



# Factors Affecting Healthcare Employee Satisfaction and Their Relationship to Patient Satisfaction in Community Health Centres

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## Abstract

**Background/Aim:** In the realm of healthcare services, the satisfaction of medical professionals in their workplace environment has become a central concern closely associated with the perceived satisfaction levels of patients. This research investigated the intricate relationship between employee satisfaction and patient satisfaction within the context of community health centres. The study aimed to identify specific factors of employee satisfaction, such as compensation, supervision and work environment, that potentially influence the level of patient satisfaction.

**Methods:** Employing a cross-sectional descriptive design, a total of 162 employees and 276 patients from 13 community health centres participated in this study, conducted between June and September 2023. The participants were selected based on specific criteria, including age above 17, fluency in Indonesian and ability to complete the questionnaires. The study utilised two questionnaires: one measuring patient satisfaction with aspects of healthcare service and the other gauging employee satisfaction concerning management practices in community health centres. Both questionnaires employed Likert scale measurements to gather responses.

**Results:** The findings indicated a significant influence of investigated factors on patient satisfaction. Notably, compensation of employees emerged as a crucial factor significantly affecting patients satisfaction, aligning with previous research emphasising its importance in healthcare settings. Conversely, other factors such as supervision, work relationships, nature of work, opportunities for status change and work interactions with colleagues of employees did not exhibit a significant impact on patient satisfaction.

**Conclusions:** The study findings conformed the importance of compensation of employees a pivotal factor in designing strategies to improve patient satisfaction in community health centres. While other factors like supervision and work interactions did not demonstrate statistically significant correlations, this suggests the potential for more complex relationships that warrant further investigation. Identifying specific factors that influence patient satisfaction in community health centres can significantly contribute to enhancing healthcare service quality and overall patient satisfaction in the future.

**Key words:** Employee satisfaction; Patient satisfaction; Community health centres; Compensation; Work environment.

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## Introduction

In the realm of healthcare services, the satisfaction of medical professionals in their workplace environment has become a central concern closely associated with the perceived satisfaction levels of patients.<sup>1-3</sup> Within healthcare facilities, factors such as service quality, treatment costs, facilities and communication have been recognised as primary drivers of patient satisfaction.<sup>4-7</sup> Meanwhile, specific aspects of medical professional satisfaction, such as compensation, supervision, working conditions and career development opportunities, also play a significant role in shaping the performance and services provided by healthcare workers.<sup>8-10</sup> Primary healthcare centres, particularly community health centres, hold a pivotal role in delivering healthcare services to the community.<sup>11-13</sup> Thus, a profound understanding of the factors influencing patient satisfaction in the community health centre environment becomes highly crucial.

Although previous research has provided an overview of the relationship between medical staff satisfaction and patient satisfaction, there is still room to further explore the correlation and influence of certain factors within the community health centre setting.<sup>14-19</sup> The limitations in understanding provide a platform for deeper research to delve into the specific role of medical staff satisfaction factors in influencing patient satisfaction in community health centres. The understanding of the significance of the community health centre environment in influencing patient satisfaction is also an aspect that has not been entirely disclosed in previous literature.<sup>20-27</sup> Hence, this research is expected to fill this knowledge gap by exploring the complexity of the relationship between medical staff satisfaction and patient satisfaction, particularly within the community health centre environment.<sup>28,29</sup>

The aim of this study was to analyse the impact of specific factors related to medical staff satisfaction, such as compensation, supervision and the work environment, on patient satisfaction in community health centres.

## Methods

This study employed a descriptive cross-sectional research design. The research participants

consisted of 162 employees and 276 patients from 13 community health centres between June and September 2023 in Teluk Wondama Regency, West Papua Province, Indonesia. They were selected using a combination of purposive sampling and cluster sampling techniques. Purposive sampling ensured that participants met specific criteria, including: patients aged 17 and above, capable of speaking and understanding the Indonesian language, not excessively confused or unwell to complete the questionnaire and willing to participate in the study, along with all employees willing to be respondents. Respondents who did not fully complete the questionnaire and the heads of the health centres were excluded from this study. Cluster sampling was employed to select diverse community health centres as clusters and then participants within these clusters. This approach facilitated the inclusion of relevant individuals and varied healthcare facilities, enhancing the representativeness and generalisability of the study findings. This study employed the age of 17 as the cut-off age for respondents due to considerations related to policies or regulations in the research environment in Indonesia, where the age of 17 is often regarded as the age of majority or the age at which individuals are considered to have attained a sufficient level of cognitive maturity to participate in research. Additionally, at this age, individuals tend to be more independent in utilising healthcare services without the need for parental or guardian presence. The sample size calculation was conducted with a confidence level of 95 %. Each respondent required approximately 10 minutes to complete the entire questionnaire.

## Measurement - questionnaires and variables

The Patient Satisfaction Questionnaire regarding community health centre services was designed by researcher to measure the anticipated patient needs when receiving services at community health centres. This scale was developed using the patient satisfaction domains towards community health centre services, consisting of: Service quality, Treatment costs, Facilities and Communication. Participant responses were provided using a 5-point Likert scale. Each domain comprised three questions with five response options: very dissatisfied (1), dissatisfied (2), moderately satisfied (3), satisfied (4) and very satisfied (5). Furthermore, the questionnaire for this research has undergone validity and reliability testing.

The Employee Satisfaction Questionnaire regarding community health centre management was designed by researcher to measure how well the needs of employees could be facilitated by the management of the community health centres. This scale was developed using domains of employee satisfaction with the community health centre workforce, including: Compensation, Supervision, Nature of work, Work interactions with colleagues, Working environment, Career development opportunities and Job security. Participant responses were gathered using a 5-point Likert scale. Each domain consisted of three questions with five response options: very dissatisfied (1), dissatisfied (2), moderately satisfied (3), satisfied (4) and very satisfied (5). Furthermore, the questionnaire for this research has undergone validity and reliability testing.

### Data collection and analysis

The data collection process commenced by obtaining permission from the thirteen heads of the community health centres. Subsequently, the purpose and objectives of the research were explained, followed by requesting informed consent and questionnaire completion for the community health centre employees. For patient respondents, data were collected after they received services, preceded by an explanation of the research and signing of informed consent.

The collected data were analysed using the *Jamovi* software.<sup>30</sup> The analysis involved examining the relationship between employee satisfaction domains and patient satisfaction using Pearson correlation and multiple linear regression. The statistical analysis conducted in this study focused on examining the demographics of employees and patients at the community health centre, as well as their satisfaction levels and the correlation between employee satisfaction and patient satisfaction. Descriptive statistics were used to analyse demographic data, including age, gender, education, employment status, marital status, family dependents and other relevant factors among employees and patients. Additionally, correlation analyses were performed to investigate the relationship between employee satisfaction factors and patient satisfaction, as well as the influence of specific demographic background factors of employees on patient satisfaction. The analysis revealed intriguing differences in demographics between employees and patients, with notable variations observed in age, gender, edu-

cation, employment status and other factors. Furthermore, regression analyses were employed to assess the influence of employee satisfaction factors and demographic background factors on patient satisfaction at the community health centres. These analyses provided insights into the factors that contribute to patient satisfaction and highlighted the significance of employee satisfaction, employment status and health insurance in influencing patient satisfaction levels.

### Validity and reliability analysis

The questionnaire validity tests indicated a range of values ranging from 0.630 to 0.776 with a Cronbach's  $\alpha$  value of 0.972 for patient satisfaction and 0.780 to 0.791 with a Cronbach's  $\alpha$  value of 0.908 for employee satisfaction.

## Results

The demographic data of employees and patients at the community health centre revealed intriguing differences between these two groups (Table 1). The average age of employees was approximately 39.8 years, ranging from 24 to 59 years old, while patients had an average age of around 40.6 years, with an age range between 17 and 65 years. A majority of the employees were females, accounting for 52.5 %, whereas among the patients, the percentage of females reached 50.4 %. In terms of educational attainment, a substantial proportion of employees held a Bachelor's degree (55.6 %), while the majority of patients had completed their high school education (24.3 %). Other differences emerged concerning employment status; a significant portion of employees had non-permanent employment (51.2 %), while the majority of patients had permanent jobs (29.7 %). Furthermore, noticeable differences were observed in marital status and family dependents between the two groups. Most employees were married (54.3 %) and had family dependents (54.3 %), whereas the majority of patients were unmarried (45.7 %) and had family dependents (52.2 %).

From the data (Table 2), it is observed that the overall average employee satisfaction level stood at  $82.8 \pm 4.15$ , indicating a relatively high satisfaction level tendency. Regarding the various domains of satisfaction, the survey results exhibited variability in employee satisfaction lev-

**Table 1: Sociodemographic data of the sample**

Variable, N (%)	Employees	Patients
Age, mean $\pm$ SD (Min-Max)	39.8 $\pm$ 9.94 (24-59)	40.6 $\pm$ 13.8 (17-65)
Work experience, mean $\pm$ SD (Min-Max)	13.3 $\pm$ 7.17 (1-25)	-
<b>Gender</b>		
Female	85 (52.5)	139 (50.4)
Male	77 (47.5)	137 (49.6)
<b>Highest education attainment</b>		
No education	-	52 (18.8)
Elementary school (SD)	-	50 (18.1)
Junior high school (SMP)	-	59 (21.4)
Senior high school (SMA)	-	67 (24.3)
College/University	-	48 (17.4)
Diploma III	72 (44.4)	-
Bachelor's degree	90 (55.6)	-
<b>Employment status</b>		
Unemployed	-	95 (34.4)
Permanent employment	79 (48.8)	82 (29.7)
Temporary employment	83 (51.2)	99 (35.9)
<b>Current position</b>		
Administrative officer	14 (8.6)	-
Pharmacist	15 (9.3)	-
Midwife	29 (17.9)	-
Nutritionist	15 (9.3)	-
Environmental health officer	22 (13.6)	-
Laboratory analyst	22 (13.6)	-
Nurse	45 (27.8)	-
<b>Family responsibilities</b>		
No	74 (45.7)	144 (52.2)
Yes	88 (54.3)	132 (47.8)
<b>Marital status</b>		
Single	74 (45.7)	84 (30.4)
Married	88 (54.3)	103 (37.3)
Widowed/Divorced	-	89 (32.2)
<b>Dependent children</b>		
No	74 (45.7)	-
Yes	88 (54.3)	-
<b>Experience of training or special certification in health sector</b>		
No	2 (1.2)	-
Yes	160 (98.8)	-
<b>Work experience in the health sector</b>		
No	2 (1.2)	-
Yes	160 (98.8)	-
<b>Distance from community health centre</b>		
Not close	84 (51.9)	-
Close	78 (48.1)	-
<b>Additional workload apart from work at community health centres</b>		
No	135 (83.4)	-
Yes	27 (16.6)	-
<b>Health insurance</b>		
No	1 (0.6)	142 (51.4)
Yes	161 (99.4)	134 (48.6)
<b>Frequency of visits to community health centres per year</b>		
Once	-	140 (50.7)
More than 1 time per year	-	136 (49.3)
<b>Chronic medical conditions</b>		
No	-	127 (46.0)
Yes	-	149 (54.0)

els across different job aspects. For instance, the average score for Compensation stood at 12.1, ranging from 9 to 15, indicating a relatively high level of satisfaction regarding the compensation received by the employees. However, aspects such as Supervision, Nature of work, Work interactions with colleagues, Working environment, Career development opportunities and Job security showed variations in satisfaction scores, although generally maintaining a relatively positive range between 9 to 15.

**Table 2:** Scores for the overall average employee satisfaction level and satisfaction domains at community health centres

Variables	Mean	SD	Min	Max
Employee satisfaction	82.8	4.15	73	93
<b>Domains</b>				
Compensation	12.1	1.55	9	15
Supervision	11.7	1.41	9	15
Nature of work	11.8	1.49	9	15
Work interactions with colleagues	11.8	1.55	9	15
Working environment	11.9	1.56	9	15
Career development opportunities	11.7	1.44	9	15
Job security	11.8	1.46	9	15

SD: standard deviation; Min: minimum; Max: maximum; Values are based on Likert 5 scale.

The overall average patient satisfaction rate was approximately 48, with a standard deviation of 2.98, indicating that, generally, patient satisfaction fell within a moderate range (Table 3). Upon examining the satisfaction domains, it is evident that the quality of service, cost of treatment, facilities and communication all had average scores above 11 (within the range of 9 to 15). This suggests that patients tended to provide positive assessments regarding these aspects in the services they receive at the community health centre.

**Table 3:** Scores for the overall average patient satisfaction level and service-related satisfaction domains at community health centres

Variables	Mean	SD	Min	Max
Patient satisfaction	48.0	2.98	40	57
<b>Domains</b>				
Quality of service	12.1	1.37	9	15
Cost of treatment	11.9	1.36	9	15
Facilities	11.9	1.37	9	15
Communication	12.1	1.36	9	15

SD: standard deviation; Min: minimum; Max: maximum; Values are based on Likert 5 scale.

Table 4 presents the correlation results between employee satisfaction and patient satisfaction at the community health centre. It is shown that

the correlation between employee satisfaction and patient satisfaction had a Pearson’s r value of -0.169, with a p-value of 0.031. This indicates a statistically significant yet weak correlation between employee satisfaction and patient satisfaction at the community health centre. Furthermore, the table also illustrates the correlation between various aspects of employee satisfaction (such as compensation, supervision, nature of work, work interactions with colleagues, working environment, career development opportunities and job security) with various aspects of patient satisfaction (quality of service, cost of treatment, facilities and communication). In some cases, there were significant correlations between specific aspects of employee satisfaction and specific aspects of patient satisfaction. For instance, compensation showed a significant positive correlation with the quality of service, cost of treatment, facilities and patient communication. However, several other aspects of employee satisfaction, such as the nature of work, work interactions with colleagues and the working environment, did not demonstrate significant correlations with patient satisfaction.

The table 5 indicates that within the gender category, the correlation between this variable and patient satisfaction domains (quality of service, treatment cost, facilities and communication) was relatively weak with correlation coefficients ranging from -0.058 to 0.069 and not statistically significant ( $p > 0.05$ ). Conversely, the age variable showed a significant correlation with treatment cost (Pearson’s  $r = 0.195$ ,  $p = 0.013$ ) and the highest education level had a significant correlation with treatment cost (Pearson’s  $r = 0.160$ ,  $p = 0.041$ ). Employment status revealed a significant correlation with treatment cost (Pearson’s  $r = 0.165$ ,  $p = 0.035$ ). Additional work burden besides work at the community health centre did not exhibit a significant correlation with patient satisfaction domains. Furthermore, other variables such as family dependents, marital status, dependent children, specific health sector training, previous work experience in the health sector, proximity to the health centre and having health insurance did not show significant correlations with patient satisfaction domains.

Employee’s compensation had a significant influence on patient satisfaction, with a regression coefficient (b) of 0.408 (95 % CI: 0.098 to 0.717) (Table 6). This indicates that for each one-unit increase in employee compensation satisfaction,

**Table 4:** Correlation between employee satisfaction and patient satisfaction at the community health centre

Employee satisfaction domain	Patient satisfaction				
	Corr <sup>†</sup>	Quality of service	Cost of treatment	Facilities	Communication
Compensation	r	0.191 *	0.098	0.165*	0.155
	p	0.015	0.216	0.036	0.049
Supervision	r	0.018	-0.128	-0.080	-0.15
	p	0.824	0.105	0.314	0.057
Nature of work	r	-0.025	-0.116	-0.204**	-0.059
	p	0.751	0.141	0.009	0.456
Work interactions with colleagues	r	-0.005	-0.088	-0.092	-0.118
	p	0.949	0.263	0.246	0.135
Working environment	r	-0.104	-0.027	0.036	0.024
	p	0.186	0.735	0.653	0.760
Career development opportunities	r	0.061	0.044	-0.170*	-0.035
	p	0.444	0.582	0.031	0.662
Job security	r	-0.114	-0.107	-0.133	-0.098
	p	0.148	0.175	0.093	0.213
Employee satisfaction	r	-0.169			
	p	0.031			

<sup>†</sup>: Pearson's correlation, r: correlation coefficient, p: p-value; \*  $p < 0.05$ , \*\*  $p < 0.01$ ;

**Table 5:** Correlation between employee demographics and patient satisfaction domains at community health centres

Employee demographics	Patient satisfaction				
	Corr <sup>†</sup>	Quality of service	Cost of treatment	Facilities	Communication
Gender	r	0.061	-0.038	0.069	-0.058
	p	0.440	0.627	0.380	0.462
Age	r	0.015	0.195*	-0.037	0.076
	p	0.854	0.013	0.638	0.339
Highest education attainment	r	-0.038	0.160*	0.019	-0.015
	p	0.631	0.041	0.815	0.854
Length of employment	r	0.049	-0.083	-0.009	0.009
	p	0.537	0.296	0.912	0.910
Employment status	r	0.074	0.165*	0.053	0.129
	p	0.352	0.035	0.506	0.103
Family dependents	r	0.065	-0.031	0.096	0.005
	p	0.408	0.694	0.226	0.948
Marital status	r	-0.007	-0.034	0.018	-0.022
	p	0.926	0.672	0.817	0.782
Dependent children	r	-0.039	-0.009	0.026	0.077
	p	0.623	0.913	0.740	0.328
Health sector training or special certification experience	r	-0.076	-0.045	-0.120	-0.073
	p	0.336	0.566	0.130	0.358
Health sector work experience	r	0.067	0.073	0.044	-0.138
	p	0.395	0.358	0.582	0.080
Distance from the community health centre	r	0.117	-0.129	-0.027	0.037
	p	0.139	0.101	0.738	0.644
Additional work burden besides work at the community health centre	r	0.028	-0.027	0.140	0.000
	p	0.720	0.729	0.076	1.000
Health insurance	r	-0.114	-0.061	-0.112	-0.051
	p	0.148	0.439	0.155	0.518

<sup>†</sup>: Pearson's correlation, r: correlation coefficient, p: p-value; \*  $p < 0.05$ , \*\*  $p < 0.01$ ;

**Table 6:** The influence of specific employee satisfaction factors on patient satisfaction at community health centres

Predictor	Estimate	SE	t	p	b	95 % CI
Intercept	52.1898	4.908	10.634	<0.001		
Compensation	0.4078	0.158	2.580	0.011	0.4078	(0.098, 0.717)
Supervision	-0.1168	0.174	-0.671	0.503	-0.1168	(-0.456, 0.222)
Nature of work	-0.2264	0.161	-1.409	0.161	-0.2264	(-0.543, 0.090)
Work interactions with colleagues	-0.1555	0.154	-1.013	0.313	-0.1555	(-0.456, 0.145)
Working environment	-0.0658	0.149	-0.443	0.658	-0.0658	(-0.359, 0.227)
Career development opportunities	0.0575	0.165	0.347	0.729	0.0575	(-0.268, 0.383)
Job security	-0.2571	0.167	-1.544	0.125	-0.2571	(-0.595, 0.081)

SE: standard error, t: test value; p: p-value, b: regression coefficient, CI: confidence interval;

**Table 7:** The influence of specific sociodemographic factors of employees on patient satisfaction in community health centres

Predictor	Estimate	SE	t	p	b	95 % CI
Intercept	51.8881	4.5345	11.443	<0.001		
Gender	0.3769	0.5035	0.749	0.455	0.3769	-0.614 - 1.368
Age	0.0394	0.0246	1.606	0.110	0.0394	-0.008 - 0.087
Highest education attainment	0.2128	0.4911	0.433	0.665	0.2128	-0.753 - 1.179
Length of employment	-0.0108	0.0347	-0.312	0.756	-0.0108	-0.078 - 0.056
Employment status	1.0240	0.4978	2.057	0.041	1.0240	0.044 - 2.004
Family dependents	0.1456	0.4893	0.298	0.766	0.1456	-0.814 - 1.106
Marital status	-0.0860	0.4971	-0.173	0.863	-0.0860	-0.666 - 0.494
Dependent children	0.1547	0.4819	0.321	0.749	0.1547	-0.796 - 1.106
Health sector training or special certification experience	-3.2796	2.2188	-1.478	0.142	-3.2796	-7.645 - 1.086
Health sector work experience	0.4221	0.4872	0.866	0.388	0.4221	-0.534 - 1.378
Distance from the community health centre	0.1050	0.5010	0.210	0.834	0.1050	-0.887 - 1.097
Additional work burden besides work at the community health centre	0.6441	0.4887	1.318	0.190	0.6441	-0.317 - 1.605
Health insurance	-6.4882	3.1577	-2.055	0.042	-6.4882	-12.685 - -0.292

SE: standard error, t: test value; p: p-value, b: regression coefficient, CI: confidence interval;

there was an associated increase of 0.408 units in patient satisfaction. However, other factors such as supervision, nature of work, work interactions with colleagues, working environment, career development opportunities and job security did not show a significant influence on patient satisfaction, as the regression coefficients (b) for these factors had statistically insignificant values. Nevertheless, these results suggest that employee compensation may be one of the important factors in influencing patient satisfaction at community health centres, while other factors may require further research for full understanding.

The Table 7 presents the influence of specific demographic background factors of employees on patient satisfaction in community health centres. The regression analysis results indicate that several demographic variables had varying degrees of influence on patient satisfaction. Employment status showed a statistically significant positive influence on patient satisfaction (b = 1.024, p = 0.041), suggesting that employees with perma-

nent or stable employment status tended to contribute positively to patient satisfaction levels. Conversely, health insurance status demonstrated a statistically significant negative influence on patient satisfaction (b = -6.488, p = 0.042), indicating that employees without health insurance coverage may have lower levels of patient satisfaction.

Other demographic variables such as gender, age, highest education attainment, length of employment, family dependents, marital status, dependent children, health sector training or special certification experience, health sector work experience, distance from the community health centre and additional work burden besides work at the community health centre, did not exhibit statistically significant influences on patient satisfaction. For instance, gender (b = 0.377, p = 0.455), age (b = 0.039, p = 0.110), highest education attainment (b = 0.213, p = 0.665) and other variables showed no significant associations with patient satisfaction levels. These findings

suggest that while certain demographic factors such as employment status and health insurance coverage may significantly impact patient satisfaction, other factors such as gender, age and education level may not play significant roles in determining patient satisfaction levels in community health centres.

## Discussion

In this study, various aspects related to employee and patient satisfaction at community health centres were examined. This includes analysing each domain of employee and patient satisfaction as well as the sociodemographic factors of employees as service providers. The primary objective of this research was to identify specific factors of employee satisfaction that potentially influence the level of patient satisfaction within the community health centres environment.

The findings indicate that compensation and health insurance, which is also part of the compensation package, significantly influence patient satisfaction at the community health centres. However, other factors such as supervision, relationships with colleagues, nature of work, opportunities for status change and work interactions with colleagues did not demonstrate a significant influence on patient satisfaction.

These findings are consistent with prior research showing variability in the impact of employee satisfaction factors on patient satisfaction, especially in unique healthcare service environments such as community health centres.<sup>27, 28, 31-33</sup> This study confirms that compensation (salary, wages, benefits including health insurance) is a crucial factor influencing patient satisfaction, while other factors shown less significant or statistically insignificant impacts.

Employee compensation factors such as salary, wages, benefits including health insurance, significantly impact patient satisfaction in healthcare service environments such as community health centres.<sup>12, 23, 34, 35</sup> Several aspects explain why adequate compensation for employees positively affects patient satisfaction. Firstly, good compensation can enhance employee motivation and performance. When employees feel that their salary corresponds to their contributions and

responsibilities, they tend to be more motivated to perform their duties better. This implies that they might provide better, more responsive and caring services to meet patient needs, thereby enhancing patient satisfaction.<sup>36-41</sup>

Secondly, adequate compensation can improve employee retention and workforce quality.<sup>42-51</sup> Satisfied employees with their compensation tend to stay longer in healthcare institutions, reducing employee turnover that can affect patient care continuity.<sup>52, 53</sup> It also enables employees to gain broader experiences, enhancing their patient care skills, which ultimately can positively affect patient satisfaction.<sup>54-56</sup> Additionally, employees satisfied with their compensation tend to feel more emotionally committed to their work, which can enhance the quality of services provided to patients.<sup>57-59</sup>

These findings underline the need to further consider compensation factors in designing strategies to improve patient satisfaction at Community health centres. While factors like supervision and work interactions did not show significant correlation, further research is necessary to unveil more complex relationships that could offer new insights into enhancing patient satisfaction.

There is potential for developing new models to enhance healthcare service quality. One such model could integrate key employee satisfaction factors into a more comprehensive framework. This model could account for the complex relationship between various employee satisfaction factors such as compensation, supervision, interactions with colleagues and others with patient satisfaction.<sup>60-65</sup> Moreover, this model could also involve employee demographic background variables such as age, education, employment status and health insurance to provide a more complete picture of factors influencing patient satisfaction.

## Conclusion

Upon meticulous analysis, the research has revealed that employee's compensation significantly impacts patient satisfaction, unlike other factors such as supervision, interpersonal relationships in the workplace, the nature of work, prospects for career progression



and interactions among colleagues, which did not exhibit a substantial effect. Furthermore, this study also indicates that the environment within the healthcare centre, which has previously received limited research attention, does not notably influence patient satisfaction. These findings emphasise the necessity of reassessing strategies and directing attention toward compensation-related aspects while formulating policies to enhance patient satisfaction within the healthcare centre. Nonetheless, these findings open avenues for further exploration into additional factors influencing patient satisfaction and for developing a more comprehensive model to improve healthcare services extended to the community. Besides offering new insights, the findings of this research are anticipated to serve as a foundation for developing models and recommendations aimed at enhancing the healthcare service system in community health centres.

## Ethics

The study was approved by the Ethics Committee of the Ministry of Health Polytechnic Slide below the supervision of the Ministry of Health of the Republic of Indonesia, decision No DM. 4.1/1/007/2023), dated 7 June 2023. Written informed consent was obtained from patients prior to their participation in the study and for publishing of the anonymised data. Additionally, the completion of the questionnaires was done anonymously. Permission to conduct the study was also obtained from the community health centre management. The study was organised and implemented based on the adherence to the Ethical Principles for Medical Research Involving Human subjects (The Declaration of Helsinki, 8th Revision, 2013).

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## Conflicts of interest

The author declares that there is no conflict of interest.

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## Data access

The data that support the findings of this study are available from the corresponding author upon reasonable individual request.

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Conceptualisation, methodology, software, validation, formal analysis, investigation, resource management, data curation, original draft writing, revision, visualisation: ACM

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