaction was in orthopedic and anesthesiology departments respectively.

Number of on call night shifts per month also affect job satisfaction and quality of working life, as this study shows that the lower the number of night shift on calls is associated with higher level of job satisfaction, in areas of motivation, incentives, social interaction, interpersonal relations, and better outcome of work and quality of provided services. The lower number of night shifts would increase overall of job satisfaction and improve the quality of working life and interpersonal relationships and would give a higher sense of managemental support.

In comparison between these major hospitals included in the study; Al-Makkassed hospital residents had the highest satisfaction regarding motivation and incentives and social interaction. While Ramallah health complex shows the highest satisfaction in management support and satisfaction of the expected outcome of work and specialty. Interpersonal relationships were the highest in Hebron Hospital followed by Ramallah hospital and Rafidia Hospital, with the lowest at Al-Makassed Hospital.

Overall job satisfaction was highest in Ramallah Hospital (PMC), followed by Al-Makassed, Rafidia, and lowest in Hebron Hospital.

Conclusion and Recommendations

- Encourage younger age to participate in the residency program because of the highest ability to accommodate job circumstances, and receiving motivation.
- We recommend that hospitals and Palestinian medical council should promote management support to training residents.
- Improve the lifestyle of training residents, to improve their work outcome.
- Give more attention to medical education in the training program of residents, as it affects their work and specialty expectations.
- Residents should receive more motivation and adequate work support to improve the quality of services through improving their work satisfaction.
- Residents should receive better benefits packages including health insurance, sick leaves, and holidays.

- Management of overload of patients per resident and decreased admission rates inside major hospitals.
- The number of on-call night shifts per month should be 6-8 on-calls, to maximize residents' quality of working life.
- We recommend a unified educational system between different hospitals for same specialties to accommodate differences in work load in hospitals.
- We recommend giving more motivation to doctors with high wages to have better job satisfaction.
- To work on improving interpersonal relations, and social interactions in community in all hospitals, especially at Al-Makassed hospital.
- To work on overall job satisfaction at Hebron hospital residents.

References

1. Kassirer JP (1998) Doctor discontent. *N Engl J Med* 339: 1543-1545.
2. Epstein RM (2000) Time, autonomy, and satisfaction. *J Gen Intern Med* 15: 517-518.
3. Linzer M, Konrad T, Douglas J, McMurray JE, Pathman DE, et al. (2000) Managed care, time pressure, and physician job satisfaction: Results from the physician worklife study. *J Gen Intern Med* 15: 441-450.
4. Konrad TR, Williams ES, Linzer M, McMurray J, Pathman DE, et al (1999) Measuring physician job satisfaction in a changing workplace and a challenging environment. *Med care* 37: 1174-1182.
5. RamirezAJ, Graham J, Richards MA, Cull A, Gregory WM (1996) Mental health of hospital consultants: the effects of stress and satisfaction at work. *Lancet* 347: 724-728.
6. DiMatteo MR, Sherbourne CD, Hays RD, Ordway L, Kravitz RL, et al. (1993) Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. *Health Psychol* 12: 93-102.
7. Haas JS, Cook EF, Puopolo AL, Burstin HR, Cleary PD, et al. (2000) Is the professional satisfaction of general internists associated with patient satisfaction? *J Gen Intern Med* 15: 122-128.
8. Kerr EA, Hays RD, Mittman BS, Siu AL, Leake B, et al. (1997) Primary care physicians' satisfaction with quality of care in California capitated medical groups. *JAMA* 278: 308-312.
9. Grol R, Mokkink H, Smits A, van Eijk J, Beek M, et al. (1985) Work satisfaction of general practitioners and the quality of patient care. *Family Pract* 2: 128-135.
10. Beemsterboer J, Baum BH (1984) Burnout" definitions and health care management. *Soc Work Health Care* 10: 97-109.
11. Deckard G, Meterko M, Field D (1994) Physician burnout: An examination of personal, professional, and organizational relationships. *Med Care* 32: 745-754.
12. Zare MH, Ahmadi B, Sari AA, Arab M, Kor EM (2012) Quality of working life on residents working in hospitals. *Iran J Public Health* 41: 78-83.
13. Bovier PA, Perneger TV (2003) Predictors of work satisfaction among physicians. *Eur J Public Health* 13: 299-305.
14. Staiger DO, Auerbach DI, Buerhaus PI (2010) Trends in the work hours of physicians in the United States. *JAMA* 303: 747-753.
15. European Foundation for the Improvement of Living and Working Conditions (2008) Revisions to the European working time directive: Recent Eurofound research-Background paper.
16. Nylenna M, Gulbrandsen P, Førde R, Aasland OG (2005) Unhappy doctors? A longitudinal study of life and job satisfaction among Norwegian doctors 1994-2002. *BMC Health Serv Res* 5: 44.