

# Comparison of Job Satisfaction among Eight Health Care Professions in Private (Non-Government) Settings

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## Abstract

**Background:** A comparison of the job satisfaction of health care professionals has not been well studied in Malaysia. This study aimed to compare the job satisfaction level among 8 groups of health care professionals in private settings, using the Job Satisfaction Survey (JSS).

**Methods:** A total of 81 health care professionals, including nurses, physiotherapists, occupational therapists, medical laboratory technologists, dieticians, medical imaging practitioners, environmental health officers, and optometrists in private (non-government) settings in the Klang Valley, were interviewed using the Job Satisfaction Survey scale invented by Dr Paul E Spector. Their job satisfaction scores were calculated and determined.

**Results:** In the demographic data, the majority of the subjects were 20–30 years old (81.5%), were female (72.8%), had a basic degree (98.8%), were single (64.2%), and had 1–5 years of working experience (83.9%). A Kruskal–Wallis analysis showed significant differences ( $P < 0.05$ ) in promotion, supervision, operating conditions, co-workers, nature of the work, and communication, but there were no significant differences ( $P > 0.05$ ) in pay, fringe benefits, and contingent rewards in JSS score among the 8 health care professions. The Friedman Test showed a significant difference of overall JSS scores ( $\chi^2 = 526.418$ ,  $P < 0.001$ ) among the 8 health care professions.

**Conclusion:** The overall job satisfaction levels are different among health care professionals in private settings, especially regarding promotion, supervision, operating conditions, co-workers, the nature of the work, and communication.

**Keywords:** job satisfaction, health care, non-governmental organizations, private sector

## Introduction

Job satisfaction (JS) designates how people feel towards their jobs, whether they like (satisfaction) or dislike (dissatisfaction) their jobs (1). Factors that influence JS comprise several aspects pertaining to the job situation, such as salary, career development, the nature of the work, the policies and procedures of an organisation, working conditions, relationships with colleagues and management, and individual needs (2). JS trends can affect labour market behaviour and influence work productivity, work effort, employee absenteeism, and staff turnover. Moreover, JS is considered a strong predictor of overall individual well-being and a good predictor of the intentions or decisions of employees to leave a job (3,4).

Among health care professions, similar factors have been reported to contribute to JS, including competitive pay, adequate staffing, flexible scheduling, feeling of worthwhile accomplishment from their job, opportunities for personal and professional growth, recognition, noticeable progress of patients, positive

relationships with co-workers, autonomy on the job, a pleasant working environment, a reasonable workload, the nature of the work, supervision, communication, benefits, job security, career advancement and contingent rewards (5–18).

A comparison of the JS of health care professionals has not been well studied in Malaysia. Therefore, this study aimed to determine the overall JS among health care professionals in the private (non-government) sectors in the Klang Valley. An established Job Satisfaction Survey (JSS) scale was chosen as the instrument to measure the JS level among the health care professionals.

## Subjects and Methods

This study was conducted using a descriptive survey-designed method based on convenient sampling. A total of 81 health care professionals, including nurses, physiotherapists, occupational therapists, medical laboratory technologists, dieticians, medical imaging practitioners, environmental health officers, and optometrists at private (non-government) settings in the Klang

Valley, participated in this study. A sample size of approximately 80 was targeted due to limited resources, such as the difficulty of obtaining approval from employers to conduct the study in the private sector, a limited amount of time, and budget constraints barring extension of the study to other states. The JSS was sent by hand to the human resource assistants of each non-government/private hospital in the Klang Valley that allowed this study to be conducted among their employees; the human resource assistants then distributed the questionnaires to the health care professionals from 8 groups of interest. This project adhered to the ethical considerations in the Declaration of Helsinki and obtained approval from the Ethical Committee of the Faculty of Health Sciences, Universiti Teknologi MARA.

Demographic information, including age, gender, marital status, educational level, and years of experience, was recorded before administration of the JSS. The JSS, invented by Dr Paul E Spector (1), recognises 9 facets of JS using attitude scale construction techniques for summated (Likert) rating scales. The scales include satisfaction with pay, promotional opportunities, fringe benefits, contingent rewards, supervision, co-workers, the nature of the work, communication, and working conditions. Each item uses a 6-point Likert scale that measures the degree of agreement with the statement. Four-subscale questions with positively and negatively worded statements in 9 facets of the job are evaluated in JSS. The scores of the negatively worded items are added to the positively worded items to obtain the total scores. The overall JSS score is classified as dissatisfaction, moderate, and satisfaction, with total scores of 36–108, 109–144, and 145–216, respectively (1). The JSS for each facet score is classified as dissatisfaction, moderate, and satisfaction with respect to scores of 4–12, 13–15, and 16–24 (1).

With acceptable reliability and validity, JSS has been widely used in many studies on various fields (19). The internal consistency of reliability ranges from 0.60 for co-workers at the sub-scale to 0.91 for the total scale. The widely accepted minimum standard for internal consistency is 0.70 (20). The test–retest reliability ranges from 0.37 to 0.74. A good correlation of sub-scales between the JSS and corresponding sub-scales of the Job Descriptive Index, which is considered to be the most carefully validated scale of JS, ranges from 0.61 for co-workers to 0.80 for supervision (21).

To bolster confidence in the suitability of the JSS in Malaysian health care professionals, a Rasch analysis was performed to analyse the

reliability of the JSS in terms of the questionnaire (measured items) itself and the target groups (measured persons).

For the questionnaire (Table 1), the expected mean square value was found to be 1.00 and within the expected range of  $0.5 < x < 1.5$ , while the outfit z-standard value for normality was found to be  $-0.1$ , which is very close to the expected value of zero and within the normality range of  $-2 < z < 2$ . The questionnaire has excellent fit with the item reliability of 0.96 (22). The high item reliability of 0.96 indicates that the replicability of the items could occur if these items are to be given to another sample of the same size (23).

In determining the suitability of the questionnaire for Malaysian health care professionals, the person reliability value was found to be poor (0.67) when all 8 health care professional groups were combined. However, the means for the item and for the person were found to be at a similar level on the Items MAP of Persons (Figure 1), which indicates that the difficulty level of the questionnaire was not above or below the ability of the respondents. The mean value is 0.40 and 0.00 for Person and Item, respectively, which is near zero (Table 1). With further analysis of the person reliability for each health care profession, we found out that only the medical laboratory technologist group was problematic regarding separation and reliability values at zero. After re-examining the questionnaire and re-analysing the nature of the work demands, we noticed that the medical laboratory technologists were the only group of the 8 health care professions who do not have direct contact with patients, as their work is laboratory-based. Thus, this questionnaire may not be suitable for use by this group of professionals. When we excluded the group, the person reliability became fairly reliable (0.69). We can confidently conclude that the JSS is reliable for use with Malaysian health care professionals.

## Results

A total of 100 questionnaires were distributed in this study, and the response rate was 81.0% (Table 2). In the demographic data of the respondents (Table 3), the highest percentage is from the group aged 20 to 30 (81.5%). More females (72.8%) responded than males. The majority of the respondents have basic degrees (98.8%). Most of the respondents are single (64.2%), and most have 1–5 years of working experience (83.9%).

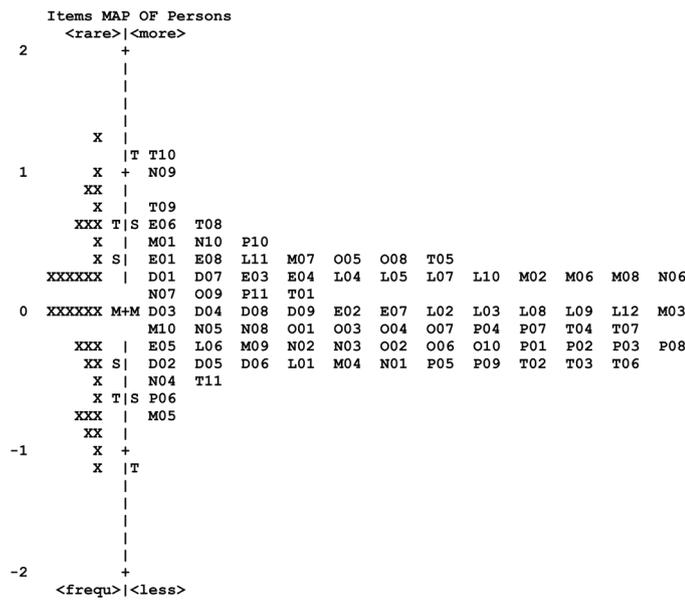


Figure 1: Rasch analysis: Items MAP of Persons

Table 1a: Rasch analysis reliability table for 81 measured persons

	Raw score	Count	Measure	Model error	Infit		Outfit	
					MNSQ	ZSTD	MNSQ	ZSTD
Mean	131.7	36.0	0.04	0.16	1.00	-0.4	1.00	-0.4
SD	11.4	0.0	0.29	0.01	0.59	2.4	0.58	2.3
Max	170.0	36.0	1.12	0.19	3.41	7.3	3.39	7.1
Min	102.0	36.0	-0.68	0.15	0.25	-5.0	0.25	-4.9
Real RMSE	0.18	Adj. SD	0.23	Separation	1.34	Person reliability		0.64
Model RMSE	0.16	Adj. SD	0.25	Separation	1.55	Person reliability		0.71

SE of Person mean = 0.03

Person raw score-to-measure correlation = 1.00  
 Cronbach alpha (kr-20) person raw score reliability = 0.68

Table 1b: Rasch analysis reliability table for 36 measured items

	Raw score	Count	Measure	Model error	Infit		Outfit	
					MNSQ	ZSTD	MNSQ	ZSTD
Mean	296.4	81.0	0.00	0.11	0.99	-0.1	1.00	-0.1
SD	53.0	0.0	0.58	0.01	0.23	1.6	0.24	1.6
Max	388.0	81.0	1.25	0.13	1.54	3.3	1.56	3.5
Min	178.0	81.0	-1.12	0.10	0.60	-2.8	0.62	-2.9
Real RMSE	0.11	Adj. SD	0.57	Separation	5.14	Person reliability		0.96
Model RMSE	0.11	Adj. SD	0.57	Separation	5.37	Person reliability		0.97

SE of Item mean = 0.10

Umean = 0.000 uscale = 1.000  
 Item raw score-to-measure correlation = -1.00  
 2916 data points. Approximate log-likelihood chi-square: 8390.88

**Table 2:** Number of respondents from each health care profession

Profession	n
Optometrist	10
Nurse	10
Physiotherapist	11
Occupational therapist	11
Medical imaging practitioner	10
Medical laboratory technologist	12
Environmental health officer	8
Nutritionist and dietician	9
<b>Total</b>	<b>81</b>

**Table 3:** Distribution of demographic data

Parameter	n	%
Age		
Not stated	2	2.5
20–30 years	66	81.5
31–40 years	10	12.4
41–50 years	1	1.2
51–60 years	2	2.4
Gender		
Male	22	27.2
Female	59	72.8
Educational level		
Diploma	37	45.7
Bachelor	43	53.1
Master	1	1.2
PhD	0	0.0
Marital status		
Single	52	64.2
Married	29	35.8
Divorced	0	0.0
Widowed	0	0.0
Year(s) of experience		
1–5 year(s)	68	83.9
6–10 years	6	7.4
11–15 years	7	8.7

The descriptive statistics are presented in Table 4 in terms of median, interquartile range, and minimum and maximum scores. A Kruskal–Wallis analysis was used to compare the 8 health care professions for each facet. There are significant differences ( $P < 0.05$ ) in 6 (promotion, supervision, operating conditions, co-workers,

nature of the work, and communication) of the 9 facets in the JSS among the 8 health care professions. There is no significant difference ( $P > 0.05$ ) in 3 (pay, fringe benefit, and contingent reward) out of the 9 facets. The Friedman Test showed a significant difference in the overall JS scores ( $\chi^2 = 526.418$ ,  $P < 0.001$ ) among the 8 health care professions. The median was 140 (interquartile range = 22), with a minimum of 107 and a maximum of 170.

This study reveals an interesting trend in JS when the data are viewed differently by matching the JSS classification based on the mean score for each facet (Table 5). This trend is outlined as follows:

*Pay facet*

All eight health care profession groups are moderately satisfied.

*Promotion facet*

Most of the groups were moderately satisfied (optometrists, nurses, occupational therapists, and medical imaging practitioners), 2 were satisfied (medical laboratory technologists and environmental health officers), and 2 were dissatisfied (physiotherapists and dieticians).

*Supervision facet*

All 8 groups were satisfied.

*Fringe benefit facet*

Most of the groups were moderately satisfied, except physiotherapists and medical laboratory technologists (dissatisfied).

*Contingent reward facet*

All 8 groups were moderately satisfied.

*Operating condition facet*

Most of the groups were moderately satisfied, except nurses, occupational therapists, and environmental health officers (dissatisfied).

*Co-workers facet*

Most groups were satisfied, except nurses and occupational therapists (moderately satisfied).

*Nature of the work facet*

All 8 health care groups were satisfied.

*Communication facet*

Most of the groups were satisfied, except occupational therapists, medical imaging practitioners, and environmental health & safety officers (moderately satisfied).

**Table 4:** Descriptive statistics of the comparisons of 9 facets in Job Satisfaction Survey among 8 health care professions

Facets	Median	Interquartile Range	Minimum	Maximum	Kruskal – Wallis chi-square (df = 7)	P value
Pay	15	3	6	20	9.223	0.237
Promotion	15	3	7	20	17.024	0.017
Supervision	18	4	12	24	15.078	0.035
Fringe benefits	14	4	6	22	9.977	0.190
Contingent rewards	15	4	5	19	9.480	0.220
Operating condition	13	3	7	20	18.293	0.011
Co-workers	17	4	10	23	21.882	0.003
Nature of work	18	3	11	24	22.243	0.002
Communication	17	4	11	24	19.855	0.006

## Discussion

The level of job satisfaction is different among health care professionals in private settings, especially regarding promotion, supervision, operating conditions, co-workers, the nature of the work, and communication, but not regarding pay, fringe benefits, or contingent rewards.

In previous studies (5–8), nurses identified tremendous workloads as the leading cause of dissatisfaction with their job, followed by poor staff cohesiveness, poor staffing, and poor working relationships with administrators. Our study reveals that, overall, nurses displayed moderate JS; they were relatively more satisfied in terms of supervision, the nature of the work, and communication, but were less satisfied with operating conditions among the 9 facets of the JSS considered within the profession.

In previous studies (6,10,11), unrealistic workload, non-competitive pay, inadequate staffing, and inflexible scheduling were common factors in job dissatisfaction for occupational therapists and physiotherapists, whereas factors contributing to JS included the noticeable progress of patients, positive relationships with co-workers, autonomy on the job, and a pleasant working environment. Our study reveals that physiotherapists were moderately satisfied with their overall JS; they were relatively more satisfied in terms of supervision, co-workers, the nature of the work, and communication, but were less satisfied with promotion and fringe benefits among the 9 facets of the JSS considered within the profession. Our study also reveals

that occupational therapists were moderately satisfied with their jobs; they were relatively more satisfied in terms of supervision and the nature of the work, but were less satisfied with operating conditions among the 9 facets of the JSS considered within the profession.

Opportunities for autonomy, upward mobility, promotions, and self-esteem were found to be important contributors to JS among medical laboratory technologists in a previous study (11). Our study reveals that medical laboratory technologists were satisfied with their jobs and were relatively more satisfied in terms of promotions, supervision, co-workers, communication, and the nature of the work, but were less satisfied with fringe benefits among the 9 facets of the JSS considered within the profession.

JS among dietitians was reported to be moderate in previous studies (12–14), and they were satisfied with the nature of the work, supervision, communication, benefits, and contingent rewards, but were less satisfied with salary and promotion. Our study also reveals that dietitians were moderately satisfied with their jobs, being relatively more satisfied in terms of supervision, co-workers, communication, and the nature of the work, but less satisfied with promotion among the 9 facets of the JSS considered within the profession.

In a previous study (15), medical imaging practitioners were satisfied with their with their jobs. Our study reveals that medical imaging practitioners were only moderately satisfied

**Table 5:** Comparisons of job satisfaction based on Job Satisfaction Survey among 8 professions

Facets	OPT	NRS	PST	OCT	MIP	MLT	EHO	DTC
Pay	15.70 (2.26) M	14.50 (3.27) M	13.45 (2.95) M	14.45 (1.57) M	13.10 (2.89) M	14.42 (3.18) M	15.00 (3.29) M	15.89 (1.76) M
Promotion	14.20 (1.39) M	15.40 (1.78) M	12.55 (3.27) D	14.73 (3.47) M	14.10 (2.38) M	16.67 (1.97) S	16.88 (2.17) S	12.67 (3.54) D
Supervision	19.00 (3.74) S	18.40 (2.41) S	17.45 (1.57) S	16.18 (2.44) S	18.60 (1.96) S	19.67 (2.35) S	18.38 (2.67) S	17.33 (1.50) S
Fringe benefits	13.70 (3.09) M	14.40 (1.71) M	12.36 (5.37) D	13.27 (1.42) M	13.30 (2.16) M	12.92 (4.01) D	14.00 (2.67) M	15.67 (1.23) M
Contingent rewards	13.90 (4.15) M	13.60 (3.69) M	13.45 (2.73) M	13.36 (1.69) M	13.40 (1.95) M	15.25 (2.45) M	15.25 (1.91) M	15.78 (1.86) M
Operating condition	14.80 (1.93) M	11.40 (2.46) D	13.73 (1.95) M	12.91 (2.02) D	15.10 (1.97) M	13.83 (3.43) M	11.25 (2.82) D	13.44 (3.09) M
Co-workers	17.20 (2.15) S	15.40 (2.46) M	20.55 (2.81) S	14.91 (1.92) M	16.20 (2.53) S	17.92 (3.26) S	16.13 (2.98) S	16.89 (2.71) S
Nature of work	19.50 (2.12) S	18.50 (3.17) S	19.00 (2.98) S	18.00 (2.93) S	16.00 (2.82) S	19.50 (1.93) S	22.00 (2.25) S	18.00 (1.32) S
Communication	17.80 (3.16) S	17.20 (2.44) S	17.64 (2.77) S	14.64 (2.77) M	14.70 (2.58) M	19.17 (2.76) S	15.75 (2.49) M	16.22 (1.86) S
Overall	145.90 (14.44) S	139.00 (13.09) M	138.82 (19.63) M	131.27 (9.85) M	134.70 (10.13) M	149.33 (13.21) S	143.88 (12.42) M	141.56 (7.83) M

The Job Satisfaction Survey scores are expressed in mean (SD) and classified as dissatisfaction (D), moderate (M), and satisfaction (S) based on the mean values. Abbreviation: OPT = optometrist, NRS = nurse, PST = physiotherapist, OCT = occupational therapist, MIP = medical imaging practitioner, MLT = medical laboratory technologist, EHO = environmental health officers, DTC = dietician.

with their jobs. This group was relatively more satisfied in terms of supervision, co-workers, and the nature of the work among the 9 facets of the JSS considered within the profession.

In previous studies (16–18), environmental health officers were only moderately satisfied with the organisation or supervision. Our study reveals that environmental health officers were moderately satisfied with their jobs. This group was relatively more satisfied in terms of promotion, supervision, co-workers, and the nature of the work, but was less satisfied with operating conditions among the nine facets of the JSS considered within the profession.

In a previous study (9), optometrists were dissatisfied with payment, co-workers, job security, working hours, supervision, and variety in the job. Our study reveals the second-highest scores in JS for optometrists compared with 7 other professions in terms of payment, co-workers, and supervision. Meanwhile, optometrists were relatively more satisfied in terms of supervision, co-workers, the nature of the work and communication among the 9 facets of JSS considered within the profession.

All of these findings might be due to country-specific and policy differences in organisations compared with previous studies. Spector (1)

also stated that country-specific differences indeed influence the JS level, based on his study comparing the global JS level measured using the JSS in 4 different countries: the Dominican Republic, Hong Kong, Singapore, and the United States. He found that the pattern of overall JS and the 9 facets considered in the JSS varied in all 4 countries. Under the 10th Malaysia Plan, allocation is emphasised for the construction of hospitals and clinics around Malaysia to ensure that citizens can access health care services. Our study may provide important information regarding JS among health care professionals, which could be an important factor contributing to a better understanding of high-quality health care delivery for health care policy makers, institutes of higher education, and potential candidates who would choose health care as their career in Malaysia.

One major limitation of the study was obtaining approval for organisational participation because JS among workers was perceived as a sensitive issue in organisations. Thus, much time and effort were invested in explaining the purpose of this study and convincing the relevant parties that the data given by the respondents about their JS would be kept confidential. Furthermore, there were private organisations that strictly prohibited this study from being conducted on their employees because of the sensitive issues in JS itself as well as interference with their workflow. One of the limitations in this study is that our sample size of 81 was relatively small due to the limited resources available. A larger sample size in future research might draw a more conclusive comparison of JS.

## Conclusion

The JS levels were different among health care professionals in private (non-government) settings in the Klang Valley. Differences in JS were found in terms of promotion, supervision, operating conditions, co-workers, the nature of the work, and communication, but not in terms of pay, fringe benefits, and contingent rewards among the 8 health care professions. It is recommended that all organisations providing health care services in Malaysia be encouraged to conduct JS surveys among their health care professionals to improve the services provided to patients by early intervention in any dissatisfaction expressed towards various facets of the job.

## Authors' Contributions

Conception and design, analysis and interpretation of the data, drafting and final approval of the article: AHC, SNJ, ARMN

Obtaining of funding, provision of study materials, statistical expertise, administrative, technical, or logistic support: AHC

Collection and assembly of the data: SNJ

Critical revision of the article: AHC

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