

# **Highlighting the Socio-Demographic Differences of the Key Determinants of Staff's Satisfaction in Jordanian Hospitals: an Empirical Analysis Based on Warr-Cool-Wall Scales**

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## **ABSTRACT**

*The aim of this paper is to highlight the socio-demographic differences regarding the main determinants of employee satisfaction in Jordanian hospitals using a sample of 325 employees from six different hospitals in 2015. Therefore, it has been used Warr-Cook-Wall scale in order to assess job satisfaction according to four dimensions: extrinsic job satisfaction, intrinsic job satisfaction, working conditions satisfaction, employee relations satisfaction. The socio-demographic differences on the job satisfaction factors were analyzed using t-test, Anova test and correlation coefficients. The empirical results pointed out that young and older employees express higher degrees of satisfaction comparative with other age group regarding the extrinsic satisfaction and employee relations and that administrative staff, helpers and doctors are more satisfied intrinsic satisfaction, extrinsic satisfaction, working conditions, employee relations and also on the overall level of satisfaction. Also individuals from horizontal structure exhibit higher levels of satisfaction regarding the job satisfaction factors than the ones from vertical structure.*

**KEYWORDS:** *socio-demographic, job satisfaction, hospitals, health workers, Warr-Cook-Wall scale, Jordan*

**JEL CLASSIFICATION:** *C25, C38, C83, O15*

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## **1. INTRODUCTION**

The purpose of this paper is to identify differences of perception regarding the key determinants of job satisfaction among the health workers from Jordanian hospitals. The analysis was made using a sample of 325 employees from six hospitals at the level of the year 2015, based on Warr-Cook-Wall scale. In this respect, t-test, Anova test and correlation coefficients have been applied.

The paper is structured in 4 parts, presenting the literature review, the methodology, the data used, the profile of the respondents and the main empirical results followed by the main conclusions and recommendations.

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## 2. LITERATURE REVIEW

Researching on the issue of the socio-demographic differences regarding the main determinants of employee satisfaction in Jordanian hospitals has to take into consideration the previous studies that focused on the topic of workers' satisfaction.

Performing highly demanding activity such as the one from the health care area, in particular the hospital one, means that the hospital staff has to be competent, productive and also receptive. Assessing workers' job satisfaction should be a constant activity for management staff. In determining job satisfaction is essential using the right evaluation instruments and such one was created by War, Cook and Wall (1979) – it refers to eight scales suitable to the quality of working life.

Job satisfaction has been a constant preoccupation for other researchers as well: Lehmann, Dieleman & Martineau (2008) considered that financial benefits could be explained as a positive effect only in the case of low salaries, while Lynn & Redman(2005), Joyce et al.(2003) argued that professional support, control over working life, career opportunities and professional development are key-factors when approaching the issue of job satisfaction. Physical working conditions, relationships with fellow workers and managers, pay, promotion, job security, responsibility, recognition were considered important characteristics when determining job satisfaction, as revealed by the study of Lu et al. (2005).

Although financial incentives are very important, there are cases in which these do not hold the dominant position when assessing job satisfaction; other factors were considered of primarily importance instead: working conditions, organizational and management support, teamwork. These data have been revealed by the studies of researchers like: Franco et al.(2004), Mathauer & Imhoff (2006), Manongi et al.(2006). Heritage, Pollock and Roberts (2015) tested the factor structure of the Warr, Cook and Wall's Job Satisfaction Scale (JSS) using data from the Australian employees.

Goetz, Campbell, Steinhäuser, Broge, Willms and Szecsenyi (2011) made an evaluation of job satisfaction on practice staff and general practitioners. Using the same Warr, Cook and Wall questionnaire they have found out that the both non-physician staff and practice staff were satisfied with their colleagues and dissatisfied with the income they gain.

Reading all these studies leads to one, possibly surprising conclusion: in most of the cases, the respondents considered more important such features like: improving working conditions and teamwork, offering non-financial incentives and also providing opportunities for career opportunities and development, rather than just financial incentives.

## 3. METHODOLOGY AND DATA

The main factors related with job satisfaction were evaluated using Warr-Cook-Wall scale based on 27 items measured on 5-point Likert scale (5 = very satisfied, 4 = moderately satisfied, 3 = neither satisfied nor dissatisfied, 2 = dissatisfied, 1 = very dissatisfied) arranged

into 4 dimensions: intrinsic job satisfaction, extrinsic job satisfaction, working conditions satisfaction, employee relations satisfaction and total job satisfaction mean score. The same type of scale was used by Chew et al. (2013).

The study targeted 325 health workers from six Jordanian hospitals:

- three public hospitals - King Abdullah Hospital, Al-Shona Hospital and Princess Basma Hospital (the biggest public hospital in Jordan);
- three private hospitals - Amman Specialist Hospital, Irbid Specialist Hospital and Ibn Al-Nafees.

In order to point out the main differences regarding the main motivational factors in Jordanian hospitals, t-test, Anova test and correlation coefficients have been applied. To perform the analysis was used The Statistical Package for Social Sciences version 18 (SPSS).

The aim of this research was to answer the following research questions:

- (1) People from public hospitals are less satisfied with their wage and their job than those from private hospitals?
- (2) Youth are more satisfied with their job or married people?
- (3) Are nurses less satisfied than other categories?

## **4. EMPIRICAL RESULTS**

### **4.1. Sample profile**

66.5% from the total of 325 respondents are from public hospitals, while only 33.5% of respondents work in private hospitals. About 33% of the respondents work in the largest Jordanian Hospital - Princess Basma Hospital, almost 22% of them are working in Irbid hospital and King Abdullah hospital, while at the opposite side only 4.3% of the respondents are from the private hospital IBN Al-Nafes.

The majority of the respondents (51.4%) are young employee between 25 and 35 years and most of the respondents are male (52.9%). In terms of education, 43.3% of respondents have bachelor degree in science. Regarding their marital status, more than one-fourth of the employees were single (28.3%).

Most of respondents (40.3%) claimed to have more than 10 years' experience in the hospital, while 33.5% of the employees declared to have more than 10 years' experience in the same position and only 38.8% of the respondents have declared their intention to stay.

51.7% of the respondents work in therapeutic area. Nursing staff represents 36.2% of the total staff while medical doctor take up about 19%. Regarding the unit's average daily census, 62.5% of the respondents declared that they have more than 20 patients per day. The majority of the respondents consider that the changes that affect the hospitals in Jordan are heavy workload and health care financing issues.

The same sample was used by Davidescu, Eid and Sacala in 2016.

#### 4.2. Analyzing the differences between demographic characteristics and job satisfaction factors in Jordanian hospitals

It is important to point out that information offered by this scale is regarding the overall level of job satisfaction and that is also a measure of satisfaction related to financial incentives.

After analyzing the employee job satisfaction from Jordanian hospitals, it was shown that only 51.1% of respondents are somewhat satisfied with their job and only 16% declared to be very satisfied. Regarding the level of satisfaction by wage, only 39.1% of the respondents declared to be satisfied and only 8% of the respondents declared to be very satisfied.

**Table 1. The level of overall job and wage satisfaction**

	Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
All in all, I am satisfied with my job	29 8.9%	40 12.3%	38 11.7%	166 51.1%	52 16.0%
All in all, I am satisfied with my wage	51 15.7%	83 25.5%	38 11.7%	127 39.1%	26 8.0%

*Source: Davidescu, Eid and Sacala (2016)*

Analyzing the individuals' responses on job satisfaction by demographic and employment variables, we can point out the following:

- Almost 70% of employees from both public and private hospitals declared to be satisfied on overall situation, while only 41.2% of public hospitals employees are satisfied with their wages;
- 70% of males and females are satisfied with their jobs and only 49% of females and 45% of males are satisfied with their salaries;
- The young employees are the most satisfied with both their job and their salaries, while 81.3% of the employees with post diploma declared to be satisfied with their jobs;
- Almost 70% of employees having 1 year experience in hospital and in the same position stated to be satisfied with their job.
- 83% of the divorced people stated to be satisfied with their job while helpers and the administrative staff have the highest level of motivation;
- More than 70% of people from managerial and diagnostic are satisfied with their job;
- Extrinsic job satisfaction and employee relations satisfaction was significantly low among the people over 55 years old, while there is a statistically significant difference between type of employees and the all components of job satisfaction, stating that the most satisfied are the administrative staff and helpers.
- Employees from managerial area and diagnostic are the most satisfied with their jobs.

**Table 2. The proportion of overall job satisfaction on demographic and employment variables**

		Overall job satisfaction			Overall wage satisfaction		
		Dissatisf	Neutral	Satisf	Dissatisf	Neutral	Satisf.
		Row N %	Row N %	Row N %	Row N %	Row N %	Row N %
TYPE OF HOSPITAL	private	16.5%	13.8%	69.7%	25.7%	15.6%	58.7%
	public	23.6%	10.6%	65.7%	49.1%	9.7%	41.2%
GENDER	Male	21.5%	9.3%	69.2%	42.4%	12.2%	45.3%
	Female	20.9%	14.4%	64.7%	39.9%	11.1%	49.0%
AGE	<25 years	11.5%	15.4%	73.1%	19.2%	15.4%	65.4%
	[25-35 years]	20.4%	15.6%	64.1%	44.3%	14.4%	41.3%
	[36-45 years]	27.4%	6.0%	66.7%	42.9%	6.0%	51.2%
	[46-55 years]	25.8%	.0%	74.2%	41.9%	6.5%	51.6%
	>55 years	5.9%	17.6%	76.5%	35.3%	17.6%	47.1%
GRADUATION DEGREE	Illiterate	38.5%	15.4%	46.2%	61.5%	7.7%	30.8%
	Under diploma	31.3%	6.3%	62.5%	62.5%	.0%	37.5%
	Diploma	18.2%	10.4%	71.4%	48.1%	10.4%	41.6%
	Post diploma	18.8%	.0%	81.3%	25.0%	18.8%	56.3%
	Bachelor of science	21.3%	12.8%	66.0%	41.8%	11.3%	46.8%
	Master of science or doctor of medicine	22.2%	11.1%	66.7%	33.3%	13.3%	53.3%
TIME WORKING IN HOSPITAL	Doctor of philosophy	11.8%	23.5%	64.7%	5.9%	23.5%	70.6%
	<1 year	5.3%	21.1%	73.7%	31.6%	21.1%	47.4%
	[1-2] years	32.5%	10.0%	57.5%	52.5%	12.5%	35.0%
	[3-4] years	19.7%	9.8%	70.5%	37.7%	14.8%	47.5%
	[5-9] years	16.2%	18.9%	64.9%	25.7%	13.5%	60.8%
YEARS IN THE SAME POSITION	>=10 years	23.7%	7.6%	68.7%	49.6%	7.6%	42.7%
	<1 year	25.0%	5.0%	70.0%	40.0%	10.0%	50.0%
	[1-2] years	23.6%	14.5%	61.8%	45.5%	14.5%	40.0%
	[3-4] years	20.5%	9.6%	69.9%	30.1%	11.0%	58.9%
	[5-9] years	19.1%	16.2%	64.7%	35.3%	10.3%	54.4%
MARITAL STATUS	>=10 years	21.1%	10.1%	68.8%	50.5%	11.9%	37.6%
	Married	21.6%	13.2%	65.2%	44.1%	9.7%	46.3%
	Single	20.7%	8.7%	70.7%	34.8%	17.4%	47.8%
POSITION	Separated/divorced or widowed	16.7%	.0%	83.3%	33.3%	.0%	66.7%
	Doctors	25.0%	15.0%	60.0%	38.3%	16.7%	45.0%
	Nurses	30.5%	8.5%	61.0%	49.2%	6.8%	44.1%
	Helpers	11.4%	13.6%	75.0%	34.1%	13.6%	52.3%
	Support staff	28.6%	14.3%	57.1%	42.9%	28.6%	28.6%

	Administrative staff	8.9%	8.9%	82.2%	31.1%	15.6%	53.3%
	Other health related staff	13.7%	15.7%	70.6%	41.2%	9.8%	49.0%
AREA OF WORK	Managerial and clerical	6.8%	12.3%	80.8%	32.9%	8.2%	58.9%
	Ancillary or logistic	22.7%	11.4%	65.9%	40.9%	6.8%	52.3%
	Therapeutic	28.6%	11.3%	60.1%	47.6%	11.3%	41.1%
	Diagnostic	15.0%	12.5%	72.5%	30.0%	25.0%	45.0%
MANAG.POSITION	Yes	19.8%	5.2%	75.0%	39.6%	6.3%	54.2%
	No	21.8%	14.4%	63.8%	41.9%	14.0%	44.1%
INTENTION_LEAVE	Yes	34.9%	9.5%	55.6%	57.1%	8.7%	34.1%
	No	12.6%	13.1%	74.4%	31.2%	13.6%	55.3%
ORGANIS_STRUCTURE	Vertical	17.1%	11.0%	71.9%	29.5%	8.9%	61.6%
	Horizontal	14.0%	15.8%	70.2%	28.1%	17.5%	54.4%
	Matrix	27.3%	18.2%	54.5%	36.4%	27.3%	36.4%
	Unclear	29.7%	9.9%	60.4%	64.0%	10.8%	25.2%
AVERAGE DAILY CENSUS	.[1-5] patients	39.1%	8.7%	52.2%	69.6%	.0%	30.4%
	[6-10] patients	28.1%	12.5%	59.4%	53.1%	12.5%	34.4%
	[11-15] patients	9.7%	19.4%	71.0%	25.8%	12.9%	61.3%
	[16-20] patients	30.6%	8.3%	61.1%	44.4%	11.1%	44.4%
	> 20 patients	18.2%	11.3%	70.4%	37.9%	12.8%	49.3%

Source: Authors contribution

Analyzing the opinions of the respondents concerning the personal and work-related characteristics and the level of satisfaction in Jordanian hospitals we can conclude that there are not significant differences regarding the overall satisfaction level and also intrinsic, extrinsic, working conditions and employee relations by type of hospital, gender, graduation degree, time working in hospital, experience in the same position, marital status, area of work or management position.

But instead we can prove that we have different perceptions of individuals regarding age, position and organization structure.

Therefore, we can mention that young and older employees exhibited higher degrees of satisfaction comparative with other age group regarding the extrinsic satisfaction and employee relations. Also there are quite significant differences between doctors, nurses, supporting staff and administrative staff regarding several satisfaction factors (prob<1%). Thus, administrative staff, helpers and doctors are more satisfied intrinsic satisfaction, extrinsic satisfaction, working conditions, employee relations and also on the overall level of satisfaction. Also individuals from horizontal structure exhibit higher levels of satisfaction regarding the job satisfaction factors than the ones from vertical structure.

The empirical results of Spearman correlation coefficients presented in table 4 highlighted a negative correlation between hospital type and wage satisfaction ( $r = -0.019$ ), a positive correlation between graduation degree and wage satisfaction (0.97), negative correlation between experience in the same position and extrinsic job satisfaction and employee relations satisfaction, positive correlations between position and satisfaction components, a negative

correlation between area of work and extrinsic job satisfaction, working condition satisfaction and employee relations satisfaction. We also found a negative correlation between organizational structure and all components of satisfaction.

**Table 3. Socio-demographic differences on the job satisfaction factors**

		Intrinsic job satisfaction	Extrinsic job satisfaction	Working conditions satisfaction	Employee relation satisfaction	Total job satisfaction
		Mean	Mean	Mean	Mean	Mean
TYPE OF HOSPITAL	private	3.09	3.13	3.19	3.03	3.13
	public	3.07	3.09	3.22	2.86	3.05
	Sig(t-test)	0.83	0.58	0.67	0.092	0.337
GENDER	Male	3.08	3.09	3.17	2.92	3.06
	Female	3.09	3.12	3.26	2.92	3.09
	Sig(t-test)	0.88	0.68	0.30	0.99	0.72
AGE	<25 years	3.21	3.34	3.24	3.24	3.27
	[25-35 years]	3.06	3.11	3.24	2.91	3.07
	[36-45 years]	3.03	2.99	3.11	2.80	2.99
	[46-55 years]	3.03	2.99	3.12	2.85	3.01
	>55 years	3.40	3.47	3.60	3.23	3.39
	Sig(ANOVA)	0.42	0.047**	0.15	0.08***	0.17
GRADUATION DEGREE	Illiterate	2.81	3.19	3.11	2.86	2.91
	Under diploma	3.00	3.14	3.08	3.06	3.03
	Diploma	3.05	3.04	3.19	2.84	3.02
	Post diploma	3.38	3.50	3.48	3.43	3.43
	Bachelor of science	3.08	3.07	3.19	2.88	3.06
	Master of science or doctor of medicine	3.08	3.08	3.24	2.83	3.07
	Doctor of philosophy	3.23	3.29	3.39	3.21	3.30
	Sig(ANOVA)	0.603	0.33	0.68	0.13	0.36
TIME WORKING IN HOSPITAL	<1 year	3.34	3.38	3.41	3.19	3.32
	[1-2] years	3.01	3.07	3.18	2.92	3.02
	[3-4] years	2.99	3.06	3.15	2.90	3.03
	[5-9] years	3.12	3.19	3.27	3.04	3.17
	>=10 years	3.08	3.04	3.19	2.82	3.03
	Sig(ANOVA)	0.51	0.29	0.68	0.25	0.35
YEARS IN THE SAME POSITION	<1 year	3.37	3.37	3.39	3.13	3.29
	[1-2] years	3.14	3.17	3.26	2.98	3.11
	[3-4] years	3.09	3.13	3.23	3.00	3.13
	[5-9] years	3.02	3.07	3.13	2.96	3.05
	>=10 years	3.03	3.02	3.20	2.77	3.00
	Sig(ANOVA)	0.45	0.31	0.70	0.21	0.48

MARITAL STATUS	Married	3.10	3.12	3.23	2.93	3.08
	Single	3.03	3.05	3.16	2.86	3.04
	Separated/divorced or widowed	3.31	3.19	3.27	3.36	3.30
	Sig(ANOVA)	0.64	0.66	0.72	0.35	0.68
POSITION	Doctors	3.00	3.04	3.17	2.81	3.01
	Nurses	2.97	2.92	3.02	2.78	2.93
	Helpers	3.25	3.27	3.46	3.06	3.25
	Support staff	2.95	3.27	3.03	2.93	3.00
	Administrative staff	3.35	3.40	3.56	3.18	3.36
	Other health related staff	3.08	3.18	3.21	3.01	3.10
	Sig(ANOVA)	0.067***	0.002*	0.00*	0.062***	0.009*
AREA OF WORK	Managerial and clerical	3.33	3.43	3.52	3.22	3.35
	Ancillary or logistic	3.02	3.18	3.14	3.05	3.08
	Therapeutic	2.94	2.89	3.05	2.70	2.90
	Diagnostic	3.27	3.31	3.41	3.13	3.28
	Sig(ANOVA)	0.002*	0.00*	0.00*	0.00*	0.00*
MANAG.POSITION	Yes	3.05	3.08	3.20	2.93	3.08
	No	3.09	3.11	3.22	2.91	3.07
	Sig(t-test)	0.66	0.76	0.85	0.85	0.96
ORGANIS STRUCTURE	Vertical	3.14	3.17	3.27	3.00	3.17
	Horizontal	3.33	3.44	3.47	3.32	3.37
	Matrix	2.88	2.90	2.95	2.91	2.89
	Unclear	2.89	2.86	3.04	2.60	2.82
	Sig(ANOVA)	0.03*	0.00*	0.00*	0.00*	0.00*

Source: Authors contribution

Notes: \* means significance at 1% level; \*\* 5% significance level and \*\*\* 10% significance level.

**Table 4. Table Correlations**

			Intrinsic job satisfaction	Extrinsic job satisfaction	Working conditions satisfaction	Employee Relation satisfaction	All in all, I am satisfied with my job	All in all, I am satisfied with my wage
Spearman's rho	TYPE OF HOSPITAL	Correlation Coefficient	-.011	-.030	.015	-.085	.011	-.191**
		Sig. (2-tailed)	.841	.592	.791	.127	.843	.001
	GENDER	Correlation Coefficient	.005	.006	.038	-.001	.006	.008
		Sig. (2-tailed)	.926	.912	.496	.983	.915	.888
	AGE	Correlation Coefficient	.008	-.051	-.012	-.053	.009	-.002
		Sig. (2-tailed)	.884	.363	.834	.341	.869	.972
	GRADUATION DEGREE	Correlation Coefficient	.042	.001	.043	.011	-.055	.162**



		Sig. (2-tailed)	.446	.987	.443	.848	.325	.003
TIME WORKING IN HOSPITAL	Correlation Coefficient		.008	-.055	-.022	-.080	.007	-.040
	Sig. (2-tailed)		.881	.322	.692	.150	.903	.471
YEARS IN THE SAME POSITION	Correlation Coefficient		-.085	-.112*	-.058	-.111*	-.015	-.081
	Sig. (2-tailed)		.126	.043	.300	.046	.793	.145
MARITAL STATUS	Correlation Coefficient		-.023	-.051	-.047	-.020	.026	.046
	Sig. (2-tailed)		.684	.357	.398	.723	.646	.410
POSITION	Correlation Coefficient		.111*	.155**	.136*	.143**	.167**	.063
	Sig. (2-tailed)		.045	.005	.014	.010	.003	.256
AREA OF WORK	Correlation Coefficient		-.093	-.175**	-.136*	-.148**	-.094	-.094
	Sig. (2-tailed)		.095	.002	.014	.008	.092	.089
MANAG.POSITION	Correlation Coefficient		.029	.015	.005	-.004	-.069	-.088
	Sig. (2-tailed)		.598	.786	.928	.948	.217	.113
INTENTION_LEAVE	Correlation Coefficient		.267**	.220**	.186**	.254**	.223**	.235**
	Sig. (2-tailed)		.000	.000	.001	.000	.000	.000
ORGANIS_STRUCTURE	Correlation Coefficient		-.132*	-.178**	-.140*	-.196**	-.111*	-.323**
	Sig. (2-tailed)		.017	.001	.011	.000	.046	.000

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors contribution

## 5. CONCLUSIONS

The results of this research show us the differences of perception regarding the main determinants of job satisfaction among the health workers from Jordanian Hospitals. We have found out that from our total of 325 respondents (from both public and private hospitals), only 51.1 % of them are satisfied with their job and 16% seem to be very satisfied. Taking into account the individuals' responses on job satisfaction, by demographic and employment variables, we have revealed the following data: the young employees are the most satisfied with their jobs and salaries, the proportion between male and female satisfaction, on what the salary is concerned, is quite well-balanced, with a difference of only 4% between men and women's satisfaction score. Regarding the employees, from both public and private hospitals, 70% stated their satisfaction on the overall situation. Another element worth mentioning is the satisfaction of the divorced employees – 83% of them stated that they are satisfied with their job, while the administrative staff and the helpers have the highest scores for the motivation. In addition, more than 70% of people from managerial and diagnostic departments declared that they are satisfied with their job.

Moreover, we have analyzed the answers of our respondents in what the personal and work-related characteristics and the level of satisfaction for the hospitals from Jordan are concerned – there are no significant differences regarding the overall satisfaction level, no matter the type of hospital, gender, area of work management, degree, the period of time of the employees' hospital working. The only reliable difference we have found out is the fact that

we have proven that there are differences in individuals' perceptions regarding position, age and organization structure – the elders and the young employees scored higher levels of satisfaction, in contrast with other age group regarding the employees' relations and extrinsic satisfaction.

In conclusion, the issue of the socio-demographic differences of the main determinants of employee satisfaction in Jordanian Hospitals demands a deeper insight and further investigation by comparing the practices and the experiences of different countries in the process of employee satisfaction.

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