

JOB SATISFACTION OF HEALTH-CARE WORKERS AT HEALTH CENTERS IN VIENTIANE CAPITAL AND BOLIKHAMSAI PROVINCE, LAO PDR

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ABSTRACT

The aim of this study was to assess job satisfaction levels among health-care workers and factors correlated with their overall job satisfaction. This cross-sectional study was conducted from July to September 2011 with 164 health-care workers using self-administered questionnaires on a six-point Likert scale. Categorical variables were reported using frequencies and median (interquartile range), while continuous data were using means and standard deviations. Spearman rho coefficients were computed to correlate the overall job satisfaction for each factor, Kruskal-Wallis and Mann-Whitney *U* tests were used to evaluate the differences between demographic characteristics on overall job satisfaction. Of the 164 respondents, the majority were females (65.85%). Other dominant variables were married (76.83%), age ≥ 41 years old (44.51%), certified health professional level (96.30%), nurse profession (59.10%), and working experience ≤ 5 years (55.49%). Participants were satisfied with 17 factors, but dissatisfied with salary levels at a mean score of (3.25). The highest satisfaction reported was for the freedom to choose the method of working with a mean score of 4.99, followed by the amount of variety on the job (4.96), amount of responsibility (4.90), and relationships with co-workers (4.90). The correlation coefficient between overall job satisfaction and main factors for job satisfaction-conflict resolution at work, relationships with co-workers, and organizational structure were (0.79), (0.76), and (0.71), respectively. There were statistically significant differences in age group, working experience and position ($P < 0.05$). In conclusion, health-care workers at health centers in Lao PDR were generally satisfied with their job except for their salary. The main factors that correlate with their overall job satisfaction were conflict resolutions at work, relationships with other co-workers, and organizational structure.

Key Words: Job satisfaction, Health-care workers, Laos

INTRODUCTION

Job satisfaction is defined by how employees feel about their jobs and different aspects of their

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jobs.¹⁾ Job satisfaction is one of the important variables in work and organizational psychology, is regarded as an indicator of working-life quality,²⁾ and is a crucial variable used to determine the quality of health-care systems.

Health centers in the Lao People's Democratic Republic (Lao PDR) provide primary health-care for most of the people at the village level. Therefore, health center workers' job satisfaction is the most important indicator for determining their performance.

Many studies have shown that job satisfaction can be influenced by a wide variety of factors such as competitive pay, adequate staffing, a pleasant working environment, opportunities for personal and professional growth, a reasonable workload, supervision, recognition, noticeable progress of patients, positive relationships with co-workers, autonomy on the job, job security, career advancement and contingent rewards.³⁻⁵⁾ One study demonstrated the importance of job satisfaction to an organization in terms of its positive relationship with individual performance, employee relations, physical and mental health and satisfaction.⁶⁾ Thus, more satisfied employees tend to be more productive and creative.⁷⁾ The job satisfaction of health-care workers has a positive association with patients' satisfaction,^{8,9)} and contributes to the continuity of care.¹⁰⁾

Conversely, job dissatisfaction has a negative impact on the structure and work flows of organizations. Some negative impacts identified include greater non-conformance with procedures and policies, increases in work accidents, and organizational conflicts,¹¹⁾ that may increase the rate of medical errors, thus jeopardizing patient safety,¹²⁾ and higher employment costs,¹³⁾ that contribute to the shortages of health-care providers.¹⁴⁾ Job satisfaction is necessary to retain existing doctors, as well as to promote recruitment of new ones.¹⁵⁾ In short, the quality of health-care workers depends on the level of job satisfaction.²⁾

Several studies have demonstrated differences in how health-care providers feel about their jobs. Findings varied, with some research revealing job satisfaction,^{4,9,16-18)} while others disclosed dissatisfied health-care providers.^{3,15,19)} At the time of our study, there was no research that addressed job satisfaction among health-center workers in Lao PDR. Therefore, the aim of our study was to assess job satisfaction levels among health-care workers and the factors that correlated with their overall job satisfaction

MATERIALS AND METHODS

Design and participants

This cross-sectional study was conducted from July to September 2011 at the health centers in the Vientiane Capital and Bolikhamsai provinces based on convenient sampling. Health-care workers in our study included doctors, medical assistants, nurses, midwives, pharmacists, pharmacist assistants, laboratory technicians and hygienists. We included all staffs who worked at health centers in the two provinces. Health-care workers who were absent during the data collection period were excluded from the study.

Measures

Self-administered questionnaires were sent out. Among the total of 205 health-care workers from both provinces, 164 health-care workers (80% response rate) 101 in the Vientiane capital, and 104 in the Bolikhamsai responded to the questionnaire. Participants were informed beforehand regarding the conditions of participation and data handling.

Questionnaire

The questionnaires comprised two main parts; demography and job satisfaction. Demography

included gender, marital status, age, professional level, profession, work experience, position, and work location. Job satisfaction partly consisted of 18 factors, such as satisfaction with physical working conditions, salary, promotional opportunities, relationships with co-workers, workload, support from supervisors, additional remuneration, responsibilities, working hours and others. For each factor, a respondent can choose from a six-point Likert scale representing various degrees of satisfaction: 1-very dissatisfied, 2-dissatisfied, 3-somewhat dissatisfied, 4-somewhat satisfied, 5-satisfied, and 6-very satisfied. Questions in this part were developed from a published study by Okaro in 2010.¹⁹⁾ The Cronbach's Alpha of the job satisfaction part was 0.89. That value indicates that the question was adequate as reliable.

Data analyses

We interpreted the level of job satisfaction using a mean score for each factor [19]. The overall levels of job satisfaction among health-care workers were classified as being dissatisfied if the sum of the scores for the different factors was between 18–54, while 55–72 was moderate and 73–108 was satisfied.²⁰⁾ Data from the questionnaires were analyzed using SPSS, version 19.0. Categorical variables were reported using frequencies and median (interquartile range), while continuous data (factors for job satisfaction) were using means and standard deviations. Spearman rho coefficients were then computed for correlating the overall job satisfaction levels and each factor. Kruskal–Wallis and Mann–Whitney *U* tests were used to evaluate the differences between selected demographic characteristics on overall job satisfaction. *P*-values less than 0.05 were considered statistically significant.

Ethics

This study was approved by the Ethical Committee of the Ministry of Health, Lao PDR. Informed consent was obtained by researchers from each participant.

RESULTS

Social demographic characteristics

The demographic data of 164 respondents are shown in Table 1. Participants in this study were mostly female (65.85%) and married (76.83%). The highest percentages were obtained from age groups ≥ 41 years of age (44.51%); whereas, the majority of females were from ≤ 30 years of age (43.50%). Most of the respondents had achieved a certified health professional level (96.30%). As for professions, most respondents were nurses (59.10%), followed by medical assistants (14.60%) and medical doctors (3.70%). Respondents with less than five years working experience accounted for (55.49%).

Job satisfaction for each factor

Table 2 shows the health-care workers rates of job satisfaction among various factors. They revealed that the health-care workers were satisfied with 17 factors and dissatisfied only with salaries, for a mean score of 3.25 (± 1.58). The highest level of satisfaction was reported for the freedom to choose one's method of working with a mean satisfaction score of 4.99 (± 0.87). This was followed by the level of job variety, the amount of responsibility, and their relationship with co-workers, giving mean scores of 4.96 (± 0.82), 4.90 (± 0.86) and 4.90 (± 0.80), respectively. Among males, the highest level of satisfaction was reported for the amount of variety on the job 5.14 (± 0.81), followed by freedom of working method 5.11 (± 0.82) and participation in decision making 4.98 (± 0.75). For females, it was the amount of responsibility 4.93 (± 0.82) and freedom

Table 1 Demographic characteristics of respondents (n=164)

Characteristics	Male N (%)	Female N (%)	Overall N (%)
Province			
Vientiane Capital	33 (58.9)	62 (57.4)	95 (57.93)
Bolikhamsai	23 (41.1)	46 (42.6)	69 (42.07)
Marital status			
Single	3 (5.4)	28 (25.9)	31 (18.90)
Married	52 (92.9)	74 (68.5)	126 (76.83)
Divorced/widowed	1 (1.8)	6 (5.6)	7 (4.27)
Age (Years)			
≤ 30	6 (10.7)	47 (43.5)	53 (32.32)
31 - 40	15 (26.8)	23 (21.3)	38 (23.17)
≥ 41	35 (62.5)	38 (35.2)	73 (44.51)
Professional level			
High diploma health profession	1 (1.8)	5 (4.6)	6 (3.70)
Diploma health profession	0 (0.0)	0 (0.0)	0 (0.00)
Certificated health profession	55 (98.2)	103 (95.4)	158 (96.30)
Profession			
Medical doctor	1 (1.8)	5 (4.6)	6 (3.70)
Medical assistant	11 (19.6)	13 (12.0)	24 (14.60)
Nurse	34 (60.7)	63 (58.3)	97 (59.10)
Midwife	3 (5.4)	6 (5.6)	9 (5.50)
Other (Pharmacist Assistant/ Laboratory Technician and Hygienist)	7 (12.5)	21 (19.4)	28 (17.10)
Working experience (Years)			
≤ 5	24 (42.9)	67 (62.0)	91 (55.49)
6 - 15	20 (35.7)	21 (19.4)	41 (25.00)
≥ 16	12 (21.4)	20 (18.5)	32 (19.51)
Position			
Chief/Vice Chief	32 (57.1)	57 (51.9)	88 (53.66)
Technical Staff	24 (42.9)	52 (48.1)	76 (46.34)
Health center located at home town			
Yes	38 (67.9)	79 (73.1)	117 (71.34)
No	18 (32.1)	29 (26.9)	47 (28.66)

of working method 4.93 (± 0.89), followed by the relationship with co-workers 4.92 (± 0.76) and amount of variety on the job 4.86 (± 0.81).

The overall job satisfaction of health-workers in health centers: 79.88% satisfied, 15.85% moderate, and 4.27% dissatisfied.

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Table 2 Job satisfaction for each factor on six-point Likert scale^a (n=164)

No.	Factors of job satisfaction	Male Mean (± SD)	Female Mean (± SD)	Overall Mean (± SD)
1.	Physical working place conditions	4.63 (1.00)	4.60 (0.93)	4.61 (0.96)
2.	Salary	3.41 (1.57)	3.17 (1.58)	3.25 (1.58)
3.	Opportunity to use abilities	4.71 (0.70)	4.69 (0.89)	4.70 (0.83)
4.	Opportunities for advancement	4.57 (1.09)	4.29 (1.29)	4.38 (1.24)
5.	Opportunity for training or education	4.41 (0.93)	4.61 (0.96)	4.54 (0.96)
6.	Additional remuneration for work	4.21 (1.56)	4.44 (1.34)	4.37 (1.43)
7.	Conflict resolution at work	4.91 (1.03)	4.74 (0.76)	4.80 (0.87)
8.	Support from supervisors	4.89 (0.70)	4.72 (0.90)	4.78 (0.84)
9.	Participation in decision making	4.98 (0.75)	4.69 (0.71)	4.79 (0.74)
10.	Utilization of skills	4.61 (0.84)	4.43 (0.99)	4.49 (0.95)
11.	Amount of variety on job	5.14 (0.81)	4.86 (0.81)	4.96 (0.82)
12.	Organizational structure	4.96 (0.93)	4.68 (0.74)	4.77 (0.82)
13.	Job security	4.68 (0.97)	4.40 (1.17)	4.49 (1.12)
14.	Freedom of working method	5.11 (0.82)	4.93 (0.89)	4.99 (0.87)
15.	Relationship with co-workers	4.86 (0.88)	4.92 (0.76)	4.90 (0.80)
16.	Amount of responsibility	4.84 (0.91)	4.93 (0.82)	4.90 (0.86)
17.	Total working hours	4.84 (0.78)	4.84 (0.86)	4.84 (0.36)
18.	General feeling about job itself	4.95 (0.90)	4.84 (0.84)	4.88 (0.86)

^aBased on scale of 1 to 6: 1=very dissatisfied, 2=dissatisfied, 3=somewhat dissatisfied, 4=somewhat satisfied, 5=satisfied and 6=very satisfied

Correlation between overall job satisfaction and each factor of satisfaction

In order to determine the main factors that were correlated with satisfaction and/or dissatisfaction with a job, the relationship between overall job satisfaction and job characteristics was analyzed (Table 3). Spearman's ratio demonstrated that the strongest correlation factor was in conflict resolution at work (0.79). Other factors that influenced satisfaction were relationships with co-workers (0.76) and organizational structure (0.71), respectively.

Comparison among demographic variables on overall job satisfaction

The Mann–Whitney U test revealed statistically significant differences among overall job satisfaction and age group, in which those age in between 31–40 years showed more job satisfaction than those with others ($P = 0.009$). As for working experience, respondents who worked >5 years were more satisfied with their job than those with ≤ 5 years of experience ($P = 0.017$). Those in leadership positions also showed more job satisfaction ($P < 0.001$). There were no differences in province, gender, marital status, professional level and profession as depicted in Table 4.

DISCUSSION

Our findings of this first study on job satisfaction in Lao PDR indicated that health-care

Table 3 Correlation between overall job satisfaction and each factor of satisfaction by Spearmen (n=164)

No.	job characteristics	Spearmen correlation coefficient	P-value ^a
1.	Conflict resolution at work	0.79	< 0.001
2.	Relationship with co-workers	0.76	< 0.001
3.	Organizational structure	0.71	< 0.001
4.	Amount of variety on job	0.68	< 0.001
5.	Participation in decision making	0.67	< 0.001
6.	Support from supervisors	0.66	< 0.001
7.	Job security	0.64	< 0.001
8.	Generally feeling about job itself	0.63	< 0.001
9.	Opportunities for advancement in profession	0.63	< 0.001
10.	Amount of responsibility	0.63	< 0.001
11.	Total working hours	0.62	< 0.001
12.	Opportunity to use your ability	0.62	< 0.001
13.	Salary	0.58	< 0.001
14.	Freedom to choose your method of working	0.56	< 0.001
15.	Physical working place conditions	0.53	< 0.001
16.	Utilization of skills	0.53	< 0.001
17.	Additional remuneration for work	0.47	< 0.001
18.	Opportunity for training or education	0.47	< 0.001

^aStatistical significance $P < 0.05$

workers in the two provinces were generally satisfied with their job, a finding similar to those in many previous studies.^{4, 9, 16-18)} We speculated that one possible reason for the overall high job satisfaction may be the location of this study, which was conducted in the capital and a nearby province that afforded a comfortable working environment, good infrastructure, and a convenient life. Therefore, workers in a big city were more interested in job satisfaction than those in a small city. Moreover, most respondents worked at health centers located in their own hometown (71.34%).

The three highest levels of satisfaction were the freedom to choose one's method of working, the level of variety in the job, and the amount of responsibility. That agrees with the findings of Cooper *et al.* who reported that health-care providers appreciated their freedom and independence to work, as well as enjoyed the responsibility and variety of their job.²¹⁾

Dissatisfaction with one's salary in our findings seems to be a common issue that is also evident in several other studies.^{2,5,14,15,17)} Many managers consider that the key motivation for their employees is pay, bonuses or raises. That suggests that health-care systems should provide a suitable salary and fringe benefits scheme to satisfy their workers and maintain their loyalty. In contrast, that does not seem to be a problem in Australia as evidenced by a previous study done in 2002. That discrepancy may be due to differences in the economic status of Australian health-care systems.²²⁾

The main factors that correlated with health-care workers' overall job satisfaction were conflict resolution at work, support from one's supervisor and relationship with co-workers. This is consistent with a study by Julian Montoro-Rodriguez, which indicated that job satisfaction

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Table 4 Comparison among demographic variables on overall job satisfaction by Kruskal–Wallis and Mann–Whitney U tests (n=164)

Variables	Number	Job satisfaction score	P-value ^a
		Median (IQR ^d)	
Province			
Vientiane Capital	95	86 (80–90)	0.839 ^b
Bolikhamsai	69	87 (71–90)	
Gender			
Male	56	87 (82–90)	0.192 ^b
Female	108	85 (74–90)	
Marital status			
Single	31	86 (79–89)	0.640 ^c
Married	126	86 (79–90)	
Divorced/Widow	7	84 (83–85)	
Age (Years)			
≤ 30	53	82 (70–88)	0.009 ^c
31–40	38	87 (80–92)	
≥ 41	73	86 (82–90)	
Professional level			
High diploma health profession/ Diploma health profession	6	78 (68–93)	0.880 ^b
Certificated health profession	158	86 (80–90)	
Profession			
Medical doctor	6	78 (68–93)	0.638 ^c
Medical assistance/Nurse/Midwife	130	86 (80–90)	
Pharmacist Assistant/Laboratory technician an Hygienist	28	85 (80–89)	
Working experience (Years)			
≤ 5	91	84 (72–89)	0.017 ^b
> 5	73	87 (83–91)	
Position			
Chief/Vice chief	88	88 (84–92)	< 0.001 ^b
Technical Staff	76	83 (71–88)	

^aStatistical significance $P < 0.05$; ^bP-value from Mann-Whitney U test; ^cP-value from Kruskal-Wallis test; ^dIQR, Interquartile Range.

was influenced by conflict resolution styles.²³⁾ The results of our study also suggest that by exhibiting transformational and contingent-reward leadership behaviors, there are strong relationships in health-care workers' job satisfaction with extrinsic and intrinsic motivators from their employers. Health-care leaders can utilize our results to identify how their leadership behaviors and interpersonal relationships with health-care workers may affect the work environment. Based

on our results, health-care workers' job satisfaction can be achieved by adopting participative leadership styles that encourage the workers to be involved in making decisions that have an influence on their work and their relationships with fellow workers. This finding was supported by Chen *et al.* who suggested that health-care leaders have the greatest opportunity to influence job satisfaction among health-care professionals.²⁴⁾ Rogatus *et al.* also showed that supervision and co-workers had a significant influence on job satisfaction.²⁵⁾

Demographic variables were used to locate the differences in overall job satisfaction. Our study found that health-care workers who put in longer hours and become seniors were more satisfied than their younger staffs. That may be because they adapted to their work and realized their work at the health center was important to people's health. That is consistent with previous research showing that professionals mature with age and accumulate more experience, which tends to foster a better adjustment to the work environment.²⁶⁾ High position was also found to result in higher job satisfaction. The probable reason is that the higher-position workers in public service will earn respectability from society. Similar previous studies have reported that holding a higher position tends to produce a high level of job satisfaction compared to those who lack such a high position.^{27,28)}

Our study has some limitations. First, it depends totally on convenience sampling, which emphasizes differences in demographic, geographical and socio economic characteristics of the provinces. So there is some difficulty in generalizing the results. In our analysis, however, we included the variables of provinces to estimate its effect, and our results showed no statistical difference in the satisfaction level of health workers from the two provinces. Second, our study covered only two provinces with relatively small sample sizes due to our limited resources. Thus, it may not be representative of all health-care workers of health centers in Lao PDR. However, all health-care workers in those provinces were approached, and their response rate was 80%, which was an acceptable level. However, a larger sample size and better sampling methods might result in a more conclusive comparison of job satisfaction in the future.

In conclusion, except for their salary, health-care workers at health centers in the Vientiane capital and Bolikhamsai Province, Lao PDR, were generally satisfied with their job. From our findings, we concluded that the main factors that correlated with their overall job satisfaction were conflict resolution at work, relationships with co-workers, and organizational structure.

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