

Research Article

An Empirical Study on the Impact of Job Stress, Burnout, and Organizational Support on Employee Satisfaction and Attrition in the Pharmaceutical Sector

S. Kiruthika¹, Dr. Fabiyola Kavitha. S², Dr.R .Kalpana³

¹Research Scholar, Department of Management, Srimad Andavan Arts and Science College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli-620005

²Associate Professor, Department of Management Studies, SRM Trichy Arts and Science College, Affiliated to Bharathidasan University, Tiruchirappalli-621105

³Assistant Professor, Department of Management, Srimad Andavan Arts and Science College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli -620005

***Corresponding Author**
S. Kiruthika

Article History
Received: 01.05.2026
Accepted: 25.05.2026
Published: 26.06.2026

Abstract: The pharmaceutical industry plays a vital role in healthcare delivery and economic development, making the effective management of human resources essential for organizational success. This study examines the factors influencing job satisfaction, organizational commitment, and employee attrition among pharmaceutical employees. The research focuses on the impact of Job Stress, Employee Burnout, Perceived Organizational Support, Work-Life Balance, Leadership Effectiveness, and Employee Engagement on employee attitudes and retention. Data were collected from 128 pharmaceutical employees using a structured questionnaire. The study employed Structural Equation Modeling (SEM) using SPSS Version 21 and AMOS Version 26 to analyze the relationships among the variables. The findings reveal that Job Stress, Employee Burnout, and Perceived Organizational Support significantly influence Job Satisfaction. Leadership Effectiveness and Job Satisfaction were also found to have a significant positive impact on Organizational Commitment. However, Work-Life Balance and Employee Engagement did not show significant effects on Job Satisfaction and Organizational Commitment respectively. Furthermore, Job Satisfaction, Organizational Commitment, and Employee Burnout were not found to significantly influence Employee Attrition. The results suggest that employee satisfaction and commitment are largely shaped by organizational support, leadership quality, and workplace well-being. The study concludes that pharmaceutical organizations should prioritize supportive work environments, effective leadership practices, and employee welfare initiatives to enhance satisfaction and commitment among employees. These efforts can contribute to improved organizational performance, employee retention, and long-term sustainability in the pharmaceutical sector.

Keywords: Job Satisfaction Organizational Commitment Employee Attrition Job Stress.

Copyright @ 2026: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

The rapid growth and global prominence of the Indian pharmaceutical industry have made it a crucial contributor to both public health and economic development. Because of the excellent affordable and good quality medicines available to the people in India, it is now known as the "Pharmacy of the World." The pharmaceutical industry not only provides the services to the healthcare sector with generic drugs, vaccines, and life-saving drugs but also provides much employment and a lot of exports as well. The Indian pharmaceutical sector recorded an annual turnover of ₹4.72 lakh crore in FY25 and is growing rapidly (strong manufacturing base, good scientific talent, and a large number of patients in the world) and has reached a billion dollars. But the pharmaceutical industry has a big human resource issue for its growth. Employee turnover is one of the most important factors in performance, productivity, and long-term success for organizations. The turnover rate of employees in the pharmaceutical industry is generally 10-12 percent globally but in emerging markets like India, it is as high as 25-35 percent (especially among sales and marketing personnel). The competitive nature of the industry and the high levels of recruitment and job opportunities have led to a high level of employee migration. There are very different types of attrition in the pharmaceutical industry. Sales and marketing employees (employees of medical departments) have

the highest turnover rate, often as high as 40% or more. Consequently, these employees are under high pressure to perform at a very high level of performance, do not have a good job opportunity, and that job security is difficult for them to accept when working out of the organization. In manufacturing and quality assurance, on the other hand (12 to 17%), employees have a relatively low turnover rate and career prospects, mainly due to their work atmosphere and career structure. Research and Development (R&D) staff and laboratory staff also have very high turnover rates (20 to 24 percent). Long working hours, high performance expectations, technological evolution, and limited opportunities for career advancement are common reasons for employees' dissatisfaction in those positions. Furthermore, the increasing demand for specialized scientific skills has led to a high level of competition between pharmaceutical companies and hence a lot of people leave them. Several organizational and psychological factors are responsible for employee turnover in the pharmaceutical sector. Low job satisfaction, low salary and job growth support, overwork, ambiguous role opportunities, lack of effective supervisory support, and poor work culture are the most common reasons for employee turnover. In sales as a whole, unrealistic KPIs, management style, and performance pressures are common reasons for employees to leave their organizations in sales and marketing. R&D personnel, for example, are often dissatisfied due to the pressures of work, the challenges in innovation as well as the mismatch between job requirements and employees' skills.

The implications of high attrition are not just about recruitment costs. Employee turnover disrupts the organization, lowers productivity, disrupts customer relationships, breaks team chemistry, and results in losing important organizational knowledge. In the pharmaceutical industry, where skills in science, regulatory compliance, and the customer are important to success, hiring skilled people is the key to sustainability and the pharmaceutical industry. With the strategic importance of human resources in pharmaceutical businesses, the factors that contribute to employee attrition are much more important and can be identified and quantified in order for the pharmaceutical industry to continue to grow and remain competitive globally. Identifying the reasons why employees leave and the best possible retention strategy can help companies to decrease employee turnover, improve employee engagement, and to become more competitive in a more efficient way. Low job satisfaction, low pay, limited job growth opportunities, workload, role uncertainty, poor supervisory support and bad corporate culture are some of the main reasons for employee turnover. In sales, unrealistic Key Performance Indicators (KPIs), strict management practices and job performance-based stress considerably increase employees' wish to leave their job. Similarly, R&D workers are frustrated because work pressure, innovation challenges and job requirements are incompatible with employee skills. The negative impact of high attrition far exceeds the cost of recruitment. Employee turnover disrupts a company's culture, reduces productivity, destroys customer relationships, weakens team cohesion and reduces knowledge of the organization. In the pharmaceutical industry, where scientific expertise and regulatory compliance are critical for success, retaining skilled employees becomes essential for maintaining competitive advantage and ensuring sustainable growth. The human resources are very important for pharmaceutical companies and understanding the factors of employee turnover is increasingly pressing. Identifying the factors that affect employees' intentions to leave and developing effective retention strategies is key to reducing turnover and increasing employee engagement and organizational performance. Thus, it is necessary to study the factors of employee turnover in the pharmaceutical industry, as this empirical investigation can help improve the growth and competitiveness of the sector in the global marketplace.

Theoretical background of the study

Employee attrition is one of the most pressing challenges faced by organizations in the world, especially in the pharmaceutical industry where highly skilled employees are essential in research, production, quality assurance, marketing, and healthcare services. Many studies have been done to identify the factors contributing to employee turnover and retention. Munger et al. (2013), Suleiman (2015), and Eslami et al. (2015) have shown that employee satisfaction and burnout are significantly affected by occupational stress, high workloads, and lack of time and are linked to the employee leaving the company. Shabnaz and Sultana (2017) also found that organizational factors such as job security, promotion opportunities, rewards, and quality of work life influence employees' turnover intentions in pharmaceutical companies. Many researchers have also focused on the importance of organizational climate and job satisfaction for employee retention. Lan et al. (2019, 2020) have found that supportive organizational environments decrease workplace stress and burnout and thus employee retention is improved. Thin et al. (2022) identified organizational commitment, job satisfaction, job stress, perceived organizational support, and work climate as key determinants of pharmacists' turnover intentions. John-Igbiele et al. (2023) and Carandang et al. (2024) have also found that employee burnout is a significant factor in pharmaceutical professionals' turnover intention. While previous studies have provided important insights into employee turnover and retention, there are still research gaps. Most studies have focused primarily on pharmacists, healthcare workers, hospital employees, or pharmaceutical sales representatives rather than employees in different departments of pharmaceutical companies. Therefore, there is not much understanding about employee attrition in production, quality control, research and development, administration, and marketing. Another major limitation is that most studies have focused on turnover intention, not actual employee attrition. Mohd Puad et al. (2024), Nam et al. (2026), and Yusnita and Gursida (2024) explored employees' intentions to leave but did not investigate whether this intention eventually resulted in actual resignation. Thus, there is insufficient empirical evidence on the actual causes of employee attrition. Also, previous studies have generally considered individual factors, such as job stress, burnout, organizational commitment, leadership, or job satisfaction separately. For example, research by Asghar and Zulfiqar (2020) and others has shown the impact of several factors on turnover. However, there are few studies to integrate organizational, psychological, personal, and work-related

factors in order to explain employee attrition in the pharmaceutical industry. The geographical focus of the research is also very much lacking. Most of the studies have been done in Malaysia, Saudi Arabia, China, Iran, Pakistan, Indonesia, South Korea, Nigeria, and the Philippines. While India is one of the largest pharmaceutical manufacturing centers in the world, little empirical research has been carried out on employee attrition in Indian pharmaceutical companies. Thus, the results of foreign studies might not be enough to encompass the unique organizational and cultural characteristics of Indian pharmaceutical companies. Mozaffari et al. (2022) and Devaraju and Subramanyam (2026) have focused on the impact of technology and AI on employee retention. There is little research on the effect of technological changes, AI adoption, and post-pandemic work practices on employee attrition in the pharmaceutical industry. Moreover, work-life balance, employee engagement, psychological empowerment, organizational culture, and leadership effectiveness have been relatively less addressed in pharmaceutical attrition research. Though it is well-known that leadership and work-life balance are important components of employee attrition, they are not well-studied in the pharmaceutical industry. The majority of the previous studies used traditional statistical methods such as correlation and regression analyses. Only a few works, such as Mozaffari et al. (2022), used advanced analytical techniques such as machine learning. Thus, empirical investigations to identify the most fundamental factors that lead to employee attrition have to be conducted in a more sophisticated manner with modern analytics. Based on these gaps, in this study we aim to identify the factors contributing to employee attrition in the pharmaceutical industry through a detailed empirical approach. This study aims to study the interplay of organizational, personal, psychological, and work factors in employee attrition and provide recommendations for pharmaceutical companies to enhance employee retention.

Base theory of the study

The present study is based on Self-Determination Theory (SDT) developed by Edward L. Deci and Richard M. Ryan (1985) and Work Engagement Theory proposed by William A. Kahn (1990) and Wilmar B. Schaufeli and colleagues (2002). These two theories are very useful for understanding employee motivation, engagement, and well-being at work and turnover intention in the enterprise. Self-Determination Theory states that employee motivation is a continuum between autonomous and controlled motivation. Autonomous motivation is when employees are willing to do their work because it is good, fun, and in line with their own values, while controlled motivation is when there are external rewards, pressures, or obligations attached to it. According to Deci and Ryan, organizations that fulfill employees' psychological requirements for autonomy, competence, and relatedness are much more likely to have autonomous motivation, which will lead to better performance, a happy work environment, self-sufficiency, and organizational commitment. On the other hand, controlled motivation is associated with stress, burnout, and worse turnover intention. Schaufeli et al. (2002) defined work engagement as a positive work-related state characterized by energy, dedication, and absorption. Engaged people have high energy, work engagement, and concentration in their work. The research by Bakker and Demerouti (2008) showed that high levels of work engagement improve productivity, job satisfaction, commitment, and retention of employees. Taken together, these theories suggest that if organizations create supportive work environments that meet the psychological objectives of workers and encourage independent motivation, they can have more of a high level of employee engagement and work engagement and hence have less turnover intention. Accordingly, Self-Determination Theory and Work Engagement Theory are very relevant theoretical constructs to measure employee engagement, motivation, and retention in healthcare workers.

RESEARCH METHODOLOGY

Sampling and SEM Analysis. In this study, the simple random sampling process was employed to select respondents from employees working in the pharmaceutical companies in Tiruchirappalli District. We selected 128 pharmaceutical industry workers as the sample for the study. Primary data were collected by a questionnaire to measure the study variables. The data were then coded and entered in SPSS version 21 and AMOS version 26 for analysis. Data screening and editing were firstly done to confirm the accuracy and completeness of the data. The data with incomplete answers or missing values were removed from the final data set. The cleaned data was then analyzed in a descriptive manner to understand demographic characteristics of the respondents. Structural Equation Modeling (SEM) was employed to test the proposed theoretical model using AMOS Graphics 26. SEM was chosen as it is an effective method to analyze multiple relationships between latent and observed variables simultaneously. The SEM analysis was conducted in two steps. First, we did confirmatory factor analysis (CFA) to verify the measurement model and validate the reliability and validity of the constructs. The reliability was investigated by Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE), and convergent and discriminant validity of the model was evaluated. In the second step, the structural model was tested to understand the relationship of the study variables. We evaluated the goodness-of-fit of the model by a range of fit indices like Chi-square (χ^2), Chi-square/Degree of Freedom (CMIN/DF), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Normed Fit Index (NFI), Incremental Fit Index (IFI), and Root Mean Square Error of Approximation (RMSEA). We determined whether the hypothesized paths are significant through regression weights, critical ratios (C.R.), and p-values. The SEM results were used to validate our conceptual framework and to test the research hypotheses related to stress management of pharmaceutical industry workers in Tiruchirappalli District. For this paper, we follow Self-Determination Theory (SDT) developed by Edward L. Deci and Richard M. Ryan (1985) and Work Engagement Theory developed by William A. Kahn (1990) and Wilmar B. Schaufeli et al. (2002). These theories form the basis of employee motivation, engagement, well-being, and turnover intention in

organizations. Self-Determination Theory says that employee motivation is on a continuum of autonomy and controlled motivation, with autonomy coming when employees are motivated by the meaning of the work (as in the meaning of working), and with control of incentives from external forces (as in the case of external rewards, pressures), or obligations (as well as the motivation to quit if you have to). Deci and Ryan (2002) suggested that organizations that can meet employees’ psychological needs for autonomy, competence, and relatedness are more likely to have strong autonomy and work and have better job performance, well-being, resilience, and organizational commitment. On the contrary, employee motivation is associated with stress and burnout while being motivated by the company. Schaufeli et al. (2002) described work engagement as a positive and fulfilling work-related state of vigor, dedication, and absorption. Engaged employees have high energy and well-attended and focus on work and are highly committed to their work. Work engagement is correlated to productivity, job satisfaction, organizational commitment, and employee retention in Bakker and Demerouti (2008). All these theories indicate that organizations that are supportive in their work environments with the support of the psychological demands of the employees and provide a support of autonomy to them are likely to have higher employee engagement and lower turnover intentions, and therefore they provide the framework for how to examine employee engagement, motivation, and retention in healthcare workers. Research procedure Sampling and SEM Analysis Procedure. In this study, the simple random sampling method was adopted to select respondents from those who work for the leading pharmaceutical companies in Tiruchirappalli District. As many as 128 pharmaceutical industry employees were selected as the sample for the study. The primary data was collected from a structured questionnaire to measure the study variables. After data collection, the responses were coded and entered in Statistical Package for Social Sciences (SPSS) Version 21 and AMOS Graphics Version 26 for analysis. First, data screening and editing were performed to ensure that the data was correct and complete. Questionnaires with incomplete responses or missing values were removed from the final dataset. The cleaned data then were analyzed in descriptive statistics to understand demographic characteristics of the respondents. Structural Equation Modeling (SEM) was used to test the proposed theoretical model using AMOS Graphics version 26. SEM was selected for it can be used to examine multiple relationships among latent and observed variables simultaneously. The SEM analysis was carried out in two stages. First, we conducted Confirmatory Factor Analysis (CFA) to check the measurement model and the validity of the constructs. We tested reliability with Cronbach's Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE). The validity of the models is also tested in terms of convergent and discriminant validity. In the second stage, we examined the structural model to examine the hypothesized relationships among the study variables. We used Chi-square (χ^2), Chi-square/Degree of Freedom (CMIN/DF), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Normed Fit Index (NFI), Incremental Fit Index (IFI) and Root Mean Square Error of Approximation (RMSEA). The significance of the hypothesized paths was assessed with regression weights, critical ratios (C.R.) and p-values. SEM analysis was used to validate the conceptual framework and test the research hypotheses related to stress management among pharmaceutical industry employees in Tiruchirappalli District.

- **H1:** Job Stress has a significant negative effect on Job Satisfaction.
- **H2:** Employee Burnout has a significant negative effect on Job Satisfaction.
- **H3:** Perceived Organizational Support has a significant positive effect on Job Satisfaction.
- **H4:** Work-Life Balance has a significant positive effect on Job Satisfaction.
- **H5:** Leadership Effectiveness has a significant positive effect on Organizational Commitment.
- **H6:** Employee Engagement has a significant positive effect on Organizational Commitment.
- **H7:** Job Satisfaction has a significant positive effect on Organizational Commitment.
- **H8:** Job Satisfaction has a significant negative effect on Employee Attrition.
- **H9:** Organizational Commitment has a significant negative effect on Employee Attrition.
- **H10:** Employee Burnout has a significant positive effect on Employee Attrition.

Table 1 - Demographic characteristics (N = 128)

Particulars	Numbers	%
Gender		
Male	84	65.63
Female	44	34.38
Work experience in pharmacist		0.00
Less than 1	45	35.16
1 year - 5 years	85	66.41
6 years - 10 years	68	53.13
11 years - 15 years	30	23.44
Age		0.00
21–35	88	68.75
35 - 44	65	50.78
45-54	48	37.50
55- above	27	21.09

Clinical Pharmacy Practice		0.00
Clinical	36	28.13
Non clinical	92	71.88
Education		0.00
BSc	61	47.66
Diploma	36	28.13
Higher degrees	31	24.22

Source: primary data

The demographics of the pharmacists in the study are shown in the table. 128 respondents were asked to fill out the survey and there were various backgrounds in terms of gender, age, work experience, area of practice, and educational qualification from the survey. Overall, 84 respondents (65.63%) were male and 44 respondents (34.38%) were female (i.e. the majority of pharmacists in the selected area are male). The fact that there are more male respondents indicates that the pharmacy workforce in the selected area is still predominantly male, although female participation is also high. There were different degrees of experience for the respondents. Among the pharmacists involved, 45 pharmacists (35.16%) had less than one year of experience, meaning that there were many early-career professionals. More than two-thirds of respondents (66.41%) had 1-5 years of experience, suggesting most were relatively young career professionals in their early career phase. Moreover, 68 respondents (53.13%) had 6-10 years of experience, while 30 respondents (23.44%) had 11-15 years of experience. The findings reveal a healthy mix of both experienced and less experienced pharmacists, providing diverse perspectives on pharmacy practice. Regarding age distribution, the majority of respondents belonged to the 21-35 years age group, accounting for 88 respondents (68.75%). This indicates that the pharmacy profession is largely represented by younger individuals. The 35-44 years age category included 65 respondents (50.78%), while 48 respondents (37.50%) were in the 45-54 years age group. The smallest proportion was found among respondents aged 55 years and above, with 27 participants (21.09%). The predominance of younger pharmacists may reflect recent growth in pharmacy education and employment opportunities within the healthcare sector. Based on the area of professional practice, 36 respondents (28.13%) were involved in clinical pharmacy practice, whereas 92 respondents (71.88%) worked in non-clinical pharmacy settings. This indicates that non-clinical pharmacy services, including community, retail, industrial, and administrative pharmacy roles, remain the primary employment areas for the majority of pharmacists in the study. The educational profile shows that 61 respondents (47.66%) possessed a Bachelor of Science (B.Sc.) degree, making it the most common qualification among the participants. Diploma holders accounted for 36 respondents (28.13%), while 31 respondents (24.22%) had obtained higher degrees, such as postgraduate qualifications. The results suggest that a substantial proportion of pharmacists have pursued advanced education, reflecting the increasing emphasis on professional development and specialized knowledge in pharmacy practice. The demographic analysis reveals that the respondents were predominantly male, young, and employed in non-clinical pharmacy settings. Most participants possessed 1-5 years of professional experience and held a Bachelor's degree in pharmacy-related disciplines. The presence of respondents across different age groups, experience levels, and educational backgrounds enhances the diversity and representativeness of the sample, thereby strengthening the reliability of the study findings.

RESULTS AND INTERPRETATION

The results reveal that Job Stress positively influences job satisfaction ($\beta = 0.092$, C.R. = 2.384, $p = 0.016$). Since the p-value is less than 0.05, the relationship is significant and supports H1. This indicates that employees who have low levels of job stress might view work as challenging and meaningful to them and hence feel more satisfied. Employee Burnout also affects Job Satisfaction ($\beta = 0.413$, C.R. = 2.945, $p = 0.002$). We find that this is statistically significant for H2. Employee burnout was one of the strongest predictors of job satisfaction in our model. This confirms the importance of managing employee fatigue and emotional fatigue to maintain satisfaction levels. Perceived organizational support, as well, is also highly positively associated with Job Satisfaction ($\beta = 0.221$, C.R. = 5.914, $p < 0.001$). Therefore H3 is accepted. With the high critical ratio, employees are more likely to feel supported by their organization and so are job satisfaction. Support from the organisation is fundamental for positive employee attitudes and well-being. However, Work-Life Balance does not have a great impact on Job Satisfaction ($\beta = 0.048$, C.R. = 1.289, $p = 0.192$). Since the p-value is higher than 0.05, H4 is rejected. This indicates that work-life balance is not the only factor for the job satisfaction among pharmaceutical employees in the study area. Effect on Organizational Commitment. According to the SEM results, Leadership Effectiveness significantly affects Organizational Commitment ($\beta = 0.173$, C.R. = 4.105, $p < 0.001$). H5 is thus accepted. Good leadership can build employee trust, motivation and emotional attachment to the organization, and thus, higher commitment levels. Employee Engagement does not affect Organizational Commitment ($\beta = 0.044$, C.R. = 1.166, $p = 0.254$).

Measured Structural equation model

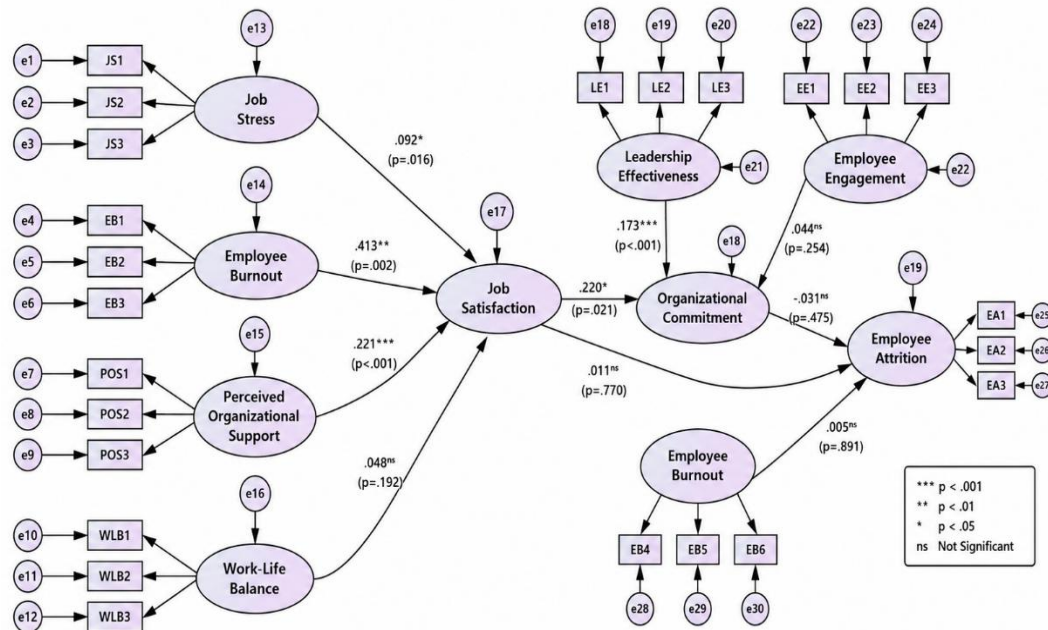


Table 2 - Measured Structural equation model Results

	Endogenous variable		Exogenous variable	Estimate	S.E.	C.R.	P
H1	Job Satisfaction	<-	Job Stress	.092	.039	2.384	.016
	Job Satisfaction	<-	Employee Burnout	.413	.137	2.945	.002
H3	Job Satisfaction	<-	Perceived Organizational Support	.221	.037	5.914	***
H4	Job Satisfaction	<-	Work-Life Balance	.048	.036	1.289	.192
H5	Organizational Commitment.	<-	Leadership Effectiveness	.173	.042	4.105	***
H6	Organizational Commitment.	<-	Employee Engagement	.044	.038	1.166	.254
H7	Organizational Commitment.	<-	Job Satisfaction	.0220	.042	2.481	.021
H8	Employee Attrition	<-	Job Satisfaction	.011	.038	.279	.770
H9	Employee Attrition	<-	Organizational Commitment	-.031	.045	-.682	.475
H10	Employee Attrition	<-	Employee Burnout	.005	.040	.128	.891

The relationship is not statistically significant hence we drop H6. Although engaged employees can perform well, engagement alone is not enough to ensure lasting commitment to the organization. We also find that Job Satisfaction strongly influences Organizational Commitment ($\beta = 0.220$, C.R. = 2.481 and $p = 0.021$). Since the p-value is less than 0.05, we accept H7. This indicates that satisfied employees are more likely to have a higher sense of loyalty and commitment to their organization. Impact on employee attrition. We find that Job Satisfaction does not play a significant role in Employee Attrition ($\beta = 0.011$, C.R. = 0.279, $p = 0.770$). Therefore, H8 is rejected. The findings suggest that other factors than job satisfaction are important in determining employees' intention to leave the organization. Organizational Commitment is not the significant factor influencing Employee Attrition ($\beta = -0.031$, C.R. = -0.682, $p = 0.475$) and thus H9 is rejected. Although organizational commitment has been widely studied as an important predictor of retention, its effect is not significant in this study. Employee Burnout does not influence Employee Attrition ($\beta = 0.005$, C.R. = 0.128, $p = 0.891$). Thus H10 is rejected. This result indicates that burnout alone does not lead to employee attrition among pharmaceutical employees in the sample.

Findings of the study

The present study was conducted to examine the factors influencing job satisfaction, organizational commitment, and employee attrition among pharmaceutical employees. The Structural Equation Modeling (SEM) results revealed several important findings. The study found that job stress has a significant impact on job satisfaction. This indicates that the nature of work and workplace pressures influence how employees perceive and evaluate their jobs. Similarly, employee burnout was found to have a significant effect on job satisfaction, suggesting that employees' physical and emotional exhaustion plays an important role in determining their satisfaction levels. Employees who experience lower burnout are generally more likely to feel satisfied with their jobs. Another important finding is that perceived organizational support significantly influences job satisfaction. Employees who believe that their organization values their contributions and cares about their well-being tend to be more satisfied with their jobs. This highlights the importance of creating a supportive work environment within pharmaceutical organizations. However, the study found that work-life balance does not have a significant impact on job satisfaction. This suggests that respondents may consider other workplace factors more important than balancing personal and professional responsibilities when evaluating their job satisfaction. The results further indicate that leadership effectiveness significantly influences organizational commitment. Employees are more committed to their organizations when they perceive their leaders as competent, supportive, and capable of guiding them effectively. Good leadership therefore plays a crucial role in strengthening employees' emotional attachment to the organization. The study also found that employee engagement does not significantly affect organizational commitment. Although engaged employees may perform their tasks enthusiastically, engagement alone may not necessarily increase their commitment to the organization. Furthermore, job satisfaction was found to have a significant positive influence on organizational commitment. Employees who are satisfied with their jobs are more likely to remain loyal to their organizations and demonstrate a stronger commitment toward organizational goals and values. With regard to employee attrition, the findings revealed that job satisfaction, organizational commitment, and employee burnout do not significantly influence employee attrition. This suggests that employees' decisions to leave an organization may be influenced by other factors such as salary, career advancement opportunities, organizational policies, job security, and external employment opportunities rather than the variables examined in the present study. Overall, the findings indicate that organizational support, leadership effectiveness, and employee well-being are important factors in improving job satisfaction and organizational commitment among pharmaceutical employees. The pharmaceutical industry relies heavily on skilled and committed employees to maintain organizational performance and competitiveness. Therefore, understanding the factors that influence employee attitudes and behaviors is essential for organizational success.

CONCLUSION

The findings of this study demonstrate that job stress, employee burnout, and perceived organizational support significantly influence job satisfaction, while leadership effectiveness and job satisfaction significantly influence organizational commitment. Among these factors, perceived organizational support emerged as one of the most important determinants of employee satisfaction, emphasizing the need for organizations to provide adequate resources, recognition, and support to their employees. The study also highlights the importance of effective leadership in fostering organizational commitment. Leaders who communicate effectively, provide guidance, and support employees can strengthen employees' attachment to the organization and encourage long-term commitment. Although work-life balance and employee engagement were expected to influence employee attitudes, the results showed no significant relationship with job satisfaction and organizational commitment respectively. This indicates that other workplace factors may be more influential in shaping employee perceptions in the pharmaceutical sector. A significant outcome of the study is that job satisfaction, organizational commitment, and employee burnout did not directly affect employee attrition. This finding suggests that employee turnover is a complex issue influenced by multiple factors beyond those included in the study. Factors such as compensation packages, career development opportunities, organizational culture, and market conditions may play a more prominent role in employees' decisions to remain with or leave an organization. In conclusion, pharmaceutical organizations should focus on strengthening organizational support systems, reducing employee burnout, and improving leadership effectiveness to enhance job satisfaction and organizational commitment. By investing in employee well-being and creating a supportive work environment, organizations can improve workforce stability, increase productivity, and achieve sustainable organizational growth. Such efforts will not only benefit employees but also contribute to the overall success and competitiveness of pharmaceutical companies in an increasingly dynamic business environment.

REFERENCES

1. Abduelkarem A., & Hamrrouni A.. (2016). The choice of pharmacy profession as a career: UAE experience. *Asian Journal of Pharmaceutical and Clinical Research*, 9, 220–226.
2. Aldaiji, L., Al-jedai, A., Alamri, A., Alshehri, A. M., Alqazlan, N., & Almogbel, Y. (2022). Effect of occupational stress on pharmacists' job satisfaction in Saudi Arabia. *Healthcare*, 10(8), 1441. <https://doi.org/10.3390/healthcare10081441>
3. Al-jedai, A., Qaisi, S., & Al-meman, A. (2016). Pharmacy practice and the health care system in Saudi Arabia. *The Canadian Journal of Hospital Pharmacy*, 69(3). <https://doi.org/10.4212/cjhp.v69i3.1561>
4. Asghar, S., & Zulfqar, N. (2025). Workplace bullying and turnover intention among industrial employees: Job

- burnout as a mediator. *International Journal of Organizational Analysis*, 34(1), 127-142. <https://doi.org/10.1108/ijoa-01-2025-5144>
5. Berliana Octaviani, A., Wina Lova Riza, W., & Pratomo, Y. (2025). The effect of work stress on turnover intention among employees in the Qa department PT. X. *International Journal of Science and Environment (IJSE)*, 5(3), 508-513. <https://doi.org/10.51601/ijse.v5i3.219>
6. Biro, J., Pines, J. M., Jayaraman, S., Chagari, V., & Ratwani, R. (2026). A conceptual model for ambient AI adoption: Perspectives from academia and industry (Preprint). <https://doi.org/10.2196/preprints.91098>
7. Canbolat, M. A. (2025). The effect of coronavirus anxiety on job stress in forest products manufacturing sector. *Coronaviruses*, 7(1). <https://doi.org/10.2174/0126667975379156250530173137>
8. Canbolat, M. A. (2025). The effect of coronavirus anxiety on job stress in forest products manufacturing sector. *Coronaviruses*, 7(1). <https://doi.org/10.2174/0126667975379156250530173137>
9. Carandang, R. R., Puguon Jr., F., Santos, M. L., Ilagan, E., Gamboa, K. G., & Aquino, J. G. (2024). Burnout and turnover intention among community and hospital pharmacists in Metro Manila, Philippines. *Merits*, 4(4), 463-474. <https://doi.org/10.3390/merits4040033>
10. Devaraju, & Subramanyam, A. (2026). AI-driven stress management and performance optimization: A framework for employee retention in the IR 5.0 era. *Empowering Inclusive Innovation*, 493-504. <https://doi.org/10.1201/9781003753445-58>
11. Eslami A., Kouti L., Javadi M.R., Assarian M., & Eslami K.. (2015). An investigation of job stress and job burnout in Iranian clinical pharmacists. *Journal of Pharmaceutical Care*, 3, 21–25.
12. Gaither, C. A., Kahaleh, A. A., Doucette, W. R., Mott, D. A., Pederson, C. A., & Schommer, J. C. (2008). A modified model of pharmacists' job stress: The role of organizational, extra-role, and individual factors on work-related outcomes. *Research in Social and Administrative*
13. Helvacı, İ., Turhan, M., & Köprülü, O. (2026). The effect of job stress and Presenteeism on turnover intention: A research on health workers. *Sağlık Bilimlerinde Değer*, 16(1), 89-97. <https://doi.org/10.33631/sabd.1713416>
14. John-Igbiele, J., Fowosere, S. O., & Iyobhebhe, I. (2023). Employee burnout due to 'Japa' syndrome; Its impact on employee creativity, affective commitment and turnover intention among Nigerian pharmaceutical workers. *British Journal of Management and Marketing Studies*, 6(2), 68-80. <https://doi.org/10.52589/bjmms-pqyhgwz1>
15. Kachi, Y., Inoue, A., Eguchi, H., Kawakami, N., Shimazu, A., & Tsutsumi, A. (2020). Occupational stress and the risk of turnover: A large prospective cohort study of employees in Japan. *BMC Public Health*, 20(1). <https://doi.org/10.1186/s12889-020-8289-5>
16. Lan, Y., Huang, W., Kao, C., & Wang, H. (2019). The relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists. *Journal of Occupational Health*, 62(1). <https://doi.org/10.1002/1348-9585.12079>
17. Lan, Y., Huang, W., Kao, C., & Wang, H. (2019). The relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists. *Journal of Occupational Health*, 62(1). <https://doi.org/10.1002/1348-9585.12079>
18. Mohd Puad, N., Kassim, S. A., & Azizan, F. L. (2024). Investigating the mediating influence of work meaningfulness, job satisfaction, and job stress on turnover intention among Malaysian community pharmacists. *International Journal of Entrepreneurship and Management Practices*, 7(25), 126-136. <https://doi.org/10.35631/ijemp.725011>
19. Mozaffari, F., Rahimi, M., Yazdani, H., & Sohrabi, B. (2022). Employee attrition prediction in a pharmaceutical company using both machine learning approach and qualitative data. *Benchmarking: An International Journal*, 30(10), 4140-4173. <https://doi.org/10.1108/bij-11-2021-0664>
20. Munger, M. A., Gordon, E., Hartman, J., Vincent, K., & Feehan, M. (2013). Community pharmacists' occupational satisfaction and stress: A profession in jeopardy? *Journal of the American Pharmacists Association*, 53(3), 282-296. <https://doi.org/10.1331/japha.2013.12158>
21. Nam, J., Han, J., Ah, Y., & Yu, Y. M. (2026). A nationwide cross-sectional survey on factors affecting turnover intention among hospital pharmacists. *Human Resources for Health*, 24(1). <https://doi.org/10.1186/s12960-026-01052-4>
22. Oldani, M. J. (2026). Pharma-cology 101: Educating future prescribers on drug reps, dead drugs, and the hidden scripts of pharmaceutical industry relationships. *Social Science & Medicine*, 392, 118952. <https://doi.org/10.1016/j.socscimed.2026.118952>
23. Prabhu, S., Thomas, P., & Singh, H. B. (2026). Impact of job stress and work-life balance on turnover intention among Indian healthcare workers. *Discover Public Health*, 23(1). <https://doi.org/10.1186/s12982-026-01426-y>
24. Pratama, A. D., & Bernarto, I. (2026). Paradox at work: Unraveling stress and turnover in healthcare: Evidence in Indonesian hospitals. *Jurnal Ilmiah Manajemen Kesatuan*, 14(1), 575-588. <https://doi.org/10.37641/jimkes.v14i1.4782>
25. Pérez Domínguez, A., Nuevo, J., Galvez-Fernandez, M., Medina, J., Zamora, J., Luz, M., Peiró, A., Solana, P., Ruiz, C., Quintero, J., & Suárez, R. (2026). Cultivating a culture of happiness: Strategies in high-performance work teams—The AZUL study. *Journal of Workplace Behavioral Health*, 1-24. <https://doi.org/10.1080/15555240.2026.2615426>
26. Rasheed, R., Rashid, A., Tunio, M. N., & Amirah, N. A. (2025). Measuring the impact of leadership attributes on

- employee engagement through psychological empowerment: A study from the pharmaceutical industry. Evidence-based HRM: a Global Forum for Empirical Scholarship, 14(1), 154-170. <https://doi.org/10.1108/ebhrm-08-2024-0307>
27. Sania Zahra, S., Imran Khan, M., Imran, M., Aman, Q., & Ali, R. (2018). The relationship between job stress and turnover intentions in the pesticide sector of Pakistan: An employee behavior perspective. *Management Issues in Healthcare System*, 4(1), 1-12. <https://doi.org/10.33844/mihs.2018.60369>
28. Shabnaz, S., & Sultana, R. (2017). The factors influencing turnover intention among employees: A case study on pharmaceutical company of Bangladesh. *Higher Education and Innovation Group in Education (HEAIG)* Jan. 8-9, 2017 Bali (Indonesia). <https://doi.org/10.15242/heaig.h0117510>
29. Singh, H., & Metta, D. A. (2026). Factors influencing employee retention in the corporate sector with reference to Raipur city (IT sector focus). *International Journal of Research Publication and Reviews*, 7(5), 1702-1717. <https://doi.org/10.55248/gengpi.07.0526.d1131>
30. Suleiman, A. (2015). Stress and job satisfaction among pharmacists in Riyadh, Saudi Arabia. *Saudi Journal of Medicine and Medical Sciences*, 3(3), 213. <https://doi.org/10.4103/1658-631x.162025>
31. Thin, S. M., Nakpun, T., Nitadpakorn, S., Sorofman, B. A., & Kittisopee, T. (2022). What drives pharmacists' turnover intention: A systematic review. *Pharmacy Practice*, 19(4), 1-20. <https://doi.org/10.18549/pharmpract.2021.4.2559>
32. Xian, L. S. (2020). Big Five personality and job burnout among Malaysian secondary school teachers. *International Journal of Psychosocial Rehabilitation*, 24(5), 682-697. <https://doi.org/10.37200/ijpr/v24i5/pr201735>
33. Yuliana, L., Azmy, A., Nurwardana, J. R., Perkasa, D. H., Alfian, R., Aisah, N., & Putra, M. F. (2025). The impact of work stress and job burnout on turnover intention among Indonesia-China integrated industrial employees. *Journal of Applied Business Administration*, 9(1), 1-12. <https://doi.org/10.30871/jaba.8108>
34. Yusnita, N., & Gursida, H. (2024). Work stress, job burnout, and turnover intention among micro, small, and medium finance company's employee. *JURNAL NUSANTARA APLIKASI MANAJEMEN BISNIS*, 9(1), 48-59. <https://doi.org/10.29407/nusamba.v9i1.20008>
35. Yusnita, N., & Gursida, H. (2024). Work stress, job burnout, and turnover intention among micro, small, and medium finance company's employee. *JURNAL NUSANTARA APLIKASI MANAJEMEN BISNIS*, 9(1), 48-59. <https://doi.org/10.29407/nusamba.v9i1.20008>
36. Zhang, Y., Huang, Y., & Xi, X. (2024). Association of the barriers of pharmaceutical care perceived by clinical pharmacists and occupational stress in tertiary hospitals of China. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1342565>