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THE LEADER'S LONELINESS IN THE ORGANIZATIONAL ECOSYSTEM: IDENTIFYING THE INFLUENCE OF PSYCHOSOCIAL AND ORGANIZATIONAL FACTORS

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Purpose: The aim of the article is to analyze psychosocial and organizational predictors of loneliness among individuals in managerial roles. The author identifies the factors contributing to leader isolation and its consequences for organizational effectiveness.

Methodology: The study was based on empirical data collected from 150 managers in the Świętokrzyskie Voivodeship using an original survey questionnaire. A correlation analysis was conducted between psychosocial and organizational variables and the levels of emotional and social loneliness.

Findings: The quality of interpersonal relationships, emotional support, self-esteem, and organizational culture are significant predictors of leader loneliness. This confirms the multidimensional nature of the phenomenon and the need for comprehensive solutions. Leadership loneliness appears not only as a psychological category but also as an indicator of organizational dysfunction, manifested in the absence of affective recognition channels, insufficient psychological safety, and relational fragmentation of support structures.

Research limitations: The study was cross-sectional and regional in scope. Self-assessment bias is possible. Future studies should include broader research samples and a mixed-methods approach combining quantitative and qualitative tools.

Practical implications: Leader loneliness—as a systemic variable—may indirectly influence organizational climate, team engagement, employee turnover, and decision-making efficiency. Preventing the psychosocial isolation of managerial staff contributes to building sustainable human capital, reduces the risk of organizational losses, and strengthens the resilience of work systems during crises.

Social implications: Reducing leader loneliness supports psychological well-being and a healthy work environment, contributing to the development of more conscious leadership models in society. Chronic isolation of leaders can deepen social trust deficits, erode relational capital, and undermine the culture of dialogue and shared responsibility. This phenomenon is particularly significant in the public sector, where leadership style directly translates into the quality of public services and the sense of institutional justice.

Originality/Value: This article represents one of the few empirical analyses of leader loneliness in Poland, combining psychological and organizational perspectives with practical recommendations. The empirical examination of psychosocial mechanisms affecting leadership effectiveness enriches contemporary management science discourse with an affective-relational dimension, often marginalized in quantitative studies.

Keywords: organizational loneliness, relational leadership, leader's social capital, relational dimension of leadership, psychosocial predictors of managerial isolation.

Category of the paper: research paper.

1. Introduction

Leader loneliness is not a new phenomenon, but its intensification in recent decades stems from various structural and cultural conditions. The position of power and responsibility that leaders occupy generates certain behavioral norms—including self-sufficiency, rationality, and independence—which can limit the ability to express emotional needs and hinder access to genuine social support. As Goffee and Jones (2006) note, leaders are often "lonely at the top" not because no one is around them, but because they have no one with whom they can share doubts, fears, and emotions without risking their authority or professional credibility.

In an organizational culture that promotes efficiency, control, and constant availability, emotional transparency is often penalized, and admitting weakness is treated as a sign of incompetence. These observations already indicate that studying leader loneliness requires an interdisciplinary approach, often highlighted in the literature, which considers both psychological factors such as attachment and the need for belonging, and social factors relating to organizational culture, leadership styles, and power dynamics.

Interest in loneliness—understood as a subjective, unpleasant experience of social disconnection (Cacioppo, Cacioppo, 2018; Wright, Silard, 2020; Lam et al., 2024)— has significantly increased in recent years among both researchers and practitioners (Cacioppo, Cacioppo, 2018; Hou, Cai, 2024). Some scholars have even referred to our era as the "age of loneliness" (Waltz et al., 2024). The rise in loneliness is alarming, as it is toxic to individuals and harmful to their well-being, contributing to depression and cardiovascular diseases (Holt-Lunstad et al., 2015). Given these adverse consequences, a deep understanding of how loneliness arises seems essential. Surprisingly, although leaders spend many hours each week at work, very little research has focused on workplace loneliness.

So far, this negative phenomenon has mainly been studied in connection with individual health (Holt-Lunstad et al., 2015; Holt-Lunstad, 2018), overall functioning (Heinrich, Gullone, 2006), and interpersonal relationships (Qualter et al., 2015). Interestingly, workplace loneliness, including that of leaders, has received little attention from management scholars. However, even the limited studies that exist (Waltz et al., 2024) have shown that this phenomenon has serious negative consequences for engagement and work outcomes (Anand, Mishra, 2021).

In recent years—especially during the COVID-19 pandemic (Andel et al., 2021)—interest in this issue has also grown within the field of management sciences (Lam et al., 2024). Recently conducted studies provide arguments that loneliness is a central and practically

relevant topic for the future of work (Kniffin et al., 2021), and that leaders—whose actions are context-dependent—seem particularly vulnerable to experiencing loneliness (Wright, Silard, 2021).

Leadership, as the process of influencing a group to achieve a specific goal (Fischer et al., 2017), involves shaping strategic directions, making decisions at the team or organizational level, and leading change within organizations (Lam et al., 2024). These actions create a context with loneliness triggers that are distinct from those encountered in personal life. Taking the above into account, the aim of this article is to identify the level of emotional and social loneliness among leaders in enterprises. In this light, the study aims to provide arguments that will help answer the following question: How do psychosocial and organizational factors influence the level of emotional and social loneliness among leaders, and which of these factors serve as predictors and buffers of psychosocial isolation?

The foundation for carrying out this research objective was the results of original empirical studies. The study was quantitative and cross-sectional in nature, based on a proprietary survey questionnaire constructed using a 5-point Likert scale. The questionnaire included 30 questions measuring the level of leader loneliness (dependent variable), as well as seven domains reflecting the characteristics of the leader's social and organizational environment (independent variables), which included: quality of professional relationships, emotional support, work and communication style, work-life balance, self-esteem and role perception, organizational culture, and emotional and social loneliness. The study involved 190 individuals holding managerial positions in both public and private sector organizations located in the Świętokrzyskie Voivodeship.

2. Relational and institutional factors influencing the phenomenon of loneliness: justification for the selection of variables

Leader loneliness, as a multidimensional phenomenon, requires a transdisciplinary approach that integrates microsocial and macrosocial perspectives. On one hand, we are dealing with a psychological construct—emotional and social loneliness—which, as demonstrated by Cacioppo and Patrick (2008), is the subjective experience of lacking deep, satisfying interpersonal relationships. On the other hand, leader loneliness cannot be considered in isolation from the cultural and institutional context in which the leader operates—organizational culture, leadership style, and communication norms serve as carriers of meanings and mechanisms that can either reinforce or weaken the sense of isolation (Schein, 2010; Edmondson, 1999).

Attachment theory also plays a crucial role here, according to which individuals develop specific styles of social functioning based on the emotional availability of their environment (Mikulincer, Shaver, 2007). When a leader lacks a relational "secure base", they may regress to avoidance or disorganized relationship strategies, leading to social withdrawal and deepening loneliness. The theory of psychological safety (Edmondson, 1999) complements this picture by emphasizing that individuals in environments lacking acceptance and trust are not inclined to express emotions authentically or take relational risks.

This approach to the issue of loneliness adopted in the present study also draws from the theory of authentic leadership (Avolio, Gardner, 2005), which stresses the importance of the leader's self-awareness, identity coherence, and ability to be genuine in relationships with others. In light of these theories, variables such as self-esteem, relationship quality, or communication style are not merely personality traits but integral components of the relational dimension of leadership that directly determine the leader's ability to resist loneliness in their role.

Contemporary studies on leader loneliness clearly indicate that there is no single dominant cause of the phenomenon; rather, it is the result of a synergistic effect of multiple psychosocial and institutional factors. Research conducted by Ozcelik and Barsade (2018) among corporate leaders revealed that a lack of deep, supportive interpersonal relationships correlates with reduced team engagement, lower efficiency, and weakened organizational cohesion.

Studies by Dutton and Heaphy (2003) as well as Carmeli and Gittell (2009) show that the quality of professional relationships—measured by indicators such as trust, reciprocity, and psychological accessibility—is one of the most important predictors of employees' psychological well-being. In particular, for leaders who are inherently exposed to structural isolation, the presence of high-quality relationships serves as a vital buffer against the effects of loneliness. Mikulincer and Shaver (2007) also demonstrated that individuals lacking relational anchoring exhibit increased avoidance behaviors, which intensify social alienation.

Additional variables such as emotional support, work-life balance, and communication style are justified by the research of Greenhaus and Allen (2011), Kreiner (2006), and Ashkanasy and Daus (2005). These studies show that role overload, lack of clear boundaries between life domains, and dominance of a task-oriented management style are significantly correlated with burnout, withdrawal, and managerial isolation. It is worth noting that these conclusions have also been confirmed in meta-analyses by Chiaburu and Harrison (2008) and Halbesleben (2006), which demonstrated that relational and organizational psychosocial resources are the strongest predictors of job satisfaction, well-being, and a sense of community in the workplace.

Relevant in this context are also the findings by Yang, H., Lin, Z., Chen, X., & Peng, J. (2021), describing the relationship between leaders' perceived loneliness and team performance and employee engagement. Their research shows how workplace loneliness leads to ego depletion, which in turn can result in negative behaviors such as cyberloafing. The selection of independent variables was guided by methodological premises to ensure measurement validity,

logical consistency of the model, and its applicability to management practice. First, variables were operationalized solely based on measurable indicators included in the survey questionnaire using a 5-point Likert scale. This approach allows for data standardization, quantitative analysis, and comparability of results between groups.

The second important criterion was the "intervention potential" of the variables—each was selected based on its potential to be modified through organizational actions. This means that the variables can serve as a foundation for designing psychological interventions, development programs, or structural changes within organizations (e.g., promoting a culture of openness, communication training, mentoring). This selection aligns with the assumptions of applied research, where indicators should not only describe reality but also make it possible to change it.

The third condition was minimizing collinearity and ensuring high diagnostic value of each variable. The selection was based on literature review and logical analysis of the relationships between variables. Consequently, variables with limited predictive value or those secondary to the construct of loneliness—such as job satisfaction, organizational commitment, demographic traits, or unchangeable personality traits—were deliberately excluded. Although these often appear in organizational studies, they do not meet the criterion of causality, since their relationship with loneliness may be consequential rather than etiological.

3. Methodology of the study

The research methodology was designed based on a positivist paradigm, which assumes the possibility of objectively measuring psychosocial phenomena using quantitative tools. The main goal of the study was to empirically determine the impact of selected psychosocial and organizational variables on the level of perceived loneliness among leaders.

A quantitative research strategy was adopted, employing a cross-sectional model that allows for capturing relationships between variables at a given moment in time, while also enabling data collection from a diverse sample of respondents. This approach was justified by the nature of the phenomenon—leader loneliness as a relational and contextual issue—which is best diagnosed by measuring multiple co-occurring variables.

The sample was selected using purposive sampling, based on the criterion of holding a managerial position (middle or senior level) within organizational structures comprising more than 10 employees. Both the public sector (local government administration, cultural institutions, education) and the private sector (companies supported by decisions from the Starachowice Special Economic Zone) were included. The research was conducted between July and September 2024 in the Świętokrzyskie Voivodeship. Invitations and questionnaires were distributed electronically to 190 leaders. Some completed questionnaires were returned in

paper form. The combined response rate was 87.3%, and after excluding incomplete or logically inconsistent surveys, 150 cases were qualified for analysis.

The research instrument was a proprietary survey questionnaire developed according to the principles of operationalizing variables in quantitative research (Babbie, 2020). The tool contained 30 items rated on a five-point Likert scale (1 – strongly disagree, 5 – strongly agree) and a demographic section with control variables (age, gender, sector, managerial level, industry, organizational form). Each questionnaire item was linked to one of seven categories of independent variables: (1) Emotional and social loneliness, (2) Quality of professional relationships, (3) Availability of emotional suport, (4) Work-life balance, (5) Work and communication style, (6) Self-esteem and role perception, (7) Organizational culture supporting wellbeing.

The questionnaire was developed based on a literature review and existing scales, such as the UCLA Loneliness Scale, the Leader Authenticity Inventory (Avolio, Gardner, 2005), the Organizational Climate Measure, and adult attachment scales by Mikulincer and Shaver (2007). The tool underwent content validation. As part of the pretest, a pilot study was conducted with 10 respondents, confirming the clarity and comprehensibility of the items and enabling the standardization of completion time.

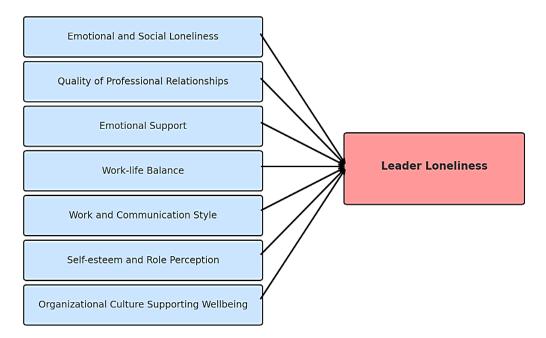


Figure 1. Block diagram of the research model: predictors of leader loneliness.

Source: Author's own elaboration.

The present study employed a variable structure consistent with the classical model of causal relationship analysis in social research. The dependent variable was defined as the level of leader loneliness—operationalized as the sum or average of responses to questions about feelings of alienation, emotional isolation, and lack of belonging. It served as a measure of the psychological effect caused by various psychosocial and organizational factors.

The independent variables represented the characteristics of the leader's social and organizational environment. These reflected seven theoretical domains: emotional and social loneliness, quality of professional relationships, emotional support, work-life balance, communication and work style, self-esteem and role perception, and organizational culture.

In statistical analyses, each independent variable was compared to the level of loneliness, and Pearson's linear correlation coefficient (r) was used to assess the strength and direction of the linear relationships between quantitative variables. The Pearson correlation coefficient ranges from -1 to +1. A positive value indicates a direct proportional relationship (an increase in one variable leads to an increase in the other), while a negative value indicates an inverse relationship (Stanisz, 2006).

Only statistically significant correlations at p < 0.01 were included in the study. Correlations with $|r| \ge 0.50$ were interpreted as moderate to strong. All observed correlations were statistically significant at the p < 0.01 level, meaning the probability that they occurred by chance is less than 1%.

The study was conducted in accordance with APA (2020) ethical guidelines and GDPR regulations. Participants were informed about the purpose of the research, how the data would be used, and were guaranteed the right to withdraw at any stage. Data were stored in encrypted form, and respondent identification was not possible at any stage of the analysis.

4. Analysis of research results

In the context of the cross-sectional and quantitative study conducted, special attention was given to identifying the relationships between independent variables—such as the quality of professional relationships, emotional support, communication style, self-esteem, organizational culture, and work-life balance—and the dependent variable: the level of experienced emotional and social loneliness.

The aim of the study was not only to determine the strength and direction of these associations but also to identify which of the analyzed factors serve as significant predictors or buffers influencing the psychological well-being of individuals in managerial positions.

Table 1.Correlation coefficients and loneliness means for groups with low and high levels of the independent variable

Independent Variable	Correlation (r)	Mean Loneliness	Mean Loneliness
		(Low Level)	(High Level)
Emotional and Social Loneliness	0.67	2.1	4.0
Quality of Professional Relationships	-0.58	3.9	2.3
Emotional Support	-0.60	4.1	2.2
Work-life Balance	0.54	2.5	3.7

Cont. table 1.

Work and Communication Style	0.49	2.2	3.9
Self-esteem and Role Perception	-0.61	4.2	2.3
Organizational Culture and Wellbeing	-0.55	3.8	2.4

Source: Author's own elaboration.

Correlation analysis for high and low levels of the independent variables:

- Emotional and Social Loneliness ($\mathbf{r} = 0.67$): One of the strongest positive correlations in the study. It indicates that the absence of trust-based relationships in the workplace is linked to a higher declared level of loneliness. Statistically, this means that 45% of the variance in loneliness levels is explained by trust relationships ($\mathbf{r}^2 \approx 0.45$). In organizational practice, this suggests that the lack of a safe space to share feelings and experiences is a critical predictor of leadership loneliness.
- Quality of Professional Relationships (r = -0.58): A strong negative correlation indicates that higher quality relationships (measured by satisfaction, reciprocity, openness) are associated with lower levels of loneliness. Statistically, this accounts for about 33% of the variance in loneliness ($r^2 \approx 0.34$). This strongly confirms the role of social and relational capital in shaping leaders' well-being.
- Emotional and Psychological Support (r = -0.60): A strong and negative correlation, suggesting that emotional support plays a significant protective role. r² ≈ 0.36, meaning over one-third of loneliness variability can be explained by the availability of support. The absence of such psychological resources poses a high risk for managers' emotional state.
- Work-life Balance ($\mathbf{r} = 0.54$): A moderately strong positive correlation. Leaders who perceive their work-life balance as disrupted report significantly higher loneliness. Statistically, $\mathbf{r}^2 \approx 0.29$. This underscores the importance of recovery, free time, and non-professional autonomy in preventing psychosocial exhaustion.
- Work Style and Communication ($\mathbf{r}=0.49$): A borderline moderate-to-strong correlation. It shows that a task-oriented work style with a low relational component is linked to increased loneliness. With $\mathbf{r}^2 \approx 0.24$, nearly 25% of loneliness variance can be explained by the leader's dominant communication style.
- **Self-esteem and Role Perception (r = -0.61):** A very strong negative correlation. Statistically, 37% of loneliness variance is explained by a lack of congruence with one's professional role and low self-esteem. Psychologically, this highlights the crucial role of self-awareness and authenticity in minimizing emotional isolation.
- Organizational Culture and Wellbeing (r = -0.55): A strong negative correlation shows that workplaces supporting inclusiveness, wellbeing, and psychological openness effectively combat loneliness. $r^2 \approx 0.30$, indicating that 30% of loneliness variability can be attributed to organizational culture quality. This supports the hypothesis that systemic environments impact leaders' psychological condition.

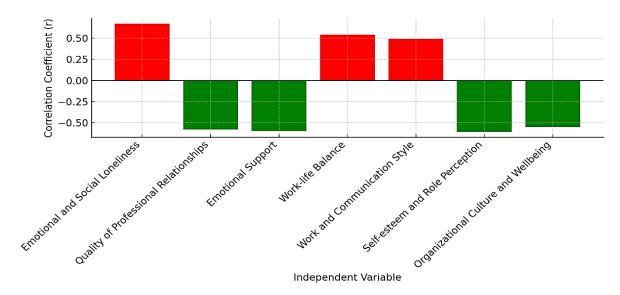


Figure 2. Strenght and direction of correlation between variables and leader loneliness.

Source: Author's own elaboration.

- Red positive correlation: increase in the independent variable corresponds to increased loneliness.
- Green negative correlation: increase in the factor (e.g., relationship quality) corresponds to lower loneliness.

The analysis reveals strong associations between psychological and organizational dimensions and leaders' loneliness levels. Particularly significant correlations relate to interpersonal relationship quality, perceived emotional support, and managerial self-esteem. Empirical data support hypotheses derived from literature, especially regarding the influence of leadership style, organizational values, and psychological safety.

It is noteworthy that emotional support and relationship quality have nearly equivalent effects on reducing loneliness, suggesting the need to combine HR interventions with the development of leaders' emotional intelligence. The high correlation between low self-esteem and loneliness emphasizes that leaders lacking internal self-worth operate in a relational void regardless of formal organizational structures.

The study also demonstrated that communication style—usually treated as an instrumental skill—turned out to be a key predictor of loneliness. This indicates the need to sensitize managers to the relational, not just strategic, aspect of their roles.

From an organizational management perspective, leader loneliness can be interpreted as a symptom of a relational deficit in the system—not merely as an individual trait but as an indicator of weakness in structures that integrate leadership with the organizational community. Lack of trust, emotional feedback deficits, low transparency, and an overemphasis on task-oriented communication styles contribute to the erosion of relational capital, which modern management theory (Uhl-Bien, 2023) regards as a key resource for leadership effectiveness.

The identified correlation patterns confirm that leader functioning cannot be analyzed in isolation from the systemic context: the role they fulfill is embedded in a web of cultural, normative, and communicative dependencies that shape individual experience. Thus, leader loneliness should be understood as an emergent construct—a result of interactions between formal leadership responsibility and the relational conditions in which this responsibility is exercised.

5. Discussion of empirical research findings

Despite the theoretical and statistical coherence of the results, several important limitations of this study must be acknowledged. The research was conducted as a one-time, cross-sectional assessment. In order to confirm any causal relationships, the study should be replicated. Although the correlations are statistically significant, they do not determine the direction of influence between variables.

The research sample consisted of 150 managers/leaders operating in their environments in the Świętokrzyskie Voivodeship. While this number is sufficient for basic statistical analysis, it may not be representative of the leader population in other regions of Poland or sectors of the economy. A local context effect may occur (e.g., regional organizational culture, availability of support resources, dominant management styles).

Respondents' answers were based on self-assessment, which may be subject to cognitive biases (e.g., social desirability effect, problem underreporting, self-censorship in evaluating one's loneliness). The analysis was based solely on quantitative data, thus omitting individual narratives, cultural contexts, and the subjective meanings that leaders may attribute to loneliness.

Despite these limitations, the presented results reveal relationships between psychosocial determinants and loneliness among individuals in managerial roles. Based on the empirical findings, five main directions for future research can be proposed.

Table 2.Suggested directions for research on leader loneliness

Research Direction	Description	Research Hypothesis
1. Leader loneliness and	Analysis of the impact of leader loneliness	Leader loneliness reduces team
team effectiveness	on team performance and employee	effectiveness and employee
	engagement	engagement
2. Cultural and	Study of how leadership style and	Organizational culture and
organizational context	organizational culture affect leader	leadership style influence leaders'
	relational isolation	loneliness levels
3. Professional and	Evaluation of whether alignment between	Identity alignment reduces the risk
personal identity	professional and personal identity protects	of leader loneliness
	against chronic loneliness	
4. Interventions to	Designing and testing support programs	Support programs reduce loneliness
counter loneliness		and improve leader well-being

Source: Author's own elaboration.

The proposed directions for future research correspond with current trends in management sciences—such as the development of sustainable leadership, the integration of psychological well-being into organizational strategies, and the creation of environments based on relational responsibility, empathy, and inclusivity.

6. Summary

The analysis of research findings on loneliness among managerial staff allows for the formulation of several key theoretical, diagnostic, and practical conclusions.

First, leader loneliness is not a marginal phenomenon but one deeply embedded in organizational, cultural, and psychological structures. It therefore requires not only individual but also systemic interventions—including redefining leadership roles, the quality of relationships, and organizational culture. The hypothesis proposed by Peng, Chen, Xia, and Ran (2016), which posits a negative impact of managerial loneliness on leadership quality and group dynamics, aligns with a growing body of research examining how the psychological well-being of management affects an organization's human capital.

Second, leadership loneliness manifests in emotional and social dimensions, with consequences that concern both the psychological functioning of leaders and overall organizational effectiveness.

Third, institutional responsibility for the mental well-being of individuals in leadership positions should be integrated into HR strategies and organizational sustainability policies.

Fourth, it is appropriate to design and evaluate intervention programs aimed at counteracting loneliness among leaders, such as coaching, mentoring, reflection groups, or leader support networks (Chughtai, 2025). Combating leader loneliness cannot rely solely on individual responsibility—it must be embedded in a conscious, proactive, and supportive organizational policy.

References

- 1. Anand, P., Mishra, K.S. (2021). Linking core self-evaluation and emotional exhaustion with workplace loneliness: Does high LMX make the consequence worse? *International Journal of Human Resource Management*, *32*(10), 2124-2149.
- 2. Andel, S.A., Shen, W., Arvan, M.L. (2021). Depending on your own kindness: The moderating role of self-compassion on the within-person consequences of work

- loneliness during the COVID-19 pandemic. *Journal of Occupational Health Psychology*, 26(4), 276-290.
- 3. APA (2020). Publication Manual of the American Psychological Association (7th ed.). American Psychological Association.
- 4. Ashkanasy, N.M., Daus, C.S. (2005). Rumors of the death of emotional intelligence in organizational behavior are vastly exaggerated. *Journal of Organizational Behavior*, 26(4), 441-452.
- 5. Avolio, B.J., Gardner, W.L. (2005). Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315-338.
- 6. Babbie, E. (2020). The Practice of Social Research. Cengage Learning.
- 7. Cacioppo, J.T., Cacioppo, S. (2018). Loneliness in the modern age: An evolutionary theory of loneliness (ETL). *Advances in Experimental Social Psychology*, *58*, 127-197.
- 8. Cacioppo, J.T., Patrick, W. (2008). *Loneliness: Human nature and the need for social connection*. W.W. Norton & Company.
- 9. Carmeli, A., Gittell, J.H. (2009). High-quality relationships, psychological safety, and learning from failures in work organizations. *Journal of Organizational Behavior*, 30(6), 709-729.
- 10. Chiaburu, D.S., Harrison, D.A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects. *Journal of Applied Psychology*, *93*(5), 1082-1103.
- 11. Chughtai, A.A. (2025). Servant leadership and workplace loneliness: The roles of bonding social capital and proactive personality. *Management Decision*. Retrieved from: https://doi.org/10.1108/MD-08-2024-1832
- 12. Dutton, J.E., Heaphy, E.D. (2003). The power of high-quality connections. In: K.S. Cameron, J.E. Dutton, R.E. Quinn (Eds.), *Positive organizational scholarship* (pp. 263-278). Berrett-Koehler.
- 13. Edmondson, A.C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350-383.
- 14. Fischer, T., Dietz, J., Antonakis, J. (2017). Leadership process models: a review and synthesis. *Journal of Management*, 43(6), 1726-1753.
- 15. Goffee, R., Jones, G. (2006). Why should anyone be led by you? What it takes to be an authentic leader. Harvard Business Review Press.
- 16. Greenhaus, J.H., Allen, T.D. (2011). Work–family balance: A review and extension of the literature. In: J.C. Quick, L.E. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 165-183). American Psychological Association.
- 17. Halbesleben, J.R.B. (2006). Sources of social support and burnout: A meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, *91*(5), 1134-1145.
- 18. Heinrich, L.M., Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical Psychology Review*, 26(6), 695-718.

- 19. Holt-Lunstad, J. (2018). Why social relationships are important for physical health: A systems approach to understanding and modifying risk and protection. *Annual Review of Psychology*, 69(1), 437-458.
- 20. Holt-Lunstad, J., Smith, T.B., Baker, M., Harris, T., Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. *Perspectives on Psychological Science*, *10*(2), 227-237.
- 21. Hou, L., Cai, W. (2024). Effect of empowering leadership on employees' workplace loneliness: a moderated mediation model. *Frontiers in Psychology, 15*, 1387624.
- 22. Kniffin, K.M. et al. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63-77.
- 23. Kreiner, G.E., Hollensbe, E.C., Sheep, M.L. (2006). Where is the "me" among the "we"? Identity work and the search for optimal balance. *Academy of Management Journal*, 49(5), 1031-1057.
- 24. Lam, H., Giessner, S.R., Shemla, M., Werner, M.D. (2024). Leader and leadership loneliness: A review-based critique and path to future research. *The Leadership Quarterly*, *35*, 101780.
- 25. Mikulincer, M., Shaver, P.R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.
- 26. Neuman, W.L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches.* Pearson.
- 27. Ozcelik, H., Barsade, S.G. (2018). No employee an island: Workplace loneliness and job performance. *Academy of Management Journal*, *61(6)*, 2343-2366.
- 28. Peng, J., Chen, Y., Xia, Y., Ran, Y. (2016). Workplace loneliness, leader-member exchange and creativity: The cross-level moderating role of leader compassion. *Journal of Business Research*, 69(6), 2920-2929.
- 29. Qualter, P. et al. (2015). Loneliness across the life span. *Perspectives on Psychological Science*, 10, 250-264.
- 30. Schein, E.H. (2010). Organizational culture and leadership (4th ed.). Jossey-Bass.
- 31. Stanisz, A. (2006). *Przystępny kurs statystyki z zastosowaniem STATISTICA PL*. Kraków: StatSoft Polska.
- 32. Uhl-Bien, M. (2023). Relational Leadership Theory: Exploring the Social Processes of Leadership and Organizing. In: M. Painter, P.H. Werhane (Eds.), *Leadership, Gender, and Organization* (pp. 131-165). Springer.
- 33. Walz, T., Kensbock, J.M., de Jong, S.B., Kunze, F. (2024). Lonely@Work@Home? *European Management Journal*, 42, 767-778.
- 34. Wright, S., Silard, A. (2020). Unravelling the antecedents of loneliness in the workplace. *Human Relations*, 74(7), 1060-1081.
- 35. Yang, H., Lin, Z., Chen, X., Peng, J. (2021). Workplace loneliness, ego depletion and cyberloafing: Can leader problem-focused interpersonal emotion management help? *Management Decision*.