

**Social support as a mediator in the relationship between the leadership style and professional well-being**

**Apoio social como mediador na relação entre o estilo de liderança e bem-estar profissional**

**El apoyo social como mediador en la relación entre el estilo de liderazgo y bienestar profesional**

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## Abstract

The study of non-linear relationships between leadership characteristics and the professional well-being of employees opens the way to understanding the psychological determinants of this phenomenon and the perspective of effective prevention of its violations. The purpose of this study is to determine the nature of the relationship between leadership style, social support, and professional well-being of an individual, and, in particular, to empirically test the mediating role of social support in the relationship between leadership characteristics and professional well-being. In accordance with the purpose of this study, a cross-sectional method was applied using Perceived leadership assessment scale of Multifactor Leadership Questionnaire (MLQ, form 5X-Short), Need Satisfaction Questionnaire (NSQ), Job Satisfaction Scale (JSS), Scale social support. The participants of the survey were 85 teachers at higher schools of Ukraine. Statistical analysis included mediation analysis, correlation analysis. According to the results of the study, it was established that the influence of leadership style on professional well-being is carried out through the mediation of social support and the satisfaction of psychological needs of employees. It was found that the relative contribution of social support in predicting professional well-being increases with a decrease in the positive nature of leadership. Thus, social support moderates the impact of negative leadership characteristics on employee well-being by compensating for the frustration of certain psychological needs. The identified mediating effects expand the existing ideas about the psychological mechanisms of the formation of the professional well-being of employees and directions for its correction in management practice.

**Keywords:** leadership, leadership style, social support, professional well-being of the individual, mediation analysis

## Resumo

O estudo das relações não lineares entre as características de liderança e o bem-estar profissional dos funcionários abre caminho para a compreensão dos determinantes psicológicos desse fenômeno e a perspectiva de prevenção eficaz de suas violações. o objetivo deste estudo é determinar a natureza da relação entre estilo de liderança, apoio social e bem-estar profissional de um indivíduo e, em particular, testar empiricamente o papel mediador do apoio social na relação entre as características de liderança e o bem-estar profissional. de acordo com o objetivo deste estudo, um método transversal foi aplicado usando a escala de avaliação de liderança percebida do questionário de liderança multifatorial (mlq, formulário 5x-short), questionário de satisfação de necessidades (nsq), escala de satisfação no trabalho (jss), escala de apoio social. os participantes da pesquisa foram 85 professores de escolas superiores da ucrânia. a análise estatística incluiu análise de mediação, análise de correlação. de acordo com os resultados do estudo, foi estabelecido que a influência do estilo de liderança no bem-estar profissional é realizada por meio da mediação do apoio social e da satisfação das necessidades psicológicas dos funcionários. foi descoberto que a contribuição relativa do apoio social na predição do bem-estar profissional aumenta com a diminuição da natureza positiva da liderança. assim, o apoio

social modera o impacto das características negativas de liderança no bem-estar do funcionário, compensando a frustração de certas necessidades psicológicas. Os efeitos mediadores identificados expandem as ideias existentes sobre os mecanismos psicológicos da formação do bem-estar profissional dos funcionários e as direções para sua correção na prática de gestão.

**Palavras-chaves:** liderança, estilo de liderança, apoio social, bem-estar profissional do indivíduo, análise de mediação

### Resumen

El estudio de las relaciones no lineales entre las características del liderazgo y el bienestar profesional de los empleados abre el camino para comprender los determinantes psicológicos de este fenómeno y la perspectiva de una prevención eficaz de sus violaciones. El propósito de este estudio es determinar la naturaleza de la relación entre el estilo de liderazgo, el apoyo social y el bienestar profesional de un individuo y, en particular, probar empíricamente el papel mediador del apoyo social en la relación entre las características del liderazgo y bienestar profesional. De acuerdo con el propósito de este estudio, se aplicó un método transversal utilizando la escala de evaluación del liderazgo percibido del Cuestionario de Liderazgo Multifactor (MLQ, formulario 5X-Short), el Cuestionario de Satisfacción de Necesidades (NSQ), la Escala de Satisfacción Laboral (JSS), la Escala social apoyo. Participaron en la encuesta 85 profesores de escuelas superiores de Ucrania. El análisis estadístico incluyó análisis de mediación y análisis de correlación. Según los resultados del estudio, se estableció que la influencia del estilo de liderazgo en el bienestar profesional se realiza a través de la mediación del apoyo social y la satisfacción de las necesidades psicológicas de los empleados. Se encontró que la contribución relativa del apoyo social en la predicción del bienestar profesional aumenta con una disminución en la naturaleza positiva del liderazgo. Por tanto, el apoyo social modera el impacto de las características negativas del liderazgo en el bienestar de los empleados al compensar la frustración de ciertas necesidades psicológicas. Los efectos mediadores identificados amplían las ideas existentes sobre los mecanismos psicológicos de la formación del bienestar profesional de los empleados y las direcciones para su corrección en la práctica gerencial.

**Palabras clave:** liderazgo, estilo de liderazgo, apoyo social, bienestar profesional del individuo, análisis de mediación

## 1. INTRODUCTION

Recently, the professional well-being of employees has become an urgent problem of organizations and an important topic of numerous studies, which relates to the demands of managerial practice, as well as with the growing need for a full understanding of what exactly contributes to the professional well-being of an individual. There are many intermediate

organizational factors, among which the most important variable within the organization is leadership style (Nielsen, and Tavis, 2019). Modern studies in management prove that leadership behavior and style can influence many working conditions in an organization (Ardabili, 2020; Lundqvist et al., 2022), but the study of how leaders can contribute to the professional well-being of employees remains a relatively new area of scientific research. The literature actively discusses arguments in favor of the connection between the characteristics of the manager's communicative behavior and the well-being of employees. Well-being in the workplace has been shown to be related to the culture of managerial engagement (Liang et al., 2022). Toxic leadership has been found to directly affect employee engagement, job satisfaction, and employee performance (Dahlan et al., 2024). However, research has not yet definitively determined which specific manager behaviors are recommended to support employee well-being. In contrast to these approaches, which demonstrate a linear relationship between leadership style and parameters of professional well-being, there are also assumptions about the mediated nature of this relationship (Lundqvist et al., 2022). Our research is focused on such an aspect of a leader's communicative behavior as the social support of employees as a mediating variable. In the context of the motivational value model of professional well-being (Voitenko et al., 2024), which presents it as an integrated state that is formed in connection with the extent to which individual needs are realized in professional activity, taking into account individual values and meanings, social support contributes to the satisfaction of the employee's psychological needs, and therefore acts as a determinant of his professional well-being. The purpose of this study is to determine the nature of the relationship between leadership style, social support, and professional well-being of an individual, and, in particular, to empirically test the mediating role of social support in the relationship between leadership characteristics and professional well-being of an employee.

## **2. LITERATURE REVIEW**

### **2.1 Leadership style and professional well-being**

Currently, there is relatively little well-grounded research on the relationship between leadership style and various aspects of employee professional well-being. Existing research

shows moderate evidence for both positive and negative roles of leadership in employee job satisfaction and occupational health (Nielsen, and Taris, 2019; Winkler et al., 2014). On the one hand, leadership behavior is seen as a resource for promoting employee health (Yao, 2021). On the other hand, it is known that increased managerial pressure can negatively affect the emotional state of employees (Ganster et al., 1990). By virtue of their dominant position in the organization, leaders can intentionally or unintentionally cause stress in their subordinates. In particular, it was found that type A management style (competitive, ambitious, aggressive) is positively correlated with symptoms of physical health disorders in subordinates. Based on the existing discrepancies, it can be assumed that the influence of leaders on the professional well-being of employees can change under the influence of some additional variables and a certain context. There are indications in the scientific literature that the relationship between leadership style and parameters of professional well-being is mediated (Lundqvist et al., 2022). The search for such mediators opens the prospects of effective prevention of violations of professional well-being under the conditions of using controlled factors that can be influenced in the professional environment.

## **2.2 Communicative behavior of the leader and professional well-being of employees**

In the scientific literature, there is enough empirical evidence of the unique role of various aspects of the communicative behavior of leaders as prerequisites for the professional well-being of employees. It is known that in the presence of informal communication and exchange with managers, employees are more satisfied with their work (Ardabili, 2020); significant positive correlations were found between the personally oriented communication of employees and leaders, the quality of their relationships and employee job satisfaction (Fix et al., 2006); found that positive feedback from a supervisor affects their well-being (Winkler et al., 2014). On the other hand, there is also evidence that there is no direct relationship between leader communication and employee well-being (Willett et al., 2023), but it is established that the leader's communicative behavior contributes to the formation of a respectful culture in the workplace, which, in turn, positively affects professional well-being. A longitudinal study of the nature of the relationship between the characteristics of a

leader's communicative behavior (social support, positive feedback, communicative behavior related to the performance of tasks) and the well-being of low-skilled employees revealed the presence of a causal relationship (Winkler, 2015), although other studies showed this relationship in the form of a dynamic process or "feedback loop" (van Dierendonck et al., 2004). It is logical that employees with high levels of well-being at work rate their supervisors more positively, and that changes in well-being affect changes in perceptions of the supervisor. All these facts indicate the non-linear nature of the relationship between leadership style and the professional well-being of employees, as well as the existence of a need for additional knowledge about possible mediator variables. In our opinion, the study of mediating effects in the relationship between the investigated variables and the parameters of professional well-being will allow us to expand the existing ideas about the well-being of employees and contribute to the disclosure of the logic of its formation.

### **2.3 The role of social support in professional well-being**

To understand professional well-being in the context of the motivational value model (Voitenko et al., 2024), which presents it as an integrated state that is formed in connection with the extent to which personal needs and values are realized in professional activity, the most important aspect of communicative behavior leader is the social support he provides to his employees. Social support is emotional and practical help to people who face stress or certain difficulties (Schaefer et al., 1981), which contributes to a person's awareness of belonging to the human community, love, respect, and self-worth. A manager who provides positive feedback to an individual employee increases their self-esteem, which is an important aspect of professional well-being (Kelloway et al., 2013). Recognition and respect at work are considered an important social resource (Kaushal, 2021; Vasconcelos et al. 2022), confirm the professional competence of the employee and are aimed at satisfying his psychological needs (Maslow, 1970). Thus, based on the conducted analysis, it can be assumed that the leader's assistance in meeting the needs of employees through their social support in the professional context mediates the influence of the leadership style on professional well-being (Fig. 1).

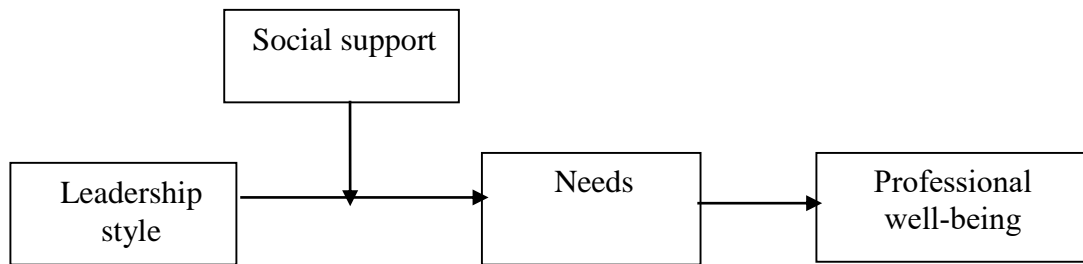


Fig. 1. The mediating effect of leader social support in the relationship between leadership style and professional well-being

Figure 1 reflects the theoretical basis of the study, according to which the influence of leadership characteristics on professional well-being is carried out through the mediation of social support and the satisfaction of psychological needs of employees, which allows building a research program based on a few hypotheses:

*H1: Leadership style is related to the level of professional well-being of employees.*

*H2: Professional well-being of employees is positively correlated with leader social support.*

*H3: Social support is related to professional well-being of employees through the mediation of need satisfaction.*

*H4: Leader social support mediates the influence of leadership characteristics on the professional well-being of employees.*

### 3. METHODS

This study is a continuation of the scientific search for organizational and psychological determinants of the professional well-being of an individual, which determined the use of the same methods and part of the diagnostic tools described in our previous publication (Voitenko et al., 2024). The study of the identified mediating effects requires the application of appropriate mediation analysis procedures (Baron, & Kenny, 1986) with preliminary diagnosis of all components. In accordance with the purpose of this study, a cross-sectional method was applied using Porter's Need Satisfaction Questionnaire (NSQ), Spector's Job Satisfaction Scale (JSS),

the Perceived Leadership Scale of the Multifactor Leadership Questionnaire (MLQ, Form 5X-Short) by Bass and Avolio, the Social Support Scale of Caplan et al. The original scales were translated from English to Ukrainian using the reverse translation method.

Porter's (1961) **Need Satisfaction Questionnaire** (NSQ) modified by Roy Payne (Payne, 1970) was used to assess the level of satisfaction of employees' needs. The questionnaire consists of 8 items. Respondents are asked to answer the following questions: (a) How satisfied are you with these aspects of your work now? (b) What is your ideal level of satisfaction with these aspects? (c) How important is it to you personally? The answer scale is a seven-point scale from 1 (minimum) to 7 points (maximum). Perceived lack of satisfaction of needs (index of discrepancy between the resources of the organization and personal needs) is calculated by determining the absolute difference between the indicators of the existing and desired state of satisfaction of needs. A total discrepancy score and a total importance score are calculated for each of the eight items in addition to the discrepancy score and the importance score. The total need satisfaction index (NSI) is obtained by dividing the total discrepancy score by the total importance score. Nomological validity of the scale was proved by several researchers (Cohen et al., 1997).

Paul Spector's **Job Satisfaction Survey** (JSS) was used to assess professional well-being (Spector, 2022). The scale determines the attitude of the employee to his work according to such parameters as: salary, recognition (monetary and non-material incentives for work achievements), colleagues (satisfaction with the team), working conditions (internal rules, bureaucratic obstacles), management (direct manager), additional benefits, promotion (possibility of career growth), nature of work (content of performed tasks) and communication (informing about work and general issues), as well as get an assessment of overall satisfaction with your position in the organization. Each aspect is assessed on four items, and a total score is calculated for all items. Respondents are offered six answer options for each item ranging from "strongly disagree" to "strongly agree". The Job Satisfaction Scale is suitable for a wide range of types of organizations. The author gives high indicators of psychometric properties of the scale (Spector, 2022).



To diagnose the leadership style, the Perceived Leadership Rating Scale of the **Multifactor Leadership Questionnaire** (MLQ, 5X-Short form) by Bernard Bass and Bruce Avolio (Bass, & Avolio, 1990), which is the most common diagnostic tool in scientific and organizational practice, was used. In the scientific literature, there is enough empirical evidence of the reliability of the psychometric properties of the MLQ-5X, which have been repeatedly tested in different countries and have shown high factorial and convergent validity, as well as internal consistency and test reliability (Bajcar, & Babiak, 2022). The questionnaire is designed to assess a wide range of leadership types: it contains 5 scales of transformational leadership (Idealized Influence (Behavior), Idealized Influence (Attributed), Inspirational Motivation, Intellectual stimulation, Individualized Consideration), 4 scales of transactional leadership (Contingent Reward, Management-by-Exception (Active), Management-by-Exception (Passive), Laissez-faire Leadership) and 3 scales for evaluating leadership effectiveness (Extra Effort, Satisfaction, Effectiveness). These items are rated on a five-point scale from “never” to “often if not always”. The results are processed by grouping the elements on the scales according to the key and calculating the average value on each scale.

To assess the level of social support at the workplace, the **Social Support Scale** (Caplan et al., 1980) (SSS) was used. The questionnaire contains subscales that determine an index of the social support that the employee believes he can receive from his supervisor, colleagues, and family. These items are evaluated on a five-point scale from "very much" to "I don't have such a person". The subscales measure the amount of emotional (readiness to listen to personal problems) and instrumental (readiness to provide practical help in solving problems or achieving a goal) support. The Social Support Scale is widely used and remains one of the established scales for measuring social support in the workplace. There is sufficient evidence in the scientific literature to support the validity of the scale (Repetti, & Cosmas, 1991); high level of internal consistency of the subscales: Cronbach's alpha for the supervisor support subscale ranged from 0.86 to 0.91 (Lee, & Ashforth, 1993), and for the coworker support subscale, 0.79 (Repetti, & Cosmas, 1991).

The participants of the study were 85 academic employees of the university, selected by the method of random selection. The most important socio-demographic characteristics of the respondents are presented in Table 1.

**Table 1**  
Socio-demographic characteristics of the sample

Age	N	%	Gender	N	%	Position	N	%
25-35	14	16	Male	24	28	Head of Department	11	13
36-45	30	35				Lecturer	9	11
46-55	22	26				Senior Lecturer	9	11
> 56	19	22				Associate Professor	41	48
			Female	61	72	Professor	15	17
Всього	85	100		85	100		85	100

Source: research data

All age categories and academic positions of the respondents are presented in the study, which confirms the correspondence of the studied sample to the general population. For statistical data processing, correlation analysis and multiple linear regression (MLR) were applied using the Enter method without including constants in the equation. The parametric linear coefficient of Pearson's was used for correlation analysis, the initial data of the variables were checked for compliance with the law of normal distribution. Descriptive statistics (arithmetic mean, standard deviation, asymmetry, kurtosis) were calculated to characterize the observations. Calculations were performed in SPSS Statistics 23.0.

#### 4. RESULTS

The presence of statistically significant correlations between leadership characteristics and the professional well-being of employees was established, except for the indicator Management-by-Exception (Active) ( $p > .05$ ), which was excluded from further analysis, as well as a significant correlation between the leader social support and professional well-being of employees (table 2).

**Table 2**  
The Summary of Descriptive Statistics & Correlations (N = 85)

Leadership style	M	SD	S	K	Professional well-being	Social support
1. Idealized Influence (Attributed)	3,62	1,02	-,541	-,465	,659**	,745**
2. Idealized Influence (Behavior)	3,64	,93	-,632	-,149	,511**	,556**
3. Inspirational Motivation	3,76	,97	-,476	-,709	,608**	,510**
4. Intellectual Stimulation	3,31	,80	-,812	,829	,592**	,644**
5. Individualized Consideration	3,22	,87	-,288	-,678	,631**	,730**
6. Contingent Reward	3,72	,91	-,581	-,370	,538**	,633**
7. Management-by-Exception (Active)	3,15	,69	-,033	,348	<b>,178</b>	,342**
7. Management-by-Exception (Passive)	2,39	,78	,440	-,227	-,251*	-,341**
8. Laissez-faire Leadership	1,93	,88	,789	-,033	-,462**	-,607**
9. Extra Effort	3,35	,84	-,638	,437	,546**	,697**
10. Effectiveness	3,72	1,04	-,687	-,277	,663**	,723**
11. Satisfaction	3,54	,90	-,554	,212	,597**	,631**
12. Social support	12,01	4,16	-,926	,242	,542**	1

*M* - average value; *SD* – standard deviation; *S* – asymmetry; *K* – kurtosis

\*\* – correlation statistically significant at the 0.01 level (2-sided)

\* – correlation statistically significant at the 0.05 level (2-sided)

***The mediating effect of need satisfaction on the relationship between social support and professional well-being***

To test the assumption that the relationship between social support and professional well-being functions through the mediation of indicators of satisfaction of individual needs, an analysis of three regression equations was carried out (Baron, & Kenny, 1986): first, regression of the mediator (indicators of satisfaction of needs) on the independent variable (social support), secondly, the regression of the dependent variable (professional well-being) on the independent variable (social support), thirdly, the regression of the dependent variable (professional well-being) on both the independent variable (social support) and the mediator (indicators of satisfaction of needs). Linear regression was applied using the Enter method without including constants in the equation. Significance tests were performed using F-tests, t-tests, adjusted R<sup>2</sup>. *Regression of the mediator (need satisfaction indicators) on the independent variable (social support)*

In the first step, the regression of the mediator on the independent variable was estimated (table 3). The ANOVA test confirmed the reliability of the constructed regression models; therefore, these models can be meaningfully interpreted. Regression analysis confirmed a

statistically significant effect of leader social support (SS) on all indicators of need satisfaction according to Porter's (1961) Need Satisfaction Questionnaire (NSQ): need satisfaction index (NSI) ( $F=55.077$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.396$ ), the overall indicator of the discrepancy between the desired and the actual state of need satisfaction (DS) ( $F=54.338$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.393$ ), the overall indicator of the importance of needs (IS) ( $F=771.621$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.902$ ).

*Regression of the dependent variable (professional well-being) on the independent variable (social support)*

In the second step, the regression of the dependent variable on the independent variable was estimated (Table 3). A statistically significant effect of social support (SS) on overall satisfaction with various aspects of professional activity (PWB) was confirmed ( $F=1037.367$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.925$ ).

*Regression of the dependent variable (professional well-being) on both the independent variable (social support) and the mediator (needs)*

In the third step, to confirm the influence of the mediator on the dependent variable while controlling for the independent variable, in addition to the need satisfaction indicators, the social support indicator was included to predict professional well-being in the regression analysis (Table 3). The joint influence of the predictor and mediator on the dependent variable was statistically confirmed ( $F=1126.346$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.982$ ).

**Table 3**

The mediating role of need satisfaction in the relationship between social support and professional well-being

\* Linear Regression through the Origin

Models			Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	Need satisfaction index (NSI)	SS	,012	,002	,629	7,421	,000
	Discrepancy Score (DS)	SS	,627	,085	,627	7,371	,000
	Importance Score (IS)	SS	3,723	,134	,950	27,778	,000
2	Professional well-being (PWB)	SS	10,241	,318	,962	32,208	,000
3	Professional well-being (PWB)	SS	2,147	,528	,202	4,069	,000
		DS	-6,623	1,867	-,622	-3,548	,001
		IS	2,400	,153	,884	15,676	,000
		NSI	266,889	94,589	,494	2,822	,006

SS - social support, IS - importance score, DS - discrepancy score, NSI - need satisfaction index

The model of the third analysis illustrates a significant decrease in the relative contribution of social support in predicting professional well-being with the inclusion of need satisfaction indicators in the model (from 0.962 to 0.202). Hence, need satisfaction is a significant mediator in the relationship between these variables.

***The mediating effect of social support in the relationship between leadership characteristics and professional well-being***

To test the hypothesis that the relationship between leadership characteristics and occupational well-being is mediated by social support, three regression equations were analyzed (Baron, & Kenny, 1986): first, regression of the mediator (social support) on the independent variable ( leadership characteristics), secondly, the regression of the dependent variable (professional well-being) on the independent variable (leadership characteristics), thirdly, the regression of the dependent variable (professional well-being) on both the independent variable (leadership characteristics) and the mediator (social support). Linear regression was applied using the Enter method without including constants in the equation. Significance tests were performed using F-tests, t-tests, adjusted  $R^2$ .

***Regression of the mediator (social support) on the independent variable (leadership characteristics)***

At the first stage of the analysis, the regressing the mediator on the independent variable was estimated (table 4). The analysis confirmed a statistically significant influence of leadership characteristics on social support: Idealized Influence (Behavior) (BI) ( $F=1012.559$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.923$ ), Idealized Influence (Attributed) (AtI) ( $F=1681.525$ ;  $df =1$ ;  $p<0.001$ ;  $R^2=.952$ ), Inspirational Motivation (IM) ( $F=916.535$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.916$ ), Intellectual Stimulation (IS) ( $F=1264.299$ ;  $df =1$ ;  $p<0.001$ ;  $R^2=.938$ ), Individualized Consideration (IC) ( $F=1606.541$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.950$ ), Contingent Reward (CR) ( $F=1228.571$  ;  $df=1$ ;  $p<0.001$ ;  $R^2=.936$ ), Management-by-Exception (Passive) (MEP) ( $F=251.258$ ;  $df=1$ ;  $R^2=.749$ ), Laissez-faire Leadership (LL) 131.127;  $df=1$ ;  $R^2=.610$ ), Extra Effort (ExE) ( $F=1456.232$ ;  $p<0.001$ ;  $R^2=.945$ ), Satisfaction (Sat)  $F=1213.148$ ;  $df=1$ ;  $R^2=.935$ ), Effectiveness (Ef)

( $F=1555.374$ ;  $p<0.001$ ;  $R^2=.949$ ). Table 4 shows the indicators of the relative influence (Beta) of leadership styles on social support.

**Table 4**  
Regressive influence of leadership style on social support\*

	Models	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Idealized Influence (Behavior) (BI)	35,113	,850	,976	41,316	,000
2	Idealized Influence (Attributed) (AtI)	3,294	,080	,976	41,006	,000
3	Inspirational Motivation (IM)	3,135	,104	,957	30,274	,000
4	Intellectual Stimulation (IS)	3,608	,101	,968	35,557	,000
5	Individualized Consideration (IC)	3,717	,093	,975	40,082	,000
6	Contingent Reward (CR)	3,210	,092	,967	35,051	,000
7	Management-by-Exception (Passive) (MEP)	4,371	,276	,866	15,851	,000
8	Laissez-faire Leadership (LL)	4,679	,409	,781	11,451	,000
9	Extra Effort (ExE)	3,584	,094	,972	38,161	,000
10	Satisfaction (Sat)	3,370	,097	,967	34,830	,000
11	Effectiveness (Ef)	3,208	,081	,974	39,438	,000

\*Linear Regression through the Origin

*Regression of the dependent variable (professional well-being) on the independent variable (leadership characteristics)*

At the second stage, the regression of the dependent variable on the independent variable was estimated (table 5). A statistically significant influence of leadership characteristics on the professional well-being of employees was confirmed: Idealized Influence (Behavior) (BI) ( $F=1707.013$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.953$ ), Idealized Influence (Attributed) (AtI) ( $F=1942.932$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.959$ ), Inspirational Motivation (IM) ( $F=2046.352$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.961$ ), Intellectual Stimulation (IS) ( $F=2222.099$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.964$ ), individual approach (IC) ( $F=1994.363$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.960$ ), Contingent Reward (CR) ( $F=1943.802$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.959$ ), Management-by-Exception (Passive) (MEP) ( $F=491.309$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.854$ ), Laissez-faire Leadership (LL) ( $F=250.191$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.749$ ), Extra Effort (ExE) ( $F=1905.470$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.958$ ), Satisfaction (Sat) ( $F=2074.376$ ;  $df=1$ ;  $p<0.001$ ;  $R^2=.961$ ), Effectiveness (Ef) ( $F=2017.872$ ;  $df=1$ ;  $R^2=.960$ ).

**Table 5**  
The regression effect of leadership style on professional well-being\*

	Models	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Idealized Influence (Behavior) (BI)	35,113	,850	,976	41,316	,000
2	Idealized Influence (Attributed) (AtI)	35,183	,798	,979	44,079	,000
3	Inspirational Motivation (IM)	34,181	,756	,980	45,237	,000
4	Intellectual Stimulation (IS)	38,947	,826	,982	47,139	,000
5	Individualized Consideration (IC)	39,771	,891	,980	44,658	,000
6	Contingent Reward (CR)	34,585	,784	,979	44,089	,000
7	Management-by-Exception (Passive) (MEP)	49,682	2,241	,924	22,165	,000
8	Laissez-faire Leadership (LL)	55,209	3,490	,865	15,817	,000
9	Extra Effort (ExE)	38,403	,880	,979	43,652	,000
10	Satisfaction (Sat)	36,371	,799	,980	45,545	,000
11	Effectiveness (Ef)	34,355	,765	,980	44,921	,000

\*Linear Regression through the Origin

*Regression of the dependent variable (professional well-being) on both the independent variable (leadership characteristics) and the mediator (social support)*

At the third stage, to confirm the influence of the mediator on the dependent variable while controlling the independent variable, in addition to social support, leadership characteristics were included in the regression models to predict the professional well-being of employees (Table 6). The ANOVA test confirmed the reliability of the constructed regression models; therefore, these models can be meaningfully interpreted. The joint effect of Social Support (SS) and Idealized Influence (Behavior) (BI) ( $R^2=.960$ ;  $F=1007.093$ ;  $df=2$ ;  $p<0.001$ ), Social Support (SS) and Inspirational Motivation (IM) ( $R^2=.967$ ;  $F=1227.683$ ;  $p<0.001$ ), Social Support (SS) and Intellectual Stimulation ( $R^2=.966$ ;  $F=1165,342$ ;  $df=2$ ;  $p<0,001$ ), Social Support (SS) and Contingent Reward (CR) ( $R^2=.962$ ;  $F=1047.855$ ;  $df=2$ ;  $p<0.001$ ), Social Support (SS) and Management-by-Exception (Passive) (MEP) ( $R^2=.958$ ;  $F=958.060$ ;  $df=2$ ;  $p<0.001$ ), Social Support (SS) and Laissez-faire Leadership (LL) ( $R^2=.959$ ;  $F=960.105$ ;  $df=2$ ;  $p<0.001$ ), Social Support (SS) and Extra Effort (ExE) ( $R^2=.960$ ;  $F=988.060$ ;  $df=2$ ;  $p<0.001$ ), Social Support (SS) and Satisfaction (Sat) ( $R^2=.964$ ;  $F=1111.221$ ;  $df=2$ ;  $p<0.001$ ).

**Table 6**

The regression effect of leadership style and social support on professional well-being\*

Models		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Idealized Influence (Behavior) (BI)	24,426	2,838	,679	8,608	,000
	Social Support (SS)	3,292	,840	,309	3,919	,000
2	Idealized Influence (Attributed) ( AtI)	30,516	3,644	,849	8,375	,000
	Social Support (SS)	1,417	1,080	,133	1,312	<b>,193</b>
3	Inspirational Motivation (IM)	24,729	2,389	,709	10,351	,000
	Social Support (SS)	3,015	,729	,283	4,134	,000
4	Intellectual Stimulation (IS)	31,998	3,235	,806	9,890	,000
	Social Support (SS)	1,926	,868	,181	2,218	,029
5	Individualized Consideration (IC)	34,290	3,972	,845	8,634	,000
	Social Support (SS)	1,474	1,042	,138	1,416	<b>,161</b>
6	Contingent Reward (CR)	26,791	2,992	,758	8,956	,000
	Social Support (SS)	2,428	,902	,228	2,693	,009
7	Management-by-Exception (Passive) (MEP)	19,626	2,402	,365	8,170	,000
	Social Support (SS)	6,876	,476	,646	14,453	,000
8	Laissez-faire Leadership (LL)	18,683	2,281	,293	8,189	,000
	Social Support (SS)	7,807	,381	,733	20,506	,000
9	Extra Effort (ExE)	31,255	3,703	,797	8,441	,000
	Social Support (SS)	1,995	1,005	,187	1,985	,050
10	Satisfaction (Sat)	28,757	3,036	,775	9,471	,000
	Social Support (SS)	2,260	,871	,212	2,593	,011
11	Effectiveness (Ef)	29,399	3,353	,838	8,769	,000
	Social Support (SS)	1,545	1,018	,145	1,518	<b>,133</b>

\*Linear Regression through the Origin

## 5. DISCUSSION

The purpose of the study was to determine the nature of the relationship between leadership characteristics, leader social support and professional well-being of employees. Correlation analysis revealed the presence of statistically significant positive correlations between indicators of transformational leadership and professional well-being of employees: Idealized Influence (Attributed) ( $r=.659$ ;  $p<.001$ ), Idealized Influence (Behavior) ( $r=.511$ ;  $p<.001$ ), Inspirational Motivation ( $r=.608$ ;  $p<.001$ ), Intellectual Stimulation ( $r=.592$ ;  $p<.001$ ), Individualized Consideration ( $r=.631$ ;  $p<.001$ ). It is known that with a transformational leadership style in an organization, employees have a high level of trust and recognition from their supervisors (Duan et al., 2017), which contributes to the satisfaction of employees'



psychological needs, in particular, the need for safety and respect, and may be a logical explanation for the observed noticeable correlations between the studied variables. Correlations of professional well-being with transactional leadership characteristics were partially confirmed, except for the indicator Management-by-Exception (Active) ( $r=.178$ ;  $p>.05$ ), which was excluded from further analysis. Within the framework of the motivational value model of professional well-being (Voitenko et al., 2024), which is the conceptual basis of our study, the absence of a connection between professional well-being and Management-by-Exception (Active) has a logical explanation: it is a management style in which the leader constantly takes direct participation in the affairs of their subordinates to avoid mistakes and certain deviations from established standards (Odumeru, and Ifeanyi, 2013). Such a managerial approach interferes with the realization of the individual's basic needs for autonomy and competence (Ryan, & Deci, 2017), and therefore professional well-being. A moderate positive correlation of professional well-being with Contingent Rewards was established ( $r=.538$ ;  $p<.001$ ). Contingent rewards are a leading attribute of transactional leadership, focused on approving employees for a job well done and rewarding them for performance (Bass, & Avolio, 1990). The provision of positive feedback by a supervisor increases an employee's self-esteem (Khan et al., 2020), which is an important aspect of his professional well-being. Negative correlations of professional well-being with Management-by-Exception (Passive) ( $r=-.251$ ;  $p<.05$ ) and Laissez-faire Leadership ( $r=-.462$ ;  $p<.001$ ) also allow interpretation within the motivational value model. Both leadership characteristics are associated with non-interference of the leader in work processes, giving more freedom to employees, the risk of chaos and sanctions for violating certain standards (Odumeru, and Ifeanyi, 2013). All this contradicts the desire of employees for order, stability, freedom from stress, that is, satisfaction of the need for psychological safety, which is an important aspect of employee well-being (Voitenko et al., 2023). Therefore, the results generally support our hypothesis H1 about the relationship between leadership style and professional well-being of employees.

Correlation analysis confirmed hypothesis H2. A statistically significant positive correlation was established between leader social support and the professional well-being of employees ( $r=.542$ ;  $p<.001$ ). The result is in line with previous studies that also confirmed the

impact of different aspects of social support on professional well-being: the impact of positive feedback (Kelloway et al., 2013), the impact of recognition and respect (Kaushal, 2021; Vasconcelos et al. 2022).

Testing of the mediation hypotheses H3 and H4 was conducted according to the mediation criteria defined by Baron and Kenny (Baron, & Kenny, 1986). This logic of mediation analysis is used in many contemporary studies (Olefir, Bosniuk, 2021; Talwar et al., 2017), despite its somewhat outdated nature, and is considered useful and important for contemporary approaches. (Hayes, and Rockwood, 2017). Mediator analysis confirmed hypothesis H3 that the relationship between social support and professional well-being functions through the mediation of indicators of satisfaction of individual needs. Results showed that the relationship between social support and professional well-being remained statistically significant when need satisfaction was entered into the study as a mediator. Hence, needs partially mediate the relationship between social support and professional well-being. A proportion of the variation in professional well-being is explained by the variation in the level of social support and need satisfaction indicators for 98% ( $R^2=.982$ ) and only 2% is explained by other factors. A comparison of the regression coefficients shows that the effect of social support on professional well-being was significantly reduced in the third equation ( $\beta=.202$ ) than in the second equation ( $\beta=.962$ ), after need satisfaction was added as a mediator. It means that the mediator is indeed powerful (Baron, & Kenny, 1986). Thus, the relationship of leader social support with the employee's professional well-being functions through the satisfaction of their psychological needs.

The results of the analysis of the mediation of social support in the relationship between leadership characteristics and professional well-being partially confirmed hypothesis H4 that leader's social support mediates the influence of leadership style on the professional well-being of employees. The joint influence of social support and most of the leadership characteristics according to the Perceived Leadership Rating Scale of the Multifactor Leadership Questionnaire (MLQ, form 5X-Short) by Bass and Avolio (Bass, & Avolio, 1990) was statistically confirmed. A comparison of the  $\beta$ -coefficients in the regression models shows that the relative contribution of social support to the prediction of professional well-being increases

as the positive nature of leadership decreases. So, for example, the relative contribution of the leader's social support in joint influence with Management-by-Exception (Passive) is almost 65% ( $\beta=.646$ ), the relative contribution of the leader's social support in joint influence with Laissez-faire Leadership is 73% ( $\beta=.733$ ), unlike the model of its joint influence with Inspirational Motivation, where the relative contribution of social support in predicting professional well-being is 28% ( $\beta=.283$ ), or in the model of its joint influence with Intellectual Stimulation, the relative contribution of social support in predicting professional well-being is 18% ( $\beta=.181$ ). Thus, social support moderates the impact of negative leadership characteristics on employees' professional well-being by compensating for the frustration of certain psychological needs of employees.

The joint effect of social support (SS) and leadership characteristics such as Idealized Influence (Attributed) (AtI) ( $R^2=.959$ ), Individualized Consideration (IC) ( $R^2=.961$ ) and Effectiveness (Ef) ( $R^2=.961$ ) on professional well-being was not confirmed. As we can see, 96% of the variance in professional well-being in these models is explained by the joint variance in the level of social support and these leadership characteristics. A comparison of the regression coefficients shows that the influence of these leadership characteristics on the professional well-being of employees did not significantly decrease in the third equation ( $\beta_{AtI}=.849$ ;  $\beta_{IC}=.845$ ;  $\beta_{Ef}=.838$ ) relative to the second ( $\beta_{AtI}=.976$ ;  $\beta_{IC}=.975$ ;  $\beta_{Ef}=.974$ ), after social support was added to the model as a mediator. In addition, the regression coefficients that demonstrate the contribution of social support to the variability of professional well-being in joint-effect models were found to be statistically insignificant ( $p>0.05$ ), so they can be excluded from the models (Table 6). Therefore, social support does not mediate Idealized Influence (Attributed), Individualized Consideration, and Effectiveness in their relationship with professional well-being. These results suggest that there are other potential mediators of the relationship between these leadership characteristics and professional well-being besides social support, or aspects of social support that were not addressed in this study. The value of  $\beta$ -coefficients in the regression models shows that the relative contribution of Idealized Influence (Attributed) (AtI) ( $\beta=.849$ ), Individualized Consideration (IC) ( $\beta=.845$ ) and Effectiveness (Ef) ( $\beta=.838$ ) in predicting professional well-being is about 85% for each

indicator. This result indicates that these leadership characteristics remain important variables for predicting professional well-being, and their direct content contributes to employee well-being. Idealized Influence (Attributed) is considered in terms of the leader's level of charisma, his personal ethics and values, character traits and behaviors that go beyond personal interests and become role models (Afshari, 2022). An Individualized Consideration involves attention to the individual needs of employees, mentoring, recognition of the unique contribution of each person (Khan, et al., 2022). Effectiveness is the successful implementation of personal influence by the leader, which leads to the achievement of set goals (Chemers, 2008). Respect and trust in such a leader indicates his ability to provide employees with an understanding of goals and directions, which gives them the feeling that work is full of meaning and they can successfully achieve the desired goals thanks to the effectively coordinated efforts by the leader; a stable and peaceful environment that allows them to feel safe and work confidently; approval and support, and accordingly, satisfaction of the need for recognition and value; and, in general, the awareness that their interests are taken into account, which is obviously a predictor of their professional well-being.

## 6. CONCLUSIONS

Empirical research confirmed the relationship between leadership style and professional well-being of employees. It was established that the strength and directionality of this connection depends on the specific characteristics of leadership. Indicators of transformational leadership have significant positive correlations with professional well-being, indicators of transactional leadership have mixed relationships with professional well-being, and demonstrate both positive and negative correlations, or their absence, between the studied variables. Some characteristics of a transactional leadership style may contribute to employee well-being, but increasing leadership effectiveness in this regard depends on the frequency of transformational leadership behaviors. Therefore, it can be concluded that a leader must be aware of his ability to influence the professional well-being of subordinates and needs the skills to flexibly transition between different leadership styles as needed.

An important psychosocial factor for employee well-being is leader's social support. It was established that the relationship between leader social support and the employee's professional well-being functions through the satisfaction of their psychological needs. The leader's facilitation of employees' needs satisfaction through their social support in the professional context mediates the effect of leadership style on professional well-being. It was established that the relative contribution of social support in predicting professional well-being increases as the positive nature of leadership decreases. Thus, social support moderates the impact of negative leadership characteristics on employee well-being by compensating for the frustration of certain psychological needs. Emotional support, practical help, positive feedback from the leader reduces the level of stress, contribute to the creation of a positive atmosphere in the team, provide a sense of belonging and involvement, increase the self-esteem of employees, and therefore contribute to the satisfaction of their psychological needs and, accordingly, professional well-being. Therefore, strengthening the leader social support of subordinates can be considered as an effective intervention strategy regarding professional well-being.

The mediating effects revealed by us in the relationship between the studied variables and the parameters of professional well-being expand the existing ideas about the psychological mechanisms of the formation of the professional well-being of employees and open the prospects of effective prevention of its violations through the timely provision of social support.

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