

# Exploring the Job Satisfaction among Workforce Working in Four Medical Colleges in Nepal: a cross-sectional study

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## ABSTRACT

### Background

Job satisfaction is a critical factor influencing healthcare quality, patient's outcomes and overall wellbeing in medical profession. Job satisfaction is an important component of improving job performance and maintaining overall quality of work in any organization. The result of job satisfaction will have an impact not only at the individual level but also in the institutional, societal, and national level.

### Objective

To explore overall job satisfaction among the workforce of four different medical colleges in Nepal, as well as the factors associated with it.

### Method

A cross-sectional study was conducted from August to December 2024 among medical, nursing, and administrative staff who had at least one year of teaching or working experience in their respective institutions. A 36-items job satisfaction questionnaire with 6-point Likert type responses was administered in-person. Data analysis was carried out with STATA version 18 software. Categorical variables were presented as frequencies and percentages, whereas continuous variables were described using means, standard deviations, medians, and ranges. Inferential statistical analyses comprised independent t-tests for comparisons between two groups and analysis of variance (ANOVA) for comparisons among multiple groups. A multivariable linear regression model was used to identify the significant factors associated with health workforce job satisfaction. Statistical significance was defined as  $p < 0.05$ , with results reported at a 95% confidence interval.

### Result

This study analyzed job satisfaction among 533 health workers in four medical colleges. The average overall job satisfaction score was 122.24 ( $\pm 15.17$ ). Multivariable linear regression identified several significant determinants of overall job satisfaction among health workers in Nepal's teaching hospitals. Employees in Nursing (adjusted mean difference [AMD]: 5.35, 95% CI: 2.468.26) and Administration (AMD: 5.45, 95% CI: 2.20 to 8.71) departments reported higher OJS compared to those in the medical department. Contract staff had significantly lower job satisfaction (AMD: -4.23, 95% CI: -7.19 to -1.28), while differences for daily wage and other positions were not significant. Unexpectedly, employees without chronic diseases reported lower OJS (AMD: -2.66, 95% CI: -5.86 to -0.55). Higher organizational input factors were significantly associated with lower OJS (AMD: -0.37, 95% CI: -0.55 to -0.19).

### Conclusion

This study revealed that health workforces had positive attitude towards their job however are dissatisfied with the benefits offered to them and the operating condition of their institutions. Expanding the teaching learning resources, continuing career opportunities through participation in professional development and regular promotion and increment of salary would be helpful in improving job satisfaction among health workforce in Nepal.

## KEY WORDS

Health workforce, Medical colleges, Organizational characteristics, Satisfaction

## INTRODUCTION

Job satisfaction is an important component of improving job performance and maintaining the overall quality of work in any organization.<sup>1,2</sup> This has been defined as the fulfillment of an employee's expectations for the work he or she performs.<sup>2</sup> Employees having higher job satisfactions are usually less absent, less likely to leave, were more productive, and more likely to display organizational commitment, and more likely to be satisfied with their lives.<sup>3</sup> Multiple factors affect a person's job satisfaction, including pay, benefits and promotions, working condition, leadership, and social relationship, diversities of tasks involved, and opportunities and challenges.<sup>1,4</sup> The number of researches reported that the number of different factors could influence employee satisfaction with their workspaces such as personal factors, environmental factors, leadership related factors, income related factors and so on.<sup>5,6</sup> It is generally understood that unfavorable conditions of the work environment can lead to negative influence on employee's job satisfaction, cause health problems, increase job resignation and turnover.<sup>7,8</sup>

Job satisfaction is a prime global concern and an important facet of any job, yet it has been rarely discussed and explored, especially in developing countries like Nepal. Although limited studies have explored few components of job satisfaction, there is paucity of information on the overall job satisfaction (OJS) of health workforce at the national level medical colleges.<sup>1,9,10</sup> It is imperative to understand their needs and expectations and address them sooner than later. This study aims to explore the level of job satisfaction and factors associated with it among the health workforce and faculties working in four different medical colleges/ health institutes in Nepal.

In Nepal, the medical sectors have substantially changed over the last two and have decade. The health workforce and faculties and staffs are expected to perform multiple tasks that ranges from clinical tasks, teaching, undertaking research activities, fulfilling an administrative role, facilitating support of staff in practice and providing patient care.<sup>1,11</sup> As a result, there exist huge turnover in the medical sector and is currently affecting many medical organizations and job status of millions of employees working into this area. Additionally, the pay, social association, contact, attitude of seniors, workplace surrounding and teamwork, job nature, safety of job, role clarity is playing crucial role for job dissatisfaction in Nepal. Hence, it is quite important to maintain and evaluate the satisfaction of health workforce to increase production of quality future generation. When health workforce is satisfied with their job, they are more passionate about their work, delivering a higher quality education. Furthermore, higher job satisfaction would result in lower faculty attrition, increased reputation of the institution, and higher recruitment of most qualified students.<sup>1,12</sup> Hence, the present study is important

to highlight the medical workforce situation and job satisfaction status in medical colleges in Nepal.

## METHODS

The study used a cross-sectional design and included relevant respondents such as doctors, nurses, and administrative staff working in four different medical colleges in Nepal. The inclusion criteria were the (a) staff working at the center and affiliated medical colleges of Kathmandu University School of Medical Sciences (KUSMS) and staff who agreed to participate. Those who were not affiliated with KUSMS and who refused to participate in the study were excluded.

This study employed a simple random sampling method to select participants and was conducted across four affiliated medical colleges of KUSMS from August to December 2024. Ethical approval was obtained from Institutional Review Committee, KUSMS before data collection (Ref. No. 240/2023). The total 600 respondents were approached, out of it 49 refused to attend in survey and 18 were sick. Total sample size of 533 for quantitative study was collected using formula:  $\text{Sample size} = \text{Confidence level's Z-score}^2 \times \text{Std. Dev.} \times (1 - \text{Std. Dev.}) / \text{margin of error}^2$ . The sample size was obtained with 95% confidence level with 50% expected proportion and margin of error was 5%.

The eligible consented participant was interviewed face to face using a structured questionnaire. The questionnaire was broadly grouped into several sections such as socio-demographic characteristics, job satisfaction variables and organization related variables. The questionnaire was validated through pretesting among 108 faculties/staffs and adjusted when enumerators had confusion on understanding any sections. We calculated the Cronbach's alpha coefficient for the overall job satisfaction scale and obtained a value of 0.92, indicating a high level of internal consistency and reliability for the quantitative tool. The statistical analysis was conducted in STATA version 18 (STATA Corporation, College Station, TX, USA).

Mean and standard deviation were used for descriptive analysis of normally distributed continuous variables whereas median and interquartile range were used for continuous variables with skewed distribution. Frequency and percentage were used for the descriptive analysis of categorical variables. Simple linear regression analysis was used to find an association between various socio-demographic factors with job satisfaction related variables. We assessed the associated factors using multivariable linear regression models and reported mean difference with 95% confidence interval. A p-value of < 0.05 was considered to indicate statistical significance for all the analyses.

## RESULTS

### Baseline characteristics of the study population

This study analyzed job satisfaction among 533 health workers in medical colleges of Nepal covering medical (36.8%), nursing (32.6%) and administrative (30.6%) staff. Most participants held a master's degree (45.2%) with 35.3% at the bachelor level. The majority were female (58.4%) and married (62.1%). Age distribution showed 75.1% under 40 with 44.7% having less than five years of service. Nearly half (49.7%) had permanent jobs while 46.7% earned less than 50,000 NPR monthly. Only 12.2% reported workstation-related health impacts though 25.6% had chronic diseases (Table 1).

**Table 1. General characteristics of the participants (n=533)**

Characteristics	Number (n)	Percentage (%)
<b>Department</b>		
Medical	196	36.8
Nursing	174	32.6
Administration	163	30.6
<b>Medical (n=195)</b>		
Medical Officer	54	27.7
Consultant	76	39.0
Sr. Consultant	65	33.3
<b>Nursing (n= 176)</b>		
Staff Nurse	55	31.2
Bachelor Nurse	63	35.8
Master Nurse	58	33.0
<b>Administration (n=164)</b>		
Assistant	56	34.1
Officer	55	33.5
Above Officer	53	32.4
<b>Qualification (n=533)</b>		
Below Bachelor	78	14.6
Bachelor	188	35.3
Masters	241	45.2
Above Masters	26	4.9
<b>Sex (n=533)</b>		
Male	222	41.6
Female	311	58.4
<b>Marital status (n=533)</b>		
Married	331	62.2
Unmarried	201	37.7
Widow	1	0.19
<b>Age (N=533)</b>		
Up to 30 years' old	205	38.5
31-40 years' old	195	36.6
41-50 years' old	114	21.4
51 years and above	19	3.5

<b>Service year (n=533)</b>		
Less than 5 years	238	44.6
5-10 years	163	30.6
10-15 years	101	19.0
>15 years	31	5.8
<b>Job status (n=533)</b>		
Permanent	265	49.7
Contract	237	44.5
Daily wages	11	2.1
Others	20	3.7
<b>Average monthly income (n=533)</b>		
< 50,000 NPR	249	46.7
51,000-75,000 NPR	111	20.8
76,000-100,000 NPR	98	18.4
> 100,000 NPR	75	14.1
<b>Chronic diseases (n=533)</b>		
Yes	136	25.5
No	397	74.5
<b>Physical abnormality (n=533)</b>		
Yes	3	0.6
No	530	99.4

### The subscale of overall job satisfaction score

The average overall job satisfaction score was 122.24 ( $\pm 15.17$ ). The subscale-wise analysis showed that the empowerment and participation had the highest mean score of 21.09 indicating strong positive perceptions of involvement and contribution to organizational goals. Teamwork also showed high satisfaction with a mean score of 20.16. These results highlighted the workforce's positive views on collaboration and their role in organizational success (Table 2).

**Table 2. Descriptive statistics of the subscale of overall job satisfaction score**

Information to measure the Job Satisfaction	Mean	SD	Median	Range (Min: Max)
Teamwork	20.16	$\pm 1.48$	20	7:25
Leadership	15.76	$\pm 2.15$	16	6:20
Reward and Recognition	15.83	$\pm 4.76$	16	5:25
Empowerment and Participation	21.09	$\pm 3.31$	20	10:25
Training and Individual Development	16.67	$\pm 3.78$	18	5:25
Working Hours	10.26	$\pm 2.38$	12	3:15
Communication	10.71	$\pm 2.22$	12	3:15
Working Condition	10.71	$\pm 2.22$	8	3:15
Overall, Job Satisfaction Score	122.24	$\pm 15.17$	125	73:165

### Factors influencing overall job satisfaction outcome among the health workforce working in medical colleges of Nepal

The bivariate analysis revealed several significant factors influencing overall job satisfaction among the health workforce in Nepal. Employees in the administration and nursing departments had significantly higher overall job satisfaction compared to those in the medical department with mean differences of 10.3 and 6.2 respectively. Regarding qualifications, employees with master's level qualifications reported a significantly higher overall job satisfaction (mean difference: 2.5) than those with below bachelor's qualifications. In terms of service years, employees with 5-10 years and 10-15 years of service had significantly higher overall job satisfaction compared to those with less than 5 years of experience with mean differences of 6.3 and 4.9 respectively. Income also played a role with employees earning 25,000 - 50,000 NPR showing significantly higher overall job satisfaction (mean difference: 9.38) compared to those earning less than 10,000 NPR. Employees who didn't suffer with a chronic disease had significantly lower the overall job satisfaction (mean difference: -7.18) (Table 3).

**Table 3.** Bivariate analysis on factors influencing overall job satisfaction outcome among the health workforce (n=533)

Factors	n	Mean (SD) OJS	Mean Difference	95% CI	p-value
<b>Department</b>					
Medical	196	120.86 (15.90)	Ref.	Ref.	<0.001
Nursing	174	127.03 (16.20)	6.21	3.15 to 9.26	
Administration	163	131.13 (11.98)	10.30	7.19 to 13.41	
<b>Qualification</b>					
Below bachelor	78	125.65 (14.97)	Ref.	Ref.	0.006
Bachelor level	188	123.67 (4.06)	-1.98	-6.05 to 2.10	
Master level	241	128.11 (15.63)	2.46	-1.48 to 6.40	
Above Master level	26	124.31 (22.49)	-1.35	-8.20 to 5.51	
<b>Sex</b>					
Male	222	127.28 (14.73)	Ref.	Ref.	0.110
Female	311	125.10 (15.98)	-2.17	-4.85 to 0.49	
<b>Marital status</b>					
Married	331	126.88 (16.48)	Ref.	Ref.	0.094
Unmarried + Widow	202	124.56 (13.63)	-2.32	-5.03 to 0.40	

<b>Age (Years)</b>					
≤30	205	124.37 (13.64)	Ref.	Ref.	0.189
31-40	195	127.74 (16.66)	3.37	0.33 to 6.41	
41-50	114	126.10 (15.58)	1.73	-1.82 to 5.28	
≥ 51	19	125.32 (19.26)	0.95	-6.34 to 8.24	
<b>Service year</b>					
<5	238	123.34 (14.77)	Ref.	Ref.	0.001
5-10	163	129.66 (15.95)	6.31	3.28 to 9.35	
10-15	101	128.24 (12.59)	4.89	1.35 to 9.44	
>15	31	119.90 (21.17)	-3.44	-9.14 to 2.26	
<b>Job status</b>					
Permanent	265	130.48 (13.72)	Ref.	Ref.	0.101
Contract	237	121.02 (16.02)	-9.46	-12.07 to -6.86	
Daily wages	11	125.90 (13.06)	-4.57	-13.54 to 4.40	
Others	20	125.85 (15.42)	-4.63	-11.38 to 2.13	
<b>Average monthly income</b>					
< 10,000 NPR	249	123.91 (14.47)	Ref.	Ref.	0.005
10,000-25,000 NPR	111	127.40 (14.43)	3.49	0.13 to 6.87	
25,000-50,000 NPR	98	133.30 (13.55)	9.38	5.87 to 12.91	
>50,000 NPR	75	121.36 (19.06)	-2.55	-6.44 to 1.34	
<b>Chronic disease</b>					
Yes	136	131.35 (13.11)	Ref.	Ref.	<0.001
No	397	124.17 (15.83)	-7.18	-10.15 to -4.22	

### Multivariable analysis of the factors influencing overall job satisfaction outcome among the health workforce working in medical colleges of Nepal

The multivariable analysis using multiple linear regression revealed several significant factors influencing overall job satisfaction among health workers in medical colleges of Nepal. In terms of department, employees in the nursing and administration departments had significantly higher overall job satisfaction compared to those in the medical department with adjusted mean differences of 5.35 and 5.45 respectively. Regarding job status, those on contracts had significantly lower overall job satisfaction (adjusted mean difference: -4.23) while employees in daily wages and others categories did not show significant differences after

adjustment. Additionally, the organizational input factors had a significant negative impact on overall job satisfaction with an adjusted mean difference of -0.37 indicating that higher input factors were associated with lower overall job satisfaction (Table 4).

**Table 4. Factors influencing overall job satisfaction outcome among the health workforce working in medical colleges of Nepal (Multivariable analysis using multiple linear regression) (n=533)**

Factors	No.	Mean (SD)	Mean Difference		95% CI	p-value
			Crude	Adjusted		
Department						
Medical	196	117.21 (15.68)	Ref.	Ref.	Ref.	<0.001
Nursing	174	123.23 (15.87)	6.21	5.35	2.46 to 8.26	
Administration	163	127.24 (11.15)	10.30	5.45	2.20 to 8.71	
Job status						
Permanent	265	130.48 (13.72)	Ref.	Ref.	Ref.	<0.001
Contract	237	121.02 (16.02)	-9.46	-4.23	-7.19 to -1.28	
Daily wages	11	125.90 (13.06)	-4.57	0.68	-7.91 to 9.28	
Others	20	125.85 (15.42)	-4.63	3.27	-3.34 to 9.88	
Chronic diseases						
Yes	136	131.35 (13.11)	Ref.	Ref.	Ref.	<0.001
No	397	124.17 (15.83)	-7.18	-2.66	-5.86 to -0.55	
Organizational input factors	533	37.03 (8.02)	-0.70	-0.37	-0.55 to -0.19	<0.001

## DISCUSSION

This study was conducted to explore the factors associated with job satisfaction among the health workforce at the four medical colleges in Nepal. Prior to this study, only a few investigations had examined job satisfaction among faculty at Nepalese medical colleges, and their findings were inconsistent. The findings of this study support with the findings of a study conducted in Chitwan district of Nepal which showed majorities of health workforce mostly nursing faculties had ambivalent feelings towards their job.<sup>1,10</sup> The findings of our study also support a study conducted in the Kathmandu which showed close to half of staff especially medical faculty were satisfied with their job.<sup>9</sup> Our study also found that organizational commitment was an important factor in maintaining job satisfaction among health workforce similar to other studies conducted in other parts of Nepal.<sup>1,9,10</sup>

Several studies conducted worldwide found a significant positive relationship between number of years spent at the current institution and job satisfaction with pay, coworkers, and the job in general and is similar in our study.<sup>1,13</sup> In our study, we found almost half of the health workforce were least satisfied with their current promotion opportunities, basic payments, operating conditions, fringe benefits and contingency rewards and is similar to the other studies conducted in different parts of the world.<sup>13-16</sup> A health workforce with a research publication in peer reviewed journal as a promotion criterion reported to be an additional burden on faculties and are similar to the study conducted by Barret et al.<sup>17</sup> The health workforce were also reported of being least satisfied with their existing operating conditions that involved excessive workload, several rules and regulations within the organization, non-participatory decision making and limited payment including irregular promotion opportunities. Shortage of health workforce, result in higher student-faculty ratio, and non-clear job descriptions could contribute to the burden health workforces especially medical faculties feel at work. This findings are similar to the studies conducted in UK.<sup>15,19</sup>

Less satisfaction regarding basic payments and salaries in our study is similar to the finding presented by Sapkota et al. and Thies et al.<sup>1,20</sup> The health workforce in this current study were satisfied with their co-workers, communication mechanisms, supervision provided and teamwork.<sup>1,17,19-21</sup> Multiple regression analysis showed that job status and organizational input factors were some of the key factors in the faculties job satisfaction. Additionally, job status and average monthly income are a cornerstone in the improvement of the job satisfaction among health workforce working in four medical colleges. Our study suggests that overall job satisfaction is the result of several interrelated variables. Our study suggests that the association between individual variable and outcome be taken as indicative rather than deterministic variables of overall job satisfaction. Our study also recommends for health workforce involvement in a decision-making process which could be also a key factor of overall job satisfaction.

One of the limitations of this study was that only highly motivated faculties were willing to participate in the study which might have introduced some outcome biases. Moreover, few of the participants did not respond to some questions transparently due to the fear of information disclosure, which limited the fully delivery of the response. Due to the lack of registry system with the contact details of the health workforce working in four different medical colleges of Kathmandu University School of Medical Sciences in Nepal, it was difficult to retrieve the contact details of the participants and some of the surveys were returned with empty questionnaire.



## CONCLUSION

Our study mainly investigated the relation between overall job satisfaction and factors associated in four medical colleges of Nepal. Organizational commitment is likely to be strongly associated with employee job satisfaction. Some employee reported lack of good relationship between health workforce and supervisors, and it should be given due considerations. The organization also lack on certain factors such as regular promotion, lack of training and development facilities, payments and fringe benefits and long working hours. Job security and employee welfare measures should be given utmost importance so that the

employee's turnover may be minimized. If these factors are given little more care, the surveyed medical college can maintain good workers with high level of job satisfaction, organizational commitment and involvement. A focus on improving work environment through increased financial motivation and career development opportunities with increased resources support is recommended to improve job satisfaction. On the basis of our findings, we hope the medical college management of Nepal may review their staff policies for retention and satisfaction of their employees. Similarly, government of Nepal can formulate plan and policies in terms of recruiting mobilizing and retaining health work force in different health institutions.

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