original article

Physician job satisfaction in Saudi Arabia: insights from a tertiary hospital survey

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Ann Saudi Med 2015; 35(3): 210-213

DOI: 10.5144/0256-4947.2015.210

BACKGROUND AND OBJECTIVES: Job satisfaction refers to the extent to which people like or dislike their job. Job satisfaction varies across professions. Few studies have explored this issue among physicians in Saudi Arabia. The objective of this study is to determine the level and factors associated with job satisfaction among Saudi and non-Saudi physicians.

METHODS: In this cross-sectional study conducted in a major tertiary hospital in Riyadh, a 5-point Likert scale structured questionnaire was used to collect data on a wide range of socio-demographic, practice environment characteristics and level and consequences of job satisfaction from practicing physicians (consultants or residents) across different medical specialties. Logistic regression models were fitted to determine factors associated with job satisfaction.

RESULTS: Of 344 participants, 300 (87.2%) were Saudis, 252 (73%) males, 255 (74%) married, 188 (54.7%) consultants and age [median (IQR)] was 32 (27-42.7) years. Overall, 104 (30%) respondents were dissatisfied with their jobs. Intensive care physicians were the most dissatisfied physicians (50%). In a multiple logistic regression model, income satisfaction (odds ratio [OR]=0.448 95% CI 0.278-0.723, *P*<.001) was the only factor independently associated with dissatisfaction.

CONCLUSION: Factors adversely associated with physicians job satisfaction identified in this study should be addressed in governmental strategic planning aimed at improving the healthcare system and patient care.

Job satisfaction refers to the extent to which people enjoy filling their position in their chosen line of work.[1] Over the last decade, job satisfaction levels have been studied across a wide range of fields of employment,[2-7] with levels ranging from 27% to 96%.[3-5] A large survey study conducted in the United States showed that physician job satisfaction decreased between 1997 and 2001. In 1997, 42.4% of primary care physicians and 43.3% of specialists surveyed reported being very satisfied with their employment. By 2001, those numbers had shrunk to only 38.5% of primary care physicians and 41.4% of specialists who reported being very satisfied with their jobs.[8] In Saudi Arabia, Al Juhani et al found that 52.4% of surveyed primary care physicians were dissatisfied.[9]

The literature suggests a number of potential factors that may negatively affect job satisfaction among medical professionals, including income, weekly working hours, gender, number of hours on call, lifestyle, and burnout.[3,10,11] However, the correlation between these variables and overall job satisfaction remains uncertain and controversial; a direct causative relationship has yet to be established.

According to the Saudi Ministry of Health, Saudi physicians represent only 24.8% of working physicians in the country.[12] Despite this dire shortage and the fact that dissatisfied physicians are unlikely to deliver optimal medical care and are more likely to retire,[13,14] very few studies have been conducted on this issue in Saudi Arabia, and those that do exist have primarily focused on primary care physicians.[2,15] Given the workforce shortage of certified physicians in Saudi Arabia, job satisfaction as it relates to physi-

cian retention is of particular importance to health policy makers and to the government as a whole.

The primary objective of this study was to determine the level of job satisfaction among Saudi and non-Saudi physicians of different specialties working in Riyadh, Saudi Arabia and to explore factors associated with job dissatisfaction.

METHODS

Study population

The participants in this study were practicing physicians (consultants or residents) classified by major medical specialty at a tertiary healthcare hospital. These specialties included surgery, OB/GYN, anesthesia, emergency medicine, internal medicine, family medicine, pediatrics, psychiatry, and intensive care. Residents who rotated through different hospitals during the study period were excluded, as were consultants not directly involved in patient management.

Sample size

The calculated sample size was based on the satisfaction level range of 25%-75% reported in the relevant literature, with 80% power and a 95% confidence level.

Questionnaire and data collection

Job satisfaction was assessed by asking the participants to rate their job satisfaction using a five-point Likert scale ranging from very satisfied (1) to very dissatisfied (5). Based upon the total score achieved, a dependent binary variable was created to indicate whether the participant was satisfied or dissatisfied. The second part of the questionnaire was developed to assess the risk factors for dissatisfaction among the sample and consisted of 17 questions on a wide range of variables, including demographic information and practice environment characteristics. The third part of the questionnaire was intended to assess the consequences of job dissatisfaction. This section consisted of four questions, including the physician's plan for early retirement or changing practices, whether the physician would choose the same specialization again, and a screening test for symptoms of depression. Depression was identified using the two items in the primary care evaluation of mental disorders. Ethical approval was obtained from King Abdullah International Medical Research Center. The study was conducted over two months from October to November 2010.

Data analysis

Data were summarized using appropriate descriptive statistics. The chi-squared test was used for comparison of categorical variables and the *t* test for continuous variables. Univariate and multiple logistic regression models were fitted to identify factors associated with job dissatisfaction. Variables found significant in univariate analysis were included in the final multivariate model. All tests were two-sided and a *P* value <.05 was considered significant. Strength of association was expressed as an odds ratio (OR) with a 95% confidence interval (CI). Statistical analyses were conducted using the IBM SPSS software (IBM Corp., NY, USA, version 20).

RESULTS

The study included 344 participants. Of these, 252 (73%) were males, 255 (74%) married, 300 (87%) Saudi physicians, 188 (55%) consultants and 156 (45%) residents. The median (IQR) age was 32 (27-42.7) years (**Table 1**).

Table 1. Characteristics of patients stratified by satisfaction status.

Characteristics	Satisfied (n=240), n (%)	Dissatisfied (n=104), n (%)	*P* value
Sex			
Female	60 (25%)	32 (31%)	.267
Male	180 (75%)	72 (69%)	
Nationality			
Saudi	205 (85%)	95 (91%)	.130
Non-Saudi	35 (15%)	9 (9%)	
Marital status			
Not married	62 (26%)	24 (23%)	.591
Married	176 (74%)	79 (77%)	
Positions			
Consultants	125 (52%)	63 (61%)	.146
Residents	115 (48%)	41 (39%)	
Family life affected			
Yes	168 (70%)	84 (81%)	.038
No	72 (30%)	20 (19%)	
Income satisfaction			
Yes	156 (65%)	45 (43%)	<.0001
No	84 (35%)	59 (57%)	
Patient volume/clinic			
0	61 (25.7%)	17 (16.7%)	
≤10	19 (8%)	14 (13.7%)	.056
11-15	75 (31.6%)	26 (25.5%)	
≥16	82 (34.6%)	45 (44.1%)	

Of the 344 respondents, 104 (30%) were dissatisfied with their jobs. Of these, 63 (61%) were consultants, 38 (40%) planning for early retirement, 41 (39.4%) considering changing their practice, and 32 (31%) indicated that they would not choose their specialization if they had a second chance. Respondents working in intensive care had the highest level of dissatisfaction (50%), followed by internists (34%). The least dissatisfied respondents were emergency medicine specialists (8%) (**Table 2**).

In univariate analyses, the factors significantly associated with dissatisfaction were income satisfaction, family life affected by the specialization, and positive depression symptoms on the screening test. In the multiple logistic regression model, the only factor that was independently associated with dissatisfaction was income satisfaction (odds ratio [OR]=0.448 95% CI 0.278-0.723, *P*<.001) (**Table 3**). Physicians satisfied with their income were more satisfied with their job compared with those not satisfied with their income.

DISCUSSION

To the best of our knowledge, this is the first study conducted in Saudi Arabia to determine level and factors associated with job satisfaction among the different medical job specializations. The few previous studies conducted in Saudi Arabia focused on primary care physicians. This is an obvious limitation owing to the fact that each medical specialization area has a unique environment and sources of stress. In addition, large portions of data in these studies were obtained from non-Saudi physicians (more than 80% compared with only 9% in our study) and therefore cannot be generalized to Saudi physicians.[2,9,15] Thus, our study addressed the limitations of the other local studies and the findings are generalizable to the larger Saudi physicians community.

Our results show that income satisfaction plays a dominant role in job satisfaction. Similar findings have been reported in the literature. According to Leigh et al, physicians with incomes between $250 000 and $299 999 are significantly more satisfied than physicians who earn less.[3] Similar findings have been reported by Qian et al.[16] However, other studies found no association between satisfaction and job income.[17] These conflicting results may be due to different cultures, backgrounds and personality characteristics. Additionally, some physicians may be reluctant to state that their income satisfaction has a major influence on their job satisfaction because this statement may be seen as professionally and socially unacceptable. Our data suggest that dissatisfied physicians are at higher risk of leaving the medical practice through early retirement. Dissatisfied physicians are two to three times more likely to leave medicine than satisfied physicians are.[14]

Physicians' lifestyle, family life, and social life are crucial factors in a young graduate's choice of specialization, particularly for women.[18,19] These three aspects play a significant role in job satisfaction. Troppmann et al reported that 65.9% of surgeons were dissatisfied with the amount of time available for their family, although 85% were satisfied with their career.[19] In our study, physicians who believed that their job had affect-

Table 2. Prevalence of dissatisfaction across specializations.

Specialization	Dissatisfied	Satisfied	Prevalence
Intensive Care	5	5	50%
Internal Medicine	27	51	34%
Surgery	25	50	33%
Family Medicine	12	26	31%
Psychiatry	3	7	30%
Anesthesia	5	12	30%
Pediatrics	16	40	28%
OB/GYN	9	26	25%
Emergency	2	23	8%

Table 3. Univariate and multivariate logistic regression analyses for factors associated with physician job dissatisfaction.

Characteristics	Univariate Analysis		Multivariate Analysis			
	Odds Ratio (95%CI)	*P* value	β	Standard error	Odds Ratio (95%CI)	*P* value
Family life affected	1.800 (1.028-3.152)	.040	0.419	0.296	1.52 (0.85-2.72)	.157
Income satisfaction	0.411 (0.257-0.657)	<.0001	-0.803	0.244	0.448 (0.278-0.723)	.001
Positive-depression	1.732 (1.055-2.844)	.030	0.370	0.263	1.447 (0.864-2.424)	.160

ed their family life were more likely to report low levels of career satisfaction. However, this association did not attain statistical significance in the final multivariate analysis model. The association between job dissatisfaction and symptoms of depression also did not reach statistical significance. However, depression cannot be diagnosed based only on depression screening and requires further evaluation for an accurate diagnosis.

Our study concurs with that of Duffy et al that found no association between job satisfaction and gender.[6] Other studies have shown that female physicians have higher job satisfaction than male physicians.[16,17] However, McMurray et al found that women were more likely than men to be dissatisfied.[10]

In this study no statistically significant association was found between job satisfaction and age, marital status, number of years in practice, number of on call times per month and patient volume at clinics, although some other studies have identified these associations.[3,11,16] We identified a trend in which an increase in the number of patients per clinic led to an increase in job dissatisfaction, but this trend was not statistically significant. We assessed the number of patients seen at each clinic, but we did not examine the inpatient load. This is an obvious limitation of this study. Another limitation is that job satisfaction is not a single domain; hence, measuring satisfaction with only one question, as we did in this study, may not provide accurate results. Satisfaction is complex and may include satisfaction with one's practice, hospital system, or work environment, and the participants may have been dissatisfied with their work environment or hospital system rather than with their specialization.

Our study was limited to a single tertiary institution. A multi-center based study might be needed to fully characterize and identify factors associated with job dissatisfaction. Nevertheless, this study contributes significantly to the limited literature on physician satisfaction in Saudi Arabia. A holistic approach should be adopted for exploring the more ambiguous aspects of physician satisfaction across all areas of specializations. Finally, the results of this study can inform newly graduated physicians in their pursuit for specialization.

CONCLUSION

This study explored job satisfaction across different specializations and identified factors that affect satisfaction. These factors should be addressed in strategic planning aimed at improving the healthcare system and patient care.

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