

# Workplace factors related to the well-being of employees in nursing: A mixed-methods study\*

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## Abstract

The aim was to identify workplace factors related to the well-being of employees in nursing. A cross-sectional study was conducted in nine from twelve Slovenian hospitals. Descriptive statistics and multivariate regression analysis were used. According to a qualitative study, semi-structured interviews were used. The content analysis gave six main categories: Leadership style; Leaders' personal qualities; Leaders' knowledge and skills; Stress; Patients; Organization; that is important for employees' well-being in nursing. It was revealed that 93 % of employees' well-being in nursing could be predicted with leadership style, leaders' knowledge and skills, leaders' personal qualities, frequency of workplace stress, stress management working experiences, and education level. The study confirmed the importance of leaders' skills and knowledge, leaders' personal qualities, and leadership styles for higher employees' well-being in nursing.

**Keywords:** health; hospitals, leadership; nurses; well-being; workplace

**JEL Codes:** I31, J81

## Introduction

Well-being is an essential basis for health (WHO 2014). Different definitions of well-being can be found in the literature (Dodge/Daly/Huyton/Sanders 2012; Diener 2013; Ng/Fisher 2013; Schulte/Guerin/Schill/Bha 2015; Ryff 2016), but in all, it is well known as a multi-dimensional construct. The promotion of well-being becomes more and more important according to the social and economic changes (Kirkwood/Bond/May/McKeith/Teh 2010; Kallay/Rus 2014). Well-being, like happiness, life satisfaction, and self-growth, represents one of the most important aspects of an efficient individual psychological functioning (Huppert 2009; Nikolaev/Boudreux/Wood 2019; Shir/Nikolaev/Wincent 2019).

Ryff and Keyes (1995) identified six dimensions of psychological well-being: (1) autonomy is an ability to function free from others' influence and control and regulate emotions and behaviour. This dimension evaluates people's independence in different aspects of their lives; (2) environmental mastery reflects a person's capacity to design environments appropriate for their propensities. This dimension refers to the ability to deal with a challenging environment, having the ability to adapt to adverse circumstances; (3) positive relationships with others represent the capacity to develop and maintain warm, affectionate, and trusting

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human relationships. This dimension measures how an individual interacts with others openly and sincerely; (4) purpose in life represents the capacity to determine and (re)construct meaning in life. This dimension measures the peoples' ability to interact with others openly and sincerely; (5) personal growth refers to our capacity to realize our potentials and perceive life as a process of continuous change, challenges, and opportunities, through which we continuously grow. This dimension measures the people's ability to learn from themselves, being open to new experiences and challenges; (6) self-acceptance is considered an indispensable aspect of mental health, being both a characteristic and a necessary element of self-actualization optimal human functioning. This dimension reflects the acceptance of every aspect of an individual and one's own past (Ryff/Singer 2006). All six dimensions represent multi-dimensional conceptualization of psychological well-being and are often used in international studies (Ryff 2017).

Leadership is an essential concept, but it is also tough to define. McCleskey (2014) noted that a single definition of leadership is not possible, since the definition of leadership depends on the researcher's interest and the type of studied problem. Almost in all descriptions, leadership is a process where leaders influence their employees to achieve organizational goals (Lussier/Achua 2007; Huber 2013). In healthcare is a crucial leaders' skill, using different leadership styles (Casida/Parker 2011). Before introducing the transformational leadership style, the transactional leadership style was perceived as the most effective leadership style in organizations and motivated employees by rewards and discipline (Bass/Avolio/Jung/Berson 2003). The transformational leadership style focus on team-building, motivation, and collaboration with employees at different levels of the organization to accomplish change for the better (Marshall 2011; Marquis/Huston 2017). Transformational leadership refers to influencing others to achieve goals with change beliefs, values, and needs of employees (Casida/Parker 2011). In the last few decades, transformational leadership has been studied in many studies (Dinh/Lord/Gardner/Meuser/Liden/Hu 2014). According to Bass and Riggio (2006), transactional leadership complements and increases the effects of transformational leadership outcomes. Researches (Bono/Judge 2004; Deinert/Homan/Boer/Voelpel/Gutermann 2015) have shown that transformational leadership is associated with personality qualities. Marques and Huston (2017) noted that the leadership style that leaders use is based on a combination of their beliefs, values, and preferences, as well as the organizational culture and norms, which encourage some leadership styles and discourage others.

Leadership style is used by leaders depending on the personal qualities of the leader. A leadership style that the leader will adapt on its way and selected according to the leader's past knowledge, experience, and skills. Musek (1997:242) states that personal qualities, physical and mental qualities, knowledge, skills, and motivation affect achievements and success. The leadership literature in-

volves several unique qualities, knowledge, and skills of successful and effective leaders. Leaders' attributes, knowledge, and abilities affect employees through the leader's reaction according to their leadership style (Berson/Oreg/Dvir 2008). Their decisions and behaviour are also reflected in the organizational culture and employees' attitudes and behaviour. Exploring leaders' qualities is useful, and some personal qualities define a successful leader, and the active promotion of these characteristics can develop an individual into a strong leader. Of course, there are several leadership theories and more leadership styles; thus, the different leaders' qualities come into consideration. The most important is that a leader is appropriately qualified for successful leadership.

Workplace and work-life are significant predictors of various organizational outcomes, such as employee performance, lower absenteeism, organizational effectiveness, and employee well-being (Montes-Berges/Augusta-Landa 2014; Pineau Stam /Spence Laschinger/Regan/Wong 2015; Williams/Smith 2016; Nielsen/Nielsen/Ogbonnaya/Kansala/Saari/Isakson 2017; Tarcan/Hikmet/Schooley/Top/Yorgancioglu Tarcan 2017; Ozylmaz/Erdogan/Karaeminoğulları 2018). Some researchers have found a positive relationship between well-being and control over work tasks (Rivkin/Diestel/Schmidt 2015; Bakker/Demerouti 2018), transformational leadership (Sudha/Schahnawaz/Farhat 2016; Arnold 2017; Gyu Park/Sik Kim/Yoon/Joo 2017; Inceoglu/Thomas/Chu/Plans/Gerbasi 2018; Pinck/Sonnetag 2018), and independence of employees (Schultz/Ran/Niemiec/Legate/Williams 2015). Leaders who can provide a high-quality work environment positively impact employee well-being (Kauhanen/Nätti 2015; Arif/Katafygioutou/Mazroei/Kaushik/Alsarrag 2016). The leaders who nurtured employee well-being through quality leadership perceived a positive impact on their well-being over time. Happy people have better physical health, better relationships, high-level performance (Huppert 2009; Huang/Ahstrom/Lee/Chen/Hsieh 2016; Nielsen et al. 2017; Peiró/Kozusznik/Rodríguez-Molina/Tordera 2019) and quality work-life (Durkin/Beaumont/Hollins Martin/Carson 2016; Kumar/Gupta 2017).

Well-being affects not only the organizational outcomes but also individuals. The level of employees' well-being is essential for health care institutions. To better understand and identify determinants that affect the multi-dimensional concept of well-being, it is reasonable to use different research methods. The aim of the study was to identified workplace factors related to employees' well-being in nursing.

The following hypotheses were tested:

- 1 Leaders' personal qualities, knowledge, and skills are related to the nursing employees' well-being.
- 2 Transformational leadership is an essential determinant of employees' well-being in nursing.

## Methods

### *Participants and procedures*

A study with a cross-sectional questionnaire took place in 9 from 12 Slovenian hospitals. One thousand three hundred questionnaires were distributed, which amounts to 14 % of 9404 employees in nursing in all Slovenian hospitals. Seven hundred twenty questionnaires were correctly and filled out, and the response rate was 55 %. This sample represented 8 % of all employees in nursing in Slovenian hospitals. 62 % of participating employees were between 30 and 50 years of age. 58 (8 %) had less than five years working experiences in nursing, 151 (21 %) had 5 to 10 working experiences in nursing, 245 (34 %) had 11 to 20 working experiences, 144 (20 %) had 21 to 30 working experiences, and 122 (17 %) had more than 31 working experiences in nursing.

In the qualitative study, twelve employees in nursing from three participating hospitals in Slovenia were included. For semi-structured interviews, the purpose sampling was used. A key criterion for the selection of participants was at least ten years of working experience in nursing. The age group of participants varied from 34 to 52 years; all of them were female.

Written permission for the study from the National Medical Ethics Committee of the Republic of Slovenia (No.157/09/13), followed by approvals from all eight participating hospitals were received. We ensured the voluntariness of the participation in the research; the participants also had an option of refusal or interruption of the cooperation. Anonymity was guaranteed. In the survey, every participant received an application for participation, instructions, a questionnaire, and a guarantee of anonymity with the paid envelopment with the postage stamp and the researcher's address. Before conducting interviews, we also acquired written consent from the participants and informed them individually about the role, content, purpose of the study, and their rights. All participants were informed of the confidentiality and security of the obtained data. They were also notified about the right to refuse participation, which was voluntary and non-binding. We were careful to ensure that the interviewer did not name any co-workers during the interviews to ensure the co-workers' anonymity.

### *Instrument*

Questionnaire contains:

- Demographic and other characteristics (age, gender, working experiences in nursing, educational level, job position, frequency of workplace stress, and stress management).
- Multifactorial Leadership Questionnaire (Bass/Avolio 1990) measure the transformational leadership style (Cronbach alpha was 0.812) and transactional leadership style (Cronbach alpha was 0.960). Twenty items were as-

sessed on a six-point Likert scale ranging from 1 (strongly disagree) to six (strongly agree).

- Ten leaders' personal qualities (Lorber/Skela-Savič 2011): honesty, organizing, interpersonal relations, decisiveness, reliability, objectivity, responsibility, communication skills, self-confidence, and ambition, were assessed on a six-point Likert scale ranging from one (strongly disagree) to six (strongly agree). Cronbach's alpha was 0.943.
- Leaders' knowledge and skills (85 items related to knowledge and skills about communication skills, teamwork, delegating, decision making, problem-solving, emotional intelligence, managing changes, motivation, career development, quality, and safety) were assessed on a six-point Likert scale ranging from one (strongly disagree) to six (strongly agree). This part was designed by O.K. Consulting (Company for transformational management). Cronbach's alpha was 0.932.
- Ryff Scales of Psychological well-being (Ryff/Keyes 1995) measure six dimensions of well-being (autonomy, positive relations with others, environmental mastery, personal growth, the purpose of life, and self-acceptance). Forty-two items were assessed on a six-point Likert scale ranging from one (strongly disagree) to six (strongly agree). Cronbach's alpha was 0.991.

In the context of qualitative methodology, we obtained the data through participant observation and a semi-structured interview with six open questions, sometimes followed by sub-questions depending on the need for clarification of the received information. The interviews were conducted at locations and time selected by the participants. All the interviews were done in the workplace at the end of their morning shifts. Interviews lasted approximately 30 to 40 minutes.

### *Data analysis*

Multiple regression analysis was used to determine the effect of independent variables (demographic characteristics, transformational leadership, transactional leadership, leaders' personal qualities, and leaders' knowledge and skills) on a dependent variable (well-being). We were also interested in differences of well-being according to the frequency of workplace stress, stress management, level of education, and workplace experiences. To find statistically significant differences in employees' well-being in nursing, Kruskal-Wallis, and Mann-Whitney test were used. A p-value of  $<0.05$  was considered to be statistically significant.

After the transcription, the interviews were coded and compared. Multiple readings aimed to search for codes through a coding process that links and combines similar events and thoughts in the statements in the empirical material. The codes were combined into more abstract categories, which were used to explain the determinants' effect on nursing employees' well-being more transparently.

ently and systematically. The nursing employees' statements were left unchanged, which is permitted in qualitative analysis.

## Results

238 (33 %) nursing employees are always exposed to workplace stress, 360 (50 %) are often exposed to workplace stress, and 122 (17 %) are sometimes exposed to workplace stress. 562 (78 %) nursing employees assessed that manage workplace stress. The average level (Table 1) of using a transformational and transactional leadership style, leaders' personal qualities, knowledge, and skills are at a moderate level (from 3.63 to 4.36 from 6). The level of employees' well-being in nursing is also at a moderate level ( $\bar{x}=161.27$  from 252).

**Table 1: Results of descriptive statistic**

Variables	Min	Max	$\bar{x}$	s
Transformational leadership	2	6	3.77	1.35
Transactional leadership	1	6	3.63	1.42
Leaders' personal qualities	1	6	4.36	1.39
Leaders' knowledge and skills	1	6	3.63	1.49
Well-being – Autonomy	9	42	26.78	9.95
Well-being – Positive relations	10	42	26.12	9.45
Well-being – Environmental mastery	11	42	29.16	8.55
Well-being – Personal growth	8	42	25.34	10.82
Well-being – Purpose in life	9	42	28.07	8.79
Well-being – Self-acceptance	10	42	26.19	9.32
Well-being	67	252	161.27	55.19

Note: Min=minimum; Max=maximum;  $\bar{x}$ = average value; s= standard deviation

Statistically significant differences in employees' well-being in nursing were found according to working experiences in nursing ( $F=2.364$ ;  $p=0<0.001$ ), level of education ( $F=1.892$ ;  $p=0.018$ ), frequency of workplace stress ( $F=47.504$ ;  $p<0.001$ ) and stress management ( $Z=7.798$ ,  $p<0.001$ ). No statistically significant differences were found in nursing employees' well-being according to job position ( $Z=1.218$ ;  $p=0.275$ ). A higher level of well-being was found in those who are employed several years in nursing, those who have a higher level of education, those exposed to stress less frequently, and those who are managing stress better. It was also found that leaders' personal qualities ( $r=0.756$ ;  $p<0.001$ ) and leaders' knowledge and skills ( $r=0.803$ ;  $p<0.001$ ) are statistically significant positively associated with employees' well-being in nursing.

To test the influence leaders' personal qualities, knowledge, skills, leadership style, stress management, and some other variables on well-being in nursing, a

multiple linear regression was performed. Transformational leadership style, transactional leadership style, leaders' personal qualities, leaders' knowledge and skills, working experiences, level of education, job position, frequency, and managing stress were entered into the model as the independent variables. Well-being was used as the dependent variable. We revealed that 93 % of employees' well-being in nursing could be statistically predicted with leadership style, leaders' personal qualities, leaders' knowledge and skills, working years in nursing, level of education, frequency of workplace stress, and stress management (Table 2). It was found that the transformational leadership style was the strongest predictor ( $\beta=0.487$ ;  $p<0.001$ ) of employees' well-being in nursing.

**Table 2: Results of regression analysis for the prediction of well-being**

Variables	B	S.E.	$\beta$	t	p-value
Working experiences	0.025	0.008	0.056	2.327	<b>0.030</b>
Level of education	0.040	0.009	0.087	4.424	<b>&lt;0.001</b>
Job status	-0.004	0.030	-0.028	-1.861	0.063
Transformational leadership	0.486	0.040	0.487	7.035	<b>&lt;0.001</b>
Transactional leadership	0.068	0.038	0.048	2.205	<b>0.028</b>
Leaders' knowledge and skills	0.091	0.029	0.091	3.138	<b>&lt;0.001</b>
Leaders' personal qualities	0.877	0.066	0.177	3.650	<b>&lt;0.001</b>
Frequency of workplace stress	-0.059	0.015	-0.080	-3.839	<b>&lt;0.001</b>
Stress management	0.028	0.023	0.066	2.425	<b>0.018</b>

Adjusted  $R^2=0.935$ ;  $F=391.706$ ;  $p<0.001$

Note: B=unstandardized regression coefficient; S.E.=standard error;  $\beta$ =standard regression coefficient; t=t-value of t-statistic;  $R^2$ =coefficient of determination

It was found that 367 (51 %) of nursing employees assessed their well-being positively (assessed four or more), and 353 (49 %) was not (assessed three or less). Based on the results obtained with the interviews, we also can divide employees in nursing into two groups; those who are satisfied and feel good in their workplace: *"I feel very good, and I'm satisfied with my job."*; *"I am pleased when I go to work. I am very happy in the workplace. I like to work with my co-workers. I feel very good in the unit."* and those who do not feel good in their workplace and are not satisfied: *"I am not too happy, and I do not feel committed to the organization."*; *"Well-being in workplace is poor. In the morning, when I have to go to work, my heart is breaking. Those feelings also affect my family at home."*

Looking through the analysis of empirical material, we examined the answer to the research question. After few times reading, we combined similar codes into six thematic categories to explain nursing employees' well-being: Leadership

style; Leaders' personal qualities; Leaders' knowledge and skills; Stress; Patients; Organization.

### *Leadership style*

In this category, we have combined codes "leadership by example", "providing assistance", "cooperation", and "promptly informing." We noted that the leadership style is fundamental to the participants. Leaders' behavior and functioning are crucial and have a meaningful impact on employees and their well-being. One of the participants said: *"The advantage of leadership is based on leaders' experience and their skills."* and another: *"The leader has to encourage open relationships, the possibility of expression and participation."*

### *Leaders' personal qualities*

In this category we have combined the following codes: "honesty," "willingness to help", "accessibility", "decisiveness", "good organizer", "team colleague," "kindness," "equality," "mentoring", and "participation". This category suggests that the personal qualities of leaders are essential because they affect employees' well-being. Participants precisely identify leaders according to their personal qualities: *"The leader is a good organizer and a team colleague.";* *"The leader is very accessible, always ready to help, highly motivated for work and trying to arrange that everything is right.";* *"The leader is a good team colleague and respects all co-workers..."*; *"The leader is sometimes not enough decisive and sometimes confused."*

### *Leaders' knowledge and skills*

In this category we have combined the following codes "communication", "interpersonal relations", "motivation", "employees' development", "teamwork", "qualification", and "quality". It is well known that leaders' performance and behaviour according to their knowledge and skills have an important and major effect on employees' well-being and satisfaction. Only leaders with appropriate knowledge and skills can encourage effective communication, good interpersonal skills, teamwork, motivation, take care of employees' development and quality of care: *"The leader encourages mutual trust and organizes work well..."*; *"The leader informs us daily about developments. We get all information on time. Despite the fact that communication is good, sometimes there are also some conflicts..."*; *"The leader encourages further education, personal development, motivation, and gives reward..."*; *"The leader's knowledge and skills are good; that helps to improve the treatment of patients."*

## Stress

Into this category, we included the following codes "organization" and "co-workers". The organization, work, leaders, and co-workers are associated with workplace stress of employees in nursing. It seems that the organization is the leading and most vital factor of tension in the workplace. Good co-workers are often those who help individuals to manage stress: *"We all look at labor costs and work in different workplaces, which are not pleasant and cause the stress..."*; *"Work is sometimes very stressful, due to the lack of personnel, sick leaves..."*

## Patients

This category included the following codes: "satisfied patients" and "number of patients". Employees in nursing are in daily contact with patients, and they have an essential effect on the well-being and satisfaction of nursing employees. This influence can be positive or a negative, but in our study, we noticed a positive impact of satisfied patients on the well-being of employees in nursing: *"The most important to me are satisfied patients; it fills me with energy."*; *"Due to the lack of personnel and re-organization, patients are suffering."*

## Organization

In this category we included the following codes "co-workers", "material", "safety culture", "workload", and "lack of staff". It is known that an organization with all work fields has a significant effect on the employees' well-being in nursing. These codes covered the operation of the entire organization: *"The cause of disagreements are changing in work shifts, overload, and the lack of staff."*; *"Almost every day I work in a different unit."*; *"Night shifts upset my biorhythm, and I have problems with my health. Due to work at night, on the weekends and during holidays, we have lost most of our acquaintances and friends."*; *"It is important to me that I get along well with my co-workers and that they appreciate my professional work."*

## Discussion

The well-being of employees in nursing in Slovenian hospitals an average on a moderate level. Approximately half of the employees in nursing (in the survey and interviews) estimated well-being as good and excellent, and the other half as poor. The well-being of employees in nursing on a moderate level can be explained by the austerity measures in the public sector, working hours, shift work, work during weekends and holidays, and nurses' shortage. To our interpretation helped results from the interviews, respondents said that they have a significant number of working hours, mainly due to staff shortages and austerity measures.

Also researchers (Caruso/Baldwin/Bergre/Chasens/Landis/Redeker/Schott/Trinkoff 2017; Taghīghi/Rees/Brown/Breen/Hegney 2017) identified a higher number of working hours and heavy workload associated with employees' well-being.

Through interviews, we identified the following determinants of employees' well-being in nursing: leaders' personal qualities, leadership style, leaders' knowledge, and skills, patients, stress, and organization. According to the results, we concluded that the quantitative part of our study supports the effect of the resulting determinants on employees' well-being in Slovenian hospitals. Leaders' knowledge and skills, leaders' personal qualities, leadership style, frequency of workplace stress, and stress management significantly affect employees' well-being in nursing. With them, we can explain 85 % (together with working experiences and level of education 93 %) of the variability of employees' well-being in nursing. It was also found that leaders' personal qualities ( $r=0.756$ ;  $p<0.001$ ) and leaders' knowledge and skills ( $r=0.803$ ;  $p<0.001$ ) are statistically significant strongly positively correlated with employees' well-being in nursing what confirmed our first hypothesis.

Transformational leadership ( $\beta=0.487$ ;  $p<0.001$ ), leaders' personal qualities ( $\beta=0.177$ ;  $p<0.001$ ), and leaders' knowledge and skills ( $\beta=0.091$ ;  $p<0.001$ ) were three of the strongest predictors of employees' well-being in nursing. Some other studies also found that transformational leadership (Sudha et al. 2016; Arnold 2017; Gyu Park et al. 2017; Inceoglu et al. 2018; Pinck/Sonnetag 2018), leaders' knowledge and skills (Hunter 2009; Gamble 2011; Lornudd/Tafvelin/von Thiele Schwarz/Bergman 2015; Pomery/Schofield/Xilaga/Gough 2016) and leaders' personal qualities (Volmer/Koch/Göritz 2016; Inceoglu et al., 2018) effect on employees' well-being. Out of the nine independent variables, the transformational leadership style was the strongest predictor of employees' well-being in nursing, which confirmed our second hypothesis. Also, some other researchers (McKee/Driscoll/Kelloway/Kelley 2011; Tavfelin/Armelius/Westberger 2011; Mencl/Wefald/van Ittersum 2016; Kossek/Petty/Bodner/Perrigino/Hammer/Yragui/Michel 2018) found that the transformational leadership is an essential predictor of employees' well-being. Our results provide new support to previous studies about the importance of employees' well-being for organizational effectiveness and performance. It is vital that every health care organization meet the needs of employees and recognize positive and negative effects on employees' well-being (Grawitch/Trares/Kohler 2007; Van der Heijden/Mulder/König/Anselmann 2017) and quality of work-life (Zhao/Ghiselli/Law/Ma 2016; Barr 2018).

It is essential to be aware of all employees in nursing that the well-being is vital not only for the employees, for contributing better health, positive opinion about themselves, better relations with other people, and to facilitate overcoming the

burden on the workplace (Huppert 2009) and effectiveness (Carolan/Harris/Cavanagh 2017); but also for the organization in terms of increased productivity (Jeffrey/Mahoney/Michelson 2014) and quality of care (Scheepers/Boerebach/Arah/Heineman/Lombarts 2015; Yepes-Baldó/Romeo/Westerberg/Nordin 2018; Schneider/Wehler/Weigl 2019). National Health Service (2009) noted that employees' well-being in health care organizations reduces MRSA incidence in patients, which is also one of the indicators of the quality of Slovenian hospitals, defined in 2010.

According to various studies (McKee et al. 2011; Tavfelin et al. 2011; Mencl et al. 2016; Sudha et al. 2016; Arnold 2017; Gyu Park et al. 2017; Inceoglu et al. 2018; Kossek et al. 2018; Pinck/Sonnetag 2018) and also of our results we can confirm the importance of the studied determinants such as the leaders' knowledge and skills, leaders' personal qualities, and leadership style, which are expressed with the leaders' behaviour and have a significant effect on employees' well-being in nursing. The study's main contribution is finding that leaders' behaviour, which is a result of leaders' knowledge and skills, leaders' personal qualities, and leadership style, have a significant effect on employees' well-being in nursing. The study's surprise could be that the well-being of employees in nursing is still moderate, despite the lack of staff, demanding working conditions, workload, and frequent exposure to stress. Of course, there are significant differences in employees' well-being in terms of organizational characteristics, leadership style, aspects of work, personal qualities, expectations, and values. The results, following the interest of participating hospitals, were presented to the hospital management. With this, hospital management recognized the level of employees' well-being in nursing and tried to recognize the importance of adequately training nursing leaders. That has to be carefully and adequately selected to ensure better employees' health and achieve better organizational outcomes. The study results are comparable with other studies in the level of well-being, leadership style, and leaders' personal qualities in different healthcare institutions.

Despite the above facts, leaders' behaviour, is one that can make a significant contribution to employees' well-being and also better organizational and patients' outcomes. At the same time, it is necessary to emphasize the importance of appropriate training of leaders in nursing, monitor employees in nursing regularly, and intervene timely to ensure the well-being and prevent adverse stress outcomes. With good interpersonal relationships, understanding, and encouraging colleagues, we can create a healthy work environment where employees will feel good, overcome stress more quickly, and contribute to better organizational and patient outcomes.

The results have important implications for those practice aiming to implement changes to improve employees' well-being:

- Hospital management must consider employees' engagement in nursing and their well-being in everyday decision-making because these factors are antecedents how committed are employees in nursing to their hospitals, and it is also a strong predictor of their retention.
- Hospital management must become more sensitive to essential role leaders—employees' relationships, organizational support, teamwork, and engagement for good well-being of nursing employees.
- Rather than implementing wide organizational changes for a large number of employees, suggest that training clinical leaders might have a similar impact and might be cost-effective.
- A systemic view of training for leaders might improve employees' well-being by creating jobs that allow employees in nursing to be involved.

Although these findings are notable, several limitations should be taken into account. It is noteworthy that the study was cross-sectional rather than longitudinal. It was studied the influence only of some predictors on employees' well-being. A quantitative study was composed of multiple-choice closed-ended questions, which limited the respondents on a list of prepared answers. The researcher was not available during the quantitative research, and the respondents did not get help in the case they did not understand items. Among the limitations, it is also an incomplete response on some of the scales, which reduced the adequate sample size for some analyses. In the interviews, only a few employees in nursing participated. Future research should examine the possible interaction between well-being, nursing practice environment, and patient outcomes longitudinally and be spread to health care institutions at all levels.

## Conclusion

The present study results confirmed the importance of leaders' knowledge and skills, leaders' personal qualities and leadership style, expressed with leaders' behaviour, had a significant effect on employees' well-being in nursing. The implications of these findings suggest that leaders in nursing have an essential role in the promotion of well-being and health among employees in nursing since employees in nursing play a crucial part in patients' satisfaction and safety. Every leader can improve employees' well-being when he/she try to provide determinants of well-being for each employee, incorporate all employees as equal co-workers, and promote a positive work climate with a healthy work environment. To take care of the balance between work and private life, take care of employees' safety, and develop an interpersonal relationship and workplace satisfaction. Our research suggests health benefits for nursing employees by creating a healthy work environment to encourage better interpersonal relationships

through preparing and training leaders in nursing. Workplace well-being can be enhanced by the workplace atmosphere; therefore, a holistic approach is needed to promote the health of employees, incorporating individual and workplace factors.

## References

Arif, M./Katafygioutou, M./Mazroei, A./Kaushik, A./Alsarrag, E. (2016): Impact of indoor environmental quality on occupant well-being and comfort: A review of the literature, in: International Journal of Sustainable Built Environment, 5, 1–11.

Arnold, K. A. (2017): Transformational leadership and employee psychological well-being: A review and directions for future research, in: Journal of Occupational Health Psychology, 22, 3, 381–93.

Bakker, A. B./Demerouti, E. (2018): Multiple levels in job demands-resources theory: Implications for employee well-being and performance, in: Diener, E./Oishi, S./Tay, L. (eds.): Handbook of well-being. Salt Lake City, UT.

Barr, P. (2018): The five-factor model of personality, work stress and professional quality of life in neonatal intensive care unit nurses, in: Journal of Advanced Nursing, 74, 6, 1349–58.

Bass, B./Avolio, B. (1990): Developing transformational leadership: 1992 and beyond, in: European Journal of Training and Development, 14, 5, 21–37.

Bass, B./Avolio, B./Jung, D./Berson, Y. (2003): Predicting unit performance by assessing transformational and transactional leadership, in: Journal of Applied Psychology, 88, 2, 207–18.

Bass, B. M./Riggio, R. E. (2006): Transformational leadership. New York, NY: Lawrence Erlbaum, Mahwah.

Berson, Y./Oreg, S./Dvir, T. (2008): CEO values, organizational culture and firm outcomes, in: Journal of Organizational Behavior, 29, 5, 615–33.

Bono, J. E./Judge, T. A. (2004): Personality and transformational and transactional leadership: A meta-analysis, in: Journal of Applied Psychology, 89, 5, 901–10.

Carolan, S./Harris, P. R./Cavanagh, K. (2017): Improving Employee Well-Being and Effectiveness: Systematic Review and Meta-Analysis of Web-Based Psychological Interventions Delivered in the Workplace, in: Journal of Medical Internet Research, 19, 7, e271.

Caruso, C. C./Baldwin, C. M./Berger, A./Chasens, E. R./Landis, C./Redeker, N. S./Scott, L. D./Trinkoff, A. (2017): Position statement: Reducing fatigue associated with sleep deficiency and work hours in nurses, in: Nursing Outlook, 6, 6, 766–8.

Casida, J./Parker, J. (2011): Staff nurse perceptions of nurse manager leadership styles and outcomes, in: Journal of Nursing Management, 19, 4, 478–86.

Diener, E. (2013): The remarkable changes in the science of subjective well-being, in: Perspectives on Psychological Science, 8, 6, 663–6.

Deinert, A./Homan, A. C./Boer, D./Voelpel, S. C./Gutermann, D. (2015): Transformational leadership sub-dimensions and their link to leaders' personality and performance, in: The Leadership Quarterly, 26, 6, 1095–120.

Dinh, J. E./Lord, R. G./Gardner, W. L./Meuser, J. D./Liden, R. C./Hu, J. (2014): Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives, in: *The Leadership Quarterly*, 25, 1, 36–62.

Dodge, R./Daly, A. P./Huyton, J./Sanders, L.D. (2012): The challenge of defining well-being, in: *International Journal of Wellbeing*, 2, 3, 222–35.

Durkin, M./Beaumont, E./Hollins Martin, C. J./Carson, J. (2016): A pilot study exploring the relationship between self-compassion, self-judgement, self-kindness, compassion, professional quality of life and well-being among U.K. community nurses, in: *Nurse Education Today*, 46, 109–14.

Gamble, D. N. (2011): Advanced Concentration Macro Competencies for Social Work Practitioners: Identifying Knowledge, Values, Judgment and Skills to Promote Human Well-Being, in: *Patient Education and Counseling*, 99, 5, 672–88.

Goethals, G./Sorenson, G./Burns, J. (2004): *Encyclopedia of leadership*. Thousand Oaks, CA: SAGE Publications.

Grawitch, M. J./Trares, S./Kohler, J.M. (2007): Healthy workplace practices and employee outcomes, in: *International Journal of Stress Management*, 14, 3, 275–93.

Gyu Park, J./Sik Kim, J./Yoon, S. W./Joo, B.K. (2017): The effects of empowering leadership on psychological well-being and job engagement, in: *Leadership & Organization Development Journal*, 38, 3, 350–67.

Huang, L./Ahlstrom, D./Lee, A. Y./Chen., S./Hsieh, M. J. (2016): High performance work systems, employee well-being, and job involvement: an empirical study, in: *Personnel Review*, 45, 2, 296–314.

Hunter, D. J. (2009): Leading for health and well-being: the need for a new paradigm, in: *Journal of Public Health*, 3,2, 202–4.

Huppert, F. A. (2009): Psychological well-being: Evidence regarding its causes and consequences, in: *Applied Psychology: Health and Well-being*, 1, 2, 137–64.

Inceoglu, I./Thomas, G./Chu, C./Plans, D./Gerbasi, A. (2018): Leadership behavior and employee well-being: An integrated review and a future research agenda, in: *The Leadership Quarterly*, 29, 1, 179–202.

Jeffrey, K./Mahoney, S./Michelson, J. (2014), Well-being at work: A review of the literature. New Economics Foundation. Retrieved from: [https://b.3cdn.net/nefoundation/71c1bb59a2ce151df7\\_8am6bqr2q.pdf](https://b.3cdn.net/nefoundation/71c1bb59a2ce151df7_8am6bqr2q.pdf), 18.01. 2020.

Kállay, É./Rus, C. (2014): Psychometric Properties of the 44-Item Version of Ryff's Psychological Well-Being Scale, in: *European Journal of Psychological Assessment*, 30, 1, 15–21.

Kauhanen, M./Nätti, J. (2015): Involuntary Temporary and Part-Time Work, Job Quality and Well-Being at Work, in: *Social Indicators Research*, 120, 3, 783–99.

Kirkwood, T./Bond, J./May, C./McKeith, I.eh, M-M. (2010). Mental capital and well-being through life: Future challenges, in: Cooper, C. L./Field, J./Goswami, U./Jenkins, R.& Sahakian, B. J. (eds.). *Mental capital and well-being*. Chichester, UK: Wiley-Blackwell, 3–53.

Kossek, E. E./Petty, R. A./Bodner, T. E./Perrigino, M. B./Hammer, L. B./Yragui, N. L./Michel, J. S (2018): Lasting Impression: Transformational Leadership and Family Supportive Supervision as Resources for Well-Being and Performance, in: *Occupational Health Sciences*, 2, 1, 1–24.

Kowalski, T. H. P./Loretto, W. (2017): Well-being and HRM in the changing workplace, in: *The International Journal of Human Resource Management*, 28, 16, 2229–55.

Kumar, P./Gupta, V. (2017): Workplace Stress, Well-Being, and Quality of Work Life: A Study on BPO Employees, in: *Journal of Entrepreneurship & Management*, 6, 2, 20–8.

Lorber, M./Skela-Savič, B. (2011): Perceptions of managerial competencies, style, and characteristics among professionals in nursing, in: *Croatian Medical Journal*, 52, 2, 198–204.

Lornudd, C./Tafvelin, S./von Thiele Schwarz, U./Bergman, D. (2015): The mediating role of demand and control in the relationship between leadership behaviour and employee distress: a cross-sectional study, in: *International Journal of Nursing Studies*, 52, 2, 543–54.

Lussier, R./Achua, C. (2007): *Effective leadership* (3rd ed). Mason, OH: Thomson Higher Education.

Marshall, E. S. (2011): *Transformational leadership in nursing: From expert clinician to influential leader*. New York: Springer Publishing Company.

Marquis, B. L./Huston, C. J. (2017): Leadership roles and management functions in nursing. Philadelphia: Wolters Kluwer Health.

McCleskey, J. A. (2014): Situational, transformational, and transactional leadership and leadership development, in: *Journal of Business Studies Quarterly*, 5, 4, 117–30.

McKee, M. C./Driscoll, C./Kelloway, E. K./Kelley, E. (2011): Exploring linkages among transformational leadership, workplace spirituality and well-being in health care workers, in: *Journal of Management Spirituality & Religion* Spirituality & Religion, 8, 3, 233–55.

Mencl, J./Wefald, A. J./van Ittersum, K. W. (2016): Transformational leader attributes: interpersonal skills, engagement, and well-being, in: *Leadership and Organization Development Journal*, 37, 5, 635–57.

Montes-Berges, B./Augusta-Landa, J.M. (2014): Emotional intelligence and affective intensity as life satisfaction and psychological well-being predictors on nursing professionals, in: *Journal of professional nursing*, 30, 1, 80–8.

Musek, J. (1997): *Znanstvena podoba osebnosti*. Ljubljana, Slovenia: Edrucy d. o. o.

National Health Service. (2009): NHS Health and Well-being. Final report. Retrieved from: <http://www.healthyregions.eu/uk/Boorman%20NHS%20HWB%20Final%20Report%20No%2009.pdf>, 19.01.2020.

Ng, E. C. W./Fisher, A. T. (2013): Understanding well-being in multi-levels: a review, in: *Health*, 5, 1, 308–23.

Nielsen, K./Nielsen, M. B./Ogbonnaya, C./Kansala, M./Saari, E./Isaksson, K. (2017): Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis, in: *Work & Stress*, 31, 2, 101–10.

Nikolaev, B./Boudreaux, C. J./Wood, M. (2019): Entrepreneurship and Subjective Well-Being: The Mediating Role of Psychological Functioning. *Interpreneurship Theory and Practice* Retrieved from: <https://journals.sagepub.com/doi/abs/10.1177/1042258719830314?journalCode=etpb>, 19.01.2020.

Ozylmaz, A./Erdogan, B./Karaeminogullari, A. (2018): Trust in organization as a moderator of the relationship between self-efficacy and workplace outcomes: A social cognitive theory-based examination, in: *Journal of Occupational and Organizational Psychology*, 91, 1, 181–204.

Peiró, J. M./Kozusznik, M. W./Rodríguez-Molina, I./Tordera, N. (2019): The Happy-Productive Worker Model and Beyond: Patterns of Wellbeing and Performance at Work, in: International Journal of Environmental Research and Public Health, 16, 3, pii479.

Pinck, A. S./Sonnetag, S. (2018): Leader Mindfulness and Employee Well-Being: The Mediating Role of Transformational Leadership, in: Mindfulness, 9, 884–996.

Pineau Stam, L. M./Spence Laschinger, H. K./Regan, S./Wong, C. A. (2015): The influence of personal and workplace resources on new graduate nurses' job satisfaction, in: Journal of Nursing Management, 23, 2, 190–9.

Pomery, A./Schofield, P./Xilaga, M./Gough, K. (2016): Skills, knowledge and attributes of support group leaders: A systematic review, in: Patient Education and Counseling, 99, 5, 672–88.

Rivkin, W./Diestel, S./Schmidt, K.H. (2015): Affective commitment as a moderator of the adverse relationships between day-specific self-control demands and psychological well-being, in: Journal of Vocational Behavior, 88, 185–94.

Ryff, C. D./Keyes, S. C. L. (1995): The structure of psychological well-being revisited, in: Journal of Personality and Social Psychology, 69, 4, 719–27.

Ryff, C. D./Singer, B. H. (2006): Best news yet on the six-factor model of well-being, in: Social Science Research, 35, 4, 1103–19.

Ryff, C. D. (2016): Psychological well-being revisited: advances in the science and practice of eudaimonia, in: Psychotherapy and Psychosomatics, 83, 1, 10–28.

Ryff, C. D. (2017): Eudaimonic well-being, inequality, and health: Recent findings and future directions, in: International Review of Economics, 64, 159–78.

Scheepers, R. A./Boerebach, B. C./Arah, O. A./Heineman, M. J./Lombarts, K. M. (2015): A Systematic Review of the Impact of Physicians' Occupational Well-Being on the Quality of Patient Care, in: International Journal of Behavioral Medicine, 22, 6, 683–98.

Schneider, A./Wehler, M./Weigl, M. (2019): Effects of work conditions on provider mental well-being and quality of care: a mixed-methods intervention study in the emergency department, in: BMC Emergency Medicine, 19, 1, 1–12.

Schulte, P. A./Guerin, R. J./Schill, A. L./Bhattacharya, A./Cunningham, T. R./Pandalai, S. P./Eggerth, D./Stephenson, C. M. (2015): Considerations for Incorporating "Well-Being" in Public Policy for Workers and Workplaces, in: American Journal of Public Health, 105, 8, e31–44.

Schultz, P. P./Ran, R. M./Niemiec, C. P./Legate, N./Williams, G.C. (2015): Mindfulness, Work Climate, and Psychological Need Satisfaction in Employee Well-being, in: Mindfulness, 6, 971–85.

Shir, N./Nikolaev, B. N./Wincent, J. (2019): Entrepreneurship and well-being: The role of psychological autonomy, competence, and relatedness, in: Journal of Business Venturing, 34, 5, 105875.

Sudha, K.S./Shahnawaz, G./Farhat, A. (2016): Leadership Styles, Leaders Effectiveness and Well-being: Exploring Collective Efficacy as a Mediator, in: Vision-The Journal of Business Perspective, 20, 2, 111–20.

Tahghighi, M./Rees, C. S./Brown, J. A./Breen, L. J./Hegney, D. (2017): What is the impact of shift work on the psychological functioning and resilience of nurses? An integrative review, in: Journal of Advanced Nursing, 73, 9, 2065–83.

Tarcan, M./Hikmet, N./Schooley, B./Top, M./Yorgancioglu Tarcan, G. (2017): An analysis of the relationship between burnout, socio-demographic and workplace factors and job satisfaction among emergency department health professionals, in: *Applied Nursing Research*, 43, 40–7.

Tavfelin, S./Armelius, K./Westberger, K. (2011): Toward Understanding the Direct and Indirect Effects of Transformational Leadership on Well-Being: A Longitudinal Study, in: *Journal of Leadership & Organizational Studies*, 18, 4, 480–92.

Van der Heijden, B. I. J. M./Mulder, R. H./König, C./Anselmann, V. (2017): Toward a mediation model for nurses' well-being and psychological distress effects of quality of leadership and social support at work, in: *Medicine*, 96, 15, e6505.

Volmer, J./Koch, I. K./Göritz, A. S. (2016): The bright and dark sides of leaders' dark triad traits: Effects on subordinates' career success and well-being, in: *Personality and Individual Differences*, 101, 413–8.

Williams, G.M./Smith, A.P. (2016): Using Single-Item Measures to Examine the Relationships between Work, Personality, and Well-Being in the Workplace, in: *Psychology*, 7, 753–67.

Zhao, X. R./Ghiselli, R./Law, R./Ma, J. (2016): Motivating frontline employees: Role of job characteristics in work and life satisfaction, in: *Journal of Hospitality and Tourism Management*, 27, 27–38.

WHO. (2014): Mental health: a state of well-being. Retrieved from: [http://www.who.int/features/factfiles/mental\\_health/en/](http://www.who.int/features/factfiles/mental_health/en/), 18.01.2020.

Yepes-Baldó, M./Romeo, M./Westerberg, K./Nordin, M. (2018): Job Crafting, Employee Well-being, and Quality of Care, in: *Western Journal of Nursing Research*, 40, 1, 53–66.