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## **ANALYSIS OF THE RELATIONSHIP BETWEEN WORKLOAD, WORK STRESS, AND WORK MOTIVATION OF HEALTHCARE PROVIDERS AND MEDICAL STAFF ON PATIENT LOYALTY**

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### **ABSTRACT**

High-quality healthcare services in outpatient units largely depend on the effectiveness of human resources, particularly in relation to workload, work stress, and work motivation among healthcare workers. This study aims to analyze the relationship between workload, work stress, and work motivation on patient loyalty at the Outpatient Unit of the Dental and Oral Hospital (RSGM) UNJANI. This research employed an analytical quantitative method with a cross-sectional approach. The sample consisted of 69 healthcare workers and 100 outpatients. Data collection instruments included the NASA-TLX questionnaire to assess workload, the PSS-10 to measure work stress, an adapted Minnesota Work Motivation Questionnaire to evaluate work motivation, and SERVQUAL to assess patient loyalty. Validity testing showed  $p$ -values  $< 0.05$ , indicating that all instruments were valid, while reliability testing revealed Cronbach's Alpha values  $> 0.7$ , confirming the instruments' reliability. Data analysis was performed using Spearman correlation and multiple linear regression tests. The results showed a significant relationship between workload and work stress with patient loyalty ( $\rho = -0.569$  and  $-0.513$ ;  $p < 0.01$ ), as well as a positive relationship between work motivation and patient loyalty ( $\rho = 0.556$ ;  $p < 0.01$ ). Multivariate analysis indicated that work motivation was the most dominant factor influencing patient loyalty compared to workload and work stress. These findings highlight the importance of effective human resource management in improving service quality and maintaining patient loyalty in outpatient settings.

**Keywords:** outpatient services; patient loyalty; workload; work motivation; work stress

### **INTRODUCTION**

High-quality healthcare services are a basic right of every individual and serve as an important indicator in the public service system, including in Dental and Oral Hospitals (RSGM) (Kruk et al., 2018; WHO, 2022). One of the main challenges in ensuring service quality at RSGM, particularly in the Outpatient Unit, is the management of limited human resources (HR) to meet the high demand for services from the community (Buchan et al., 2019; Dussault & Franceschini, 2018). This problem becomes even more complex when the workload of healthcare workers is not balanced with their capacity and available system support, which in turn affects levels of work stress, work motivation, and decreases patient loyalty (Shanafelt et al., 2019; Al Maqbali, 2021).

Workload is defined as the total work activities that must be completed within a certain period by healthcare professionals, including the volume of work, task complexity, as well as the psychological and physical pressures experienced while performing their duties (Carayon et al., 2019). When workload exceeds the physical or mental capacity of healthcare workers, work stress arises, defined as a non-specific adaptive response to job demands that are perceived as threatening or exceeding an individual's ability to cope (Härmä et al., 2019).

In the context of healthcare services, particularly in outpatient units, high workload and work stress among healthcare workers have the potential to disrupt service efficiency. One of the main impacts is

decreased work motivation, which in turn affects the quality of care received by patients. Based on Queueing Theory, the work motivation of healthcare providers can be influenced by several factors, such as patient arrival rate, service capacity (number and availability of healthcare providers), and the queuing system applied. An imbalance between the number of healthcare workers and patient volume can lead to long queues, patient congestion, and an increased risk of service errors (Green, 2018; Armony et al., 2019).

Furthermore, low work motivation among healthcare workers can directly impact patient loyalty, which is one of the most important non-clinical indicators in evaluating healthcare service quality. According to the SERVQUAL Model, patient loyalty is shaped by five main dimensions: tangibles, reliability, responsiveness, assurance, and empathy. In outpatient services, work motivation is strongly related to responsiveness, which reflects the speed and accuracy of staff in responding to patient needs. When patients are forced to wait for long periods without clear communication or information, their perception of service quality decreases, ultimately affecting their loyalty to the institution (Alhassan et al., 2018; de Ruyter et al., 2021).

In addition, the Kano Model states that there are basic needs that must be met in healthcare services. One of them is fair work motivation and timely service. If these needs are not met, patients may feel very dissatisfied, even if other aspects of care are delivered well (Li et al., 2020; Kuo & Ma, 2019).

The issue of work motivation and patient loyalty cannot be separated from the condition of healthcare workers who operate under high pressure. The Job Demand-Control Theory states that work stress increases when high job demands are not balanced with adequate job control (Härmä et al., 2019; Van den Broeck et al., 2021). At RSGM UNJANI, high workloads during peak hours, limited numbers of healthcare professionals, as well as administrative and educational burdens (linked to the hospital's role as a teaching facility) exacerbate the risk of work stress among doctors and other healthcare staff (Internal Report of RSGM UNJANI, 2023; Anggraini et al., 2022).

Apart from stress, organizational and operational management factors also play a role in creating efficiency—or otherwise. Donabedian's framework provides a comprehensive perspective that healthcare quality is influenced by structure (HR, facilities), process (service mechanisms), and outcomes (clinical results and patient loyalty) (Kringos et al., 2018; De Ruyter et al., 2020). In this context, structure in the form of the number and competence of healthcare staff, along with systematic workflows, contribute to the efficiency of service processes, which ultimately determine outcomes such as patient loyalty.

Field observations show that the Outpatient Unit of RSGM UNJANI faces serious challenges related to the high workload of healthcare workers. During peak periods, average service times can reach 2 to 3 hours, exceeding ideal standards, especially when patient volume increases while the number of healthcare staff remains limited. Preliminary observations and interviews with medical staff indicated high levels of fatigue, excessive multitasking, and suboptimal monitoring and workload distribution systems. These conditions not only slow down service processes but also reduce the quality of interaction and communication between healthcare workers and patients. This situation strengthens the assumption that workload has systemic impacts, not only on the physical and psychological conditions of healthcare workers but also on their motivation to deliver optimal care. In the long run, decreased motivation may contribute to reduced patient loyalty. Internal survey results showed that patient loyalty levels have fluctuated downward over the past year. In Quarter I of 2024, patient loyalty was recorded at 83%, rising to 85% in Quarter II, but falling again to 84% in Quarter III, and dropping to 83% in Quarter IV. Early 2025 assessments also revealed a declining trend, from 90% previously to 87%, and now only 85%. This condition serves as a warning signal for the institution to immediately evaluate internal factors affecting service quality, particularly workload and healthcare worker motivation as key components in

maintaining patient loyalty. Thus, analyzing the relationship between these variables becomes essential in formulating service improvement strategies, both from the perspective of HR management, queuing systems, and overall quality management. The results of this study are expected to contribute to evidence-based improvements in healthcare services and support the development of a teaching hospital that excels in quality, efficiency, and patient loyalty orientation.

## **METHOD**

This study design is a systematic process of data collection and analysis aimed at answering research questions objectively and measurably. The study is classified as quantitative research using a cross-sectional approach, in which data were collected at a single point in time, and each subject was assessed only once. The main focus of this research is to examine the relationship between workload, work stress, and work motivation with patient loyalty in the Outpatient Unit of the Dental and Oral Hospital (RSGM) UNJANI. The purpose of this study is to determine whether there is a relationship between factors such as healthcare workers' workload, levels of work stress, and work motivation with outpatient loyalty, and to what extent these variables influence the quality of services as perceived by patients at RSGM UNJANI.

The study population consisted of two groups. The first group comprised 72 healthcare workers actively employed at the Outpatient Unit of RSGM UNJANI, including doctors, nurses, and administrative staff. The second group consisted of 100 patients who visited and received services at the same unit during the data collection period. Sample size was determined using Slovin's formula to obtain a representative number of respondents from both populations. With a margin of error of 5 percent, the sample included 61 healthcare workers, selected through proportional stratified random sampling across doctors, nurses, and administrative staff to ensure balanced representation. For patients, the sample was selected using simple random sampling, giving each patient an equal chance of being chosen as a respondent. The study was conducted from June to July 2025 at the Outpatient Unit of RSGM UNJANI, located at Jl. Encep Kartawiria No. 88, Citeureup, Cimahi Utara District, Cimahi City, West Java Province.

Four standardized questionnaires, all tested for validity and reliability, were used as instruments in this study. The NASA-TLX was employed to measure healthcare workers' subjective workload, the Perceived Stress Scale (PSS) to assess work stress levels, the Minnesota Satisfaction Questionnaire (MSQ) to evaluate work motivation, and the SERVQUAL instrument to measure patients' perceptions of service quality and their loyalty to the services provided. Data collected from the questionnaires were analyzed using SPSS software. The analytical techniques included descriptive analysis to describe respondent characteristics and data distribution, Spearman's rank correlation as a bivariate analysis to examine relationships among ordinal variables, and multiple linear regression as a multivariate analysis to determine the simultaneous effects of independent variables on the dependent variable. This research was conducted in accordance with ethical principles. All respondents were informed about the purpose and procedures of the study as well as their rights as participants, including the right to refuse or withdraw at any time without coercion. The confidentiality of data and respondent identities was ensured through coding, and all data were used solely for research purposes.

## **RESULT**

The results of this study include instrument validity and reliability testing, analysis of respondent characteristics, univariate analysis, as well as bivariate and multivariate analyses regarding the effects of workload, work stress, and work motivation on patient loyalty in the Outpatient Unit of RSGM UNJANI. The validity test results showed that all items of the workload, work stress, work motivation, and patient loyalty variables had correlation coefficients greater than 0.3 with significance values below 0.05. This indicates that all questionnaire items were valid and appropriate for use as research instruments. The reliability of the instruments was measured using Cronbach's Alpha, with high values obtained for each

variable: workload (0.832), work stress (0.849), work motivation (0.874), and patient loyalty (0.861). Therefore, all instruments in this study were declared reliable. The respondents consisted of 100 patients and 69 healthcare workers. The majority of patients were women aged 25–35 years with a senior high school education. Most were repeat-visit patients. Meanwhile, healthcare workers were predominantly women over 35 years old, with a bachelor's degree, and most worked as doctors. More than half of the healthcare workers had more than five years of work experience.

Most patients rated the service quality at RSGM as “moderate,” with only a small proportion rating it “good,” while the rest felt dissatisfied. The most frequently criticized dimension was empathy and personal attention from staff, while adherence to promised services received relatively higher ratings. On the other hand, 75% of healthcare workers reported experiencing a moderate workload, and the remainder reported a high workload. The main sources of workload included time pressure, cognitive demands, physical effort, and psychological stress. In addition, 84% of healthcare workers reported high levels of work stress triggered by emotional pressure and job demands. Nevertheless, most demonstrated adequate coping ability. Work motivation was generally at a moderate level, and no healthcare workers reported high motivation. Many felt underappreciated and dissatisfied with the existing reward system.

Spearman correlation analysis revealed that workload and work stress had significant negative correlations with patient loyalty, with correlation coefficients of  $-0.569$  and  $-0.513$ , respectively. Conversely, work motivation showed a significant positive correlation with patient loyalty ( $\rho = 0.341$ ). This indicates that higher workload and work stress reduce patient loyalty, while higher work motivation increases it. Multiple linear regression analysis showed that workload, work stress, and work motivation simultaneously contributed to patient loyalty, with an Adjusted R Square value of 0.444. However, partially, only work stress and work motivation had significant effects on patient loyalty, while workload did not show a direct significant effect. Thus, it can be concluded that efforts to enhance patient loyalty should focus on reducing work stress and improving healthcare workers' motivation.

## **DISCUSSION**

### **Description of Respondent Characteristics**

Based on patient characteristics, the majority of respondents were women (67%), consistent with the findings of Siregar et al. (2021), who reported that women are more proactive in accessing healthcare services due to higher levels of personal health awareness compared to men. In addition, most respondents were within the productive age range of 25–35 years (79%), an age group generally associated with greater health consciousness and independence in accessing healthcare (Wahyuni & Prasetyo, 2022). Educational attainment was dominated by high school graduates (55%) and university graduates (40%), indicating that this group possesses adequate health literacy, which may influence their perceptions and experiences of the services received (Handayani et al., 2020).

In terms of visit history, 83% of patients reported a second visit, and 15% had visited more than twice, suggesting a relatively high level of retention or attachment to the services provided. This supports the findings of Yuliana et al. (2021), who noted that patients who previously received quality care are more likely to return, driven by trust and satisfaction with prior experiences. Regarding healthcare worker characteristics, the majority of respondents were women (53.6%), and more than half were above 35 years of age (50.7%). Rahmawati & Nugroho (2020) stated that female healthcare providers often demonstrate higher empathy and accuracy in service delivery, while those over 35 years of age tend to possess greater professional maturity, emotional stability, and accumulated work experience. In terms of educational background, most respondents held a bachelor's degree (60.9%) or a master's degree (33.3%), reflecting strong intellectual capacity and professional competence in healthcare service delivery (Kurniawan et al., 2023).

Most respondents were doctors (58%), followed by administrative staff and nurses. This indicates that the majority of clinical and technical decision-making is carried out by medical professionals, which aligns with the general structure of hospital services (Harahap et al., 2021). From a work experience perspective, 58% of respondents had more than five years of professional experience, either in healthcare or related fields. According to Damayanti & Subagyo (2022), extended work experience contributes to greater efficiency, sound decision-making, and the development of stable professional work patterns. With this profile of healthcare workers, it can be concluded that the institution under study possesses well-educated and experienced human resources. This provides a solid foundation for delivering high-quality healthcare services and enhancing patient satisfaction and loyalty. As highlighted by Sari et al. (2021), healthcare professionalism and work experience are key predictors of success in healthcare service delivery.

### **Analysis of Patient Loyalty**

The study findings show that most patients at RSGM UNJANI rated service quality as “adequate” (83%), while 15% reported dissatisfaction, and only 2% expressed full satisfaction. These results indicate that service quality is still suboptimal and may reduce patient loyalty if comprehensive improvements are not implemented. Patients’ perceptions of service quality are a crucial factor in building loyalty. As highlighted by Parasuraman et al. (2020), perceived service quality strongly influences customers’ intention to revisit or recommend services to others. Referring to the distribution of responses, the tangible aspect—such as facilities and staff appearance—received relatively low ratings, with 69% of respondents disagreeing or strongly disagreeing that facilities appeared modern and well-maintained. Zeithaml et al. (2021) emphasized that the “tangible” dimension plays an important role in shaping patients’ initial impressions of healthcare professionalism. When patients do not perceive facilities as clean and modern, their sense of trust and comfort may decline.

The reliability aspect, represented by the statement “RSGM delivers services as promised,” scored the highest positive response, with 32% of respondents agreeing or strongly agreeing. This finding supports Kotler & Keller (2020), who noted that consistency in fulfilling service promises is a key element in building customer trust and loyalty. However, the most negatively rated indicator was empathy. As many as 78% of respondents disagreed or strongly disagreed that RSGM understood patient needs and demonstrated empathy. This aligns with the findings of Leonard et al. (2021), who reported that empathy is a fundamental component in establishing emotional connections between healthcare providers and patients, and is a primary determinant of perceived service quality. A lack of empathy can reduce trust, comfort, and ultimately patient loyalty toward the healthcare institution. Overall, these findings confirm that service quality at only an “adequate” level is insufficient to sustain long-term patient loyalty. Tjiptono (2022) stated that suboptimal satisfaction tends to create uncertainty in consumer behavior, including decisions to return for services. Therefore, strategic improvements are required, particularly in interpersonal aspects such as effective communication, empathic attitudes, and individualized patient attention. Such transformations are expected to enhance patients’ perceptions of service quality and directly strengthen patient loyalty.

### **Analysis of the Workload of Healthcare Providers and Medical Staff**

Based on workload frequency data, the majority of respondents (75%) experienced workload in the moderate category, while 25% reported high workload, and none reported low workload. These findings indicate that most healthcare workers perceived their workload as still manageable, although one-quarter faced considerable pressure. High workload can trigger both physical and psychological fatigue, which, if not properly managed, may decrease the quality of healthcare services (Putra et al., 2022). Further analysis of workload indicators showed that most respondents (73.9%) reported high cognitive demands, such as intensive thinking, concentration, and memory tasks in their daily activities. Physical workload was also significant, with 60.9% of respondents frequently engaging in physical activities such as

standing for long periods or using medical equipment, and 34.8% perceiving these demands at a very high level. Both cognitive and physical workload have been shown to contribute to work stress and burnout in the long term, especially in public service sectors such as healthcare (Sari et al., 2021; Indrawati et al., 2023).

Time pressure also emerged as a major contributing factor to workload, with 60.3% of respondents reporting feeling rushed and 30.9% experiencing very high time-related stress while completing tasks. High time pressure is known to correlate with work stress and decreased job satisfaction, which ultimately affects staff loyalty and the quality of patient care (Wahyuni et al., 2021). Nevertheless, most respondents (73.9%) reported that they were still able to complete tasks according to standards, reflecting self-efficacy and a relatively high level of work motivation (Lestari & Hidayat, 2020). Despite this, the psychological condition of respondents showed significant mental strain. Approximately 63.8% reported frequent stress or tension at work, and 27.5% experienced it at very high levels. These findings support the view that heavy workloads, if not balanced with proper stress management, increase the risk of mental health problems and reduce the performance of healthcare workers (Anjani et al., 2023; Puspitasari et al., 2022). Therefore, it is crucial for hospital or healthcare management to implement interventions such as more proportional work scheduling, increasing the number of healthcare staff, and providing counseling services or stress management training to reduce workload and improve healthcare workers' well-being.

### **Analysis of Work Stress among Healthcare Providers and Medical Staff**

The results of the analysis on respondents' work stress levels revealed that most healthcare workers in the outpatient unit experienced high work stress, with 52 respondents (84%) categorized as high stress and the remaining 11 respondents (16%) in the moderate category. None of the respondents reported low stress levels. This high proportion of stress reflects a heavy mental burden within the healthcare work environment, consistent with previous studies showing that healthcare professionals are vulnerable to stress due to heavy job demands, patient expectations, and limited resources (Mulyadi et al., 2021; Fitriani et al., 2020). Further analysis of stress indicators based on the Perceived Stress Scale (PSS) also demonstrated a significant dominance of psychological burdens. A total of 72.5% of respondents often reported difficulties in controlling important aspects of their lives, and 56.5% frequently felt nervous and stressed. Despite this, many respondents displayed adaptive responses: 62.3% often reported successfully managing important life changes, and 71% frequently felt confident in handling personal problems. This phenomenon reflects the presence of active coping mechanisms that serve as protective factors in managing work stress. According to Lazarus & Folkman's (1984) Transactional Model of Stress and Coping, individual perceptions and coping abilities strongly determine the impact of stress on well-being.

Nevertheless, emotional challenges remained prominent: 65.2% of respondents often felt angry over situations beyond their control, and 58% felt that difficulties were accumulating to the point of being unmanageable. This illustrates the presence of emotional strain that may negatively affect performance and job satisfaction if left unaddressed. Putra & Mulyadi (2022) reported that unmanaged work stress reduces efficiency and increases turnover intention among healthcare professionals. Furthermore, the strong correlation found in this study between workload and work stress ( $r = 0.733$ ) reinforces that high workload is a primary trigger of stress, which in turn may indirectly reduce both loyalty and job satisfaction among healthcare workers (Wijayanti et al., 2023). Therefore, these findings underscore the importance of implementing stress management strategies within healthcare facilities. Such strategies may include more flexible work scheduling, training in coping and relaxation techniques, and enhanced psychosocial support from the organization. Sari et al. (2021) also emphasized that supportive work environments and mental well-being programs can significantly reduce stress levels and improve the quality of healthcare services.

### **Analysis of Work Motivation among Healthcare Providers and Medical Staff**

Based on the descriptive analysis of healthcare workers' work motivation at RSGM, the majority of respondents (86%) were categorized as having moderate work motivation, while 14% were classified as low, and none demonstrated high motivation. These findings indicate that, in general, healthcare workers have not yet exhibited optimal motivation in their work. This condition is crucial to address, considering that work motivation has a direct relationship with performance and productivity among healthcare professionals (Wuryaningsih et al., 2021). One of the underlying causes of weak motivation may stem from a lack of intrinsic factors, such as a sense of responsibility and recognition for their contributions (Nurhayati et al., 2022).

A closer look at the distribution of responses to motivation indicators shows that most respondents only selected "Agree," while very few chose "Strongly Agree" for positive statements. For instance, regarding the statement "*I feel appreciated for my work*", only 1.4% of respondents strongly agreed, whereas more than 89% fell into categories of disagreement or moderate agreement. This suggests that recognition has not been maximized as a motivating factor, even though previous studies highlight that fair and transparent recognition significantly enhances employee morale in the healthcare sector (Anggraini et al., 2021; Ismail et al., 2023). Similarly, responses to the statement on opportunities for skill development showed a concerning trend—62.3% disagreed—indicating that professional growth opportunities are perceived as limited. Yet, access to career development is a key factor in building long-term motivation (Pratiwi et al., 2020).

Low proportions were also recorded in indicators such as "*I feel motivated to continue working in this institution in the long term*" and "*I am satisfied with the salary/benefits I receive.*" This reinforces that healthcare workers' motivation at RSGM has not reached the expected level. Dissatisfaction with compensation has been proven to be a decisive factor in reduced retention and job loyalty (Fitria et al., 2021). Therefore, to significantly enhance motivation, organizational interventions are required, such as implementing performance-based reward systems, expanding access to professional training, improving communication between supervisors and staff, and creating a more supportive work environment. Numerous studies emphasize that high work motivation not only benefits individuals but also contributes directly to service quality and organizational sustainability (Kusumawati & Nugroho, 2022; Simanjuntak et al., 2023). If left unaddressed, this lack of motivation may reduce service quality and increase turnover rates among healthcare providers.

### **Analysis of Work Motivation among Healthcare Providers and Medical Staff**

Based on the descriptive analysis of healthcare workers' motivation data at RSGM, the majority of respondents (86%) were categorized as having moderate levels of work motivation, while 14% were categorized as low, and none were categorized as high. This finding indicates that, in general, healthcare workers have not yet demonstrated optimal motivation in their work. This condition is critical, considering that work motivation is directly related to healthcare workers' performance and productivity (Wuryaningsih et al., 2021). One possible cause of weak motivation may stem from the lack of intrinsic factors, such as a sense of responsibility and recognition for work achievements (Nurhayati et al., 2022).

A deeper look into the distribution of responses to work motivation indicators revealed that most respondents answered only "Agree" and very few selected "Strongly Agree" for positive statements. For instance, in the statement "*I feel appreciated for my work*," only 1.4% strongly agreed, while more than 89% chose disagreement or moderate agreement. This shows that recognition has not served as an effective motivational factor, even though research has shown that fair and transparent recognition significantly influences morale among healthcare employees (Anggraini et al., 2021; Ismail et al., 2023). Similarly, the statement regarding opportunities for skill development reflected the same trend—62.3% disagreed—indicating that professional growth opportunities were perceived as limited. However, career

development opportunities are one of the main factors in building long-term work motivation (Pratiwi et al., 2020).

Low responses were also found in indicators such as “*I feel motivated to continue working in this institution in the long term*” and “*I am satisfied with the salary/benefits I receive.*” This reinforces the conclusion that work motivation at RSGM UNJANI has not reached the expected level. Dissatisfaction with compensation has been proven to be a determining factor in reducing retention and job loyalty (Fitria et al., 2021). Therefore, to significantly improve work motivation, managerial interventions are required, such as creating a performance-based reward system, expanding access to professional training, improving communication between supervisors and staff, and enhancing the work environment. Several studies emphasize that high work motivation not only benefits individuals but also directly contributes to patient service quality and organizational sustainability (Kusumawati & Nugroho, 2022; Simanjuntak et al., 2023). If left unaddressed, this low motivation may reduce service quality and increase turnover rates among healthcare providers in the health sector.

### **Correlation Between the Workload of Healthcare Providers and Medical Staff and Patient Loyalty**

The statistical analysis revealed a significant negative relationship between workload and patient loyalty, with a correlation coefficient of  $\rho = -0.569$  and a significance value of  $p = 0.000$ . This negative correlation indicates that the higher the workload experienced by healthcare workers, the lower the level of patient loyalty toward the healthcare institution (Putra et al., 2021). Excessive workload reflects an unbalanced working condition, including time pressure, physical fatigue, and responsibilities that exceed individual capacity, which ultimately affect work performance (Yuliana & Pratama, 2020).

Under such conditions, healthcare workers often experience physical and mental exhaustion, leading to burnout and a decline in service quality (Anwar et al., 2023). Reduced focus and motivation disrupt interpersonal communication and decrease empathy and accuracy in service delivery—factors that are crucial in shaping patient satisfaction and loyalty (Puspitasari & Nugroho, 2022). When patients perceive that the services received do not meet their expectations, the likelihood of switching to other facilities increases, while their willingness to provide positive recommendations decreases (Santoso et al., 2021).

Patient loyalty itself is an important indicator of the sustainability of healthcare institutions. Loyal patients are more likely to return and recommend services to others, essentially serving as unpaid promoters of the institution (Wibowo & Kurniawati, 2020). Therefore, managing the workload of healthcare workers should be a priority through well-planned strategies, such as proportional task distribution, healthy scheduling, and sufficient recruitment of human resources to prevent overwork (Safitri & Hidayat, 2023). These efforts are expected to maintain or improve service quality and, in turn, preserve patient loyalty.

### **Correlation Between Work Stress of Healthcare Providers and Medical Staff and Patient Loyalty**

The correlation analysis showed a significant negative relationship between work stress and patient loyalty, with a correlation coefficient of  $\rho = -0.513$  and a significance value of  $p = 0.000$ . This indicates that the higher the level of stress experienced by healthcare workers, the lower the patient loyalty toward the services provided (Safitri & Arifin, 2022). Work stress among healthcare workers may arise from various sources, such as time pressure, role ambiguity, inter-professional conflict, and the emotional burden of caring for patients with complex conditions (Nugroho et al., 2021). Unmanaged stress can negatively impact the psychological and behavioral aspects of healthcare workers, including emotional exhaustion, reduced work motivation, and decreased effectiveness in communication with patients (Yulianti & Sari, 2020). As a result, the quality of interactions between healthcare workers and patients may decline, manifested in reduced empathy, rushed communication, and defensive or unfriendly attitudes (Handayani et al., 2023). These issues can shape patients’ negative perceptions of service

quality, thereby reducing their trust and loyalty toward the healthcare institution (Putri & Hamid, 2021). Therefore, it is essential for healthcare organizations to adopt proactive strategies in managing work stress among medical and healthcare staff. Such strategies may include stress management training, balanced work scheduling, psychosocial well-being programs, and the creation of a supportive work environment (Rahayu & Widodo, 2023). With effective stress management, healthcare workers will be better able to maintain optimal performance in service delivery, thereby improving patient satisfaction and sustaining patient loyalty (Febriana & Suryani, 2020).

### **Correlation Between Work Motivation of Healthcare Professionals and Patient Loyalty**

The analysis revealed a significant positive relationship between work motivation and patient loyalty, with a correlation coefficient of  $\rho = +0.341$  and a significance value of  $p = 0.004$ . This positive correlation indicates that when the work motivation of healthcare providers increases, patient loyalty also tends to increase (Putri & Yuliana, 2021). Work motivation serves as an internal drive that encourages healthcare workers to perform their duties enthusiastically, whether intrinsically—such as through a sense of responsibility and meaningfulness of work—or extrinsically, such as recognition and rewards from the workplace (Nurhalimah et al., 2022).

Healthcare workers with high motivation are more likely to demonstrate optimal performance, including initiative in solving patient problems, more empathetic communication, and more genuine, human-centered care (Wijaya & Kartika, 2023). Over time, care delivered with strong motivation fosters positive patient perceptions of healthcare service quality. Patients who feel valued and cared for wholeheartedly are more likely to remain loyal to the services and recommend them to others (Rohmah & Saputra, 2020). These findings suggest that improving healthcare workers' motivation must be a key element of strategies to enhance service quality. Organizations can implement various policies such as continuous professional training programs, clear career advancement pathways, performance-based incentive systems, and the promotion of a positive, collaborative work culture (Ningsih & Hidayat, 2022). By creating a work environment that supports motivation, healthcare providers will be encouraged to deliver their best performance, which directly contributes to strengthening patient loyalty to the institution (Anugrah & Susanti, 2021).

### **Analysis of the Influence of Workload, Work Stress, and Work Motivation on Patient Loyalty**

The results of the multiple linear regression analysis revealed that among the three independent variables analyzed simultaneously, work stress ( $X_2$ ) exerted the strongest influence on patient loyalty ( $Y$ ), with a regression coefficient of  $-0.663$  and a significance value of  $p = 0.012$ . This finding indicates that higher levels of stress experienced by healthcare workers are associated with lower levels of patient loyalty. The decline in interaction quality and service delivery due to stress—such as reduced empathy in communication or decreased accuracy—may cause patients to feel uncomfortable, thereby diminishing their trust and attachment to the healthcare institution (Fitriana et al., 2023; Prasetya & Handayani, 2021).

Conversely, work motivation ( $X_3$ ) demonstrated a significant positive effect on patient loyalty, with a regression coefficient of  $0.267$  and a significance value of  $p = 0.034$ . Healthcare professionals with high motivation tend to provide more optimal, communicative, and sincere services, which in turn enhance patient satisfaction and retention (Harahap & Nurhidayah, 2021; Wulandari et al., 2020). Therefore, improving work motivation should be a priority in human resource management policies within healthcare facilities. In contrast, workload ( $X_1$ ) yielded a regression coefficient of  $-0.468$  but was not statistically significant ( $p = 0.106$ ). Nonetheless, this variable should not be disregarded, as it demonstrated a strong correlation with work stress ( $r = 0.733$ ). This correlation suggests that a high workload can trigger increased stress, which subsequently reduces patient loyalty. In other words, workload indirectly affects patient loyalty through its contribution to higher stress levels (Sari et al.,

2022; Rachmawati & Susanto, 2020). Hence, although workload does not exert a direct significant effect, managing it remains crucial to prevent a domino effect on patient loyalty.

Overall, the regression model produced an  $R^2$  value of 0.469, indicating that 46.9% of the variance in patient loyalty could be explained by the three independent variables. The Adjusted  $R^2$  of 0.444 further confirms the model's stability after adjusting for the number of predictors. The F-test result ( $F = 19.135$ ,  $p = 0.000$ ) confirmed that the model was statistically significant as a whole. These findings emphasize the critical importance of managerial interventions aimed at reducing work stress and enhancing motivation, as well as rational workload management, as part of a comprehensive strategy to sustain patient loyalty in outpatient healthcare services.

### **Strengthening the Relationship between Hospital Management, Workload, Work Stress, Work Motivation, and Patient Loyalty**

Hospital management plays a strategic role in shaping a conducive work environment that is oriented toward high-quality service delivery. Within the framework of outpatient care, managerial effectiveness strongly influences the working conditions of healthcare professionals as well as patients' perceptions of the quality of services they receive. Three critical components directly affected by hospital management are workload, work stress, and work motivation, all of which ultimately contribute to patient loyalty (Putri & Ramadhan, 2022; Alzahrani et al., 2021).

#### **The Influence of Management on Work Stress**

Work stress in hospital settings often arises from time pressure, administrative burdens, role conflicts, and insufficient organizational support. Hospital management can help reduce work stress by fostering a supportive work environment, strengthening organizational communication, and providing support services such as counseling, emotional management training, and adequate rest periods. Furthermore, clarifying work procedures and task responsibilities can reduce role ambiguity, which is one of the main triggers of stress. Thus, managerial policies that are responsive to the psychological well-being of healthcare professionals can strengthen the positive relationship between hospital management and staff working conditions (Yuliani et al., 2022; Gunawan et al., 2020).

#### **The Influence of Management on Work Motivation**

Work motivation is not only influenced by intrinsic factors but also strongly shaped by the recognition, support, and opportunities provided by hospital management. The implementation of performance-based reward systems, career development programs, and a culture of appreciation are concrete strategies that management can adopt to enhance motivation. Hospital management that fosters a sense of involvement and ownership within the organization will cultivate healthcare professionals who are more loyal, proactive, and high-performing (Hasibuan & Widodo, 2021; Afifah et al., 2020).

### **Hospital Management as a Bridge between Internal Factors and Patient Loyalty**

Hospital management functions not only as an administrative and operational regulator but also as a crucial bridge linking various internal organizational factors—such as workload, work stress, and work motivation—with the ultimate goal of enhancing patient loyalty. When high workloads are not addressed with appropriate managerial strategies, work stress tends to increase while motivation declines. This situation can negatively affect the perceived quality of care, ultimately reducing patient satisfaction and loyalty to the hospital (Nurhasanah & Lestari, 2021).

Conversely, responsive and adaptive management toward workforce dynamics can transform pressure into opportunities for quality improvement. Through structured policy interventions—such as workload redistribution, psychosocial support, and fair reward systems—management can stabilize internal working conditions and foster a positive work environment. A healthy workplace encourages healthcare

professionals to deliver services in a professional and empathetic manner, which strongly shapes patients' perceptions and trust. Therefore, hospital management plays a vital role as the connecting mechanism that bridges internal organizational challenges with the external quality of patient relationships, ultimately building long-term loyalty (Dewi et al., 2023; WHO, 2020).

### Research Limitations

This study has several limitations. First, the cross-sectional design only captures the relationships between variables at a single point in time, making it impossible to draw causal inferences. Second, the use of self-reported questionnaires introduces the potential for information bias due to the subjective perceptions of respondents. Third, the scope of this research is limited to a single institution, namely RSGM UNJANI, which restricts the generalizability of the findings. Fourth, the distribution of respondents was uneven, with a predominance of physicians, which may underrepresent other categories of healthcare professionals. Fifth, the completion of questionnaires during working hours may have affected the focus and accuracy of responses. Lastly, this study did not control for external variables such as organizational culture and leadership style, which may also influence the outcomes.

### CONCLUSION

The analysis shows that workload has a negative and significant effect on patient loyalty. This indicates that the higher the workload experienced by healthcare professionals, the lower the level of patient loyalty. Excessive workload can result in declining service quality, impatience in interactions, and delays in treatment, which ultimately reduce patients' trust and comfort with the services received. Work stress also demonstrates a negative and significant effect on patient loyalty. High stress levels among healthcare professionals can lead to emotional exhaustion and reduced focus in delivering optimal services. This condition directly affects patients' experiences during care, thereby lowering the likelihood of repeat visits. Work motivation shows a positive effect on patient loyalty, although its statistical impact is lower compared to the other two variables. Higher motivation among healthcare professionals increases enthusiasm for providing friendly, prompt, and solution-oriented services. This contributes to greater patient satisfaction and their willingness to return for future care. Among the three independent variables examined, workload has the greatest influence on patient loyalty, with the highest negative regression coefficient. This finding is reinforced by the strong correlation between workload and work stress ( $r = 0.733$ ), indicating that heavy workload substantially contributes to stress, which in turn reduces patient loyalty. Therefore, effective workload management is a key factor in maintaining patient trust and satisfaction in outpatient services.

### REFERENCES

- Alhassan, R. K., et al. (2018). A review of patient satisfaction and quality of care in sub-Saharan Africa. *BMC Health Services Research*, 18(1), 1–13.
- Anggraini, F., et al. (2022). Analisis kinerja SDM terhadap mutu pelayanan kesehatan di RS pendidikan. *Jurnal Administrasi Kesehatan Indonesia*, 10(1), 45–53.
- Anggraini, R., Rahmawati, S., & Andriani, D. (2021). Pengaruh sistem penghargaan terhadap semangat kerja. *Jurnal Manajemen Kesehatan*, 5(3), 112–119.
- Anugrah, R., & Susanti, E. (2021). Budaya organisasi dan loyalitas pasien di fasilitas kesehatan primer. *Jurnal Kebijakan Kesehatan*.
- Anwar, M., Hasanah, U., & Nirmala, S. (2023). Burnout dan penurunan kualitas pelayanan kesehatan. *Jurnal Psikologi Kesehatan*.
- Buchan, J., Duffield, C., & Jordan, A. (2019). Solving nursing shortages: A common priority. *Journal of Nursing Management*, 23(1), 543–545.
- Carayon, P., et al. (2019). Human factors systems approach to healthcare quality and patient

- safety. *Applied Ergonomics*, 45(1), 14–25.
- Dussault, G., & Franceschini, M. C. (2018). Not enough there, too many here: Understanding geographical imbalances in the distribution of the health workforce. *Human Resources for Health*, 14(1), 1–16.
- Febriana, N., & Suryani, R. (2020). Pengaruh manajemen stres terhadap kinerja dan loyalitas pasien. *Jurnal Kinerja Pelayanan Kesehatan*.
- Fitriani, E., et al. (2021). Hubungan beban kerja dengan loyalitas pasien di poli rawat jalan. *Jurnal Manajemen Rumah Sakit Indonesia*, 5(1), 30–38.
- Fitria, L., Permana, A., & Puspitasari, D. (2021). Hubungan kepuasan kerja terhadap loyalitas karyawan rumah sakit. *Jurnal Kesehatan dan Keselamatan Kerja*, 6(2), 84–90.
- Härmä, M., et al. (2019). Workforce factors affecting patient safety. *Scandinavian Journal of Work, Environment & Health*, 45(4), 289–298.
- Handayani, M., et al. (2023). Kualitas interaksi pasien dan tenaga kesehatan dalam situasi tekanan. *Jurnal Ilmu Keperawatan dan Kebijakan Kesehatan*.
- Hidayati, D. A., et al. (2023). Pengaruh stres kerja terhadap kinerja tenaga kesehatan di rumah sakit. *Jurnal Kesehatan Masyarakat*, 18(2), 112–121.
- Institute of Medicine. (2020). *Crossing the quality chasm: A new health system for the 21st century*. National Academies Press.
- Ismail, N. R., Nasution, R. M., & Dewi, K. (2023). Hubungan antara kompensasi dengan motivasi kerja tenaga medis di puskesmas. *Jurnal Ilmu Kesehatan Masyarakat*, 15(1), 67–75.
- Kringos, D. S., et al. (2018). The strength of primary care in Europe: An international comparative study. *British Journal of General Practice*, 68(669), e717–e724.
- Kuo, Y. F., & Ma, C. H. (2019). The effects of green innovation on environmental and corporate performance: A stakeholder perspective. *Sustainability*, 11(3), 611.
- Kusumawati, N. A., & Nugroho, D. (2022). Motivasi kerja dan pengaruhnya terhadap kualitas pelayanan publik. *Jurnal Kebijakan dan Manajemen Publik*, 10(3), 301–310.
- Lestari, P., et al. (2020). Efektivitas e-registration dalam mengurangi motivasi kerja pasien. *Jurnal Sistem Informasi Kesehatan*, 8(2), 95–101.
- Li, J., et al. (2020). Service quality and patient satisfaction: A case study of hospitals in China. *International Journal of Healthcare Management*, 13(4), 289–295.
- Mahendra, R., et al. (2020). Implementasi metode WISN dalam perencanaan SDM kesehatan. *Jurnal Administrasi Kesehatan Indonesia*, 8(2), 117–123.
- Nurhalimah, A., Ramdhani, M., & Sari, D. (2022). Motivasi kerja tenaga kesehatan dalam pelayanan publik. *Jurnal Ilmu Manajemen Kesehatan*.
- Nurhasanah, F., et al. (2022). Hubungan beban kerja terhadap loyalitas pasien. *Jurnal Ilmu Kesehatan*, 14(1), 67–72.
- Nurhayati, S., Novitasari, R., & Afifah, M. (2022). Pengaruh penghargaan dan lingkungan kerja terhadap motivasi kerja tenaga kesehatan. *Jurnal Administrasi Rumah Sakit Indonesia*, 12(2), 45–52.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Pratiwi, L. A., et al. (2021). Faktor-faktor yang mempengaruhi motivasi kerja pasien rawat jalan. *Jurnal*

- Manajemen Rumah Sakit, 6(2), 60–69.  
Pratiwi, N., Sari, D. A., & Rahmat, I. (2020). Peran pengembangan karier terhadap peningkatan motivasi kerja. *Jurnal Ilmu Administrasi*, 8(2), 102–108.
- Puspitasari, R., et al. (2021). Evaluasi beban kerja tenaga kesehatan menggunakan NASA-TLX. *Jurnal Kesehatan dan Keselamatan Kerja*, 11(3), 170–178.  
Puspitasari, R., & Nugroho, Y. (2022). Kualitas komunikasi interpersonal dalam pelayanan kesehatan. *Jurnal Pelayanan Publik*.
- Putra, A. R., et al. (2021). Pengaruh beban kerja terhadap loyalitas pasien di puskesmas. *Jurnal Kesehatan Masyarakat*.
- Putri, A., & Hamid, Y. (2021). Mutu layanan dan loyalitas pasien di rumah sakit umum. *Jurnal Pelayanan Publik*.  
Putri, S., & Yuliana, T. (2021). Hubungan antara motivasi kerja dan loyalitas pasien di puskesmas. *Jurnal Administrasi Kesehatan Indonesia*.
- Rachmawati, R., et al. (2023). Shared decision making and patient satisfaction: A case in outpatient clinics. *Jurnal Kesehatan Indonesia*, 11(1), 27–33.  
Rahayu, T., & Widodo, A. (2023). Manajemen stres dalam praktik kesehatan. *Jurnal Manajemen Kesehatan*.
- Rohmah, H., & Saputra, R. (2020). Kepuasan dan loyalitas pasien sebagai dampak kualitas pelayanan kesehatan. *Jurnal Mutu Pelayanan Publik*.
- Safitri, H., & Hidayat, D. (2023). Strategi manajerial dalam menurunkan beban kerja tenaga kesehatan. *Jurnal Kebijakan Kesehatan Indonesia*.  
Safitri, R., & Arifin, H. (2022). Stres kerja dan loyalitas pasien di layanan kesehatan primer. *Jurnal Kesehatan Masyarakat*.
- Santoso, B., et al. (2021). Hubungan kualitas pelayanan dan loyalitas pasien rumah sakit. *Jurnal Manajemen dan Administrasi Rumah Sakit*.  
Setiawan, A., & Wahyuni, I. (2023). Pengaruh stres terhadap kualitas interaksi tenaga kesehatan dan pasien. *Jurnal Psikologi Klinis Kesehatan*, 5(2), 56–62.
- Shanafelt, T. D., et al. (2019). Work-life integration and burnout among physicians: A systematic review. *The Lancet*, 394(10193), 1716–1725.
- Simanjuntak, B., Siregar, R. T., & Ayu, D. (2023). Strategi peningkatan motivasi kerja tenaga kesehatan dalam rangka peningkatan mutu layanan rumah sakit. *Jurnal Manajemen Kesehatan Indonesia*, 11(1), 25–33.
- Susanti, L., & Andriani, W. (2022). Alur kerja dan beban emosional tenaga kesehatan. *Jurnal Kesehatan Masyarakat Digital*, 10(1), 90–101.
- Van den Broeck, A., et al. (2021). Job demands, job resources, and well-being. *Journal of Managerial Psychology*, 36(7), 545–562.  
WHO. (2022). *Global strategy on human resources for health: Workforce 2030*. World Health Organization.
- Wibowo, R., & Kurniawati, I. (2020). Peran loyalitas pasien dalam keberlanjutan fasilitas kesehatan. *Jurnal Ekonomi dan Bisnis Kesehatan*.

- Wijaya, H., & Kartika, N. (2023). Pengaruh motivasi intrinsik dan ekstrinsik terhadap kinerja tenaga medis. *Jurnal Psikologi dan Perilaku Organisasi*.
- Wuryaningsih, I., Sulastri, D., & Nurhayati, Y. (2021). Pengaruh motivasi kerja terhadap kinerja perawat di rumah sakit. *Jurnal Manajemen Kesehatan Indonesia*, 9(1), 1–8.
- Yilmaz, O., & Okan, T. (2022). Workload and patient satisfaction in outpatient services in tertiary hospitals. *International Journal of Health Planning and Management*, 37(5), 2125–2136.
- Yuliana, T., & Pratama, D. (2020). Manajemen beban kerja dan kinerja tenaga medis. *Jurnal Administrasi Kesehatan Indonesia*.
- Yulianti, A., et al. (2022). Stres kerja dan coping strategy pada tenaga kesehatan di masa pandemi. *Jurnal Kesehatan Mental Indonesia*, 5(1), 12–20.\*
- Yulianti, D., & Sari, L. (2020). Pengaruh stres kerja terhadap kualitas pelayanan. *Jurnal Psikologi Kesehatan Indonesia*.
- Yuliani, F., & Hidayat, A. (2022). Pengembangan sistem insentif dan pengaruhnya terhadap motivasi kerja. *Jurnal Ekonomi dan Manajemen Kesehatan*.
- Zhang, Y., et al. (2020). Relationship between nurse workload and quality of outpatient care: A meta-analysis. *International Journal of Nursing Studies*, 109, 103654.