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(RESEARCH ARTICLE)

The Effect of Work Engagement on Health Worker Work Performance: A Structural Equation Modeling (SEM) Analysis in Kendari City Primary Health Facility, Southeast Sulawesi Province, Indonesia, 2025

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Abstract

The existence of health personnel in primary healthcare facilities has a very fundamental role in the implementation of first-level health services. However, various challenges such as limited manpower, uneven distribution, and high workload lead to psychological distress and decreased work performance. One of the psychological factors that plays an important role in maintaining and improving the work performance of health personnel is employee engagement. This study aims to analyze the influence of employee engagement on the work performance of health personnel in Kendari City, Southeast Sulawesi Province.

Methods: This study used a quantitative approach with a *cross-sectional design*. The study sample amounted to 236 health personnel who were selected using the proportionate stratified random sampling technique, covering all types of health personnel in primary healthcare facilities. Data analysis was carried out using Partial Least Square–Structural Equation Modeling (PLS-SEM) with the help of SmartPLS software version 4.

Results: The findings indicated that employee engagement had a positive and noteworthy effect on the work performance of health personnel, with a path coefficient value of 0.853, t-statistic of 30.656 (>1.96), and p-value of 0.000 (<0.05).

Conclusion: Based on the results of the analysis, it can be determined that there is an influence of employee engagement on the work performance of health personnel. Therefore, Community Primary Health Facility leaders need to implement transformational and transactional leadership styles that can foster a sense of belonging, appreciation and meaning of work for health personnel, increase opportunities for self-development and competence, and create a collaborative work environment.

Keywords: Work Engagement; Work Performance; Health Personnel; Primary Health Facilitys; Structural Equation Modeling (SEM)

1. Introduction

The existence of health personnel in primary healthcare facilities is very fundamental in the implementation of first-level health services. The health center functions as the spearhead of public health services that have responsibility for promotive, preventive, curative, and rehabilitative efforts in their work areas [1]. Competent health personnel, in accordance with their needs and clear job descriptions, are a key factor in the successful implementation of basic health services [2].

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In carrying out the function of public health services, the Community Primary Health Facility faces various challenges, especially related to the limited health human resources. Globally, the WHO predicts that there will be a shortage of health personnel of up to 10 million people by 2030, especially in developing countries [3]. Where only 25% of health personnel are in low- and middle-income countries [1,2,3,4]

In Indonesia, there is still a gap in health personnel, especially in terms of uneven distribution [5]. In fact, information from the Health Human Resources Information System (SISDMK), in 2022 there are still 4.0% of primary healthcare facilities that do not have doctors and Southeast Sulawesi Province is among the fifth highest provinces that do not have doctors [6].

In Southeast Sulawesi, out of the 307 existing primary healthcare facilities, there are still 166 or 54.25% of primary healthcare facilities that have not met the complete composition of health personnel according to the provisions contained in the Minister of Health Regulation number 43 of 2019 where each health center ideally has 9 types of health personnel including doctors, dentists, nurses, midwives, health personnel, environmental sanitation, laboratory analysts, nutrition workers and pharmaceutical personnel [7].

Likewise, what happened in Kendari City, there are still vacancies for several types of health personnel in a number of primary healthcare facilities, such as dentists at the Wua-Wua Primary Health Facility, environmental health and medical laboratories at the Mokoau Primary Health Facility as well as medical technicians at the Benu-Benua, Puuwatu, Perumnas and Mokoau Primary Health Facility [8].

The condition of the health worker gap will have an impact on excessive workload, psychological pressure to burnout and work attachment and will ultimately reduce the work performance of health personnel [9]. Data from 15 primary healthcare facilities throughout the city of Kendari still show achievements that have not met the target of 80%, including HIV health services, hypertension services, the elderly, and productive age health services [8].

The phenomenon of health worker gap and low productivity is also often followed by low levels of employee engagement, which ultimately affects the work performance of individuals and organizations [10]. Employee engagement is a positive psychological condition characterized by enthusiasm, dedication, and concentration in work [11]. Health personnel with high employee engagement tend to show a strong commitment to their work, are able to adapt to high workloads, and have better work performance [12]. Conversely, low employee engagement often leads to emotional exhaustion, reduced concern for patients, and increased risk of burnout [13]

This condition shows that the problem of low work performance of health personnel at the Primary Health Facility is not only caused by a lack of human resources in quantity, but also by psychological and organizational aspects related to the level of work involvement. Therefore, understanding the role of employee engagement in bridging the relationship between the health workforce gap and work performance is important. This study is expected to make a theoretical and practical contribution in the development of human resource management strategies in primary healthcare facilities to improve the work performance of health personnel in a sustainable manner.

2. Method

The type of study is quantitative study with a cross-sectional design. The information obtained was statistically analyzed to determine the relationship and influence between variables, with the planned analysis technique being Partial Least Square-Structural Equation Modeling (PLS-SEM).

The number of samples in the study was 236 respondents with a random sampling technique using proportionate stratified random sampling. Respondents represent all types of health personnel at the Primary Health Facility. The sample size used the slovin formula with a 95% confidence level and a margin of error of 5%.

3. Results and discussion

3.1. Respondent Characteristics

Table 1 Characteristics of Respondents based on gender, age, marital status, last education, employment status, length of employment and status of Community Primary Health Facility in the city of Kendari

Characteristic	Quantity (n)	Percent (%)
Gender		
Man	19	7,6
Woman	218	92,4
Total	236	100
Age		
20-24	3	1,3
25-29	38	16,1
30-34	69	29,2
35-39	57	24,2
>40	69	29,2
Total	236	100
Marital status		
Marry	170	72
Unmarried	57	24,2
Divorce life	6	2,5
Divorce	3	1,3
Total	236	100
Final education		
D3	83	35
D4/S1	93	39,4
Profession	45	19,1
S2	15	
Total	236	6,4
Work status		
PNS	111	47
P3K	125	53
Total	236	100
Length of work		
< 1 year	6	2,5
1-5 years	96	40,7
6-10 years	35	14,8
>10 years	99	41,9
Total	236	100
Treatment class health center		

Hospitalization	70	29,7
Non-inpatient	166	70,3
Total	236	100

Source: Primary information, processed 2025

Based on table 1 above, it shows that most health personnel in primary healthcare facilities are dominated by women as many as 92.4 while only 7.6% are men. We generally find this phenomenon in the health sector, especially in primary services which are filled by health personnel such as nurses, midwives, nutritionists and community health personnel.

In terms of age, the majority of respondents were in the age group of 30-34 years reaching 29.2% and >40 years old (29.2%), followed by age group 35–39 years (24.2%). Meanwhile, age 20–24 years old is the least group (1.3%). From this distribution, it indicates that most of the health personnel at the Primary Health Facility are at a productive age and professionally mature.

From the aspect of marital status, most of the respondents have married (72%), while 24.2% are unmarried. Only a small part of them has the status of Divorce (2.5%) and Divorce (1.3%). High marital status indicates that most health personnel already have family responsibilities, which can affect work commitment, work-life balance, and even Work Engagement Rate.

From the last aspect of Education, most of the respondents have education D4/S1 reach 39,4%, followed by D3 As 35%, While Q2 is only 6.4%. This shows that most health personnel in the Primary Health Facility have diploma and bachelor's education, in accordance with the minimum qualifications of health personnel at the primary service level.

From the aspect of length of work, most respondents have a working period more than 10 years (41.9%) and 1–5 years (40.7%) which means that most health personnel have been experienced for a long time working in primary healthcare facilities.

Most of the respondents worked in non-inpatient primary healthcare facilities (70.3%), while 29.7% of inpatient primary healthcare facilities worked. This illustrates that most health personnel work in primary healthcare facilities with limited-service capacity.

3.2. Statistical analysis with the SmartPLS approach

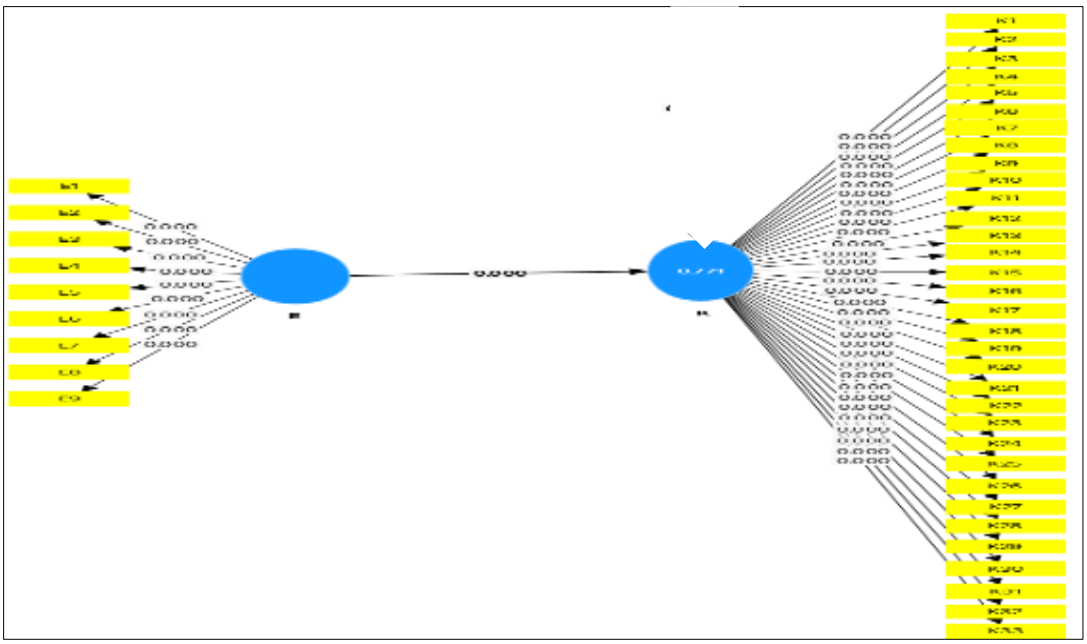

Figure 1 Hypothesis test result model, SMART PLS 4, 2025

Table 1 Results of Direct Effect Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
WE -> K	0.853	0.852	0.028	30.656	0.000

Source: Data processed -Pls.4 (2025)

Based on the results of the hypothesis test, it shows that Employee engagement obtained a statistical t-value of 30.656> 1.96 or a p value of 0.000< 0.05, then H1 is accepted which means that work attachment affects the work performance of health personnel. The value of the path coefficient (original sample) of 0.853 indicates a very strong positive relationship direction. This means that the higher the level of employee engagement that health personnel have, the higher the level of work performance produced.

These results indicate that health personnel who feel fully engaged in their work—whether cognitively, emotionally, or physically will show more optimal work work performance. High work attachment reflects vigor, dedication, and deep appreciation for work (absorption). In the context of primary healthcare facilities, health personnel who have high employee engagement will be more initiative, responsible, and strive to provide the best health services to the community.

The strength of this influence also shows that psychological factors in health personnel play an important role in the achievement of the work performance of health service organizations. Thus, increasing employee engagement can be an effective strategy to strengthen individual and collective work performance in the Community Primary Health Facility environment.

There are several reasons that can explain that employee engagement has a noteworthy effect on work performance, including:

3.3. Work attachment increases motivation and morale.

Individuals who are emotionally attached to their work tend to have high motivation to achieve the best results [12]. Engaged health personnel will work not only out of obligation, but also out of pride in their profession.

3.4. Employee engagement strengthens resilience to work stress.

Health personnel who have a high level of attachment are able to face work pressure, case load, and field challenges with a positive attitude [14]. This allows them to remain productive even in demanding situations.

3.5. Improving the efficiency and effectiveness of services

Individuals with high engagement will be more focused, meticulous, and innovative in carrying out their duties. They are also more open to feedback and learning, which ultimately impacts improving the quality of healthcare [15].

The results of this research are consistent with a number of previous studies that affirm the positive and noteworthy relationship between employee engagement and the work performance of health personnel, including: [16] finding that employee engagement has a noteworthy influence on the work performance of nurses in government hospitals in Denpasar, where high work attachment makes nurses more disciplined and service-oriented. Similarly, study by Ramadhan and Widodo (2021) reported that employee engagement plays a key determinant of health worker work performance in primary healthcare facilities, because engaged health personnel show a sense of social responsibility and high concern for patients [17]. Even Harter, Schmidt, and Hayes (2002) in their classic study found that employees with high levels of employee engagement had higher productivity, loyalty, and job satisfaction than those who were not engaged [18]. Meanwhile, Bakker, Tims, and Derks (2012) explain that employee engagement encourages proactive behaviors, such as initiatives to improve service quality and work efficiency, which ultimately strengthens organizational work performance [19]

This finding is different from the study of Yuliana et al. (2019) which reported that employee engagement did not have a noteworthy effect on the work performance of administrative personnel in the non-health sector. This can be explained because the context of the work of health personnel differs substantively, where the humanitarian service aspect and the morality of the profession strengthen the attachment to work [20]

Theoretically, the results of this research can be explained through the Job Demands–Resources (JD-R) Theory developed by Bakker and Demerouti (2017). According to this theory, job resources (such as social support, autonomy, and development opportunities) encourage the emergence of employee engagement, which in turn contributes directly to work performance improvement. In this context, health personnel who have access to adequate work resources such as peer support, good supervision, and a conducive work environment are more engaged in their work and perform well [12]

In addition, the Self-Determination Theory (Deci and Ryan, 2000) can also explain the relationship. This theory emphasizes that individuals who feel their basic needs are met i.e., the need for competence, autonomy, and connectedness will be more intrinsically involved in work [21]. In other words, when healthcare workers feel valued and have control over their work, their engagement rate increases, which has a direct impact on work performance improvement.

This result is also in line with Work Performance Theory according to Armstrong and Taylor (2014), which states that work performance is the result of the interaction between ability, motivation, and work environment. Employee engagement is a form of strong intrinsic motivation, which can optimize the individual's ability to achieve maximum work results [22].

4. Conclusion

Based on the results of the analysis, it can be determined that there is an influence of employee engagement on the work performance of health personnel. Therefore, Community Primary Health Facility leaders need to implement transformational and transactional leadership styles that can foster a sense of belonging, appreciation and meaning of work for health personnel, increase opportunities for self-development and competence, and create a collaborative work environment.

Compliance with ethical standards

Disclosure of conflict of interest

This study does not have any conflict of interest with the study subjects or with other parties involved in this research. Before conducting the study, the administrative process for study permits was carried out and before requesting willingness, the participants were asked first and informed consent was signed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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