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Article in *International Journal of Membrane Science and Technology* · October 2023

DOI: 10.15379/ijmst.v10i2.2916

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Brazilian Nursing Team: Quality of Working Life and The Leadership Influence

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Abstract Objective: Analyzing the relation between the nurses-in-chief managerial styles with the Quality of Working Life (QWL). The balance between quality of life and work brings some sub-dimensions between life outside the workplace and work itself. Most of the investigated studies address the impact of work on life and the impact of life on the job. This analysis is important, as it contributes to several aspects, such as, for example, to increase the level of activity or participation. Materials and methods: Cross-sectional, qualitative, explanatory, and descriptive study. The sample was 61 nursing professionals (RNs) who held board positions, heads of department, managers, unit areas coordinators or supervisors, executive boards and/or departments, and 134 Licensed Practical Nurses (LPN) at a hospital with a direct public administration in Brazil. The data collection was based on The Quality of Working Life Questionnaire (QWLQ-brief) and the Scale of Evaluation of the Managerial Style (SEMS) forwarded electronically. Results: The indices considered satisfactory begin from 55 points. The QWLQ-brief average was 46,39% (neutral position), and the physical/health aspects were considered unsatisfactory (mean 44,89%; 44, 13%). Conclusion: The conclusion showed relational possibilities between the Nurse-in-chief managerial style and the perception of the Quality of Working Life. The perception of the neutral life quality and some unsatisfactory sub-dimensions was related to the managerial style based on tasks.

Keywords: Leadership, Quality of Life, Management, Nurse-in-chief, Leader.

Running headline

- Nurses-in-chief Managerial Styles with Quality of Life at Work provide subsidies for the elaboration of strategies for leadership development.
- Improving the quality of life at work in the face of new leadership approaches is a concrete way to generate positive results in work environments.

1. INTRODUCTION

Defining Quality-of-life (QoL) is not a simple assignment, it is a widespread multidimensional theory, whereas the quality concept is defined by the individual's perception. Knowing that there have been elements of physical, emotional, and social scopes that encompass the definition of (QoL), such as health in its physiological aspects (feeding, breathing, walking); job and family security; social aspects such as love, family, friendship; emotional aspects such as self-esteem, confidence, self-control, and independence. These elements comply with Maslow's

hierarchy, which consists of the five basic human needs to enable the individual to reach their fulfillment in life [1, 2, 3].

The QoL concept in the health area was introduced in the 1970s, setting up investigative studies concerning its perception of welfare. This research aimed at comprehending the individual's feelings about their physical and emotional health, self-image, and so forth. Nevertheless, the first research studies focused on the disease without considering the individual as a whole [4, 5], subsequently, actively engaged research on the subject provided new theories and dimensions [3].

Over the years, the concept of quality of life (QoL) has been modified and broadened to spotlight the employee's health. As of the 1980s, the administrators perceived that Quality-of-life management had brought about an increase and enhancement of the quality of the production which stems from a high level of satisfaction and motivation at work [5].

Quality of Working Life (QWL) goes beyond the labor legislation. It is about the dynamics that entail physical, ergonomic, technological, social, and psychological aspects such as autonomy, confidence, partaking, work complexity, and other concepts that alter and influence the work environment and also the private life, impacting the employee's welfare, as well as their productive capacity [6].

The European Foundation for Life and Work Improvement Conditions (EuroFound) describes that the QWL must have a multidimensional approach considering two factors: intrinsic quality of work and quality of work-life balance [7].

Intrinsic quality of work considers the needs of the employee and the intrinsic characteristics of work, among these factors may be considered the ergonomic aspects, control, and autonomy in work processes [7].

The quality of work-life balance brings up the sub-dimensions between life outside the workplace and work itself, most studies investigated the sub-dimensions concerning the impact of work on life and the impact of life on work. It is crucial to analyze this dimension, seeing that they contribute to several aspects, for instance, to the increase in the activity or participation level (in Portuguese, 'TA or TP'), which naturally means the involvement level of the population in productive activities and the job offer [7, 8, 9].

It is widely known that a Nursing staff is the most essential workforce of a hospital, constantly subjected to hazardous situations brought about by the activities related to this function, and they may be consciously or unconsciously absorbed by the employee consequently affecting their QWL [6].

The Nursing staff performs multiple tasks in an unsanitary, stressful, brisk-paced workplace seeing that, such issues occur in any area or level of responsibility, and these aspects become acutely highlighted through pandemic and epidemic situations, such as during the Coronavirus Disease 2019 (COVID-19) outbreak we have currently been through [10], therefore, a committed and striving leader is crucial to maintain a positive work environment so that these aspects may be mitigated or minimized.

The leader has a key role in the employee's motivation, gaining the staff's confidence and striving to reach the vision and the mission pursued by the organization along with the team. Confidence gathers people and allows energy and devotion to flow through smoothly. Confidence generates internal cohesion.

When they study leadership styles, they must understand that Leadership is the ability to influence a group to achieve a goal, therefore, leading people in an organizational environment requires the staff to also yield results in their turn. If the highest level of results is reached while people's satisfaction level and happiness are positive, the QWL management may be considered a support tool for well-achieved processes and attained results.

Since the utmost function of nursing is the care of individuals it is of vital importance to cast an attentive look upon these professionals concerning their health support and professional performance.

The following research question was proposed: what is the influence of the leadership style on the quality of work-life of the nursing staff? On the assumption, it is believed that there may be a positive or negative effect related to the management style with the QWL. To shed light on this question, it has been proposed to compare the results of an instrument for the comprehension of the leadership styles (Scale of Evaluation of the Managerial Style [EAEG]) [11] with a perception instrument of The Quality of Working Life Questionnaire (QWLQ-brief) [12].

This research was grounded in two previously developed conceptual frameworks: Scale of Evaluation of the Managerial Style (in Portuguese, 'EAEG') [11] and Quality of Working Life [12].

The EAEG was developed by Melo [11] seeking to figure out the managerial style of the nursing professional in the Brazilian context. The EAEG has been chosen for this study, as it assesses three styles of behavior that describe the leadership styles with which the employees customarily experience in their routine. These styles were investigated whether they interfere with their quality of working life.

There are 19 questions in the EAEG and it is ranged in 3 scopes: Relation (09 items: 1, 2, 5, 6, 10, 11, 13, 16 e 19 – alpha .94), Situation (04 items: 3, 9, 15 and 18 - Alpha .82) and Task (6 items: 4, 7, 8, 12, 14 and 17 - Alpha .72) described as follows.

The Task scope is the probability that the leader must define and structure their role alongside the subordinates' functions seeking to fulfill the goals. The leader highlights the work and its technical functions, the compliance with the standards, the formal communication channels, the procedures, and the methods, as well as the task's accomplishments.

The Situational Factor scope is the manager's ability to perceive the reality of the workplace and adapt their style to the demands of this environment. The leader is flexible to shape their behavior that best suits their subordinates' needs and reasons.

The Relation scope refers to the manager's influence over their work relations that are characterized by confidence, friendship, warm-heartedness, respect for the subordinates' ideas, and consideration for their feelings. The leader considers individuality and reinforces interpersonal relations such as support, guidance, and facilitation.

To determine the results by factor and obtain the factorial rate of each of the items that make them up, the values of the results of each item are summed up and divided by the total number of items of each factor. The average must be between 1 and 5 which corresponds to the EAEG amplitude. Therefore, the bigger the average is, the further the subordinate's perception is about the manager's behavior or when it is used by the leader who may be able to pick up their perception. The less the statistics of the standard deviation calculation and the coefficient of variation are, the higher the level of the perception sharing among the respondents [11].

The Quality of Working Life Questionnaire (QWLQ-brief) conceptual framework is the 2nd framework chosen to guide this research. The abbreviated version QWLQ-brief consists of 20 remaining questions from the 78 ones that form the Quality of Working Life Questionnaire 78 (QWLQ-78). Four questions encompass the physical/health aspects, three psychological ones, four personal ones, and nine questions concerning professional aspects [12].

The analysis from the results of the QWLQ-brief applications is in total compliance with the questionnaire which stems from, which the creator of the instrument constructed a QVT grading scale. In this grading, the inferior indices to 25 are considered greatly unsatisfactory, whereas the indices from 22,5 to 45 are considered unsatisfactory, 45 to 55 neutral, 55 to 77,5 satisfactory and the indices superior to 77,5 are considered remarkably satisfactory [12]

The objective of this study is to assess the relationship between the nurses-in-chief leadership styles and the Quality of Working Life.

2. MATERIEL AND METHODS

A descriptive, correlational design was used to analyze and evaluate the research question. The sample was by convenience and composed of 61 nurses-in-chief, heads of department, managers, individual units' coordinators or supervisors, boards and/or departments) and 134 Licensed Practical Nurses (LPN) of a public hospital under direct administration in Brazil. Forwarded electronically, both the QWLQ-brief and the Scale of Evaluation of the Managerial Style (EAEG) were used for the data collection.

Criteria for inclusion: leadership posts held by nurses-in-chief. Leadership is considered as a post. Post is the title given to the position occupied by an individual. Nurses-in-chief, unit managers, managers, individual units' coordinators or supervisors, boards and/or departments) and LPNs were all included as holding a post.

The first contact was made with the Institution and the Ethics Research Committee at the University of Sao Paulo upon advice #456.637 and afterward, the Nursing board was contacted to request the forwarding of the questionnaires to the participants who were taking part in the study. The questionnaires were electronically forwarded along with the Term of Free and Clarified Agreement (in Portuguese, 'TCLE') meeting the ethical principles for research according to Brazilian Legislation, resolution 466/12.

Google Forms Internet feature as a tool to forward the research instruments:

- Social-demographic Questionnaire, Social-demographic Characterization: age rating, gender, marital status, employment relationship; and professional characterization: length of educational background, present time of employment, current professional position, time holding the current post.

- The Quality of Working Life Questionnaire (QWLQ-brief): 20 questions encompass 4 questions concerning the physical/health aspects, 3 psychological ones, 4 personal ones, and nine concerning professional aspects [12]. Positively and negatively phrased items could be answered on a 5-point Likert scale ranging from 1 (none) to 5 (extremely). The items had a reference period of the past two weeks.

- Scale of Evaluation of the Managerial Style (EAEG) - 19 questions assembled into 3 aspects: relation, task, and situation. The questionnaire is rated using a 5-point Likert scale ranging from 1 (never seen before) to 5 (always functions as such). A high degree of validity and reliability has been established with a reported Cronbach Alpha of .72 to .94 [11]. The nursing staff's perception of leadership style was measured.

The data collected using the online survey has been maintained on a Microsoft Excel spreadsheet on a computer with a secure password-protected file. The analysis has been carried out by Software MedCalc® Statistical (version 19.5.3).

3. RESULTS

The current-voltage curves for the NaCl 0.01 M - IEM system were obtained with the application of currents in the range of 0.5 to 10 mA. The chronopotentiograms above the limit current density (0.42 mA/cm²) were selected, see Figure 4, to determine graphically the transition times, as shown in Figure 6. The same procedure was followed for the CaCl₂ 0.02 M - MIC system, obtaining a higher limit current density (1.42 mA/cm²), as shown in Figure 4

Overall, 159 members of the nursing staff were included being considered 61 RNs (38,6%) and 134 (61,4%) LPNs. A previous analysis of power established that there was sufficient power to distinguish significant relations among the study variables based on the sample size. Table 1 presents the demographic data of the nursing staff participants. It is noted that 87.5% (n = 139) belonged to the female gender; 37,4% were aged between 50 and 59 (n = 60). Among the participants, 48% (n = 76) have been working at the evaluated hospital for between 11 and 20 years. Most of the Nursing staff (n = 41, 25,8%) used to work at the Care Clinic Units.

Table 1. Nursing staff participants' demographics

	N	%
Gender		
Female	139	87.5
Male	20	12.5
Age		
< 40	42	26.3
40 – 49	46	29.2
50 – 59	60	37.4
> 60	11	7.1
Education		
LPN	98	61.4
Nurse (RN)	61	38.6
Years in hospital		
< 10	43	26.8
11 – 20	76	48.0
> 21	40	25.2
Area of practice		
Clinical care	41	25.8
Critical Care	27	16.9
Emergency	17	10.8
Medical Surgical	31	19.0
Obstetric	18	11.5
Pediatric	16	10.3
Other	9	5.7
Total	159	100.0
* Only RN		

The indices considered satisfactory begin from 55 points. The QWLQ-brief average was 46,39% (neutral position), and the physical/health aspects were considered unsatisfactory (mean 44,89%; 44,13%).

Table 2 presents the EAEG leadership styles factors and the QWLQ-brief sub-dimensions according to the number of items. The EAEG demonstrates three factors that once combined determine the managerial leadership style of the evaluated group. The Means [SD], the highest ones within the EAEG belonged to the leadership style based on tasks (mean 3.29; SD 0.36), and the lowest averages belonged to the situational leadership style (mean 2.73; SD 0,27).

Table 2. Descriptive statistics for Quality of Working Life Questionnaire (QWLQ-brief) and Scale of Evaluation of the Managerial Style (EAEG)

	No. of items	Mean (SD)
QWLQ-bref Dimensions		
Physical	4	2.79 (0.44)
Psychological	3	2.76 (0.55)
Personal	4	2.90 (0.53)
Professional	9	2.95 (0.30)

EAEG		
Relations (Alpha of Cronbach = 0,94)	9	3.07 (0.36)
Situational (Alpha of Cronbach = 0,82)	4	2.73 (0.27)
Task (Alpha of Cronbach = 0,72)	6	3.29 (0.36)

The variables were tested as to the normal distribution by the Shapiro-Wilk test. The Pearson test was used for the correlation analysis among the evaluated variables (for the variables with parametrical distribution) and the Spearman test (for the non-parametrical variables). For all the analyses, 5% of the significance level was considered. Table 3 shows that there is no correlation evidence between the EAEG and QVT. The coefficient varies between -1 and 1 and a correlation considered significant is something around 0.7 or greater, hence, none of the correlation reaches this result, which is an indicator of association absence.

As the variable's dimensions are unable to predict the QTV variable, the regression analyses did not present a correlation.

Table 3. Correlation evidence between the EAEG and QVT

X	Y	N	Cor	95%CI.l o	95%CI.h i	p- value
Relation	Physical health	15	-			
		9	0.090	-0.242	0.066	0.258
		15				
	Psychological	9	0.010	-0.146	0.166	0.897
		15				
Relation	Personal	9	0.067	-0.090	0.220	0.404
		15	-			
	Professional	9	0.074	-0.227	0.083	0.357
		15				
		15	-			
Relation	QVT	9	0.024	-0.179	0.132	0.765
Situational	Physical health	15				
		9	0.079	-0.078	0.232	0.323
		15				
	Psychological	9	0.028	-0.129	0.182	0.731
		15				
Situational	Personal	9	0.060	-0.097	0.213	0.456
		15				
	Professional	9	0.060	-0.097	0.213	0.454
		15				
		15				
Situational	QVT	9	0.088	-0.069	0.240	0.272
Task	Physical health	15				
		9	0.029	-0.127	0.184	0.717
		15	-			
	Psychological	9	0.050	-0.204	0.107	0.533
		15	-			
Task	Personal	9	0.045	-0.199	0.111	0.573
		15				
	Professional	9	0.007	-0.149	0.162	0.934
		15				
		15	-			
Task	QVT	9	0.030	-0.184	0.127	0.710

The multiple regression analysis of leadership style and QWL showed R² 0.006561, R²-adjusted -0.01267, P = 0.07956 and the Shapiro-Wilk Test for normal distribution is W= 0.9840 (accept normality [= 0.0632]).

DISCUSSION AND CONCLUSION

The basis of the concept of Working Life Quality is focused on the respect that the employee demonstrates for their work environment, aiming at the motivation and the organization's attitude towards how best to reward these individuals considering their contribution to the company, always aiming at the satisfaction and the welfare while

performing their work [3].

Taking into consideration that the Working Life Quality is affected by behavioral matters concerning human needs and different types of individual behaviors in the work environment [4], it may be concluded that the present study has not shown a direct relation between the leader's style and the Working Life Quality, considering that every individual has their motivations and needs, although there might not be any relation to the leader's customary *modus operandi*; notwithstanding, the QVT depends on the individual's perception as to the environmental, behavioral, and organizational aspects which once combined, they must be properly managed, since this set of factors may reflect in the individual's satisfaction or dissatisfaction [2].

Authors describe that QWL goes beyond the individual's leadership, it is believed that the employee's perception of the quality of life at work is related to physical and organizational aspects such as ergonomic conditions, decent working hours, positive organizational climate, growth opportunities in career, salary rise and the social importance of work in life, which are independent of leadership style [13,14,15].

It is worth bearing in mind that the QVT represents the degree to which the staff of a company can meet their own needs through their work experiences, not taking into account exclusively the relations dimension [4]. The QTV is not determined exclusively by individual characteristics (needs, expectations, rewards), but it is determined through a balance encompassed by these characteristics [2].

The perception of neutral life quality as well as in some unsatisfactory sub-dimensions was related to the managerial style based on tasks. The task dimension implies "how hard" work is, how important is for the individual to achieve the tasks, the quality of their achievement and the deadline of these tasks, the task scope involves a constant effort, which in turn may hinder the QVT.

A highlight is that task-based leadership consists of planning work activities, monitoring operations, presenting performances, and clarifying the functions and objectives to be achieved by the professional action. In this sense, the demand of this type of leader on himself and the team can infer a more stressful climate [16,17].

Nursing work is stressful and requires speed and agility. A task that is not completed correctly and at the right time can compromise patient safety. Let's consider the numerous responsibilities of the nursing team. The leader can direct the focus to the task without losing respect, the sense of collectivity, and concern for the well-being of the other, in addition to trying to show the contribution of the members. of the team, motivating and engaging them, thus improving the quality of life at work [17].

The neutral life quality related to the managerial style based on tasks, which was many results obtained, means that the relation of managerial style in nursing is not enough to be considered satisfactory or unsatisfactory [16], directing that the type of leadership in nursing is an influencer in QVT, but not an essential part of life quality in Brazilian nursing reality.

Task-oriented leadership is valued by many workers who prefer a leader who focuses on results and is more engaged in achieving organizational goals. In this aspect, some authors have shown that task-focused leaders have a more significant affective commitment to the organization than other styles and are concerned with their status in the work environment, privileging performance, and productivity, which can be perceived as more favorable to the organization. Workers' fulfillment and quality of life at work [18,19,20].

The neutrality in the results indicates a dichotomy in Brazilian nurses, who enjoy their work, but find several negative aspects and distress while performing it [20].

The task dimension refers to the expectation that the leader must define and structure their role likewise their subordinates in pursuit of goals achievement. The leader sets out the work, the function technical aspects, the standard compliance, the formal communication channels, the procedures, and methods, as well as the tasks achievements. Focus-oriented people tend to direct their efforts to achieve goals, which may lead to a high-stress

level and jeopardize the quality of life.

The factor relation of EAEG refers to the leader's scope over the labor relations that are characterized by mutual trust, friendship, warm-heartedness in the relations, respect for the subordinates' ideas, and demonstration of interest in their feelings. The leader values individuality and emphasizes interpersonal relations such as support, guidance, and appropriate communication [21].

It is noticeable how important it is for the leader to have appropriate communication with the subordinates. Leaders who offer constant feedback have as a result, an increase of commitment on the part of the nursing staff. It is widely known that a lack of both communication and feedback leads to an incline in the commitment on the part of the nursing staff in the work environment [21].

It is worth mentioning that Quality of life at work requires minimizing fatigue; the leader must be aware of the degree of fatigue of professionals to avoid illnesses, such as Burnout Syndrome. Research and interventions on fatigue have shown that nursing is prone to compassion fatigue, predominantly among bedside professionals, because as they experience continuous and intense interactions with patients, the results can negatively impact their Quality of professional life [22,23,24].

Another point to be highlighted is that research on the population of nurse leaders indicates that the group experiences burnout, probably contributing to a decrease in job satisfaction and intention to leave their positions, as well as increasing the stress of the team, consequently contributing to a negative organizational [25].

The situational factor refers to the manager's ability to detect the reality surrounding the work environment and adapt their style according to this workplace's demands. The leader is flexible to adjust their behavior to the subordinates' needs and reasons [21].

A Working Life Quality mismanagement in one or more dimensions (for example, physical) of the nursing staff professionals may affect the quality of their work, but the other dimensions can also affect the quality of care provided by nursing workers, such as psychological, that is about personal satisfaction and self-esteem of nursing workers; personal dimension, that validates aspects related to family and culture that might influence their work; and professional dimension that relates worker's life with organizational aspects [26].

Since all these dimensions can affect the quality of nursing work, they can also directly affect the quality of care provided and so, put their patient's life at risk. There's the main importance of managing Work Life Quality in nursing.

Therefore, the verification of the QVT indices by the leader and manager may be of help in the structure and service management, providing information through personal and collective incentives to promote, not only the increase of life quality of workers but also of the quality of care and patient safety [25-27].

The results do not indicate possibilities concerning the relations between the Nurse-in-chief's Managerial Style and the working-life quality perception, therefore, it is important to point out that Working Life Quality describes values that go beyond the human being; among the QVT measurement categories, it worth remembering that the work conditions such as reasonable working hours, healthy and safe environment, fair and adequate compensation, the use and development of capacities such as self-control and autonomy, as well as the career growth opportunities, salary increase; social relevance of work in life by the company's self-image, all of these topics previously mentioned must be taken into consideration and they are independent of the leader's managerial style.

Among the limitations, it is worth highlighting the use of a convenience sample, which prevents the generalization of results. The research focused on evaluating the Working Life Quality from the perspective of the nursing staff and seeking to figure out whether the management style is related to the high or low QVT. It is worth emphasizing that the Working Life Quality perceptions may vary over time and this study was a cross-sectional one. Another point is that the professional dimension outlines aspects such as working conditions, fringe benefits, and social

responsibility. Hence, the improvement of these QVT aspects doesn't depend only on the individual. Future research may include analyses of these aspects.

As a result of this study, there are direct implications in Nursing Practice, when it comes to the employee's health. Bringing to light reflections upon leadership styles that may or may not affect the Working Life Quality, as well as analyzing the employees' QVT status will be of great assistance as a stimulus for the institutions to develop the nurses-in-chief's skills focusing on their behavior and a better communication with the team in the seeking of results just as work satisfaction.

The QVT represents a relevant topic it enables assertive actions regarding human capital development, in the face of organizational perspectives and the employees' development.

Understanding the relationship between Nurses-in-chief Managerial Styles with the Quality of Working Life (QWL) provides subsidies for the elaboration of strategies to develop leadership to propitiate a favorable environment for the execution of the activities in daily work.

The characteristics studied can generate interpretations and reflections on the way the leader works with his followers, bringing opportunities for improvements that can be implemented through these analyses.

To achieve a good work environment, the organization, the leaders, and followers must break the barriers that separate them and unite in common goals. They must believe in a work environment where relationships between leaders and healthy followers will bring benefits, focusing on the results of the team's activities. Improving the quality of Life at Work in the face of new approaches to leadership is a concrete way of generating positive outcomes for everyone in the work environment.

INTEREST CONFLICTS

The authors declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

FINANCIAL AGREEMENT

This research received a grant from the CNPq funding agency (Institutional Program for Scientific Initiation Scholarships (PIBIC)).

The project was approved by the Ethics Committee at the University of Sao Paulo upon advice #456.637.

REFERENCES

- [1] Maslow AH. A theory of human motivation. *Psychological Review* 1943; 50(4): 370-396. Available from: <https://doi.org/10.1037/h0054346>
- [2] White WF. The quality of working life. University Chicago Press 1978. Available from: <https://www.journals.uchicago.edu/doi/pdf/10.1086/226667>
- [3] Panzini RG, Mosqueiro BP, Zimpel RR, Bandeira DR, Rocha NS, Fleck MP. Quality-of-life and spirituality. *International Review of Psychiatry* 2017; 29(3): 263-282. Available from: <https://doi.org/10.1080/09540261.2017.1285553>
- [4] Fallowfield L. The quality of life: the missing measurement in health care. *Journal of the Royal Society of Medicine* 1990; 83(8): 539-540. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1292800/>
- [5] Seligman ME, Csikszentmihalyi M. Positive psychology: an introduction. *American Psychologist* 2000; 55(1): 5-14. Available from: <https://doi.org/10.1037//0003-066x.55.1.5>
- [6] Cetrano G, Tedeschi F, Rabbi L, Gosetti G, Lora A, Lamonaca D, et al. How are compassion fatigue, burnout, and compassion satisfaction affected by the quality of working life? Findings from a survey of mental health staff in Italy. *BMC Health Services Research* 2017; 17(755): 1-11. Available from: <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2726-x>
- [7] EuroFound [homepage on the internet]. The impact of the crisis on working conditions [updated 2013; cited 2021 Nov 26]. Available from: <https://www.eurofound.europa.eu/publications/reports/2013/impact-of-the-crisis-on-working-conditions-in-europe>
- [8] Colichi RMB, Bocchi SCM, Lima SAM, Popim RC. Interactions between quality of life at work and family: integrative review. *International Archives of Medicine* 2016; 9(358): 1-17. Available from: <https://doi.org/10.3823/2229>

- [9] EuroFound [homepage on the internet]. Fifth European working conditions survey [updated 2012; cited 2021 Nov 26]. Available from: <https://www.eurofound.europa.eu/publications/report/2012/working-conditions/fifth-european-working-conditions-survey-overview-report>
- [10] World Health Organization (WHO) [homepage on the internet]. State of the world's nursing report- 2020 [updated 2020; cited 2021 Nov 26]. Available from: <https://www.who.int/publications/i/item/9789240003279>
- [11] Melo EAA. Scale of evaluation of the managerial style: development and validation. *Revista Psicologia, Organizações e Trabalho* 2004; 4(2): 31-62. Available from: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1984-66572004000200003&lng=pt&tlng=pt
- [12] Cheremeta M, Pedroso B, Pilatti LA, Kovaleski JL. Construction of short version of QWLQ-78: A measurement instrument of quality of work life. *Revista Brasileira de Qualidade de Vida* 2011; 3(1): 01-15. Available from: <https://doi.org/10.3895/S2175-08582011000100001>
- [13] Silva PL, Nunes SC, Andrade DF. Managers' leadership style and the commitment of their team members: associating concepts in search of possible relations. *Revista Brasileira de Gestão de Negócios* 2019; 21(2): 291-311. Available from: <https://doi.org/10.7819/rbgn.v21i2.3975>
- [14] Amabile TM, Hill KG, Hennessey BA, Tighe EM. The work preference inventory: assessing intrinsic and extrinsic motivational orientations. *Journal of Personality and Social Psychology* 1994; 66: 950-967. Available from: <https://doi.org/10.1037/0022-3514.66.5.950>
- [15] Silva MCN, Machado MH. Health and work system: challenges for the Nursing in Brazil. *Ciência e Saúde Coletiva* 2020; 25(1): 7-13. Available from: <https://doi.org/10.1590/1413-81232020251.27572019>
- [16] Moura AA, Bernardes A, Balsanelli AP, Zanetti ACB, Gabriel CS. Leadership and nursing work satisfaction: an integrative review. *Acta Paulista de Enfermagem* 2017; 30(4): 442-450. Available from: <https://doi.org/10.1590/1982-0194201700055>
- [17] Fallatah F, Laschinger HKS. The influence of authentic leadership and supportive professional practice environments on new graduate nurses job satisfaction. *J Res Nurs* 2016; 21(2): 137-8. Available from: <https://doi.org/10.1177/1744987115624135>
- [18] Magalhães MO. Relations between types of occupational interests and psychological basis of organizational commitment. *Psico USF* 2012; 17(1): 109-117. Available from: <https://doi.org/10.1590/S1413-82712012000100012>
- [19] Richter SA, Santos EP, Kaiser DE, Capellari C, Ferreira GE. Being an entrepreneur in Nursing: challenges to Nurses in a strategic leadership position. *Acta Paul Enferm* 2019; 32(1): 46-52. Available from: <https://doi.org/10.1590/1982-0194201900007>
- [20] Lima GKM, Gomes LMX, Barbosa TLA. Quality of Working Life and stress level of professionals in Primary Health Care. *Saúde Debate* 2020; 44(126): 774-789. Available from: <https://doi.org/10.1590/0103-1104202012614>
- [21] Manning J. The influence of nurse manager leadership style on staff nurse work engagement. *Journal of Nursing Administration* 2016; 46(9): 438-443. Available from: <https://doi.org/10.1097/NNA.0000000000000372>
- [22] Reis Junior DR, Pilatti LA, Pedroso B. Quality of working life: Development and validation of the survey QWLQ-78. *Revista Brasileira de Qualidade de Vida* 2011; 3(2): 1-12. Available from: <https://doi.org/10.3895/S2175-08582011000200001>
- [23] Hall LH, Johnson J, Watt I, Tsipa A, O'Connor DB. Healthcare staff wellbeing, burnout, and patient safety: a systematic review. *PLoS One* 2016; 11(7). Available from: <https://doi.org/10.1371/journal.pone.0159015>
- [24] Warshawsky NE, Havens DS. Nurse manager job satisfaction and intent to leave. *Nurs Econ* 2014; 32(1): 32-39. Available from: <https://pubmed.ncbi.nlm.nih.gov/24689156/>
- [25] Kelly LA, Lefton C, Fischer SA. Nurse Leader Burnout, Satisfaction, and Work-Life Balance. *J Nurs Adm* 2019; 49(9): 404-410. Available from: <https://doi.org/10.1097/NNA.0000000000000784>
- [26] Migowski ER, Piccoli JCJ, Quevedo DM. Quality of life at work: perception of Nurses and Nursing Technicians from hospital da Serra Gaúcha, RS, Brazil. *Revista Saúde (Santa Maria)* 2016; 42(1): 39-48. Available from: <https://doi.org/10.5902/2236583418612>
- [27] Boamah SA, Laschinger HKS, Wong C, Clarke S. Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing Outlook* 2018; 66(2): 180-189. Available from: <https://doi.org/10.1016/j.outlook.2017.10.004>

DOI: <https://doi.org/10.15379/ijmst.v10i2.2916>

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