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THE IMPACT OF TRANSFORMATIONAL LEADERSHIP ON ORGANIZATIONAL COMMITMENT AMONG HEALTHCARE WORKERS IN SERBIA: THE MODERATING ROLE OF LENGTH OF SERVICE

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Abstract: *Transformational leadership is widely recognized as an important influence on employees' attitudes in healthcare organizations, particularly in work environments characterized by high professional demands. This study examined the effect of transformational leadership on organizational commitment among healthcare workers in Serbia and tested whether employees' length of service moderates this relationship. The research included a convenience sample of 264 healthcare workers. Data were collected anonymously and voluntarily during the Healthcare Workers' Congress held in May 2026, using both paper-based and electronic questionnaires. Structural equation modeling and multigroup analysis were applied to test the proposed relationships. The results indicated that transformational leadership had a positive and statistically significant effect on organizational commitment and accounted for 47.1% of its variance. These findings provide additional evidence that the effect of transformational leadership on organizational commitment may vary according to employees' professional experience and underline the importance of considering length of service when examining leadership effects in healthcare organizations.*

Keywords: *transformational leadership, organizational commitment, healthcare workers, length of service, healthcare organizations, Serbia.*

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1. Introduction

Healthcare organizations are characterized by demanding working conditions, complex professional responsibilities, and a constant requirement to maintain high standards of care. Within such organizations, employees represent a central resource, while the way they are managed can influence both their attitudes toward work and their relationship with the institution. In Serbia, these organizational challenges are additionally shaped by the ongoing digital transformation of the healthcare system and the increasing use of digital health technologies and hospital information systems (Bošković, 2025). Leadership is therefore particularly relevant in healthcare, where managers are expected not only to organize work but also to support employees in professionally demanding environments.

Among contemporary leadership approaches, transformational leadership has received considerable attention in healthcare research. Its relevance is supported by findings linking transformational leadership with employee outcomes such as job satisfaction, empowerment, work performance, retention, and organizational commitment (Kim & Jeong, 2020; Conroy et al., 2023). Evidence concerning organizational commitment is particularly relevant to the present study. Research conducted in different healthcare settings has generally shown that employees who perceive stronger transformational leadership also report stronger attachment to their organizations (Al-Yami et al., 2018; Iqbal et al., 2019).

Organizational commitment is an important issue in human resource management within healthcare institutions, as it reflects employees' attachment to the organization and their orientation toward remaining with and belonging to it. The importance of this construct is particularly evident in the healthcare sector, where workforce stability and employee retention are major organizational concerns. The systematic review by Conroy et al. (2023) points to an association between transformational leadership and nurse retention in hospital settings, while Al-Yami et al. (2018) found that transformational leadership made the strongest contribution to nurses' organizational commitment after controlling relevant individual and organizational characteristics. Previous studies provide substantial evidence of an association between transformational leadership and organizational commitment in healthcare. However, this evidence is dominated by studies examining the direct relationship between the two constructs, frequently among nurses. Much less is known about whether this relationship varies according to employees' professional characteristics. Length of service is especially relevant in this respect because employees at different stages of their careers may differ in the extent to which their attitudes toward the organization are shaped by the behavior of their immediate managers.

This issue has received limited attention in Serbia. Veličković et al. (2014), for example, identified professional identification and different dimensions of job satisfaction as predictors of organizational commitment among nurses, but transformational leadership was not included in their model. International research on transformational leadership and organizational commitment in healthcare has also predominantly focused on nurses rather than on a broader population of healthcare workers.

Accordingly, the present study examines the effect of transformational leadership on organizational commitment among healthcare workers in Serbia and investigates whether the strength of this relationship differs according to length of service.

Against this background, the research gap addressed in this study lies in the limited understanding of whether the strength of the effect of transformational leadership on organizational commitment differs depending on healthcare workers' length of service, particularly in the Serbian context. Accordingly, the aim of this study is to examine the effect of transformational leadership on organizational commitment among healthcare workers in Serbia and to determine whether length of service moderates this relationship. In this way, the study extends existing knowledge not only by examining the direct relationship between

transformational leadership and organizational commitment, but also by identifying potential differences in the strength of this relationship among healthcare workers with different lengths of service.

2. Literature review and hypothesis development

2.1. Transformational leadership in healthcare organizations

Transformational leadership has become an important concept in organizational behavior research. According to Bass (1999), this form of leadership is based on motivating and intellectually stimulating employees, while also recognizing their individual needs. At the same time, leaders encourage employees to look beyond their immediate personal interests and contribute to broader organizational goals.

Transformational leadership has attracted considerable attention in healthcare research. In a systematic review of 243 studies, Wu et al. (2024) found that it was the leadership style most frequently examined in healthcare settings. This level of research reflects its relevance to a wide range of outcomes concerning both healthcare employees and the organizations in which they work.

Evidence from review studies further supports the relevance of transformational leadership in healthcare. Kim and Jeong (2020), drawing on 49 studies, reported that transformational leadership among nursing unit managers was associated with several important employee outcomes, including empowerment, job satisfaction, work performance, and organizational commitment. Similar conclusions were reached by Ystaas et al. (2023) in a systematic review of 23 studies focused on transformational leadership in nursing. Their review showed that this leadership approach was related to the nursing work environment and to outcomes such as structural empowerment, organizational commitment, and job satisfaction, both directly and through mediating mechanisms.

Employee retention represents another outcome associated with transformational leadership in healthcare. Conroy et al. (2023) reviewed 12 studies examining transformational leadership and nurse retention, with 11 reporting a statistically significant association between them. Taken together, these findings indicate that the relevance of transformational leadership extends beyond employees' attitudes toward their supervisors and may also be reflected in their willingness to remain within the organization.

2.2. Organizational commitment of healthcare workers

Organizational commitment describes the nature of the bond that employees develop with the organization in which they work. Meyer and Allen (1991) conceptualized this bond through three components: affective, continuance, and normative commitment. Affective commitment reflects an employee's emotional attachment to and identification with the organization, continuance commitment is related to the perceived costs or consequences of leaving, whereas normative commitment concerns a sense of obligation to remain. Earlier empirical work by Allen and Meyer (1990) also showed that these components are not identical, although affective and normative commitment may be related.

In the healthcare sector, organizational commitment is particularly important because of its relationship with employee retention and turnover. Wagner (2007), in a review of 25 nursing studies, concluded that organizational commitment is a useful variable for predicting nurse turnover and its antecedents, including employees' intention to remain with the organization. A meta-analysis by Nei et al. (2015), based on 106 primary studies, showed that organizational commitment and supportive and communicative leadership were among the strongest

predictors of voluntary nurse turnover. Similarly, Caykoylu et al. (2011), examining different groups of healthcare employees, identified satisfaction with career advancement and supervisors, employee empowerment, effective leadership, and several work-related factors as important determinants of organizational commitment. Tourangeau and Cranley (2006) likewise found that nurses' intention to remain employed in their current hospital was associated with higher levels of organizational commitment, as well as with a range of individual and work-related characteristics, including experience and managerial support. Vagharseyyedin (2016), in an integrative review of 33 studies, identified 63 factors associated with nurses' organizational commitment. These factors were grouped into four areas: employees' personal characteristics, leadership and management styles and behaviors, perceptions of the organizational context, and job and work environment characteristics. These findings indicate that organizational commitment among healthcare workers does not depend on a single factor, but rather reflects the combined influence of individual, managerial, and organizational factors.

Evidence from Serbia is provided by Veličković et al. (2014), who examined organizational commitment and job satisfaction among 1,337 nurses. Their analysis identified professional identification, extrinsic job satisfaction, and intrinsic job satisfaction as significant predictors of organizational commitment. These findings underline the relevance of organizational commitment in the Serbian healthcare setting, although transformational leadership was not included among the variables examined.

2.3. Transformational leadership and organizational commitment

The expected link between transformational leadership and organizational commitment can be explained through the basic principles of transformational leadership. Bass (1999) emphasizes that transformational leaders motivate employees to identify with organizational goals, encourage them to place collective interests above immediate personal interests, and strengthen their involvement in their work. Such leadership behavior can contribute to the development of a stronger psychological attachment between employees and the organization.

Early empirical evidence also supports the connection between transformational leadership and organizational commitment in nursing. Avolio et al. (2004), in a study of 520 nurses employed in a large public hospital in Singapore, found that psychological empowerment helped explain how transformational leadership was related to organizational commitment. Lee and Kim (2008), using data from 451 nurses in a tertiary hospital, likewise reported that empowerment served as a mechanism linking head nurses' transformational leadership with employees' organizational commitment. These findings suggest that the effect of transformational leadership on commitment may operate partly through psychological processes that shape employees' relationships with the organization.

Additional evidence comes from studies conducted in different healthcare settings. Top et al. (2013), examining employees in two public hospitals in Turkey, found significant associations between transformational leadership and several organizational outcomes, including job satisfaction, organizational trust, and organizational commitment. Kodama et al. (2016), focusing on nurses in a Japanese hospital, reported that intellectual stimulation, as one dimension of transformational leadership, was positively related to nurses' affective commitment to the hospital. Together, these findings show that transformational leadership is linked with commitment across different healthcare contexts and may operate through specific leadership behaviors as well as broader organizational attitudes.

Research from several healthcare contexts has produced similar findings. Al-Yami et al. (2018), studying 219 nurses and managers from two hospitals in Saudi Arabia, found that transformational leadership made a substantial contribution to organizational commitment

even after controlling for respondents' characteristics. Iqbal et al. (2019), in a sample of 299 hospital nurses in Pakistan, also reported a positive relationship between transformational leadership and organizational commitment, with psychological empowerment and psychological well-being contributing to this association. Akgerman and Sönmez (2020) showed that nurses' trust in their immediate managers was a significant determinant of organizational commitment. Although that study did not directly examine transformational leadership, it further supports the importance of the manager–employee relationship in shaping organizational commitment in healthcare institutions.

The empirical evidence, however, is not entirely uniform. Asiri et al. (2016), studying nurses employed in acute healthcare settings in Saudi Arabia, reported a negative association between transformational leadership and organizational commitment. Transactional and laissez-faire leadership, autonomy, and several demographic characteristics were also identified as significant predictors of commitment. This result suggests that the relationship between leadership and organizational commitment may vary across organizational and cultural settings.

Despite some inconsistent findings, the available evidence largely supports a positive association between transformational leadership and organizational commitment. Haoyan et al. (2023), in a systematic review of seven studies involving 2,885 nurses, reported a positive association in six studies, while only one study found a negative relationship. The meta-analytic findings of Kim and Jeong (2020) also provide strong support for this relationship. Organizational commitment was among the four transformational leadership outcomes with larger effects, while their meta-analytic path analysis showed a direct effect of transformational leadership on nurses' organizational commitment.

Based on the theoretical foundations of transformational leadership and the prevailing empirical evidence from the healthcare sector, the first research hypothesis is formulated as follows:

H1. Transformational leadership positively affects organizational commitment among healthcare workers.

2.4. Length of service as a moderator of the relationship between transformational leadership and organizational commitment

Although the existing literature generally supports a positive relationship between transformational leadership and organizational commitment, there is evidence that the strength of relationships among organizational variables may depend on employees' length of service.

Wright and Bonett (2002), drawing on 27 independent studies with a combined sample of 3,630 employees, found that employees' length of service significantly changed the relationship between organizational commitment and job performance. More specifically, the association between commitment and performance became weaker as employees' length of service increased. Although their analysis did not focus on transformational leadership or healthcare workers, it provides evidence that employees' length of service can influence the strength of relationships involving organizational commitment.

The relevance of length of service has also been recognized in studies of nurses. Tourangeau and Cranley (2006) reported that previous research had linked nurses' intention to remain employed with organizational commitment, managerial support, years of experience, and other individual and organizational characteristics. This finding does not represent a test of the moderating effect of length of service, but it does indicate its relevance in explaining employees' relationship with the organization.

More direct evidence from the healthcare sector was provided by Baek et al. (2019), who examined 1,118 nurses. Their study tested whether nurses' length of service changed the

relationships of authentic leadership with job satisfaction and organizational commitment. Authentic leadership was positively related to organizational commitment, but this association became weaker as employees' length of service increased. Among nurses with more than 20 years of service, the relationship was no longer statistically significant. These findings are particularly relevant because they show that employees' length of service can alter the strength of the relationship between leadership behavior and organizational commitment. However, the study focused on authentic rather than transformational leadership and therefore does not provide direct evidence for the moderating role of employees' length of service in the relationship examined in the present study.

There is also evidence that the relationship between transformational leadership and organizational commitment may vary depending on the conditions in which it occurs. In addition to examining psychological empowerment as a mediator, Avolio et al. (2004) tested whether structural distance between leaders and employees influenced this relationship. In their sample of 520 nurses, structural distance was found to moderate the association between transformational leadership and organizational commitment. This finding suggests that the strength of the relationship may depend on characteristics of the context in which leader–employee interactions take place.

At the same time, Haoyan et al. (2023) identified only seven eligible studies in their systematic review of transformational leadership and organizational commitment among nurses. These studies predominantly examined the direct relationship between the two constructs, indicating that the empirical basis for drawing conclusions about potential moderators of this relationship remains limited. Vagharseyyedin (2016) likewise showed that both employees' personal characteristics and leadership styles form part of the broader set of factors associated with nurses' organizational commitment. This finding further supports the need to examine whether the effects of leadership differ across groups of employees with different professional characteristics.

Based on the existing literature, there are empirical grounds for examining length of service as a potential boundary condition in the relationship between transformational leadership and organizational commitment. However, direct studies of the moderating role of length of service specifically in the relationship between transformational leadership and organizational commitment among healthcare workers remain limited. For this reason, it is not justified to specify the direction of the moderating effect in advance. Accordingly, the second research hypothesis is formulated as follows:

H2. Length of service moderates the effect of transformational leadership on organizational commitment among healthcare workers.

3. Methodology

3.1. Sample and data collection procedure

The study included a convenience sample of 264 healthcare workers from Serbia. Data were collected during the Healthcare Workers' Congress held in May 2026. Participation was voluntary and anonymous, and the questionnaire was available in both paper-based and electronic formats.

The sample was predominantly female (83.7%), and 70.9% of respondents were aged 41 years or older. In terms of education, the largest group consisted of respondents with completed secondary education, accounting for 133 participants or 50.4% of the sample. Most participants were nurses and medical technicians employed in hospitals and primary healthcare centers, while physicians accounted for 9.4% of the sample. For the purposes of the multigroup analysis,

respondents were divided into healthcare workers with up to 20 years of service (44.7%) and those with 21 years of service or more (55.3%).

3.2. Measurement instruments

Data was collected using a structured questionnaire. It included questions on respondents' sociodemographic and professional characteristics, as well as items measuring transformational leadership and organizational commitment. Transformational leadership was measured using five items based on the conceptualization discussed by Batista-Foguet et al. (2021). The items referred to the supervisor's concern for others, decisiveness, integrity, support for employees' potential development, and communication skills.

Organizational commitment was measured using nine items based on the instrument developed by Mowday et al. (1979). The items covered employees' willingness to make additional efforts for the success of the healthcare institution, positive evaluations of the institution as a place to work, willingness to remain with the institution, alignment between personal and organizational values, pride in belonging to the institution, inspiration derived from work, and emotional attachment to the institution.

Responses to the items measuring both constructs were assessed on a five-point Likert scale.

3.3. Statistical data analysis

All statistical analyses were performed in JASP, version 0.97.1 (JASP Team, 2026). In the first stage, the structure of the sample was examined using descriptive statistics, including absolute and relative frequencies for respondents' sociodemographic and professional characteristics.

Structural equation modeling (SEM) was used to examine the measurement model and the relationship between transformational leadership and organizational commitment. The measurement model was evaluated through standardized factor loadings and indicators of internal consistency, convergent validity, and discriminant validity. Reliability was examined using Cronbach's alpha and composite reliability (CR), whereas average variance extracted (AVE) was used to evaluate convergent validity. Discriminant validity was assessed using the heterotrait-monotrait ratio (HTMT).

Model fit was assessed using the chi-square test (χ^2), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA) with its 90% confidence interval, and Standardized Root Mean Square Residual (SRMR). The relationship between transformational leadership and organizational commitment was evaluated using the standardized regression coefficient (β), its statistical significance, and the 95% confidence interval. The coefficient of determination (R^2) indicated the proportion of variance in organizational commitment accounted for by transformational leadership.

3.4. Testing the moderating role of length of service

The moderating role of length of service was examined using multigroup structural equation modeling (multigroup SEM). Based on length of service, respondents were divided into two groups: healthcare workers with up to 20 years of service and healthcare workers with 21 years of service or more.

Before the structural effects of transformational leadership on organizational commitment were compared between the two groups, measurement invariance was examined stepwise. First, a configural model was estimated with all parameters freely estimated in both groups. Metric invariance was then assessed by imposing equality constraints on factor loadings across the groups. Finally, scalar invariance was tested by additionally constraining the item intercepts to be equal.

After measurement invariance had been established, the moderating role of length of service was examined by comparing a model in which the structural path from transformational leadership to organizational commitment was freely estimated across the two groups with a model in which the same structural path was constrained to be equal. A statistically significant deterioration in model fit after imposing the equality constraint on the structural path was taken as evidence of a moderating effect of length of service.

4. Results

4.1. Measurement model results

The measurement model was evaluated before testing the proposed hypotheses. The model showed a very good fit to the data: $\chi^2(76) = 123.00$, $p < 0.001$, CFI = 0.979, TLI = 0.975, RMSEA = 0.048, 90% CI [0.036, 0.060], and SRMR = 0.029.

All standardized factor loadings were statistically significant ($p < 0.001$). The loadings for transformational leadership ranged from 0.864 to 0.934, whereas those for organizational commitment ranged from 0.660 to 0.919. Reliability was high for both constructs, with Cronbach's alpha and composite reliability values above the recommended threshold of 0.70 (Cheung et al., 2024).

Convergent validity was evaluated using factor loadings and average variance extracted (AVE). The AVE values were 0.808 for transformational leadership and 0.705 for organizational commitment, both exceeding the recommended value of 0.50 and therefore supporting convergent validity (Cheung et al., 2024). The HTMT value between transformational leadership and organizational commitment was 0.692, indicating satisfactory discriminant validity.

Table 1. Factor Loadings, Reliability, and Convergent Validity of the Constructs

Construct	Item	Loading	Cronbach's α	CR	AVE
Transformational leadership	TL10	0.915	**0.954**	**0.954**	**0.808**
	TL11	0.864			
	TL12	0.934			
	TL13	0.904			
	TL14	0.874			
Organizational commitment	OC29	0.660	**0.953**	**0.955**	**0.705**
	OC30	0.817			
	OC31	0.728			
	OC32	0.838			
	OC33	0.885			
	OC34	0.901			
	OC5	0.919			
	OC6	0.893			
	OC7	0.878			

Source: Authors' calculation based on the research results

4.2. Structural model and hypothesis H1

Following confirmation of the measurement model, the structural relationship between transformational leadership and organizational commitment was tested. The model demonstrated very good fit: $\chi^2(76) = 123.00$, $p < 0.001$, CFI = 0.979, TLI = 0.975, RMSEA = 0.048, 90% CI [0.036, 0.060], and SRMR = 0.029.

Transformational leadership had a positive and statistically significant effect on organizational commitment ($\beta = 0.686$, SE = 0.048, $z = 14.32$, $p < 0.001$, 95% CI [0.593, 0.780]). The model accounted for 47.1% of the variance in organizational commitment ($R^2 = 0.471$), providing support for Hypothesis H1.

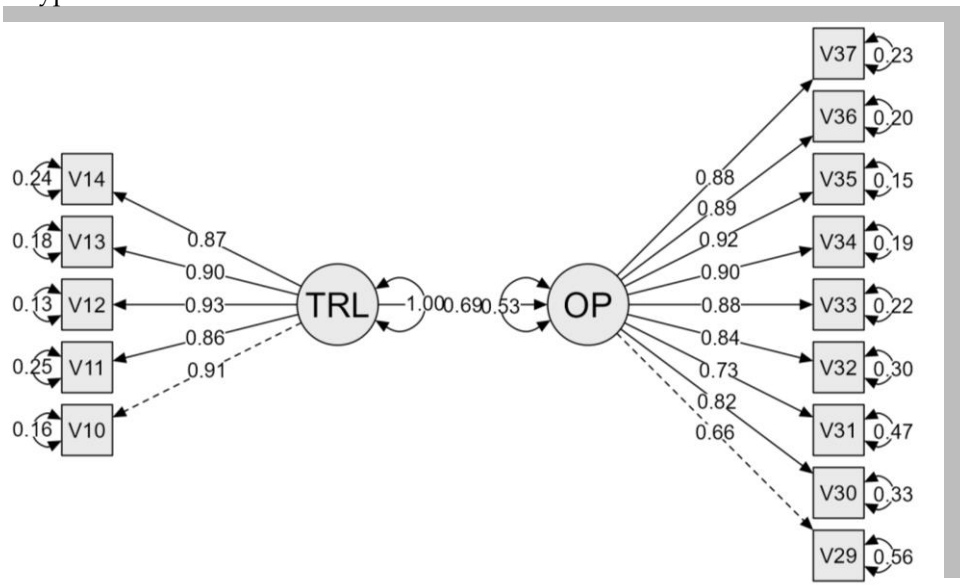


Figure 1. Structural Model of the Effect of Transformational Leadership on Organizational Commitment

Note: TRL = Transformational Leadership; OP = Organizational Commitment. Standardized coefficients are presented. All factor loadings and the structural path are statistically significant at $p < 0.001$.

Source: Authors' illustration based on the research results

4.3. Moderating role of length of service

The moderating role of employees' length of service was assessed using multigroup SEM. A configural model was first estimated with all parameters allowed to vary across the two groups. The model demonstrated satisfactory fit: $\chi^2(152) = 212.00$, $p < 0.001$, CFI = 0.972, TLI = 0.967, RMSEA = 0.055, and SRMR = 0.038.

Metric invariance was examined by constraining factor loadings to be equal across the two groups. The metric model showed good fit: $\chi^2(164) = 226.40$, CFI = 0.971, TLI = 0.968, RMSEA = 0.054, and SRMR = 0.053. Relative to the configural model, the changes in the fit indices were small (ΔCFI = −0.001, ΔRMSEA = −0.001, ΔSRMR = 0.015), supporting metric invariance.

Scalar invariance was then evaluated by additionally constraining item intercepts to equality across the groups. The scalar model also showed good fit: $\chi^2(176) = 235.70$, $p = 0.002$, CFI = 0.972, TLI = 0.971, RMSEA = 0.051, and SRMR = 0.050. Compared with the metric model, the changes in fit indices were minimal (ΔCFI = 0.001, ΔRMSEA = −0.003, ΔSRMR = −0.003), providing support for scalar invariance.

After measurement invariance had been established, the effect of transformational leadership on organizational commitment was compared across the two groups. Among healthcare workers with up to 20 years of service, the effect was positive and statistically significant ($\beta = 0.835$, $p < 0.001$; $R^2 = 0.697$). Among employees with 21 years of service or more, the effect was also positive and statistically significant, but weaker ($\beta = 0.562$, $p < 0.001$; $R^2 = 0.316$).

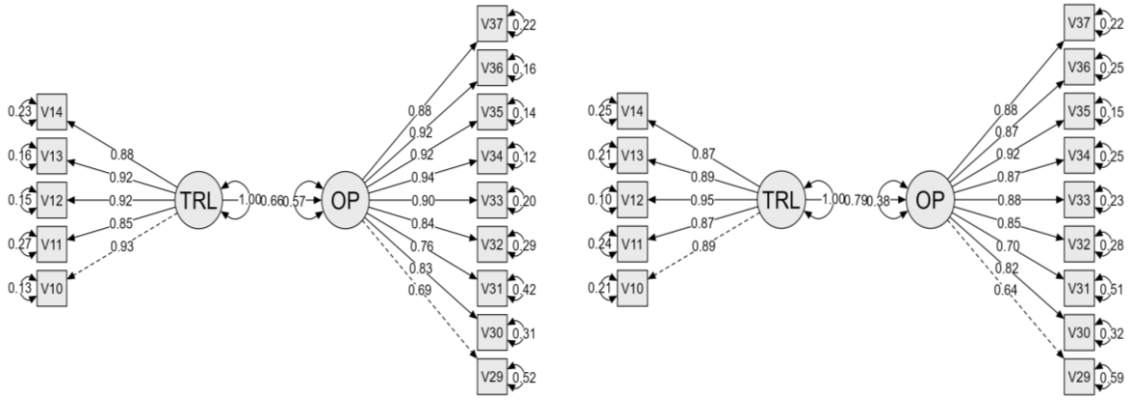
A comparison between the model with the structural path freely estimated across groups and the model in which the same path was constrained to equality revealed a statistically significant difference, $\Delta\chi^2(1) = 6.10$, $p = 0.014$. This confirms that the strength of the relationship

between transformational leadership and organizational commitment differs depending on length of service. Therefore, hypothesis H2 was supported.

Table 2. Hypothesis testing results

Hypothesis	Relationship	Result	Conclusion
H1	Transformational leadership → Organizational commitment	$\beta = 0.686$, SE = 0.048, z = 14.32, $p < 0.001$, $R^2 = 0.471$	Supported
H2	Moderating effect of length of service	≤ 20 years: $\beta = 0.835$, $p < 0.001$, $R^2 = 0.697$ ≥ 21 years: $\beta = 0.562$, $p < 0.001$, $R^2 = 0.316$; $\Delta\chi^2(1) = 6.10$, $p = 0.014$	Supported

Source: Authors' calculation based on the research results



(a) 21 years of service or more (b) Up to 20 years of service

Figure 2. Effect of Transformational Leadership on Organizational Commitment by Length of Service

Note. TRL = Transformational Leadership; OP = Organizational Commitment. Standardized coefficients are presented. All factor loadings and the structural path are statistically significant at $p < 0.001$.

Source: Authors' illustration based on the research results

5. Discussion

The results confirmed a positive and statistically significant effect of transformational leadership on organizational commitment among healthcare workers, providing support for hypothesis H1. The estimated coefficient ($\beta = 0.686$) indicates a relatively strong relationship between these constructs, while the R^2 value of 0.471 shows that transformational leadership accounted for 47.1% of the variance in organizational commitment. These results suggest that leadership behaviors reflected in concern for others, integrity, decisiveness, support for employee development, and effective communication may strengthen employees' attachment to their healthcare institution.

These findings are in line with previous research conducted in healthcare settings. Al-Yami et al. (2018) reported that transformational leadership contributed significantly to nurses' organizational commitment in Saudi Arabia, while Iqbal et al. (2019), studying hospital nurses in Pakistan, also found a direct positive relationship between transformational leadership and organizational commitment. Similar evidence was provided earlier by Avolio et al. (2004) in a large public hospital in Singapore, where transformational leadership was related to organizational commitment partly through psychological empowerment. Together, these

studies indicate that the way managers guide, support, and develop employees can contribute meaningfully to their relationship with the healthcare organization.

Evidence for this relationship is not confined to healthcare organizations. Wang et al. (2022), in a study of 845 employees in the hotel industry in China, found a positive effect of transformational leadership on affective organizational commitment. Positive associations have also been reported among employees in the Chinese performing arts industry. Kement et al. (2024) identified a positive relationship between transformational leadership and organizational commitment among restaurant employees, while Turgut and Aykan (2024) confirmed its relevance among employees in the Turkish defense industry. The present findings therefore correspond with a broader body of evidence from both service and manufacturing contexts.

Previous research, however, indicates that the effects of transformational leadership may differ across organizational contexts. Mesu et al. (2015), examining employees in Dutch small and medium-sized enterprises, found a positive relationship between transformational leadership and organizational commitment in service-sector firms but not in manufacturing firms. Kim and Shin (2019), studying employees in foreign companies operating in South Korea, showed that the effect of transformational leadership on organizational commitment operated through psychological empowerment and varied according to characteristics of the organizational structure. These results point to the importance of considering not only the direct effect of leadership, but also the conditions under which that effect may become stronger or weaker.

In this context, the finding related to H2 is particularly relevant. The effect of transformational leadership on organizational commitment was substantially stronger among healthcare workers with up to 20 years of service ($\beta = 0.835$) than among those with 21 years of service or more ($\beta = 0.562$). The statistically significant difference between the structural models shows that employees' length of service represents an important boundary condition in the relationship between transformational leadership and organizational commitment.

Although relatively few studies have directly examined employees' length of service as a moderator between transformational leadership and organizational commitment, some previous findings point in the same direction. Across two field studies, Traina et al. (2017) found that characteristics of the employee–supervisor relationship associated with work experience and organizational tenure influenced the capacity of transformational leaders to foster affective organizational commitment. When status incongruence between employees and supervisors was greater, the positive association between transformational leadership and commitment was weaker.

Additional evidence concerning the role of employees' length of service comes from Lajoie et al. (2017). In a sample of 1,934 employees from a large public organization, the effects of transformational leadership differed according to organizational tenure. Their findings suggest that employees with shorter service may depend more strongly on leader behavior, whereas more experienced employees may rely to a greater extent on existing organizational resources, accumulated experience, and established behavioral patterns. Although Lajoie et al. examined empowered behavior rather than organizational commitment as the outcome, this pattern is broadly consistent with the findings of the present study.

A more recent study by Jentjens et al. (2025) provides further relevant evidence. Among employees in a German public-sector organization, they found that employees' length of service altered the effectiveness of transformational leadership and that its effect on employee engagement was stronger among employees with shorter service. This similarity with the present results suggests that the relative importance of managers for employees' attitudes toward their work and organization may change as their professional experience accumulates.

Within healthcare sector, Baek et al. (2019) provide an important comparative finding. Although their study focused on authentic rather than transformational leadership, they found that nurses' length of service moderated the relationship between leadership and organizational commitment, with the positive effect of leadership becoming weaker as length of service increased. Because a different leadership construct was examined, this result cannot be treated as direct confirmation of H2, but it nevertheless suggests that employees' length of professional experience may influence how healthcare workers respond to leadership behavior.

The findings of the present study may be interpreted by considering that employees with shorter length of service are still more actively forming their relationship with the organization and may rely more strongly on managerial behavior as a source of support, guidance, and information about the organizational environment. As length of service increases, employees accumulate professional experience, develop more stable work routines and relationships with colleagues, and may form more firmly established attitudes toward the institution. As a result, the relative contribution of the immediate manager's behavior may become less pronounced.

6. Conclusion

This study examined the effect of transformational leadership on organizational commitment among healthcare workers in Serbia and the moderating role of employees' length of service in this relationship. The results confirmed a positive and statistically significant effect of transformational leadership on organizational commitment, supporting hypothesis H1. This indicates that healthcare workers who perceive stronger transformational leadership behaviors among their supervisors also report higher organizational commitment to their healthcare institution.

The findings also confirmed that employees' length of service moderates this relationship. The effect of transformational leadership on organizational commitment was stronger among healthcare workers with up to 20 years of service than among those with 21 years of service or more, thereby supporting hypothesis H2. This suggests that the importance of transformational leadership for organizational commitment varies across employees and depends partly on the length of their professional experience.

Overall, the findings confirm the important role of managers in shaping healthcare workers' relationship with their institution, while also showing that the effects of leadership should be considered in light of employees' professional characteristics.

6.1. Theoretical Implications

he present findings add to existing knowledge on the role of transformational leadership in organizational commitment among healthcare employees. Previous research has already identified transformational leadership as an important predictor of nurses' organizational commitment. Al-Yami et al. (2018), studying nurses and managers from two hospitals in Saudi Arabia, found that transformational leadership contributed significantly to organizational commitment even after relevant employee characteristics were taken into account. Iqbal et al. (2019) likewise reported a positive relationship between transformational leadership and organizational commitment among hospital nurses, while Avolio et al. (2004) showed that psychological empowerment also plays a role in this relationship.

The first contribution of the present study lies in confirming this relationship within the Serbian healthcare sector, which has been considerably less represented in previous research. In addition, the study is not limited exclusively to nurses, as is often the case in the existing literature, but includes a broader population of healthcare workers. In this way, the existing

empirical evidence is extended to a different institutional and national context and to a more heterogeneous group of employees within the healthcare sector.

A more important theoretical contribution concerns the moderating role of length of service. Previous studies suggest that the effects of transformational leadership may depend on employee characteristics and their position within the organization. Triana et al. (2017) found that status incongruence between employees and supervisors, including differences in work experience and organizational tenure, alters the relationship between transformational leadership and affective organizational commitment. Lajoie et al. (2017) likewise showed that the effects of transformational leadership differ according to employees' tenure, with certain organizational resources among longer-tenured employees partly substituting for the influence of the leader.

However, these studies do not directly examine the same relationship as the present study within the healthcare sector. Therefore, the finding that the effect of transformational leadership on organizational commitment is significantly stronger among healthcare workers with up to 20 years of service than among those with 21 years of service or more represents an important contribution to the existing literature. The results indicate that length of service should not be viewed merely as a control or sociodemographic characteristic, but also as a boundary condition of the effects of transformational leadership.

Taken together, these findings contribute to a more precise understanding of the relationship between leadership and organizational commitment in healthcare. Transformational leadership remains an important factor in organizational commitment, but the strength of its effect appears to vary across healthcare workers' professional careers. Existing models may therefore be improved by incorporating employees' length of service and other professional characteristics as moderating variables.

6.2. Practical Implications

The findings have direct implications for employee management in healthcare institutions. The positive effect of transformational leadership suggests that managers in hospitals, primary healthcare centers, and private healthcare institutions should develop leadership behaviors characterized by open communication, integrity, concern for employees, decisiveness, and active support for the development of employees' professional potential. Such leadership practices may contribute to stronger identification with the healthcare institution, greater willingness to invest additional effort, and a stronger desire to remain connected to the organization.

Particular attention should be paid to healthcare workers with shorter length of service, among whom the effect of transformational leadership on organizational commitment was stronger. Managers may play an especially important role during the period in which employees are developing professionally and forming a more stable relationship with the healthcare institution. For this reason, onboarding, mentoring, professional development, and employee support programs should involve the active participation of immediate supervisors.

Among healthcare workers with longer length of service, transformational leadership still has a significant positive effect, although its influence is weaker. This suggests that organizational commitment in this group may also depend on other organizational factors. Healthcare institutions should therefore, in addition to leadership quality, pay attention to opportunities for professional advancement, recognition of accumulated experience, involvement of experienced employees in decision-making, mentoring roles, and appropriate recognition of their contribution.

The findings also point to the need to strengthen the leadership competencies of head nurses, department heads, service managers, and other employees in managerial positions.

Training in communication, employee development, relationship management, and employee support may represent an important tool for strengthening organizational commitment among healthcare workers.

6.3. Limitations and Directions for Future Research

Several limitations should be considered when interpreting the findings of this study. First, the research was based on a convenience sample, with participants recruited among attendees of the Healthcare Workers' Congress. Consequently, the sample cannot be regarded as representative of all healthcare workers in Serbia, and the results should be generalized to the broader healthcare workforce with caution.

Second, the study was based on self-reported data, and both transformational leadership and organizational commitment were assessed within the same questionnaire, which may have increased the risk of common method bias. In addition, the cross-sectional design captured responses at only one point in time, limiting the possibility of drawing firm conclusions about causal relationships.

In the moderation analysis, employees' length of service was divided into two groups. Although this approach enabled a clear comparison between healthcare workers with shorter and longer service, some information from the original continuous variable was inevitably lost. Future studies could therefore examine employees' length of service as a continuous moderator or use a larger number of categories to obtain a more detailed picture of how the role of transformational leadership changes across different stages of employees' professional careers.

Future research should also include larger and more representative samples of healthcare workers from different regions of Serbia and examine employees in hospitals, primary healthcare centers, and private healthcare institutions separately. It would also be useful to determine whether the relationship between transformational leadership and organizational commitment differs among physicians, nurses and medical technicians, and healthcare professionals in managerial positions.

Another important direction for future research is to examine additional variables that may help explain how transformational leadership influences organizational commitment among healthcare workers, including job satisfaction, psychological empowerment, trust in managers, organizational support, burnout, and turnover intention. Longitudinal studies would be particularly valuable for examining changes in organizational commitment over time and for providing a clearer understanding of the longer-term effects of leadership in healthcare institutions.

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