



Research article

Determinants of health professionals' engagement at Mizan-Tepi University Teaching Hospital in Southwest Ethiopia

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ABSTRACT

Background: Employee engagement, undoubtedly, is one of the top priorities for organizations today, especially for service organizations where labor accounts for a large ratio of what customers pay for. Therefore, this study aimed to assess the determinants of employee engagement at Mizan-Tepi University Teaching Hospital in Southwest Ethiopia.

Methods: A hospital-based cross-sectional study was conducted at Mizan-Tepi University Teaching Hospital from January 1–30, 2020. A total of 212 study participants were recruited using a simple random sampling technique. The data were collected using a pretested self-administered questionnaire. The collected data were entered into SPSS version 21. Descriptive statistics such as mean and standard deviation were used. Inferential statistics of multiple linear regressions were done to analyze the effect of independent variables.

Results: The mean age of respondents was 26.6 (± 3.37 SD) years, ranging from 19 to 45 years. One hundred sixty-six (78.3%) were degree holders, 30 (14.2%) were diploma holders, 12 (5.7%) and 4 (1.8%) were masters holders and specialists respectively. The mean service year of respondents was 3.82 (± 2.58 SD) years, ranging from 1 to 15 years. The study also found that working environment, perceived supervisory support, team and co-worker relationship, job characteristics, and reward and recognition affect employees' engagement with a p-value < 0.05.

Conclusion: all the explanatory variables used to explain employees' engagement were found to be capable of explaining the engagement of the employees in the health sector as well. Therefore, health institutions should work on the identified explanatory variables to increase their employees' engagement at work.

1. Introduction

Employee engagement is the measure of a person's level of commitment to their work, which is influenced by organizational practices to achieve the objectives of the organization [1]. To be successful and competitive, a firm must have engaged employees [2]. Organizational productivity is determined by employee effort and engagement [3]. To achieve or sustain a lucrative firm, business leaders must work hard to engage personnel [4].

In reality, companies value engaged workers since they are believed to have a big impact on the bottom line [5]. Engaged workers, it has been found in research, are more loyal to their employers and offer important competitive advantages, such as higher production and lower employee turnover [6]. Increased commitment and interest in the workplace due to high levels of employee engagement may result in a more motivated workforce that will cooperate to meet the organization's objectives [7].

Companies with higher levels of employee engagement outperform their rivals in terms of performance and profitability [8]. Sadly, research has indicated that most employees are not motivated by their occupations [9, 10, 11].

Organizations are less productive when people are not motivated to complete their work, as employee motivation has a direct impact on performance [12]. Low staff engagement can seriously impair patient care, service quality, and labor expenses [13]. Although human resources are one of the most crucial aspects of healthcare, their availability is constrained, thus they must be managed wisely [14]. The financial performance of healthcare organizations with highly engaged staff is superior, and their patients receive good care on schedule [15]. Ethiopian statistics show that the brain drain has left the country with a shortage of health professionals [16].

Healthcare organizations in many developed countries pay great attention to their employees' health and how it affects their productivity

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[17]. Even though Ethiopia has pay and benefits packages such as salary, transportation aid, duty allowance, duty professional, and risk allowance, there were still issues with terminal benefits, housing allowance, family health care, and food allowance advantages [18, 19]. Health care workers were working in an environment with insufficient resources to complete their responsibilities, professional compensation was declining, and employment benefits were inadequate [20].

A World Health Organization study found that 40% of health professionals (doctors, nurses, and midwives) would resign from their employment if they were not satisfied with their work. Only 13% of workers worldwide are fully engaged at work [10]. The majority of nurses were dissatisfied with the caliber of their work [21].

Over 50% of Ethiopian healthcare workers expressed dissatisfaction with their professions [16]. A recent study indicated that 79.5% of nurses surveyed intended to leave their current employment in the healthcare sector as a result [22]. The intention of health professionals to change jobs was found to be high [23]. Therefore, this study aimed.

- ✓ To study the factors affecting Employee Engagement in the health care sector,
- ✓ To describe Job Characteristics, Working Environment, Perceived Supervisor Support, Team and Co-worker relations, Reward and Recognition and Employee Engagement,
- ✓ To analyze the dependency of Job Characteristics, Working Environment, Perceived Supervisor Support, Team and Co-worker relations, and Reward and Recognition on Employee Engagement in Mizan-Tepi University Teaching Hospital, southwest Ethiopia.

2. Methods

2.1. Study design, area, and period

The study used a hospital-based cross-sectional study design. The data was collected from January 1–30, 2020. The survey was conducted at Mizan-Tepi University Teaching Hospital (MTUTH), which is located in Mizan-Aman in the Southern Nations, Nationalities, and People's Region (SNNPR). The hospital serves a catchment population of 2.75 million people. The hospital provides different inpatient and outpatient services for the communities living in Mizan-Aman town and its surrounding area.

2.2. Sample size determination and sampling technique

The study focused on health professionals' engagement in Mizan-Tepi University Teaching Hospital, the target population for the study was all health professionals. Therefore, currently, the hospital has around 449 health professionals by using Yamane's (1967) sample size determination formula 212 sample representatives were selected.

$$n = \frac{N}{1 + N(e)^2}$$

where N = the total population, e = the margin error of 5%.

Therefore,

$$n = \frac{449}{1 + 449(0.05)^2} = 212 \text{ samples}$$

The study participants were selected using simple random sampling. Codes for 449 health professionals were written on a piece of paper, then the required number of respondents was selected using a lottery method. The reason for using this sample is to avoid biases in sample selection.

2.3. Data collection tool and procedure

The data were collected using a pretested self-administered questionnaire. The questionnaire was designed on five points Likert scale

ranging from strongly disagree [1] to strongly agree [5]. The study participants were asked to answer questions related to determinants of health professionals' engagement in Mizan-Tepi University Teaching Hospital. To ensure the validity of the study tool and its use in the study setting, a pilot study was conducted with 20 health professionals. In the end, the 20 health professionals were excluded. The completeness and consistency of collected data were checked during the data collection. The reliability of the analysis of the collected data was determined using Cronbach's alpha test, where the reliability coefficients (Cronbach's alpha) were 0.87, 0.84, 0.78, 0.77, and 0.81 Job Characteristics, Working Environment, Perceived Supervisor Support, Team and Co-worker Relation, Reward and Recognition respectively and the Cronbach's alpha for the total was 0.81. The total sample size was adequate, which is evidenced by the KMO Bartlett's sphericity value of 0.85.

2.4. Data processing and analysis

The collected data were entered into the computer by using Statistical Package for the Social Sciences (SPSS, version 21) and analyzed by descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation were used. Inferential statistics of multiple linear regressions were done to analyze the effect of independent variables (Job Characteristics, Working Environment, Perceived Supervisor Support, Team and Co-worker relations, Reward and Recognition) on the dependent variable employees' engagement.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \dots + \beta_k X_{ki} + \epsilon_i$$

$$EE = \alpha_0 + \beta_1(JC) + \beta_2(WE) + \beta_3(PSS) + \beta_4(TCR) + \beta_5(RR) + e$$

whereas EE = Employees Engagement, JC = Job Characteristics, WE = Work Environment, PSS = Perceived Supervisory Support, TCR = Team and Co-worker Relations, RR = Reward and Recognition.

2.5. Ethics approval and consent to participate

This study was conducted following the Declaration of Helsinki. Ethical approval was sought from the Research and Community service directorate of Mizan-Tepi University. Ethical approval was given on 13/12/2019 with the number MTURCD/43/2019. All study participants were informed about the purpose of the study, their right to deny participation, anonymity, and confidentiality of the information. Written informed consent was also obtained before participation in the study.

3. Results

3.1. Sociodemographic characteristics

Out of 212 health professionals recruited, 212 took part in this study; all of them were cooperative in filling the questionnaire making a response rate of 100%. Concerning, their gender mix majority of the respondents, 108 (50.9%) were female and 104 (49.1%) were male respondents. The mean age of respondents was 26.6 (± 3.37 SD) years, ranging from 19 to 45 years. One hundred sixty-six (78.3%) were degree holders, 30 (14.2%) were diploma holders, 12 (5.7%) and 4 (1.8%) were masters holders and specialists respectively regarding their educational status. The mean service year of respondents was 3.82 (± 2.58 SD) years, ranging from 1 to 15 years (Table 1).

3.2. Univariate analysis

Regarding the job characteristics maximum of 1.82 and a minimum mean score of 1.67 which makes the overall mean score of 1.76 with an overall standard deviation of 0.893. The overall mean score for the variable Job Characteristics is found to be 1.76 (disagreement), from this it can be concluded that employees of the hospital are not comfortable with the established characteristics regarding their job. Generally, based

Table 1. Sociodemographic characteristics of the respondents at MTUTH in southwest Ethiopia.

Variables	Categories	Frequency (n)	Percent (%)
Age (years)	26.61 (±3.37 SD) years		
Gender	Male	104	49.1
	Female	108	50.9
Educational Status	Diploma	30	14.2
	Degree	166	78.3
	Masters	12	5.7
	Specialist	4	1.8
Experience (years)	3.82 (±2.58 SD) years		

on the above table it can be interpreted that, in the hospital, there is less freedom for independence and the provision of information about work performance.

Concerning the work environment, the maximum and minimum mean scores of the four items were found to be 2.72 and 2.56 respectively. Therefore, based on the analysis undertaken, the overall grand mean score was found to be 2.63 with a standard deviation of 0.905 (Disagreement), as a result, it can be inferred from the sample evidence that the majority of the employees regarding the work environment that the hospital establish are less conducive for the employees to be better involved and the pace of work enabling to do good work and better serve their customers.

Regarding the perceived supervisory support the minimum mean score of 1.77 and a maximum of 2.49. As a result, based on the z analyzed finding the overall mean score for perceived supervision has obtained a grand mean value of 2.091 with a standard deviation of 0.673 (Disagreement) which indicated the presence of a problem with

perceived supervisory support, such as a problem concerning the communication channel of the hospital being defective which may create a potential dispute that may affect the overall operation of the hospital.

The variable team and co-worker's relation obtain a mean score ranging from 3.66 up to 3.88. The corresponding grand mean score for the team and co-worker's relation variable was found to be 3.77 with a standard deviation of 0.867 (Agreement). The finding can be a good indicator regarding how strong and smooth work relationships among employees exist in the hospital. An employee's desire to work and to stay in a given company can be highly influenced by the degree of good co-worker relations established. As a result, a positive result in this category can contribute to the establishment of strong employee engagement.

The statistical summary of the last independent variable, which is reward and recognition, shows a maximum mean score of 3.74 and a minimum of 3.32. Therefore, as per the analysis made on the four items, the overall mean score for reward and recognition was found to be 3.5 with a standard deviation of 0.981 (Neutral), as a result, it can be concluded that there is a moderate level of reward and recognition available in the hospital to motivate and encourage a hard-working employee and set him/her as an example for the others to look on and pass reasonable punishment actions to non-performers and those with discipline problems.

The last section of the table analyzed the dependent variable which is employees' engagement. As shown in the summarized table above, the majority of the respondents hold a low level of engagement with their work and with the company in general. Most sampled employees were found to hardly recommend the hospital as a great place to work and they feel less proud to tell people that they work in the hospital. Furthermore, they do not have the feeling that they are valued in the hospital. As a result, the grand mean score for the dependent variable, which is employees' engagement, was found to be 1.82 with a standard deviation of 0.893 (Disagreement). Therefore, based on the mean score obtained, it

Table 2. Univariate analysis on the determinants of employee engagement among respondents at MTUTH in southwest Ethiopia.

S.No	Variables	Items	Mean	Standard deviation	Grand mean
01	Job characteristics	Opportunity to Do What is Best	1.77	0.927	1.76
		Work with an obvious beginning and ending	1.67	0.889	
		Opportunity for Independence	1.82	0.785	
		Information about Work Performance	1.81	0.908	
		The mission and purpose of the hospital make my job to be important	1.75	0.960	
02	Work environment	The balance between work and personal life	2.64	0.891	2.63
		Availability of material and equipment	2.58	0.982	
		The pace of work enables to do good work	2.72	0.867	
		An independent and healthy work environment	2.56	0.878	
03	Perceived supervisory support	Supervisor considers employee goals and values	2.04	0.502	2.09
		Good communication between management and employees	2.26	0.957	
		Freedom to try new ways to solve a problem	1.77	0.622	
		Supervisors willing to offer assistance	1.89	0.507	
		Supervisors encourage employee's development	2.49	0.774	
04	Team and Co-workers relationship	My Co-workers and I work well together to achieve the company goals	3.88	0.866	3.77
		My co-workers respect my thoughts and feelings	3.79	0.824	
		I enjoy the organizational culture and my interactions with colleagues	3.66	0.902	
		My co-workers are committed to doing quality work.	3.69	0.910	
		I have good interactions with Co-workers.	3.82	0.833	
05	Reward and Recognition	A pay raise is available for me	1.74	0.965	1.50
		I receive appropriate recognition for my contribution	1.38	1.029	
		Management takes timely action on non-performer and discipline.	1.32	0.988	
		Compensation packages are available for me	1.56	0.942	
06	Employee engagement	I feel valued in my company	1.83	0.780	1.82
		I feel proud to tell people where I work	1.92	0.904	
		I would recommend the hospital as a great place to work	1.97	0.953	
		I see myself working in the hospital in the next two years	1.76	0.864	
		It motivates me to be better than elsewhere	1.62	0.965	

Table 3. Multiple regression analysis of employee engagement among respondents at MTUTH in southwest Ethiopia.

Model Summary ^b						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.893 ^a	.798	.784	.33332	1.603	
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.384	.311		-1.235	.000
	Work Environment	.502	.039	.502	12.872	.001
	Perceived Supervisory Support	.061	.035	.069	1.971	.004
	Team and Co-worker Relation	.741	.057	.703	13.001	.000
	Job Characteristics	.478	.046	.470	10.391	.004
	Reward and Recognition	.377	.060	.361	6.283	.000

a. Dependent variable: Employees Engagement, b. Significance at 5% significance level.

Source: SPSS Output, 2021

^a Predictors: (Constant), Reward and Recognition, Perceived Supervisor Support, Job Characteristics, Work Environment, Team and Co-worker Relation

^b Dependent Variable: Employee Engagement.

can be concluded that most majority of current employees of the hospital possess a low engagement with the company. Such low engagement may disrupt the hospital to attain its objective by using the skill, know-how, and capability of its employees (Table 2).

3.3. Multiple linear regression analysis

The last part of the analysis deal with the identification of the most determinant explanatory variable having the highest influence on employees' engagement by using the OLS (Ordinary Least Square) method (Table 3).

Based on the undertaken multiple regression analysis using the OLS method, it is found that out of the identified five variables all five of them were found to have a statistically significant effect on employees' engagement. The overall effect of the independent variables on the dependent variable is found to be sufficient enough to accept the finding. Reward and Recognition, Perceived Supervisor Support, Job Characteristics, Work Environment, and Team and Co-worker relations affect employees' engagement in their job with the adjusted R² value of 0.784. This implies that the variables are capable of explaining the dependent variable with 78.4%. The remaining difference (Unexplained value) of 21.6% tells that there are still other determinants that are not covered by this study but are still capable of affecting employees' engagement.

The Beta (β) value under Unstandardized Coefficients contains the variables used under this study's magnitude of influencing employees' engagement. As it is shown all of the factors have a statistically significant effect on employees' engagement. The highest influence was captured by Team and Co-workers Relation with a beta value (β) of 0.741 with a P value of 0.000. This implies as the level of relationship among team members and co-workers become strong, the employee's level of engagement with the hospital will increase by 0.74.

The second dominant effect is found to be caused by the work environment with a beta value (β) of 0.502 and P value of 0.001, which tells whenever management attempts to improve the work atmosphere, in return, employees' engagement will be improved by 50.2%.

Of the five statistically significant factors, job characteristics and reward and recognition an affecting employees' engagement and ranked third and fourth, with a beta value of (β) 0.478 and 0.377 and a P value of 0.004 and 0.000, respectively. This indicates that, whenever the management decides to give rewards and recognition to develop employees' capability, can bring 37.7% betterment in employee engagement. In addition, the more the job is in line with the employee's skills and knowledge the more the employees will be willing to engage in their job by 47.8%.

The last variable having a significant effect on the engagement of employees was found to be perceived supervisory support, the result

showed the smallest effect is recognized by this variable with a beta value (β) of 0.062 and P value of 0.004. This implies when the level of support by the supervisor is enhanced, the engagement of the employees can increase by a proportion of 6.2%.

In general, when looking at the above multiple regression analysis generated using SPSS, it was found that from the total of five variables identified to explain employees' engagement, all of them were found to be statistically significant to influence employees' engagement even though their level of effect varies. Team and co-workers relationship and work environment are the highest influencers. From this, it can be concluded that how employees' social relationships with each other and with the management can influence how much they will be engaged in their job (Table 3).

The corresponding model developed to show the influence of the five significant variables on the employees' engagement is summarized as follows;

$$\text{Employees Engagement} = \alpha_0 + \beta_1 (\text{Job Characteristics}) + \beta_2 (\text{Working Environment}) + \beta_3 (\text{Perceived Supervisor Support}) + \beta_4 (\text{Team and Co-worker Relation}) + \beta_5 (\text{Reward and Recognition}) + \epsilon$$

$$EE = \alpha_0 + \beta_1 (JC) + \beta_2 (WE) + \beta_3(PSS) + \beta_4(TCR) + \beta_5(RR) + \epsilon$$

$$EE = -0.384 + 0.741 (TCR) + 0.502 (WE) + 0.478 (JC) + 0.377 (RR) + 0.060 (PSS) + \epsilon$$

4. Discussion

The current empirical study entitled “determinants of employee engagement in the health sector” has been undertaken to investigate the extent to which the various chosen factors influence employee engagement at Mizan-Tepi University Teaching Hospital, southwest Ethiopia. In this study, researchers have identified five important factors as perceived supervisory support, working environment, job characteristics, team and co-workers relation, and reward and recognition had a significant effect on employee engagement. Employee engagement can improve through reward and recognition and supervisor support [24].

The overall descriptive analysis result showed that the level of employee engagement among health professionals in the hospital was low. Since, almost all the variables (job characteristics, work environment, perceived supervisory support, team and co-worker's relation, and the overall mean score for reward and recognition) mean score is less than the average value.

The regression analysis showed that team and co-worker relation has the highest effect on employee engagement of health professionals. The finding was consistent with a study done in other areas, which revealed that teamwork has a positive and significant influence on work

engagement [25, 26]. But, another study found that teamwork has no significant impact on employee engagement [27]. The possible reason for the observed variation might be due to the remoteness of the study area. Besides, it might be due to the difference in the sample size and methodology as a whole. Therefore needs to facilitate enhanced co-worker relationships and provide an ambiance where collegiality would thrive. Collaboration with colleagues, respect between employees, good organizational culture, and good employee interaction increased the level of employee engagement at the Mizan-Tepi University Teaching Hospital.

In this study, the work environment had a significant effect on employee engagement. This finding has consistency with other studies, which showed that the working environment has a significant and positive effect on employee engagement. A good working environment will increase employee levels of engagement [25, 28, 29]. Therefore, the human resource manager of Mizan-Tepi university teaching hospital should concentrate on improving the working environment of the employees by providing them with a balance between work and personal life, and provide required information and resources for better engagement of employees in their work.

Job characteristics of the organization had a significant effect on the employee's engagement. This finding was found to be consistent with other studies, which showed that job characteristics have a significant effect on employee engagement. The characteristics of the job (identity, autonomy, and performance feedback) will help the employee to increase their level of engagement [30, 31, 32]. Therefore, the human resource manager of Mizan-Tepi university teaching hospital should communicate the mission with employees, let the employee be independent in doing the job, and provide consistent and timely feedback about their performance.

In this study, the reward and recognition package of the organization had a significant effect on the employee's engagement. Reward & recognition and supervisor support can engage employees for better performance [33]. This finding was found to be consistent with other studies done elsewhere [30, 34, 35], which showed that rewards and recognition have a significant and positive effect on employee engagement. Management should improve the rewards available to reach ever higher levels of engagement of healthcare professionals. Besides, they should integrate the compensation package into their reward policy.

The last variable having significant effect on the engagement of employees' was perceived supervisory support, the result showed the smallest effect. Perceived organizational support are significant predictors of work engagement [36]. This finding was found to be in line with the study of [26, 30, 37], revealed that perceived supervisory support as a potential factor to influence employee engagement. In contrary to this, a study by [35] showed that perceived supervisory support has no effect on employee engagement. The difference might be due to area difference. Therefore, the management should give employees the freedom to do their jobs and should be willing to offer assistance if necessary.

4.1. Limitations

The shortage of time and the human perception regarding the study were the limitations of this study. Besides, this study did not consider external factors that can affect employee engagement in Mizan-Tepi University Teaching Hospital. It could be more important if the external factors are included in this study to know the potential factors for employee engagement in the study area.

5. Conclusion

Employee engagement can be affected by team and co-worker relations, work environment, job characteristics, rewards, and recognition, and perceived supervisory support. All the variables have statistically significant and positive effects on employee engagement. From this, it can be concluded that Mizan-Tepi University Teaching Hospital needs to

give more emphasis on team and co-worker relationships, work environment, and job characteristics to create a strong and long-lasting engagement among employees.

Declarations

Author contribution statement

Muluken Marye; Tewodros Yosef: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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Data availability statement

Data will be made available on request.

Declaration of interest's statement

The authors declare no conflict of interest.

Additional information

No additional information is available for this paper

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