Research Article

Assessing the Effect of Transactional Leadership and Empowerment on Nursing Staff's Satisfaction: A Cross-Sectional Study

Thalia Bellali[1,2,3] , Panagiotis Theodorou[1] , Marilli Psomiadi[4] , Olympia Konstantakopoulou[5] ,
Charalampos Platis[1,6] , Meropi Mpouzika[7] , Georgios Manomenidis[8]

[1]Department of Health Care Management, Hellenic Open University, School of Social Sciences, Patra, Greece
[2]Department of Health Sciences, European University Cyprus, School of Sciences, Nicosia, Cyprus
[3]Department of Nursing, International Hellenic University, School of Health Sciences, Thessaloniki, Greece
[4]Directory of Operational Preparedness for Public Health Emergencies, Ministry of Health, Athens, Greece
[5]Department of Nursing, National and Kapodistrian University of Athens, Center for Health Services Management and Evaluation, Athens, Greece
[6]Centre of Planning and Economic Research, Athens, Greece
[7]Department of Nursing, Cyprus University of Technology, School of Health Sciences, Republic of Cyprus
[8]Department of Nursing, Democritus University of Thrace, Greece

Abstract

AIM: The present study aimed to explore the impact of transactional leadership and psychological empowerment on Greek nurses' job satisfaction.
METHODS: A cross-sectional study was conducted in five Greek public general hospitals between January 1 and March 30, 2022. Participants were 608 nurses. The study was conducted using a self-administered questionnaire that included: a) demographic and occupational characteristics, b) the Multifactor Leadership Questionnaire (MLQ), c) the Psychological Empowerment Instrument (PEI), and d) the Kuopio University Hospital Job Satisfaction Scale (KUHJSS).
RESULTS: Mean scores indicated positive perceptions of transactional leadership (3.55 ± 0.72), high levels of empowerment (3.94 ± 0.49), and job satisfaction (leadership 3.92 ± 1.07, working environment 3.34 ± 0.78, motivating factors 4.11 ± 0.89, and team spirit 4.08 ± 0.37). Younger nurses with secondary education exhibited higher satisfaction. Multiple regression analyses identified nurses' level of education, transactional leadership, and psychological empowerment as main predictors of leadership satisfaction ($F = 4.343$, $p = .002$, $R^2 = .28$, adjusted $R^2 = .22$). Younger nurses with higher empowerment levels and positive attitudes toward transactional leadership reported greater satisfaction from motivating factors ($F = 6.925$, $p = .000$, $R^2 = .44$, adjusted $R^2 = .38$).
CONCLUSION: The results of the study showed that nurses' satisfaction from work is mainly derived from leadership, despite the potent effect of psychological empowerment.
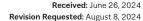*Keywords:* Empowerment, job satisfaction, nursing, transactional leadership

Introduction

The complexity of modern organizations and the highly competitive and rapidly changing environment within which they operate require a flexible flat hierarchical structure that facilitates the organizational culture to be more responsive to changes and creates an empowering context for those they employ, thus providing high-quality services. Empowerment, especially in labor-intensive settings such as hospitals, comprises a necessary administrative practice for organizations seeking to enhance employees' performance and improve users' healthcare outcomes (Alrige et al., 2022). The structural-related and psychological approach to empowerment forms an essential tool for improving the working environment along with employees' effectiveness and efficiency, as job satisfaction's

prominent predictive indicator is strongly associated strongly with the leadership framework established (Laschinger et al., 2001).

The notion of leadership has been conceptually approached from different aspects as numerous definitions have attempted to convey it better. According to Vender (2014), leadership is defined as "a combination of position, responsibilities, attitude, skills, and behaviors that allows someone to bring out the best in others, and the best in their organization, in a sustainable manner." Yiqun (2019) describes leadership as "the process or act of individuals exerting their influence on others by guiding and directing their actions in order to accomplish organizational goals." Based on the aforementioned definitions, it is evident that they all share a common range of aspects in relation to

Corresponding author: Thalia Bellali
E-mail: bellalithalia@yahoo.com

leadership, which include: planning, anticipating, organizing, motivating, and guiding not only employees but also the procedures and processes within these organizations. Gaining a better understanding of leadership could lead to more deliberate choices when selecting leaders, thus appealing to individuals' internal motivations and achieving greater success in goals set. Leaders can exhibit a variety of leadership styles, each of which is characterized by the unique approaches and behaviors employed to influence their teams. Two of the most prominent theories explaining leadership are transformational and transactional leadership styles. In transformational leadership style, the leader has the ability to motivate employees to work for the organization by creating a context of trust and self-confidence. According to Saad Alessa (2021), transformational leaders are expected to influence the team's enthusiasm with charisma and inspiration and by providing intellectual stimulation. Transactional leadership style embodies many personal characteristics and skills, namely confidence and determination along with empathy and flexibility for in-depth understanding of employees' needs, and focuses on achieving organizational goals through power, rewards, and punishment. However, in order to promote employees' engagement and personal development, it is essential that this leadership style is applied in certain organizational cultures and contexts that are characterized by innovation and flexibility (Dong, 2023).

Empowerment, as a predominant management practice, emerged in the 1980s, epitomizing alternative organizational theories. It is a cognitive process, an intrinsic motivation, a psychological process that enables employees to comprehend the connection between their actions and results and is supported within the organization, since it is external to the individual (Haddad & Toney-Butler, 2018). The literature presents two main dimensions that are essential for empowerment: access to resources such as supplies, time, and funds, and access to opportunities that include increased knowledge and organizational information (Saleh et al., 2022). Empowerment can be expressed either as a structural or as a psychological structure. Structural empowerment entails all organizational-level factors that aim to make employees stronger by giving them the choice to create their ideal working environment, while psychological empowerment is the state that is marked by a sense of perceived control, competence, and autonomy (Orgambídez-Ramos et al., 2017). One can argue that an enabling structure would have an impact on psychological empowerment as the employee experiences powerfulness (Saleh et al., 2022). Empowerment as a management technique is critical for healthcare organizations that are characterized by extremely challenging and demanding working conditions, including long working hours, insufficient monetary remunerations, limited autonomy and authority, and prolonged emotional demands (Moreno-Jiménez et al., 2024). Acknowledging that transactional leadership is considered the way to maintain and reinforce professionalism in healthcare settings, employees' active attitude as a product of psychological empowerment, may affect not only their overall performance but their job satisfaction levels as well.

Job satisfaction is scientifically approached based on its interconnection with employees' value systems and feelings about the job and the extent to which they identify with the conditions prevailing in the workplace. As supported by the literature, this interconnection constitutes a relationship of expectations between what the employee wishes to acquire from work and what they eventually receive, including remuneration, career opportunities, safety, etc. (Aziri, 2011).

With nursing personnel comprising the largest professional group among healthcare employees, more and more researchers focus on assessing their job satisfaction levels along with their determining factors as an indirect indicator of the healthcare services provided (Olaniyan et al., 2023). Several studies have highlighted that nurses present the lowest job satisfaction rates among healthcare professionals while identifying numerous defining factors, including their heavy workload, relations with peers, support from their supervisor, and lack of a sense of healthy working conditions (Tomaszewska et al., 2024). In contrast, leadership style, occupational safety, moral and psychosocial support, continuous reward, and the possibility of promotion and advancement contribute to nurses' job satisfaction and highest ability performance, primarily when implemented in an ambience of dialogue and trust that encourages knowledge, development, respect, and innovation (Anastasia et al., 2023).

A study conducted in 12 hospitals in Taiwan showed a correlation between transactional style, organizational engagement, and job satisfaction, leading to better work-life quality (Lin et al., 2015). In an Ethiopian study, it was found that all five transactional leadership dimensions correlated positively with nurses' internal and external job satisfaction, especially the incentive one. In addition, transactional leadership was associated with nursing excellence in delivering better healthcare outcomes (Negussie & Demissie, 2013). The positive correlation between transactional leadership and nurses' job satisfaction has also been underlined in a recent study conducted in Greece, where transactional leadership practices adopted by nurse managers had a significant contribution to nurses' satisfaction regarding working conditions, promotion, privileges-benefits, and salary (Moumouri et al., 2021).

Findings regarding the impact of transactional leadership style on nurses' job satisfaction are unclear, according to a recent systematic review that revealed that transactional leadership displayed both positive and negative correlations with nurses' job satisfaction (Specchia et al., 2021). Given that the empowering behaviors of leaders indirectly affect nurses' job satisfaction levels while preventing emotional exhaustion, it is crucial to address the factors that might be decisive in optimizing their job satisfaction. The present study investigated the impact of transactional leadership and psychological empowerment on Greek nurses' job satisfaction.

Research Questions
1. How do nurses evaluate the transactional type of leadership?
2. What is the level of nurses' job satisfaction?
3. What is the level of nurses' psychlological empowerment?
4. What are the predictors of nurses' job satisfaction?

Methods

Study Design

A cross-sectional study was conducted using a self-reported questionnaire between January 1 and March 30, 2022, in five public general hospitals in three out of seven major health regions in Greece.

Data Collection

A poster on the participant hospitals' official site called for nursing personnel to participate in the study. Interested personnel contacted the first author and received further information about the study. A convenience sample of 650 nurses was considered eligible for the study. The inclusion criteria were a permanent employment status and at least one year of working experience. A ballot box was placed in each ward to collect the questionnaires.

Data Collection Tools

A data collection form was used with the following: a) demographic and occupational characteristics, b) the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2004), c) the psychological empowerment instrument (PEI) (Spreitzer, 1995), and d) the Kuopio University Hospital Job Satisfaction Scale (KUHJSS) (Kvist et al., 2013).

Demographic and Occupational Characteristics

The demographic and occupational characteristics questionnaire was constructed for the study. It included the following seven questions: gender, age, marital and parental status, level of education, years of experience, working department, and managerial position.

The Multifactor Leadership Questionnaire (MLQ)

The MLQ is a standard instrument that evaluates three leadership styles: transformational, transactional, and passive-avoidant (Bass & Avolio, 2004). It consists of 45 items. For the study, the 20 items referring to transactional leadership were used through a 5-point Likert scale (1 = never, 5 = always). The MLQ has been used in Greek nurses, displaying good internal consistency (Cronbach's α > 0.7) (Panidou & Antoniou, 2022). The Cronbach's α of internal consistency for the study was 0.955, indicating a good level of reliability.

The Psychological Empowerment Instrument (PEI)

The PEI is a 12-item questionnaire (Spreitzer, 1995) that assesses psychological empowerment based on four cognitions (meaning, competence, self-determination, and impact). The total score is calculated by summing all items. The response categories range from 1 (totally disagree) to 5 (totally agree). A higher score indicates a higher level of psychological empowerment. The scale has been translated and used in the Greek context indicating good internal consistency (Cronbach's α = 0.79) (Dimitriades, 2005). The Cronbach's α for the study was 0.844, indicating good reliability.

The Kuopio University Hospital Job Satisfaction Scale (KUHJSS)

The KUHJSS (Kvist et al., 2013) is a questionnaire assessing job satisfaction. It comprises 27 items measured on a 5-point Likert scale from 1 (totally disagree) to 5 (totally agree). The KUHJSS comprises of four subscales: leadership, working environment, motivation, and working welfare. The KUHJSS has been validated in Greek nurses, displaying good internal consistency (Cronbach's α: 0.71–0.88) (Sapountzi-Krepia et al., 2017). The Cronbach's α for the study ranged from 0.839 to 0.950, indicating good reliability.

Statistical Analysis

Data were exported to the Statistical Package for The Statistical Package for Social Sciences version 22.0 software (IBM Corp.; Armonk, NY, USA). The normality of the distribution of the observed numeric variables was tested using the Kolmogorov-Smirnov test. Categorical variables are presented as numbers and percentages, while continuous variables are presented as mean ± standard deviation. Student's *t*-tests and analyses of variance were used to examine differences in job satisfaction, gender, family status, education, department, and managerial position. Pearson's *r* correlation was used to examine bivariate associations between job satisfaction, age, years of experience, empowerment, and leadership. Variables showing a significant association with job satisfaction in the bivariate analysis were entered in a multiple regression model as predictors, with job satisfaction as the dependent variable.

Ethical Considerations

The study was approved by the scientific and research ethics commitee of all the hospitals involved (General Hospital of Gianitsa, Approval no: G5b/13565; December 17, 2020), (Panarkadiko General Hospital of Tripoli, Approval no: 2385, Date: February 7, 2022), (General Hospital of Agios Nicolaos, Approval no: 10, Date: February 2, 2022), (General Hospital of Ierapetra, Approval no: 74, Date: December 31, 2021), (General Hospital of Sitia Approval no: 7140, December 21, 2021) and by the boards of executives of all five hospitals. The study was conducted in adherence to the Declaration of Helsinki. Nurses who agreed to participate in the study and met the inclusion criteria signed an informed consent form after receiving a verbal explanation, and they were told that they could withdraw from the study at any time without consequence. Confidentiality and anonymity were maintained throughout the research process by providing a cover letter accompanied by the questionnaire.

Results

Six hundred and fifty (650) questionnaires were distributed, and six hundred and eight (608) questionnaires were returned (93.5% response rate). Respondents included 368 nurses and 240 nurse assistants. The demographic and job characteristics of the participants are presented in Table 1. The sample consisted predominately of females (83.1%) with children (70.6%) living with their families (67.4%).

Descriptive statistics and Cronbach's α for the scales of MLQ, the PEI, and the KUHJSS are summarized in Table 2. The mean scale for the MLQ was 3.55, above the mid-point, suggesting a positive assessment of employees toward transactional leadership. Respectively, the mean scale for the PEI was 3.94, above the mid-point, suggesting a high level of employee empowerment. In addition, mean scores on KUHJSS subscales

Table 1.
Demographic and Job Characteristics (n = 608)

Demographic Variables	N (%)
Gender	
Female	505 (83.1)
Male	103 (16.9)
Age	
<29	56 (9.2)
30–39	130 (21.4)
40–49	226 (37.2)
50–59	179 (29.4)
>60	17 (2.8)
Marital status	
Live with my partner	179 (29.4)
Live alone	19 (3.1)
Live with my family	410 (67.4)
Children	
No	176 (28.9)
Yes	429 (70.6)
Educational	
Secondary education	241 (39.6)
Tertiary education	266 (43.8)
MSc/PhD	101 (16.6)
Years of experience	
<10	198 (32.6)
11–20	200 (32.9)
>21	210 (34.5)
Department	
Internal medicine	103 (76.3)
ICU/OR	32 (23.7)
Managerial position	
No	440 (55.4)
Yes	168 (21.2)

Note: ICU, intensive care unit; OR, operation room.

(leadership 3.92, working environment 3.34, motivating factors 4.11, and team spirit 4.08) were above the mid-point, showing high levels of job satisfaction.

Table 3 indicates bivariate analyses between demographics/job characteristics and KUHJSS subscales. There was a significant difference in the subscales of leadership, working environment, and age-related motivating factors. The most significant difference was observed between nurses under 29 years old (mean = 4.2 ± 0.9) and nurses above 60 (mean = 3.6 ± 1.3). A significant difference was also observed between satisfaction from leadership and the level of education, with nurses with secondary education showing higher satisfaction from

Table 2.
Descriptive Statistics and Cronbach's α for the MLQ, the PEI, and the KUHJSS

Scale	Mean	Cronbach's α
MLQ	3.55 (±0.72)	0.955
PEI	3.94 (±−0.49)	0.844
KUHJSS		
Subscale leadership	3.92 (±1.07)	0.950
Subscale working environment	3.34 (±0.78)	0.885
Subscale motivating factors	4.11 (±0.89)	0.849
Subscale team spirit	4.08 (±0.37)	0.839

leadership $(600) = 2.159$, $p = .031$. Moreover, there was a positive association between the subscale of motivating factors and years of experience. The most significant difference was between nurses working less than ten years (mean = 4.23 ± 0.89) and nurses working over 21 years (mean = 4 ± 0.74).

All subscales of KUHJSS were positively associated with MLQ and PEI, which shows that a high level of nurses' empowerment and positive assessment toward transactional leadership contribute to higher levels of job satisfaction; see Table 4. Multiple regression analyses showed that nurses' level of education, MLQ, and PEI were the main predictors of nurses' leadership satisfaction ($F = 4.343$, $p = .002$, $R^2 = .28$, adjusted $R^2 = .22$), explaining 28% of the variance. Nurses with lower levels of education, positive attitudes toward transactional leadership, and higher levels of empowerment had higher levels of satisfaction with leadership. Regarding the main predictors of satisfaction from motivating factors, regression analyses showed that nurses' age, MLQ, and PEI ($F = 6.925$, $p = .000$, $R^2 = .44$, adjusted $R^2 = .38$) explained 44% of the variance. Younger nurses had a positive attitude toward transactional leadership, higher levels of empowerment, and higher levels of satisfaction from motivational factors; see Table 5.

Discussion

The primary purpose of this study was to investigate the effect transactional leadership and psychological empowerment have on the job satisfaction rates of the nursing personnel currently working in five public general hospitals.

Participants of the study had a positive attitude toward transactional leadership. This finding is in line with an earlier study that suggested a positive association between transactional leadership and health professionals' attitudes toward organizational changes, reporting higher commitment to the organization (Mekonnen & Bayissa, 2023). In another study where the dominant leadership style was transactional, nurses had lower levels of stress and increased work engagement and were more receptive to the transactional contingent reward leadership style (Pishgooie et al., 2019).

This study revealed that the level of nurses' perceived empowerment was high, suggesting increased access for nurses to opportunities, support, and information. This finding is

Table 3.
Bivariate Analyses Between Demographics/Job Characteristics and KUHJSS Subscales

KUHJSS Subscales	Gender	Age	Family Status	Children	Level of Education	Managerial Position	Years of Experience	Department
Leadership	0.60	0.042	0.60	0.460	0.031	0.495	0.268	0.152
Working environment	0.94	0.031	0.40	0.238	0.455	0.443	0.188	0.531
Motivating factors	0.47	0.04	0.95	0.52	0.871	0.106	0.016	0.143
Team spirit	0.97	0.71	0.79	0.304	0.299	0.271	0.523	0.55

Note: $p < .05$.

consistent with Aggarwal et al. (2018) study, which also reported a high level of empowerment among Indian nurses. However, the results contradict the findings of another study conducted in Jordan (Al-Ghwary et al., 2024) in which nurses reported a moderate level of empowerment.

In this study, the job satisfaction level was high. This result is concordant with a previous study in which nurses also expressed higher satisfaction with their workplace environment (Lin et al., 2020). Nevertheless, in another study on nurses, low levels of job satisfaction were reported (Yew et al., 2018). In the literature, nurses' satisfaction rates depend on their working environment characteristics, and those working in closed wards, in particular, due to the numerous stressors they suffer, are often led to leave their profession (Mousazadeh et al., 2019).

From the bivariate analysis, it was evident that age affected nurses' regard for leadership, working environment, and motivating factors, particularly among those under 29 years of age and those over 60. Younger employees have notable disparities with older groups in how they prioritize desired leadership qualities that align with their preferred style of leadership. Their commitment to the organization is primarily associated with their self-interest, and transactional leadership fits perfectly with their needs as it provides clear work goals, expectations, and reward compensation (Tziner & Shkoler, 2018). On the other hand, one would expect older employees to be against leadership styles that impose order and focus only on results. However, in this study, older employees reported a positive stance toward transactional leadership, probably because they are disappointed by the current culture of the Greek national health system and seek a system that is based on reward-penalty.

Given that younger nurses tend to prioritize work-life balance and have different work values and work-related expectations compared to the older ones, it is clear that working environment conditions play a pivotal role in younger nurses' job satisfaction.

Table 4.
Bivariate Analyses Between KUHJSS Subscales and MLQ and PEI

KUHJSS Subscales	MLQ	PEI
Leadership	$r = .128, p < .05$	$r = .426, p < .01$
Working environment	$r = .123, p < .05$	$r = .645, p < .01$
Motivating factors	$r = .156, p < .05$	$r = .289, p < .01$
Team spirit	$r = .105, p < .05$	$r = .487, p < .01$

This finding is in line with a study that identified working environment as the main prioritization of work values for younger nurses (Kim et al., 2024). The working environment is equally important for older nurses' satisfaction, who are very close to retirement (over 60), though they have different expectations that are summarized in the appreciation and acknowledgment they receive from others, both colleagues and managers.

The study found a significant correlation between nurses' age and motivating factors, specifically among younger nurses and nurses close to the end of their nursing careers. Probably, younger nurses have great expectations regarding remuneration, working conditions, the status of the nursing profession, and promotion (extrinsic motivational factors) that they believe

Table 5.
Summary of the Multiple Regression Model in Satisfaction From Leadership and From Motivating Factors

Variables	B	Standard error	t	p	95% CI
MLQ	0.146	0.51	2.856	.04	0.046, 0.247
PEI	0.013	0.072	0.180	.046	0.154, 0.128
Age	−0.081	0.042	1.919	.65	−0.164, 0.002
Level of education	0.182	0.086	2.124	.034	0.351, 0.014
F	4.343				
df	4				
R^2	.28				

Variables	B	Standard error	t	p	95% CI
MLQ	0.133	0.036	3.717	.000	0.063, 0.203
PEI	0.023	0.050	0.465	.042	0.075, 0.121
Age	0.144	0.042	2.671	.008	0.197, 0.030
Working experience	0.019	0.052	0.362	.718	0.083, 0.120
F	6.925				
df	4				
R^2	.44				

Note: $p < .05$.

would help them increase their work satisfaction. On the other hand, older nurses search for motivational factors that will drive them to work satisfaction through features such as management, personal growth, and recognition (intrinsic motivational factors). These findings are in contrast to an earlier study in which nurses older than 29 years were satisfied with motivational factors including remuneration, recognition, and professional advancement (Ayalew et al., 2019).

The elevated levels of empowerment, along with the positive stance toward transactional leadership, the nursing personnel enrolled in the study demonstrated, contribute to their high job satisfaction rates. These findings are consistent with previous ones that highlight the positive interrelations among transactional leadership, empowerment, and job satisfaction, as empowerment positively affects nurses' job satisfaction rates and mediates the relationship between transactional leadership and job satisfaction (Choi et al., 2016).

In this study, nurses of younger age perceived transactional leadership more positively and were presented with higher empowerment and job satisfaction levels. This finding is consistent with a previous one in which younger nurses appeared more satisfied with their work, an intention reflected in their willingness to remain in their profession (Brewer et al., 2016).

As reported previously, nurses of younger age and lower educational levels expressed a positive stance toward transactional leadership while presented with greater empowerment, consequently enjoying higher job satisfaction levels from motivational factors. This finding is rather interesting when considering that only when employees feel empowered enough do the effects of their empowerment become tangible to both them and the organization they work for (Dainty et al., 2002). Our findings are consistent with those from previous studies as they support the interrelation between empowerment and job satisfaction. They also agree on the determining effects demographics may present, i.e., age (Cicolini et al., 2014) However, it is essential to note that despite empowerment's potent effect on job satisfaction, the gratification from leadership makes the nursing personnel remain in their profession and not depart from it as per the potent concurrent trend (Mousazadeh et al., 2019).

Study Limitations

Significant strengths characterize this study. Concerning its strengths, it is important to acknowledge that this was the first study in this field to explore nurses' psychological empowerment and stance toward transactional leadership's effect on their job satisfaction levels. However, the findings of this study cannot be generalized to the entire Greek nursing population despite the sample consisting of 608 participants across three out of the seven Greek health regions due to the cross-sectional study approach and self-reporting biases. Further research could explore the causality of the variables under study.

Conclusion and Recommendations

Transactional along with transformational leadership are the two common leadership styles in health care settings. Nurses' satisfaction from work is mainly defined by leadership style along with the empowerment provided by managers. Other factors should also be considered before managers apply the most appropriate and effective leadership style, including nurses' demographic and professional characteristics, since these define work values and ethics. Overall, results of this study can lay the basis for the design and development of policy and management programs aimed at enhancing nursing personnel's job satisfaction and strengthening leadership skills. To optimize management abilities, nurse managers are strongly suggested to receive proper training.

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