Ways to Promote Employee Work Engagement in Healthcare Organizations: Servant Leadership and Organizational Justice

♦ ♦ ♦

Sağlık Kuruluşlarında İşe Adanmışlığı Teşvik Etme Yolları: Hizmetkâr Liderlik ve Örgütsel Adalet

Nida PALABIYIK*
İbrahim YIKILMAZ**
Lütfi SÜRÜCÜ***

Abstract

This study aims to explore the intermediary function of organizational justice in the correlation between healthcare practitioners' perceived perception of servant leadership and work engagement. A total of 412 health professionals from three state hospitals in Kocaeli province participated in this research. A survey was administered to the participants selected through the convenience sampling approach. The data from the administered questionnaires were analyzed using the SPSS Process Macro based on the bootstrap technique. The results provide empirical validation for the hypothesis that perceiving servant leadership positively impacts the level of work engagement. Moreover, the research has shown that perceptions of organizational justice influence this positive effect. Additionally, it has been found that perceiving servant leadership has a favorable influence on organizational justice, which, in turn, positively impacts the level of work engagement. Based on these findings, managers may adopt servant leadership behaviors to promote work engagement and enhance perceptions of organizational justice.

***Keywords:** Leadership, servant leadership, engagement, work engagement, organizational justice.*

Öz

Bu çalışma, sağlık çalışanlarının algılanan hizmetkâr liderlik algısı ile işe adanmaları arasındaki ilişkide örgütsel adaletin aracılık fonksiyonunu araştırmayı amaçlamaktadır. Araştırmaya Kocaeli ilindeki üç devlet hastanesinden toplam 412 sağlık çalışanı katılmıştır. Kolayda örnekleme yöntemiyle seçilen katılımcılara anket uygulanmıştır. Uygulanan anketlerden elde edilen veriler, bootstrap tekniğine dayalı SPSS Süreç Makrosu kullanılarak analiz edilmiştir. Sonuçlar, hizmetkâr liderliğe yönelik algının işe adanmışlık düzeyini olumlu yönde etkilediği hipotezinin ampirik olarak doğrulanmasını sunmaktadır. Ayrıca araştırma, örgütsel adalet algısının bu olumlu etkiyi etkilediğini ortaya koymuştur. Ayrıca hizmetkâr liderliğin örgütsel adaleti olumlu yönde etkilediği, bunun da işe adanmışlık düzeyini olumlu yönde etkilediği tespit edilmiştir. Bu bulgulara dayanarak yöneticiler, işe adanmışlığı teşvik etmek ve örgütsel adalet algısını geliştirmek için hizmetkâr liderlik davranışlarını benimseyebilir.

***Anahtar Kelimeler:** Liderlik, hizmetkâr liderlik, adanma, işe adanmışlık, örgütsel adalet.*

*ORCID Assist. Prof. Dr., Yozgat Bozok University, Vocational School of Health Services, Department of Management and Organization, nida.palabiyik@bozok.edu.tr

**ORCID Dr., Kocaeli University, Business Management, Department of Business, ibrahim.yikilmaz@kocaeli.edu.tr

***ORCID Assoc. Prof. Dr., World Peace University, Department of Business Administration, Nicosia, lutfi.surucu@wpu.edu.tr

1. Introduction

Proactive employee behaviors are closely tied to the social context in which they operate (Spreitzer et al., 2005: 542). Proactive work behaviors are defined as taking initiative and creating new opportunities to improve the current situation by challenging the status quo (Crant and Bateman, 2000: 65). Leaders play a crucial role in guiding and encouraging such behaviors. Research has shown that leaders who prioritize the needs of their subordinates and support their development are more effective in this process (Maglione and Neville, 2021: 4437). While many types of leadership are discussed in the literature, servant leadership (SL) stands out for promoting proactive behaviors. Servant leaders prioritize serving their followers (subordinates) and supporting their initiatives and development. According to Zada et al. (2022: 1), it is considered a moral responsibility for servant leaders to take special care of each follower's needs. Possessing these servant leader qualities is crucial in encouraging employees to fulfill their job responsibilities within organizational processes. Employees who view their work as part of an important task are more committed and can contribute to achieving organizational goals. In this sense, work engagement (WE) can increase due to SL practices. WE is "a positive and pleasing mood that includes the perspectives of the employees towards their jobs" (Palabıyık, 2022: 39). Servant leaders can positively affect employees' perceptions of managerial practices as they have strong empathy. A leader can set an example and create a perception of fair management by exhibiting desired behavior patterns at both the personal and managerial levels. Intra-organizational communication, the nature of organizational rules, and the way these rules are applied all affect employees' perceptions of justice (Barling and Philips, 1993: 651). Servant leaders, in particular, can shape these perceptions by leading with such practices. Furthermore, organizational justice (OJ) perception, which expresses a person's perception of justice towards intra-organizational practices, affects employees' organizational behavior (Beugre and Baron, 2001: 326). Observing whether the management treats everyone equally and fairly, employees internally evaluate the organization and adjust their behavior accordingly (Yücel and Palabıyık, 2016: 212). A strong sense of justice can enhance employees' WE. In this regard, SL can influence employees' perception of OJ and foster their WE.

WE is crucial for obtaining quality outputs in enterprises and institutions providing health services. This is because the impact of activities in health institutions is not limited to the organizational level but extends to the social level. In this regard, considering the conditions of the 21st century, several important reasons have been put forward to emphasize the necessity of having fully engaged employees in health services (Szilvassy and Sirok, 2022: 1-2). Firstly, the need for health services is rising due to the growing elderly population in many countries. The prevalence of chronic diseases, particularly those resulting from technological and social factors, significantly contributes to the increased demand for health services. Secondly, the health sector is experiencing a workforce shortage in response to the growing demand. For instance, Slovenia currently faces a scarcity of nurses and specialist physicians due to a lack of fully engaged employees (Szilvassy and Sirok, 2022: 2). Healthcare systems face various challenges due to deficiencies, including an increasing average age of employees and work restrictions. These challenges impact employee retention, burnout prevention, and service quality improvement. Human resources are considered the cornerstone for overcoming these difficulties in healthcare systems. However, a study conducted in Turkey revealed that healthcare workers primarily intend to leave their jobs due to factors such as job insecurity, workload, and stress (Aksu, 2021: 747). In this context, work engagement plays a crucial role in addressing these challenges, as it encompasses mental and emotional aspects such as work-related energy, commitment, and dedication. To foster employee integration with their work, it is essential to identify ways to promote work engagement. This study explores servant leadership as one of the factors that can enhance work engagement in the healthcare sector. Given the nature of the healthcare field, many individuals enter this profession intending to help others, including society as a whole, altruistically. From this perspective, servant leaders can create a positive work environment for healthcare institutions, increasing employee and patient satisfaction. Furthermore, servant leaders are essential in mitigating the negative impacts of the COVID-19 pandemic on the healthcare sector.

In this period, known as the "Great Resignation Era," many healthcare professionals have resigned or migrated, creating a significant need for managerial talent to recruit and retain quality healthcare personnel (Felix, 2023: 2). It was hypothesized that healthcare professionals' perceptions of servant leadership in their managers may be related to work engagement. Furthermore, servant leaders, known for their strong moral values, are expected to influence perceptions of justice within the organization positively. The complex organizational structure of healthcare institutions can also hinder the impact of managerial activities. The presence of different professionals (doctors, nurses, technicians, civil servants, etc.) and employees with varying employment statuses (permanent employees, contractors, interns, etc.) within the institution highlights the challenges of management (Magnavita et al., 2022: 2). In this regard, it is anticipated that servant leaders with a solid moral compass will facilitate fair knowledge and resource transfer across different areas of expertise.

Based on these considerations, the current study conducted in the health sector aims to investigate the effects of perceptions of servant leadership behaviors, prioritizing employee development, on work engagement (WE) and the mediating role of organizational justice (OJ) in this process. The study first provides conceptual information and outlines the research hypotheses in this context. The analysis process of the research data and findings is then emphasized. Finally, the study concludes by making suggestions based on the results obtained. The study is expected to contribute to the field by providing recommendations for improving the administrative efficiency of healthcare enterprises. Additionally, it will add to the literature by examining the inter-conceptual relations in detail.

2. Conceptual Framework

This part of the research includes conceptual explanations and relationships between concepts in line with hypotheses.

2.1. Servant Leadership and Work Engagement

The concept of servant leadership (SL) is elucidated through uncovering and nurturing followers' favorable attributes (Greenleaf, 1977). Leaders of this kind prioritize their followers' positive development to enhance their potential rather than merely issuing directives. This, in turn, helps achieve organizational goals by encouraging followers to increase their job performance and take responsibility (Van Dierendonck et al., 2014: 3). In contrast to other leadership styles that prioritize follower development, servant leadership places a greater emphasis on acting with conscience rather than relying on the use of force (Sipe and Frick, 2015). The emphasis placed on moral authority constitutes a distinctive attribute inherently intertwined with servant leadership's foundational qualities. Servant leaders prioritize serving others over leading them. As such, they stand out for their active listening skills. In communication processes, they focus on the other person to truly understand the subject and actively provide feedback (Stahel et al., 2022: 1).

Upon delving into the body of literature concerning SL, it becomes apparent that this leadership approach not only fosters favorable behaviors such as heightened work engagement (WE) and strengthened organizational commitment, but it also proficiently mitigates adverse scenarios like burnout (Van Dierendonck and Nuijten, 2011; Bobbio et al., 2012; Hakanen and Van Dierendonck, 2013). Thus, SL focuses on developing followers and understanding the factors that impact their attitudes and behaviors. In the hierarchical structure of the business world, employees often aim to fulfill job requirements to maintain job security. However, in teams led by servant leaders, individuals take ownership of their responsibilities to contribute to the organization and recognize the significance of their work (Stahel et al., 2022: 72). Servant leaders encourage employees to commit to their work not only on a psychological level but also by directing all individual resources to work. The current literature shows that SL behaviors have a favorable influence on WE. Zhou et al. (2022)

conducted a study on a university's academic and administrative staff. They concluded that perceptions of SL contribute to increased WE. The study also found that engaged employees have a stronger sense of trust. Similarly, Aboramadan et al. (2022) conducted a study on non-profit organizations, which revealed that SL, through WE, encourages employees to engage in extra-role behaviors. Servant leaders ensure occasions for employees to develop their intellectual capacities and abilities. When employees feel supported and encouraged, they are more productive in their work. Considering personal needs can lead to increased dedication among employees (Yan et al., 2020: 639).

WE is the state of mind in which employees are cognitively, emotionally, and physically connected to their jobs, as defined by Schaufeli et al. (2002: 74). Highly engaged individuals are energetic, enthusiastic, and focused on their work. Research in the field highlight leadership as an essential factor influencing WE (Aboramadan, 2020: 10; De Clercq et al., 2014: 183). Specifically, servant leaders effectively create a trusting work environment where employees feel comfortable expressing their ideas and concerns (Aboramadan et al., 2022: 113). Creating a work environment that fosters psychological safety can help promote employee engagement. Additionally, servant leaders who prioritize the needs and abilities of their employees can serve as a valuable source of motivation. Page and Wong (2000) noted that leaders who demonstrate concern for personal needs are more likely to inspire high levels of WE among their employees. Similarly, other studies in the literature have found that SL positively impacts WE in academic and information technology settings (Aboraman et al., 2022: 114).

The literature supports the notion that SL positively impacts WE, as explained by various theories. Social Learning Theory, for example, posits that employees view their leaders as role models and learn through observation and imitation. Therefore, leaders who exemplify SL qualities can encourage employees to adopt positive attitudes and behaviors towards work and the organization (Liden et al., 2014: 1434). On the other hand, Social Identity Theory argues that social categories in a society acquire a social identity based on the positive or negative emotions experienced by their members. In groups under the stewardship of servant leaders, a milieu characterized by a prevailing atmosphere of positive emotions becomes manifest. Therefore, employees feel valued and tend to be engaged in their work (Carasco-Saul et al., 2015: 14).

The present study aims to explore the influence of healthcare professionals' perspectives regarding SL on their well-being. Based on the characteristics of SL, it is believed that this approach can positively impact well-being by prioritizing employee welfare and development. Therefore, the research establishes the following hypothesis:

H_1: The perception of healthcare professionals regarding their managers' SL positively and significantly impacts their WE.

2.2. Servant Leadership and Organizational Justice

Servant leaders demonstrate a preference for prioritizing the needs of their staff, which is reflected in their behavior. "Honesty and a high moral attitude" are two essential characteristics of servant leaders. Being fair to employees, offering career opportunities, and establishing relationships based on trust are all behavioral patterns integrated with SL (Buchen, 1998: 126). In the literature, SL is often discussed with concepts such as trust, justice, and loyalty (Van Dierendonck, 2011). Servant leaders who exemplify these behaviors can positively influence employees' perceptions of OJ.

The concept of justice is based on the perception of an action reflecting the truth and honesty of the individual who performed it. OJ becomes relevant when this perception is applied within organizational boundaries and transformed into expectations related to individual roles, such as managerial roles. Employees evaluate whether they are treated fairly in the context of corporate activities, whether their duties and responsibilities are assessed fairly, and whether rewards are

commensurate with their efforts. These evaluations form judgments about justice (Yücel and Palabıyık, 2016: 215). To establish a sense of justice among employees, organizations should operate within the principles of openness, honesty, and trust. Leaders who prioritize these behaviors can enhance employees' perception of justice in the organization. This is because leaders have the power to guide employees according to appropriate standards and expectations (Trevino et al., 2003: 18). Considering this viewpoint, it can be argued that SL, which strictly adheres to moral values and devotes all its efforts to serving its employees, plays a crucial role in employees' perceptions of OJ.

According to the explanations provided, it is believed that healthcare professionals' perceptions of SL in their managers will positively impact their perceptions of OJ. Current literature studies also support this notion. For instance, a study involving teachers in Indonesia revealed a correlation between SL and the concept of OJ (Hermanto and Srimulyani, 2022). Similarly, a study undertaken within the context of multinational enterprises in Kenya revealed a favorable association between SL and procedural justice, a dimension of OJ (Walumbwa et al., 2010). A study by Armağan and Erzen (2015) showed that SL has a positive impact on OJ. Based on the findings, the perception of OJ can be evaluated because of SL behaviors (Riza et al., 2019; Ateş, 2015; Chung et al., 2010). Taking into account the existing literature, the second hypothesis of the research is stated as follows:

H₂: Healthcare professionals' perceptions of their managers as servant leaders have a positive and significant impact on their perceptions of OJ.

2.3. Organizational Justice and Work Engagement

The concept of organizational justice (OJ) pertains to how employees perceive organizational activities and their outcomes (Greenberg and Baron, 2003: 16). Therefore, it plays a crucial role in increasing motivation in the workplace. Moreover, employees' perception of OJ influences their behaviors within the organization. They assess whether their managers/leaders treat everyone fairly and equally, and their behavior is shaped by this assessment (Yücel and Palabıyık, 2016: 212). When employees perceive injustice, their motivation declines, and they develop negative attitudes toward their work (Hermanto and Srimulyani, 2022: 404). On the other hand, in organizations where justice prevails, employees are more likely to be actively engaged in their work.

There are several definitions of WE in the literature based on various approaches. Shuck et al. (2011: 302-303) categorized the definitions of WE into four groups based on the approaches used: (1) the needs-meeting approach, (2) the antithesis approach to burnout, (3) the satisfaction-engagement approach, and (4) the multidimensional approach. Within the framework of these categories, WE can be defined as "the sum of cognitive, emotional, and behavioral efforts related to individual role performance" (Saks, 2006: 602). WE comprises two components: perseverance, which refers to having high energy in one's work life and feeling proud of one's job, and adoption, which means being willing and happy while performing one's job (Schaufeli and Bakker, 2004: 297). In this regard, employees fully engage with their work cognitively, emotionally, and behaviorally. In today's global business environment, having employees with these qualities is crucial. The way to foster employee engagement in their work is to promote individual-organization interaction. In this context, Saks (2006: 600) stated that perceptions of OJ enable employees to commit to their work. A comprehensive analysis of the determinants influencing WE becomes imperative to establish a fruitful interplay between individuals and organizations. OJ stands out as a pivotal factor wielding considerable influence over the dispositions and actions of personnel within work settings (Colquitt, 2001: 388). Employees who perceive fair treatment regarding organizational rights, responsibilities, procedures, and social relations are likelier to engage with their organizations and jobs (Mubashar et al., 2022: 15).

A body of research showcases OJ's substantial influence on WE. For instance, Amin Ali Badawy et al. (2022) investigated the nursing profession and identified a constructive correlation between OJ and WE. Likewise, Erdirençelebi and Karataş (2019) concluded that bank employees'

perception of OJ increased their WE and decreased their intention to leave. The literature includes studies with different samples supporting these results (Özer et al., 2017; Javed and Tariq, 2015; Rasheed et al., 2013).

Based on the explanations above, it is believed that the WE level among health professionals with a high perception of OJ will increase. Therefore, the third hypothesis of the study is as follows:

H3: Perceptions of OJ among healthcare professionals have a positive and significant impact on their WE.

2.4. Organizational Justice as a Mediator Between Servant Leadership and Work Engagement

OJ refers to how employees perceive the fairness of decision-making processes and the distribution of organizational outcomes (Greenberg and Baron, 2003: 19). SL behaviors can shape employees' perceptions of OJ. Therefore, ensuring fairness in organizational activities will encourage employees' WE.

Hermanto and Srimulyani (2022) found no significant relationship between high school teachers' perceptions of SL and their WE in Indonesia. However, their investigation revealed a positive correlation between SL and OJ, further demonstrating that OJ acts as a mediator in the relationship between SL and WE. Although Hermanto and Srimulyani's (2022) study shares similar aims with this study, it differs due to cultural and sectoral differences. Another scholarly investigation revealed a constructive correlation between SL and WE, further establishing that the intermediary role of leader-member exchange elucidates this association (Bao et al., 2018). The literature review reveals that the relationship between SL and WE have been studied by mediating different variables. However, there is insufficient research on the mediating role of OJ in the effect of SL on WE. This study examines the impact of SL perceptions among health professionals in Turkey on their WE and the mediating role of OJ perceptions. An engaged health professional contributes to organizational processes and indirectly creates positive effects at the social level through interaction with patients. This idea forms the basis of the original study. The fourth hypothesis that shaped the research model is as follows:

H4: OJ plays a mediating role in the impact of perceptions of SL on WE.

Based on the theoretical background explained in the previous section, the research model in Figure 1 was formed.
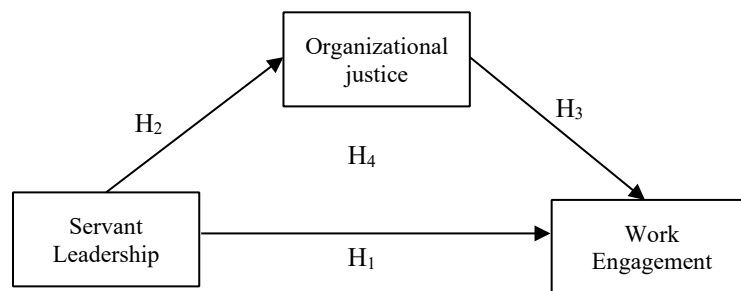

Figure 1. Research Model

3. Methodology

The principal aim of this study was to investigate the mediating role of OJ in the relationship between healthcare professionals' SL perceptions and their levels of WE. This section encompasses details concerning the sample cohort's composition, the research's procedural framework, and the measurement scales used throughout the study.

3.1. Sampling and Research Process

Within the scope of this research, a quantitative research methodology was used to assess the research hypotheses empirically. The study was conducted on health professionals in Kocaeli province. Due to time and budget limitations, the convenience sampling technique, which is a widely preferred sampling method, was used in the research. Convenience sampling is the preferred method as it is fast, economical, and easily accessible. It is stated that at the 95% confidence interval and 5% margin of error, a sample size of 384 can represent a population of 100.000 or more (Yazıcıoğlu and Erdoğan, 2004: 47).

For the research, a questionnaire was administered to employees of three state hospitals in Kocaeli. The surveys were conducted on-site, resulting in 420 survey responses. Nevertheless, eight questionnaires were excluded from the analysis due to considerable missing data. Therefore, the research was concluded with 412 survey responses.

Out of the total participants, 263 were female and 149 were male. 281 participants were married, while 131 were single. Regarding the working period, 80 participants worked for five years or less, 128 worked for 6-10 years, and 204 worked for 11 years or more. Regarding age, 142 participants were 30 years old or under, 197 were 31-45 years old, and 73 were 46 or older.

3.2. Measurement Tools

The research includes three different variables: SL, WE, and OJ. Each variable was measured using separate scales. Information on these scales is provided below.

Servant Leadership Scale: The participants' perceptions of SL exhibited towards their managers were assessed using the servant leadership scale developed by Liden et al. (2013). Kılıç and Aydın (2016) carried out an assessment of validity and reliability for the Turkish adaptation of the seven-item scale, wherein the statements were evaluated on a scale ranging from 1 to 5 (1- Strongly Disagree, 2- Disagree, 3- Undecided, 4- Agree, 5- Totally Agree). Some of the expressions on the scale include "I feel energetic at my job," "I am enthusiastic and passionate about my job," and "My manager can tell if something is wrong."

Work Engagement Scale: WE in participants was measured using the Ultra-Short Measure for Work Engagement (UWES-3) scale developed by Schaufeli et al. (2017). Güler et al. (2019) investigated the validity and reliability of the Turkish adaptation of the scale. The scale consists of three statements graded from 1 to 6 (1- Never, 2- Rarely, 3- Sometimes, 4- Frequently, 5- Very often, 6- Always). The statements are as follows: "I can ask my manager for help when I have a personal problem", "My manager emphasizes the importance of giving back (helping) to the community," and "I get immersed in my work."

Organizational Justice Scale: The participants' assessments of OJ were examined utilizing the organizational justice scale developed by Colquitt (2001). Özmen et al. (2007) examined the validity and reliability of the Turkish adaptation of the scale. The scale consists of 20 statements, each graded from 1 to 5 (1- Very little, 2- A little, 3- Partly, 4- Enough, and 5- Greatly). Sample statements from the scale include: "Can you express your ideas and feelings during these processes?" and "Do you have any influence on the gains achieved during these processes?".

4. Analyzes and Research Findings

4.1. Validity and Reliability Analysis

In order to the internal consistency of the scale, the Cronbach's Alpha coefficient was computed, and its reliability was evaluated with the Composite Reliability (CR) value. The validity of the scales was

assessed by calculating the scale's convergent and divergent validity values. Table 1 presents the obtained results.

Table 1. Validity and Reliability Results

Variables	Factor Loadings	Cronbach's Alpha	CR	AVE
Servant Leadership	0.601 – 0.821	0.862	0.881	0.516
Organizational Justice	0.504 – 0.835	0.898	0.906	0.506
Work Engagement	0.702 – 0.829	0.787	0.792	0.562

To ensure that the scales are consistent and reliable, both Cronbach's Alpha and CR values should be at or above 0.70 (Hair et al., 2009: 124; Sürücü and Maslakçı, 2020: 2703; Sürücü et al., 2023: 74). As shown in Table 1, the results exceeded 0.70, indicating that the research scales were both consistent and reliable.

According to Hair et al. (2009: 124), Sürücü and Maslakçı (2020: 2703), and Sürücü et al. (2023: 74), to establish convergent validity in scales, it is recommended that the Average Variance Extracted (AVE) value should be equal to or greater than 0.50, while the CR value should exceed the AVE value. In this study, the AVE values for the three scales are 0.516, 0.506, and 0.562, respectively. Moreover, the CR values are greater than the corresponding AVE values. These findings indicate that the scales meet the conditions for convergent validity. The square root value and correlation values of AVE are examined for discriminant validity. The square root values of the Average Variance Extracted (AVE) are substantial within the correlation coefficients among variables, indicating that the scales have discriminant validity (Fornell and Larcker, 1981; Sürücü and Maslakçı, 2020; Sürücü et al., 2023). Upon examining the results in Table 2, it can be seen that the scales meet the conditions for discriminant validity.

Finally, model fit indices were checked, and it was found that the research model had an acceptable fit (χ^2/df=4.01, CFI=0.96, GFI=0.95, NFI=0.92, RMSEA=0.04) (Hair et al., 2014: 201). Additionally, item factor loading values greater than 0.5 indicate that each item has a strong relationship with the dimension it represents (Hair et al., 2014: 115; Sürücü et al., 2022: 9).

4.2. Correlation Analysis

A correlation analysis was executed following the validation and reliability assessment of the scales. The results of this analysis are delineated in Table 2.

Table 2. Correlation Analysis Results

Variables	Mean	Sd.	1.	2.	3.
1.Servant Leadership	3.73	0.64	0.718[a]		
2.Organizational Justice	3.45	0.78	0.425[**]	0.711[a]	
3.Work Engagement	4.92	0.99	0.599[**]	0.623[**]	0.750[a]

[**]$p < 0.05$; a = $\sqrt{AVE}$

The correlation analysis reveals that SL exhibits a positive correlation with both OJ (r=0.425, [**]p<0.05) and WE (r=0.599, [**]p<0.05). Moreover, a positive and statistically significant correlation between OJ and WE is also evident (r=0.623, [**]p<0.05).

4.3. Analyses Related to Testing Hypotheses

The research hypotheses were tested using the Process Macro, based on the bootstrap technique developed by Hayes (2013). This method provides more reliable results than the causality approach method developed by Baron and Kenny (1986). It is frequently used in recent research on simple

mediator/moderator models (Sürücü et al., 2023). Hence, the Process Macro was used to scrutinize the research hypotheses. The results of the analysis, conducted through 5000 resamples and using a 95% confidence interval within Model 4, have been detailed in Table 3.

Table 3. Results of Hypothesis Testing

Regression Path	β	Se	%95 CI		Results
			LLCI	ULCI	
SL ---> WE	0.55	0.33	0.45	0.58	H_1: Supported
SL ---> OJ	0.47	0.38	0.27	0.42	H_2: Supported
OJ ---> WE	0.61	0.41	0.51	0.73	H_3: Supported
Total Effect	0.81	0.41	0.61	0.76	
Direct Effect	0.55	0.33	0.45	0.58	H_4: Supported
Indirect Effect	0.26	0.37	0.28	0.42	

*SL:Servant leadership, WE: Work engagement, OJ:Organizational justice, LLCI: Lower limit confidence interval, ULCI: Upper limit confidence interval

Results from analyses with the Process Macro tool indicate that SL has a significant positive impact on WE (β = 0.55, p<0.05, 95% CI [0.45; 0.58]) and OJ (β = 0.47, p<0.05, 95% CI [0.27; 0.42]). Additionally, the effect of OJ on WE is also positive (β = 0.61, p<0.05, 95% CI [0.51; 0.73]).

The study examined the indirect effect of OJ as a mediator in the relationship between SL and WE. According to Hayes (2015), the significance of the effect is determined by the confidence intervals rather than the p-value. The effect is considered significant if the confidence intervals do not include zero (0) (Hayes, 2015). In this study, the indirect effect remained significant even after controlling for other variables (β = 0.26, p<0.05, 95% CI [0.28; 0.42]). This finding confirms that OJ mediates the effect of SL on WE. The study supports the H1, H2, H3, and H4 hypotheses developed and tested in the research.

5. Conclusion and Recommendations

Organizational efforts in business aim to maintain the organization's momentum in the face of environmental changes. To achieve this, practices that encourage organizational development must be sustained. In other words, employees must be motivated to participate in their work to promote long-term growth actively. However, mere physical participation is not sufficient. Employees must engage in a productive, enjoyable, efficient, and proactive manner both physically and psychologically, utilizing their full potential. Certain vital factors are necessary to achieve WE, as the literature describes. Among these factors, the leadership styles of managers play a crucial role. This includes establishing healthy communication with employees and addressing their social needs. This study suggests that SL behaviors prioritizing employees as valuable assets will positively impact WE. Additionally, employees' perceptions of OJ are expected to mediate this effect.

This study examines the importance of employees' perceptions of OJ within the healthcare sector. It also explores how perceptions of SL impact their work engagement. The research results, supported by theoretical background, reveal that perceptions of SL directly and favorably influence WE, making a significant contribution to the field. Furthermore, perceptions of SL engender a positive impact on both OJ and WE. Moreover, OJ is found to mediate the indirect effect of SL perceptions on WE. Thus, this study demonstrates that perceptions of OJ can improve WE. These findings provide support for future research in this area.

This study adds to the research conducted by Hermanto and Srimulyani (2022) by providing support for cultural and sectoral differences. Research conducted with healthcare professionals in Kocaeli, Turkey, revealed that two factors, OJ and SL, can enhance WE. As the outcomes align with

those of analogous studies in the literature, they furnish more robust and compelling indicators to stakeholders and interested parties.

This study adds to the research conducted by Hermanto and Srimulyani (2022) by providing support for cultural and sectoral differences. Research conducted with healthcare professionals in Kocaeli, Turkey, revealed that two factors, OJ and SL, can enhance WE. As the outcomes align with those of analogous studies in the literature, they furnish more robust and compelling indicators to stakeholders and interested parties. The first significant finding from the study is that the leadership style displayed by healthcare managers has an impact on the work engagement of healthcare professionals. Specifically, the supportive, caring, and open communication approach known as SL creates a climate that enhances employees' work engagement and active involvement in achieving organizational objectives. Similar studies conducted in the education, tourism, and technology sectors have revealed that SL has a positive effect on WE (Zhou et al., 2022; Aseanty et al., 2022 İnce and Güripek, 2016; Clercq et al., 2014). In addition, the study results show that the positive climate created by SL increases employees' OJ levels and strengthens trust in the organization and perception of justice. This study result parallels the previous studies in the literature (Riza et al., 2019; Armağan and Erzen, 2015; Ateş, 2015; Chung et al., 2010; Walumbwa et al., 2010).

Another significant finding from the study is that health professionals who perceive a positive organizational justice (OJ) climate are more willing and committed to achieving organizational goals, increasing their work engagement (WE). Empirical evidence from a study involving 152 nurses and 414 healthcare employees supports a positive relationship between OJ and WE (Özer et al., 2017; Amin Ali Badawy et al., 2022). Furthermore, in other sectors, such as banking, it has been observed that organizational justice (OJ) leads to increased work engagement (WE) in jobs that are primarily service-oriented and involve close interaction with the service recipients (Erdirençelebi and Karataş, 2019). Hence, the findings of this study align with previous research in the field.

The study examined the relationship between SL (Servant Leadership), OJ (Organizational Justice), and WE (Work Engagement). It was found that OJ played a mediating role in the effect of SL on WE. This result indicates that the work engagement of healthcare workers is increased by the supportive, ethical, and favorable climate created by the Servant Leadership approach, as well as the organizational justice and trust environment they experience within their organizations. An actively engaged healthcare professional plays a significant role in the functioning of an organization and, through their interactions with patients, indirectly contributes to positive outcomes at the societal and organizational levels. This study's findings align with previous research across various sectors (Öner, 2008; Srimulyani, 2021; Dahleez and Aboramadan, 2022; Hermanto and Srimulyani, 2022). Moreover, it contributes to the literature by empirically examining the impact of OJ on the relationship between SL and WE, an area under-explored in the health sector.

This study on the health sector is significant because it emphasizes the importance of leadership roles for health managers and relevant business departments. To this end, leadership development programs can be implemented to encourage employees to bring their psychological, cognitive, and behavioral selves to work. These programs would benefit mainly by focusing on improving the working environment and participatory working conditions that include employees. Employees' feeling that they are involved in every stage of work processes and being involved in decision-making processes will have constructive effects on their feelings of trust and justice. Thus, employees will be more likely to engage in their jobs voluntarily and willingly. In this sense, leadership is critical in promoting extra-role behaviors such as WE. On the other hand, achieving organizational goals depends on the positive or negative behaviors that employees exhibit in their work. By creating a work environment based on justice, employees can be engaged in their work with energy and enthusiasm.

The results and recommendations above should be evaluated in light of the limitations of this study. The first limitation is that the study was conducted in only three hospitals in Kocaeli province.

In future studies, expanding it to a broader range of health sector examples (geographically and culturally diverse and covering the private sector) would be helpful. The second limitation of this study is that it only measures healthcare professionals' perceptions. To obtain more objective results, comparisons should be made by evaluating managers' perceptions. Additionally, it should be noted that many organizational variables can affect employees' WE. Future studies should include these variables to increase the literature on this topic.

References

Aboramadan, M. (2020). The effect of green HRM on employee green behaviors in higher education: The mediating mechanism of green work engagement. *International Journal of Organizational Analysis*, 30(1), 7-23. https://doi.org/10.1108/IJOA-05-2020-2190

Aboramadan, M., Hamid, Z., Kundi, Y. M., and El Hamalawi, E. (2022). The effect of servant leadership on employees' extra-role behaviors in NPOs: The role of work engagement. *Nonprofit Management and Leadership*, 33(1), 109-129. https://doi.org/10.1002/nml.21505

Aksu, B. Ç. (2021). Covid 19 pandemisinin sağlık çalışanlarının iş güvencesizliği algıları, algılanan iş stresleri ve işten ayrılma niyetleri üzerindeki etkilerini incelemeye yönelik bir araştırma. *Hacettepe Sağlık İdaresi Dergisi*, 24(4), 747-776. https://dergipark.org.tr/tr/download/article-file/1712772

Amin Ali Badawy, M., Mostafa Shazly, M., and Mohammed Elsayed, S. (2022). Relationship between organizational justice and work engagement among staff nurses. *Egyptian Journal of Health Care, 13*(1), 914-926. https://doi.org/10.21608/EJHC.2022.222515

Armağan, Y., and Erzen, E. (2015). Leadership and organizational outcomes meta-analysis of empirical studies. Engin Karadağ (Ed.), In *The effect of leadership on organizational justice* (p. 239-254). Springer International Publishing Switzerland. https://doi.org/10.1007/978-3-319-14908-0_15

Aseanty, D., Gunawan, A. W., and Julieta, G. M. (2022). Factors eaffecting intention to continue volunteering with job satisfaction as mediation. *Business and Entrepreneurial Review*, *22*(1), 1-18. http://dx.doi.org/10.25105/ber.v22i1.13412

Ateş, M. F. (2015). Hizmetkâr liderlik ve örgütsel adaletin örgütsel özdeşleşmeye etkisinde örgütsel güvenin aracılık rolü. *İşletme Araştırmaları Dergisi*, 7(3), 75-95. https://isarder.org/index.php/isarder/article/view/250/248

Bao, Y., Li, C., and Zhao, H. (2018). Servant leadership and engagement: A dual mediation model. *Journal of Managerial Psychology, 33*(6), 406-417. https://doi.org/10.1108/JMP-12-2017-0435

Barling, J. and Philips, M. (1993). Interactional, formal, and distributive justice in the workplace: An exploratory study. *The Journal of Psychology*, 127(6), 649-656. https://doi.org/10.1080/00223980.1993.9914904

Baron, R. M., and Kenny, D. A. (1986). The moderator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. https://doi.org/10.1037//0022-3514.51.6.1173

Beugre, C. D. and Baron, R. A. (2001). Perceptions of systemic justice: The effects of distributive, procedural and interactional justice. *Journal of Applied Social Psychology*, 32(2), 324-339. https://doi.org/10.1111/j.1559-1816.2001.tb00199.x

Bobbio, A., Van Dierendonck, D., and Manganelli, A.M. (2012). Servant leadership in Italy and its relation to organizational variables. *Leadership*, 8(3), 229-243. https://doi.org/10.1177/174271501244117

Buchen, I. H. (1998). Servant leadership: A model for future faculty and future institutions. *Journal of Leadership Studies, 5*(1), 125-134. https://doi.org/10.1177/107179199800500111

Carasco-Saul, M., Kim, W. and Kim, T. (2015). Leadership and employee engagement: Proposing research agendas through a review of literature. *Human Resource Development Review, 14*(1), 38–63. https://doi.org/10.1177/15344843145604

Chung, J. Y., Jung, C. S., Kyle, G. T., and Petrick, J. F. (2010). Servant leadership and procedural justice in the U.S.national park service: The antecedents of job satisfaction. *Journal of Park Recreation Administration, 28*(3), 1-15. https://doi.org/10.36941/ajis-2022-0061

Clercq, D. D., Bouckenooghe, D., Raja, U. and Matsyborska, G. (2014). Servant leadership and work engagement: The contingency effect of leader-follower social capital. *Human Resource Development Quarterly,* 25(2), 183-212. https://doi.org/10.1002/hrdq.21185

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure, *Journal of Applied Psychology*, *86*(3), 386-400. https://doi.org/10.1037/0021-9010.86.3.386

Crant, J. M., and Bateman, T. S. (2000). Charismatic leadership viewed from above: The impact of proactive personality. *Journal of Organizational Behavior*, 21, 63-75. https://doi.org/10.1002/(SICI)1099-1379(200002)21:1<63::AID-JOB8>3.0.CO;2-J

Dahleez, K., and Aboramadan, M. (2022). Servant leadership and job satisfaction in higher education: The mediating roles of organizational justice and organizational trust. *International Journal of Leadership in Education*, 1-22. https://doi.org/10.1080/13603124.2022.2052753

De Clercq, D., Bouckenooghe, D., Raja, U., and Matsyborska, G. (2014). Servant leadership and work engagement: The contingency effects of leader–follower social capital. *Human Resource Development Quarterly.*, 25, 183-212. https://doi.org/10.1002/hrdq.21185

Erdirençelebi, M., and Karataş, C. G. (2019). Örgütsel adaletin işe adanmışlık ile işten ayrılma niyeti üzerine etkisi, *BMIJ,* 7(4): 1825-1849. http://dx.doi.org/10.15295/bmij.v7i4.1225

Felix, J. (2023). Servant leadership in healthcare: A pilot study. *Journal of Business Studies Quarterly*, 2(4), 1-13. https://jbsq.org/wp-content/uploads/2023/06/June_2023_1.pdf

Fornell, C., and Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18, 382-388. http://dx.doi.org/10.2307/3150980

Greenberg, J., and Baron, R.A. (2003) *Behavior in organizations: Understanding and managing the human side of work* (18th Ed.). Prentice-Hall.

Greenleaf, R.K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness.* Paulist Press.

Güler, M., Çetin, F., and Basım, H. N. (2019). İşe tutulma ölçeği çok kısa versiyonu (UWES-3) geçerlilik ve güvenilirlik çalışması: Alternatif bir versiyon (UWES-6) önerisi. *İş ve İnsan Dergisi,* 6(2), 189-197. https://doi.org/10.18394/iid.516921

Hair, J. F., Sarstedt, M., Hopkins, L., and V. G. Kuppelwieser (2014). Partial least squares structural equation modeling (pls-sem): An emerging tool in business research. *European Business Review,* 26(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Hair, J., Black, W., Babin, B., and Anderson, R. (2009). *Multivariate data analysis (7th ed.): Prentice-Hall, Inc.* Prentice-Hall, Inc.

Hakanen, J.J. and Van Dierendonck, D. (2013). Servant leadership and life satisfaction: the mediating role of justice, job control, and burnout. *International Journal of Servant Leadership*, 7(1), 251-262. https://doi.org/10.33972/ijsl.183

Hayes, A. F. (2013). *Methodology in the social sciences introduction to mediation, moderation and conditional process analysis: A regression-based*. Guilford Press.

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research,* 50 (1), 1-22. https://doi.org/10.1080/00273171.2014.962683

Hermanto, Y. B., and Srimulyani, V. A. (2022). The relationship between servant leadership and work engagement: An organizational justice as a mediator. *Academic Journal of Interdisciplinary Studies,* 11(2), 403-413. https://doi.org/10.36941/ajis-2022-0061

İnce, C., and Güripek, G. (2016). Hizmetkâr liderliğin örgütsel adalet algısına etkileri üzerine otel işletmelerinde bir araştırma. *Kahramanmaraş Sütçü İmam Üniversitesi İktisadi ve İdari*

Bilimler   Fakültesi   Dergisi,   6(2),   165-188. http://iibfdergisi.ksu.edu.tr/tr/pub/issue/26892/282760

Javed, Z., and Tariq, S. (2015). Perceived organizationaljustice, perceived organizational support, andemployee engagement in Rescue 1122 employees. *Market Forces*, 10(1). https://kiet.edu.pk/marketforces/index.php/marketforces/article/view/11

Kılıç, K. C., and Aydın Y. (2016). Hizmetkâr liderlik ölçeğinin türkçe uyarlaması: Güvenirlik ve geçerlik çalışması, *KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi,* 18(30),106-113. http://dergi.kmu.edu.tr/userfiles/files/13m.pdf

Liden, R. C., Wayne, S. J., Meuser, J. D., Hu, J., Wu, J., and Liao, C. (2013). Servant leadership: Validation of a short form of the SL-28. *The Leadership Quarterly*, 26(2), 254-269. https://doi.org/10.1016/j.leaqua.2014.12.002

Liden, R.C., Wayne, S.J., Liao, C., and Meuser, J.D. (2014). Servant leadership and serving culture: Influence on individual and unit performance. *Acad. Manag. J.,* 57, 1434–1452. https://doi.org/10.5465/amj.2013.0034

Maglione, J. L., and Neville, K. (2021). Servant leadership and spirituality among undergraduate and graduate nursing students. *Journal of Religion and Health*, 60(6), 4435-4450. https://doi.org/10.1007/s10943-021-01311-9

Magnavita, N., Chiorri, C., Acquadro Maran, D., Garbarino, S., Di Prinzio, R.R., Gasbarri, M., Matera, C., Cerrina, A., Gabriele, M. and Labella, M. (2022). Organizational justice and health: A survey in hospital workers. *Int. J. Environ. Res. Public Health,* 19(9739), 1-10. https://doi.org/10.3390/ijerph19159739

Mubashar, T. Musharraf, S., Khan S., and Butt, T. A. (2022). Impact of organizational justice on employee engagement: The mediating role of organizational trust. *Cogent Psychology,* 9, 1-16. https://doi.org/10.1080/23311908.2022.2080325

Öner, Z. H. (2008). *The mediating effect of organizational justice: moderating roles of sense of coherence and job complexity on the relationship between servant leadership and work engagement* (Doctoral dissertation). Marmara University Social Science Institute, İstanbul.

Özer, Ö., Uğurluoğlu, Ö., and Saygili, M. (2017). Effect of organizational justice on work engagement in healthcare sector of Turkey. Journal of Health Management, 19(1), 73-83. https://doi.org/10.1177/0972063416682562

Özmen, O. N. T., Arbak, Y., and Süral Özer, P. (2007). Adalete verilen değerin adalet algıları üzerindeki etkisinin sorgulanmasına ilişkin bir araştırma. *Ege Akademik Bakış*, 7(1), 19-35. https://dergipark.org.tr/tr/download/article-file/556986

Page, D., and Wong, P. T. P. (2000). A conceptual framework for measuring servant leadership. In S. Adjibolooso (Ed.), *The human factor in shaping the course of history and development.* American University Press.

Palabıyık, N. (2022*). Örgütsel ses çıkarma davranışı ve öncülleri.* Kriter Yayınevi.

Rasheed, A., Khan, S., and Ramzan, M. (2013). Antecedentsand consequences of employee engagement: Thecase of Pakistan. *Journal of Business Studies Quarterly*, 4(4), 183-200.

Riza, D. A., Satria, I., and Zaitul, D. (2019). Pengaruh servant leadership terhadap komitmen pada Perubahan: Keadilan Organisasi sabagai Mediasi. *Prosiding Sinmag 3*, 2(2), 1-8.

Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21, 600-619. https://doi.org/10.1108/02683940610690169

Schaufeli, W. B., and Bakker, A. B. (2004). Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. *Journal of Organizational Behavior*, 25, 293-315. https://doi.org/10.1002/job.248

Schaufeli, W. B., Salanova, M., González-Romá, V. and Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies,* 3(1), 71-92. https://doi.org/10.1023/A:1015630930326

Schaufeli, W. B., Shimazu, A., Hakanen, J., Salanova, M., and De Witte, H. (2017). An ultra-short measure for work engagement: The uwes-3 validation across five countries. *European Journal of Psychological Assessment,* 35(4), 577-591. https://doi.org/10.1027/1015-5759/a000430

Shuck, M. B., Rocco, T. S., and Albornoz, C. A. (2011). Exploring employee engagement from the employee perspective: Implications for HRD. *Journal of European Industrial Training*, 35, 300-325. https://doi.org/10.1108/03090591111128306

Sipe, J.W and Frick, D.M. (2015). *Seven pillars of servant leadership.* Paulist Press.

Spreitzer, G., Sutcliffe, K., Dutton, J., Sonenshein, S. and Grant, A.M. (2005). A socially embedded model of thriving at work. *Organization Science,* 16(5), 537-549. https://doi.org/10.1287/orsc.1050.0153

Srimulyani, V. A. (2021). Increasing work engagement through servant leadership and organizational justice. Jurnal Manajemen Pendidikan: Jurnal Ilmiah Administrasi, Manajemen dan Kepemimpinan Pendidikan, 3(2), 97-114. https://doi.org/10.21831/jump.v3i2.40122

Stahel, N. F., Ahankoob, N. and Nguyen, C. (2022). Servant leadership: An endengared specied? *Patient Safety in Surgery,* 16(9), 1-4. https://doi.org/10.1186/s13037-022-00321-0

Sürücü, L. and Maslakçı, A. (2020). Validity and reliability in quantitative research. *Business and Management Studies: An International Journal,* 8(3), 2694-2726. https://doi.org/10.15295/bmij.v8i3.1540

Sürücü, L., Şeşen, H. and Maslakçı, A. (2023). *Regression, mediation/moderation, and structural equation modeling with spss, amos, and process macro.* Livre de Lyon.

Sürücü, L., Yıkılmaz, İ. and Maslakçı, A. (2022). *Exploratory factor analysis (EFA) in quantitative researches and practical considerations (No. fgd4e).* Center for Open Science

Szilvassy, P., and Sirok, K. (2022). Importance of work engagement in primary healthcare. *BMC Health Services Research*, 22(1044), 1-11. https://doi.org/10.1186/s12913-022-08402-7

Trevino, L. K., Brown, M. and Hartman, L. P. (2003). A qualitative investigation of perceived executive ethical leadership: Perceptions from inside and outside the executive suite. *Human Relations, 55*, 5-37. http://dx.doi.org/10.1177/0018726703056001448

Van Dierendonck, D. (2011). Servant leadership: A review and synthesis. *Journal of Management,* 37(4), 1228-1261. https://doi.org/10.1177/0149206310380462

Van Dierendonck, D. and Nuijten, I. (2011). The servant leadership survey: development and validation of a multidimensional measure. *Journal of Business and Psychology*, 26(3), 249-267. https://doi.org/10.1007/s10869-010-9194-1

Van Dierendonck, D., Stam, D., Boersma, P., de Windt, N., and Alkema, J. (2014). Same difference? Exploring the differential mechanisms linking servant leadership and transformational leadership to follower outcomes. *The Leadership Quarterly,* 25(3), 544-562. https://doi.org/10.1016/j.leaqua.2013.11.014

Walumbwa, F. O., Hartnell, C. A., and Oke, A. (2010). Servant leadership, procedural justice climate, service climate, employee attitudes, and organizational citizenship behavior: A cross-level investigation. *Journal of Applied Psychology*, 95(3), 517-529. https://doi.org/10.1037/a0018867

Yan, R., Basheer, M. F., Irfan, M., and Rana, T. N. (2020). Role of psychological factors in employee well-being and employee performance: Empirical evidence from Pakistan. *Rev. Argent. Clin. Psicol.,* 29, 638-650. https://doi.org/10.24205/03276716.2020.1060

Yazıcıoğlu, Y., and Erdoğan, S. (2004). *SPSS Uygulamali bilimsel arastirma yöntemleri.* Detay Yayıncılık.

Yücel, I., and Palabıyık, N. (2016). Virtüöz liderlik ve örgütsel adalet arasındaki ilişki üzerine bir uygulama*. Erzincan Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,* 9(1), 211-230. https://dergipark.org.tr/tr/pub/erzisosbil/issue/24417/258805

Zada, S., Khan, J., Saeed, I., Jun, Z. Y., Vega-Muñoz, A., and Contreras-Barraza, N. (2022). Servant leadership behavior at workplace and knowledge hoarding: A moderation mediation examination. *Front. Psychol.,* 13(888761). https://doi.org/10.3389/fpsyg.2022.888761

Zhou, G., Gul, R., and Tufail, M. (2022). Does servant leadership stimulate work engagement? The moderating role of trust in the leader. *Front. Psychol.,* 13(925732), 1-9. https://doi.org/10.3389/fpsyg.2022.925732