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Job Satisfaction Among Health Workers at Primary Health Care in Palembang City, Indonesia

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Abstract

Health workers at primary health care are the frontline providers of community health services. This study aimed to investigate the level of job satisfaction of health workers at primary health care in Palembang City, South Sumatra Province, Indonesia, and its influencing factors. Using a questionnaire developed by the authors' team, the study involved 257 samples. A total of 66.15% of respondents indicated high satisfaction, 21.79% reported moderate satisfaction, and 12.06% expressed dissatisfaction. A statistically significant correlation was found between knowledge, skills, income, promotion opportunities, work supervision, and relationships with colleagues and job satisfaction (p -value < 0.001). The correlations were strong, with Spearman's rho of 0.822, 0.869, 0.912, 0.895, and 0.821, respectively. Statistical analysis of the Wilcoxon rank-sum and Kruskal-Wallis tests showed no significant differences in median satisfaction scores between sociodemographic groups (p -value 0.072 to 0.552 > 0.05). These findings showed that job satisfaction depends on multiple factors. Both intrinsic and extrinsic factors play a key role in shaping job satisfaction. Health workforce management should prioritize organizational factors to sustain job satisfaction over sociodemographic factors. Key strategies include regular training, fair salaries, clear promotion paths, strong supervision, and fostering teamwork through leadership training and staff meetings.

Keywords: health workers, job satisfaction, primary health care

Introduction

Health workers' job satisfaction is linked to the quality of health services and organisational success. Job satisfaction boosts health workers' motivation, productivity, and teamwork, enhancing patient care, reducing errors, and ensuring service continuity. A satisfied workforce contributes to better health outcomes and increased patient trust. Therefore, health workers need strong management support and job satisfaction to deliver quality healthcare and ensure patient satisfaction.¹ Consequently, job satisfaction is a critical factor in ensuring the sustainability of healthcare services.² Understanding the determinants of job satisfaction is essential for healthcare administrators and policymakers.

Job satisfaction can be affected by factors such as working conditions, leadership style, financial compensation, relationships with colleagues, and work benefits, with working conditions having the most significant impact on job satisfaction (odds ratio: 8.16; 95% confidence interval: 2.39–27.91).³ Therefore, addressing working conditions is crucial to enhancing job satisfaction, which in turn can positively impact healthcare service delivery and patient outcomes. A previous study indicates that these factors are closely linked to motivation, particularly regarding the quality and style of supervision, which has the greatest influence on hospital organizational performance (Spearman's rank correlation coefficient = 0.490; p -value < 0.001).⁴ Organizational managers should foster a culture of unity, support, and mutual concern among staff members. Such an environment encourages individuals to strive diligently to achieve common goals, fostering both organizational growth and development.⁵ By promoting this culture, hospital administrators can mitigate dissatisfaction and enhance employee retention, ultimately improving overall healthcare quality.

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A study in Athens, Greece, found that many health workers were dissatisfied with their jobs during the COVID-19 pandemic, reflecting the emotional and physical demands of the profession.⁶ As supported by other studies, health workers' job satisfaction is influenced by six factors: financial, professional, working conditions, living conditions, cultural, and personal factors.^{1,2,7} In contrast, research in Ethiopia revealed low levels of job satisfaction among health workers in both private and public hospitals, with significantly lower satisfaction in public hospitals (29.0%).⁸

Employee performance, absenteeism, and turnover are linked to job satisfaction. Employees with high job satisfaction tend to work harder than those with low job satisfaction. Job satisfaction reflects how employees perceive their jobs based on positive or negative emotional feelings. Measuring job satisfaction depends on key factors like interactions with employers and coworkers, adherence to company policies, the fulfillment of life standards, and the quality of the working environment.⁹⁻¹²

Numerous studies indicate that job satisfaction among health workers in developing nations is significantly lower.¹³⁻¹⁵ In the healthcare sector, which is characterized by its demanding nature, frequent interactions occur between patients, functioning as customers, and health workers.¹⁶ To enhance the job satisfaction of health workers, health service managers should adapt their leadership style and offer supportive supervision in the hospital.¹⁷

In Indonesia, primary health cares (PHCs) are available in various subdistricts, including in Palembang City, staffed by doctors, dentists, nurses, midwives, pharmacists, and other health workers. As the capital city of South Sumatra Province, Palembang City has a diverse population. This may lead to a higher workload compared to other cities in the province. Increased workload could have an impact on job satisfaction among health workers. Job satisfaction at PHC is crucial, as health workers serve as frontline providers of community health care. Maintaining their motivation and satisfaction is essential for ensuring high-quality and effective healthcare delivery. This study aimed to analyze the level of health workers' job satisfaction at PHCs in Palembang City and identify the factors that influence the job satisfaction of health workers. This study helps policymakers and administrators develop strategies to improve job satisfaction, strengthen workforce stability, and enhance patient care.

Method

This cross-sectional descriptive analytical study was conducted between October 3 and November 30, 2022, and targeted all health workers at 42 PHCs in Palembang City, South Sumatra Province, Indonesia. A non-probability convenience sampling method was applied, allowing voluntary participation to ensure a sufficient number of respondents within the timeframe. Based on a previous study, simple regression analysis requires at least 50 samples, with 100 being standard for most studies.¹⁸ Although the minimum sample size was set at 100, participation was open to all interested health workers. The inclusion criteria for participants included being actively working in all PHCs of Palembang City during the study period. Exclusion criteria included health workers on leave or those unwilling to provide informed consent. The invitation contained a brief study description and a link to the online questionnaire.

The data collection comprised three sections: informed consent, sociodemographic characteristics, and questions related to job satisfaction factors. The job satisfaction-related questions were developed based on existing literature on job satisfaction and adapted to the study setting. Expert consultation was conducted with professionals in human resources management to ensure the relevance and clarity of the items. This study examined eight key variables. Among them, seven were sociodemographic variables, including age (21-30, 31-40, 41-50, or 51-60 years), sex (male or female), marital status (single or married), educational status (senior high school or master's and doctoral degrees), area of residence (Palembang City or surrounded districts), job position (holding or not holding a managerial position), and work experience (≤ 10 years or > 10 years). Job satisfaction was assessed using five factors: knowledge, skills, and competency required for the job, income, promotion opportunity, work supervision, and relationship with coworkers. Consistent with a similar study, a 7-point Likert scale, ranging from 1 (very strongly dissatisfied) to 7 (very strongly satisfied), measured job satisfaction.¹⁹

A previous study demonstrated that the reliability test for the self-medication behaviour questionnaire yielded satisfactory results with a sample of 30 respondents.²⁰ Therefore, self-administered questions concerning job satisfaction factors were tested for validity and reliability by distributing the questionnaires to 30 health workers. An online survey using Google Forms was conducted among health workers at PHC in Ogan Ilir District, South Sumatra Province, who were not included in the study sample. A significance level of 0.05 was used for analysis. The validity test was conducted on 30 people and showed valid results with a calculated r-value of 0.3620. Each questionnaire item (item 1 = 0.640, item 2 =

0.823, item 3 = 0.715, item 4 = 0.604, and item 5 = 0.800) surpassed the cut-off point, indicating the validity of all five questionnaire items. Cronbach's alpha coefficient was used to test the internal consistency, with values of 0.60 or above considered acceptable. The computed Cronbach's alpha score of 0.763 indicated that the questionnaire was reliable. The validated and reliable questionnaire was then distributed through an online survey using Google Forms.

Descriptive statistics were applied to analyze sociodemographic variables and mean values for each job satisfaction factor. The job satisfaction level was measured by calculating the average score for each factor. Overall job satisfaction was categorized as dissatisfied (scores 5–19), moderately satisfied (scores 20–26), and satisfied (scores 27–35). This grouping was based on the nonnormal distribution of the data. The cutoff for the satisfied category was set above the median (median = 26). The lower limit of the moderately satisfied category was determined by assuming that respondents selected a neutral response (4) for all five questionnaire items, resulting in a score of 20. Scores <20 were classified as dissatisfied.

The data were statistically analyzed. Categorical variables were presented as frequencies and percentages, whereas continuous variables, such as job satisfaction factor scores, were presented as means and standard deviations. The relationship between job satisfaction factors and overall job satisfaction was examined using Spearman's rank correlation coefficient analysis. Differences in job satisfaction across sociodemographic characteristics were assessed using the Kruskal–Wallis and Mann–Whitney tests. The level of statistical significance was set at a p-value of <0.05. All respondents received standardized instructions before completing the questionnaire to ensure consistency and minimize potential bias. The survey was conducted anonymously to ensure honest and unbiased responses.

Results

Table 1. Characteristics of Respondents (n=257)

Variable	Frequency (n)	Percentage (%)
Overall Score of Job Satisfaction		
Dissatisfied	31	12.06
Moderate satisfied	56	21.79
Satisfied	170	66.15
Age		
21-30 years	76	29.57
31-40 years	111	43.19
41-50 years	61	23.74
51-60 years	9	3.50
Sex		
Male	32	12.45
Female	225	87.55
Marital Status		
Single	42	16.34
Married	215	83.66
Educational Status		
Senior high school	2	0.78
Diplomas (D1/D2/D3)	139	54.09
D4/Bachelor	95	36.96
Master/Doctorate	21	8.17
Area of Residence		
Palembang City	105	40.86
Surrounded districts	152	59.14
Job Position		
Not holding a managerial position	229	89.11
Holding a managerial position	28	10.89
Work Experience		
≤10 years of working	168	65.37
>10 years of working	89	34.63

A total of 257 health workers employed at 25 public health centers voluntarily participated in this study. Table 1 shows the participants' sociodemographic characteristics, including age, sex, marital status, educational status, area of residence, job position, and work experience, and level of job satisfaction, were identified among 257 respondents. The majority (66.15%) of respondents were satisfied with their current job, 21.79% were moderately satisfied, and 12.06% were dissatisfied. Of the 257 respondents, 111 (43.19%) were in the 31–40-year age group, 76 (29.57%) were in the 21–30-year age group, 61 (23.74%) were in the 41–50-year age group, and 9 (3.5%) were in the 51–60-year age group. Most

respondents were female (87.55%), married (83.66%), had a diploma (54.09%), lived in districts surrounding Palembang City (59%), did not hold a managerial position (89.11%), and had ≤10 years of work experience at PHCs (65.37%).

Table 2 shows the mean scores and standard deviations for job satisfaction-related factors. In the "satisfied" group, the mean values for the five elements, knowledge, skills, and competency required for the job, income, promotion opportunity, work supervision, and relationships with coworkers, were 5.43, 5.12, 5.17, 5.25, and 5.45, respectively, with mean values above 5 indicating that most respondents experience high job satisfaction in these aspects and standard deviation values of 1.45, 1.54, 1.53, 1.49, and 1.42 indicating moderate variability, with a reasonable spread of responses around the mean and a relatively normal data distribution.

Table 2. Mean Value of Job Satisfaction Factors Among Health Workers (n=257)

Job Satisfaction Factors	Mean	Standard Deviation	Category
Knowledge, skills, and competency required for the job	5.43	1.45	Satisfied
Income	5.12	1.54	Satisfied
Promotion opportunity	5.17	1.53	Satisfied
Work supervision	5.25	1.49	Satisfied
Relationship with coworkers	5.45	1.42	Satisfied

Table 3. Factors Affecting Job Satisfaction Among Health Workers (n=257)

Job Satisfaction Factor	Frequency (n)	Percentage (%)	Spearman rho (r)	p-value	95% CI
Knowledge, skills, and competency required for the job					
Very strongly dissatisfied	10	3.89	0.822	<0.001**	0.760-0.884
Strongly dissatisfied	9	3.50			
Dissatisfied	6	2.33			
Neutral	27	10.51			
Satisfied	28	10.89			
Strongly satisfied	137	53.31			
Very strongly satisfied	40	15.56			
Income					
Very strongly dissatisfied	12	4.67	0.869	<0.001**	0.818-0.920
Strongly dissatisfied	11	4.28			
Dissatisfied	15	5.84			
Neutral	30	12.45			
Satisfied	42	16.34			
Strongly satisfied	117	45.53			
Very strongly satisfied	28	10.89			
Promotion opportunity					
Very strongly dissatisfied	11	4.28	0.912	<0.001**	0.873-0.950
Strongly dissatisfied	11	4.28			
Dissatisfied	11	4.28			
Neutral	39	15.18			
Satisfied	35	13.62			
Strongly satisfied	118	45.91			
Very strongly satisfied	32	12.45			
Work supervision					
Very strongly dissatisfied	9	3.50	0.895	<0.001**	0.858-0.932
Strongly dissatisfied	13	5.06			
Dissatisfied	11	4.28			
Neutral	30	11.67			
Satisfied	32	12.45			
Strongly satisfied	133	51.75			
Very strongly satisfied	29	11.28			
Relationships with coworkers					
Very strongly dissatisfied	9	3.50	0.821	<0.001**	0.760-0.882
Strongly dissatisfied	8	3.11			
Dissatisfied	7	2.72			
Neutral	28	10.89			
Satisfied	27	10.51			
Strongly satisfied	137	53.31			
Very strongly satisfied	41	15.95			

Notes: **Significant at p-value <0.01.

Table 3 shows factors influencing job satisfaction among health workers. Most study participants (53.31%) expressed a high level of satisfaction with their knowledge, skills, and competency required for the job, 45.53% showed a high level of satisfaction with their income, 45.91% expressed significant satisfaction with the promotional opportunities available, 51.75% reported high satisfaction with the work supervision, and 53.31% were very satisfied with their working relationships with colleagues. All factors (knowledge, skills, and competency required for the job, income, promotion opportunity, work supervision, and relationships with coworkers) were statistically significantly correlated with overall job satisfaction (p-value = <0.001), with Spearman’s rho values of 0.822, 0.869, 0.912, 0.895, and 0.821, respectively, indicating a strong positive correlation. These findings indicated that these factors play a significant role in improving the job satisfaction of health workers at PHCs in Palembang City.

The results of the two-sample Wilcoxon rank-sum (Mann-Whitney) tests for sex, marital status, area of residence, job position, and work duration in Table 4 revealed that there are no statistically significant differences in mean satisfaction scores between the two groups based on these sociodemographic factors, with p-values of 0.306, 0.072, 0.165, 0.251, and 0.552, respectively. Similarly, the Kruskal-Wallis population rank equality test yielded p-values of 0.296 and 0.457, indicating no substantial variation in mean satisfaction scores across the age groups and educational status variables, respectively.

Table 4. Job Satisfaction Difference Among Groups of Sociodemographic Variables

Variable	p-value	95% CI
Age		
21–30 years		
31–40 years	0.296	-5.759-12.906
41–50 years		
51–60 years		
Sex		
Male	0.306	-1.422-3.470
Female		
Marital status		
Single	0.072	-0.129-3.723
Married		
Educational status		
Senior high school		
Diplomas (D1/D2/D3)	0.457	-4.335-9.365
D4/Bachelor		
Master’s/Doctorate		
Area of residence		
Surrounded districts	0.165	-3.301-0.527
Palembang City		
Job position		
Not holding a managerial position	0.251	-1.026-3.323
Holding a managerial position		
Work experience		
≤10 years of working	0.552	-1.384-2.572
>10 years of working		

Notes: Mann-Whitney test and Kruskal-Wallis tests *significant at p-value <0.05

Discussion

This study analyzed the job satisfaction levels of health workers in PHCs in Palembang City. A total of 66.15% of health workers at PHCs in Palembang City expressed satisfaction with their current position. The results showed a considerable difference with the group of health workers who felt dissatisfied at 12.06%. This result aligned with positive findings reported in several studies.²¹⁻²³ However, other studies have shown lower job satisfaction among workers in similar roles.^{2,13} This discrepancy may be due to local contextual factors such as organizational culture, leadership styles, and regional economic conditions, which were not explored in the cited studies. Sociodemographic factors, including age, sex, marital status, educational status, area of residence, job position, and work experience, may influence health workers' job satisfaction. Previous studies have examined the correlation between sociodemographic variables and job satisfaction.^{16,24,25}

This study revealed that five job satisfaction factors—knowledge, skills, and competency (53.31%), income (45.53%), promotion opportunities (45.91%), work supervision (51.75%), and relationships with coworkers (53.31%)—were significantly correlated with overall job satisfaction. These findings indicated that job satisfaction depends on multiple factors. Both intrinsic factors like skills and relationships, and extrinsic factors like income, promotions, and supervision play a key role in shaping job satisfaction. Health workers at PHCs in Palembang City exhibited strong capabilities and

sufficient opportunities for skill development. Moreover, they enjoyed satisfactory income levels and promising prospects for job advancement. This condition indicated that their financial compensation is adequate in the local context, reflected by the 2022 Palembang City minimum wage of USD200 (approximately 1 USD = IDR16,430), and may contribute positively to their overall job satisfaction. Surprisingly, this study challenges common assumptions by showing that health workers at PHCs in Palembang City hold positive perceptions of their supervisors and generally maintain positive relationships with their coworkers. Health workers' positive perceptions of supervisors may stem from effective supervision, strong competencies, supportive coworkers, and fair income and promotion opportunities, fostering an unexpectedly positive work environment despite common challenges in PHCs.

Previous studies have revealed that higher levels of personal knowledge and skills are associated with increased job satisfaction.^{21,26} Diverse skills among health workers allow them to handle a wider range of tasks, serve patients, and reduce the boredom of repetitive work. Job satisfaction increases when an individual's competencies align closely with job demands.²⁶ This suggests that individuals with higher competence levels are more likely to excel in their tasks. Furthermore, high levels of competence increase adaptability to the work environment and job demands.²⁷ Highly competent employees generally experience increased self-confidence, which leads to reduced job stress and ultimately fosters greater job satisfaction.^{10,26}

Several studies have shown a positive correlation between income and job satisfaction, identifying income as a key determinant.^{28,29} Financial rewards, including income and other monetary incentives, are primary motivators for individuals in their works² and drive for individuals in their work. Since individuals primarily work to meet their essential needs. Higher incomes not only help alleviate financial needs for health workers but also enable them to meet their daily needs and foster emotional satisfaction. Satisfied and happy workers will naturally be more satisfied with their jobs. A previous study emphasized how salary factors among young Chinese workers can influence their job satisfaction.³⁰ Health workers should receive salaries that reflect their responsibilities and performance. Overtime and additional responsibilities should be compensated separately from regular pay to ensure a fair and transparent system. Career advancement also plays a crucial role in job satisfaction. Job promotions often come with salary increases and greater job complexity. In this study, job promotion emerged as a factor influencing job satisfaction. Structural Equation Modeling (SEM) analysis using Analysis of Moment Structures (AMOS) from a previous study found that career development exerts a positive and significant impact on work engagement among employees in the Bukittinggi City Government.³¹

Consistent with previous study's findings, this study affirmed that the employer or leader in the workplace significantly influences the job satisfaction of health workers.^{32,33} Most respondents expressed moderate to high job satisfaction, meaning that leadership or employers generally have a positive impact on health workers in the PHCs of Palembang City. Empowering managers with the right skills improves personnel management, creating a productive, harmonious workplace. Effective leadership drives job satisfaction by supporting communication, employee growth, and engagement.³² Positive leadership from supervisors in the workplace encourages health workers, contributing to an increase in their job satisfaction. Involving staff in the decision-making process will encourage them to voice their opinions and share ideas. On the other hand, this helps leaders gain diverse perspectives to overcome workplace challenges.^{3,8} Staff involvement in the organization is beneficial.³³ Good relationships with coworkers can influence job satisfaction. Effective communication and coworker support have been shown to increase job satisfaction.^{13,34} Being part of a work team will increase regular interactions with coworkers.³⁵ Commitment to working as a team results in benefits for delivering health services in PHC settings.

Health care teams commonly face challenges in accountability, conflict management, decision-making, reflecting on progress, and coaching, which are consistent across clinical and administrative teams.³⁶ Effective leadership within the healthcare sector can have a beneficial influence on the teamwork of health workers.³⁷ The positive sense of being part of a team and cultivating positive relationships fosters higher job satisfaction. In addition, by fostering interprofessional collaboration, healthcare teams can address challenges more effectively, thus enhancing the overall work experience and job satisfaction.

This study's results contributed to Herzberg's Two-Factor Theory by highlighting the need to create work environments that value and support employees, enabling them to apply their skills to enhance healthcare delivery.³⁸ Furthermore, these findings suggested that effective leadership and positive interpersonal relationships play an integral role in job satisfaction, extending the theory's applicability in healthcare settings. For policymakers and healthcare administrators, the results suggested practical recommendations for improving health workers' job satisfaction. It is important to foster leadership that emphasizes communication, professional development, and recognition of employees'

contributions. These efforts can increase retention rates, improve service delivery, and achieve better overall health outcomes.

This study had several limitations. The questionnaire did not include questions about respondents' employment status (civil servant vs. non-civil servant). Additionally, this study was limited to Palembang City, which may not be representative of health workers across Indonesia. The reliance on self-reported data and the participant selection process might have also influenced the results. Future research should aim to include more diverse health care settings and employ different methods to gain a more comprehensive understanding of job satisfaction.

Conclusion

This study's findings highlight that most health workers at PHCs in Palembang City reported high job satisfaction, with both intrinsic and extrinsic factors contributing positively. Statistical tests confirm a correlation between job satisfaction and five factors, including knowledge, skills, and competency, income, job promotion, work supervision, and coworkers. However, none of the sociodemographic variables (age, sex, marital status, educational status, area of residence, job position, and work experience) has a statistically significant relationship with job satisfaction among the health workers. Job satisfaction is likely influenced more by workplace factors than by sociodemographic factors. Health workforce management should prioritize organizational factors to sustain job satisfaction over sociodemographic factors. Key strategies include regular training, fair salaries, clear promotion paths, strong supervision, and fostering teamwork through leadership training and staff meetings.

Abbreviations

PHC: primary health care.

Ethics Approval and Consent to Participate

Approval for ethical considerations was obtained from the Ethics Committee of the Faculty of Public Health, Universitas Sriwijaya, with the number 274/UN9.FKM/TU.KKE/2022. To maintain privacy, the personal information of participants was omitted. Moreover, detailed and transparent informed consent was acquired from every participant, specifying their voluntary involvement, the choice to answer all queries, and the freedom to conclude the interview at any point before completing all questions.

Competing Interest

The authors declare that they have no competing interests associated with the publication of this article.

Availability of Data and Materials

Data used in this study is available from the corresponding author upon reasonable request.

Authors' Contribution

AA was responsible for conceptualization, methodology, formal analysis, and final draft writing. MNS performed the investigation and wrote the original draft. PF and HI interpreted the data and contributed to writing the final draft. TT critically reviewed the manuscript. All authors read and approved the final manuscript.

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