Social support and engagement as antecedents of job satisfaction in nursing staff
Apoyo social y engagement como antecedentes de la satisfacción laboral en personal de enfermería

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ABSTRACT:
Objective: Job satisfaction is considered to be one of the most important indicators of quality of health care and quality of work life for health professionals. In the context of nursing, social support and work engagement are regarded as two of the most important predictors of job satisfaction. Consequently, the aim of this study was to examine to what extent social support (supervisor/coworkers) and work engagement predict job satisfaction in a sample of Portuguese nurses. 
Methodology: A cross-sectional study using questionnaires was conducted. A convenience sample of members from Portuguese hospitals was used in this study (n = 215, return rate = 55.56%).
Results: Social support from supervisor and from coworkers and work engagement were significantly related to job satisfaction. Regression models showed that job satisfaction was significantly predicted by both types of social support and work engagement.
Conclusion: Interventions based on the creation of informal and formal support networks, training of supervisors in management and coaching skills, and a greater presence of work and personal resources would increase the levels of job satisfaction in nurses.

Keywords: social support; engagement; job satisfaction; Portugal

RESUMEN:
Objetivo: La satisfacción laboral es considerada como uno de los indicadores más importantes tanto de la calidad de los cuidados de salud como de la calidad de vida laboral de los profesionales de la salud. Entre los antecedentes de la satisfacción laboral, se destaca el apoyo social del supervisor y de los colegas y el engagement en el trabajo en el contexto de enfermería. En este sentido, el objetivo de este estudio es comprobar el papel predictor del apoyo social y del engagement en el trabajo sobre la satisfacción laboral en una muestra de enfermeros y enfermeras del sur de Portugal.
Métodos: Estudio transversal a través de cuestionarios. La muestra estuvo compuesta por 215 profesionales de enfermería de hospitales del sur de Portugal (55.56% de tasa de respuesta).

Resultados: La cohesión social del supervisor y de los compañeros y el engagement en el trabajo se relacionaron de forma positiva y significativa con la satisfacción laboral. Los modelos de regresión lineal múltiple y jerárquica mostraron que los dos tipos de apoyo social y el engagement fueron predicciones significativas de la satisfacción con el trabajo de los participantes.

Conclusión: Intervenciones basadas en la creación de redes informales y formales de apoyo, la formación de los supervisores en competencias de gestión y coaching y una mayor presencia de recursos laborales y personales permitirían aumentar los niveles de satisfacción laboral en los profesionales de enfermería.

Palabras clave: apoyo social; engagement; satisfacción laboral; Portugal

INTRODUCTION

Since the 1990s the analysis of conditions of work in health care organizations has evolved from a negative perspective, focusing exclusively on stress and burnout, towards a more positive perspective focused on improving the quality of people's lives\(^1,2\). This objective is still more relevant taking into account the current context of economic and financial crisis in the health services and the characteristics of the work done by nursing staff: work in shifts, dealing with users and families, direct contact with disease, pain and death, and lack of autonomy to take decisions, among others\(^3\).

In this context, the Job Demands-Resources (JDR) model\(^4,5\) appears as a theoretical framework that tries to integrate these two perspectives of study: research on stress and research on motivation and well-being. According to the JDR model\(^4,5\), in any type of work it can be distinguished two types of characteristics: job demands and job resources. Job demands are characteristics of the organization of work, that require a personal effort to be carried out. That effort is associated with a physical and/or psychological cost (mental or emotional). Examples of job demands would be work overload (i.e., excessive number of patients), high concentración at work (i.e., during primary care), physical demands (i.e., mobilization of patients), or show empathy or positive emotions when the emotions are not not observed (i.e., giving bad news to a patient)\(^6\).

On the other hand, job resources would be those characteristics of the work needed to meet job demands. Examples of job resources would be providing feedback on the performance of the tasks, physical resources (i.e., equipment for the mobilization of patients) or social resources (i.e., social support from co-workers). Specifically, job resources would be physical, psychological, social or organizational characteristics that\(^6\): (1) allow the achievement of objectives (i.e., job autonomy improves efficiency); (2) reduce the job demands and their associated costs; and (3) allow the personal and professional development (i.e., training for the acquisition of new professional skills).

High job demands 'consume' individuals causing burnout, while job resources are associated with employees' engagement\(^4,7\). According to the JDR model, it is assumed that job demands and job resources have a direct impact on organizational results through the psychological states of burnout and engagement.

In relation to work engagement, it is defined as a positive mental state associated with the work context, and characterized by high levels of vigor, dedication, and
absorption\(^6, 9\). Vigor refers to high levels of energy and mental resistance when working, associated with the desire to invest effort in work even when difficulties appear. Dedication is associated with high job involvement, together with the expression of a feeling of meaning, enthusiasm, pride at work and inspiration. Finally, absorption appears when the person is totally concentrated on the job while ‘time flies’, with difficulties to disconnect from work \(^6, 8, 9\).

According to Saks \(^{10}\), work engagement is associated with important attitudes at work such as job satisfaction or intention to leave the company. Given that employees feel that their work is important and show a better work performance, they value positively their professional tasks and show higher levels of job satisfaction. Several studies have shown positive and significant relationships between work engagement and job satisfaction, with samples of various professions \(^{11-14}\) and samples of nursing staff \(^{15, 16}\).

Among the job resources considered by the JDR model, social support is considered one of the most important elements for nursing professionals \(^{17-21}\). Social support refers to the social climate in the workplace in relation to coworkers and supervisors \(^{22}\). It involves both socio-emotional support as instrumental support. While the first refers to the degree of social and emotional integration between co-workers and supervisors, the second refers to the collaboration in the work tasks between employees and supervisors \(^{23}\).

Several studies have shown the relationship between nursing staff’s perceptions of social support and quality of care, intention to leave the company, professional performance, and job satisfaction \(^{17-21}\). Similarly, it has been observed that high levels of social support, both support from supervisor and from co-workers, buffer the negative effects of stress and burnout on job satisfaction \(^{18, 21}\). The exchange of experiences with peers and supervisors, the feedback received by supervisors and good interpersonal relationships on the workplace increase the feelings and sensations of well-being at work.

Research on job satisfaction takes a greater relevance in the context of health services and especially among nurses \(^{24}\). Job satisfaction can be considered as an indirect indicator of quality of care and care in health institutions, and a direct indicator of nursing staff’s quality of working life \(^{24, 25}\). However, research on the relationship between work engagement, social support, and job satisfaction is still scarce and practically has not taken place in the context of health of Portugal. In this sense, the aim of this study is to test the predictive role of social support and work engagement on job satisfaction in a sample composed of nurses from the south of Portugal. The results of the study showed the positive relationship between, on the one hand, work engagement and social support, and, on the other hand, job satisfaction. Also, work engagement and social support from supervisor and co-workers were significant predictors of job satisfaction in accordance with the JDR model.

**MATERIAL AND METHODS**

**Study design and participants**

A cross-sectional, descriptive and correlational study using questionnaires \(^{26}\). 450 nursing professionals of three public hospitals from the south of Portugal were surveyed, obtaining a final sample of 215 participants (55,56% response rate).
The average age of the participants was 34.89 years (SD = 9.37) and 77.21% (n = 166) of the sample was composed of women. With respect to marital status, 46.51% of the participants reported that they were unmarried and 46.51% married. Almost 70.75% of the sample reported that they had indefinite contracts, with an average of approximately 10 years of nursing professional experience (M = 9.40; SD = 8.10).

**Instruments**

**Social support.** To evaluate social support at work, the dimension of social support included in the Job Content Questionnaire (JCQ) (22, 27) adapted to Portuguese language was used. The eleven items of the dimension are distributed into two subscales: (a) support from supervisor (5 items); and (b) support from co-workers (6 items). The questions were answered according to a Likert-type ranging from 1 (totally disagree) to 4 (totally agree). Higher scores indicated high levels of social support from supervisor and from co-workers. Cronbach's alpha reliability coefficients of social support from supervisor and co-workers were 0.93 and 0.86, respectively.

**Work engagement.** To measure work engagement, we used the Portuguese version of the Utrech Work Engagement Scale (UWES) (8). This scale is composed of nine items distributed into three dimensions, namely: vigor (3 items); dedication (3 items); and absorption (3 items). The items were answered according to a Likert-type scale ranging from 0 (never) to 6 (every day). High scores indicated high levels of work engagement in the participants. The Cronbach's alpha reliability coefficients obtained in the present study were 0.80 for vigor, 0.88 for dedication, and 0.82 for absorption.

**Job satisfaction.** To assess job satisfaction, the Job Satisfaction Scale (JSS) developed by Lima, Vala and Monteiro (28) was used. The JSS is made up of eight items that measure satisfaction with various aspects of work context. The participants responded to each statement using a Likert-type scale, which ranged from 1 (totally disagree) to 7 (totally agree). Higher scores expressed higher levels of job satisfaction in the participants. The Cronbach's alpha coefficient for internal consistency obtained in the present study was 0.87.

**Data collection**

Survey packages were administered between February and April of 2015. After the request for authorization, all the ethics committees of the hospitals approved the study. Survey questionnaires were given to the professionals who agreed to participate, individually or in small groups, at the beginning of the shit (start of working day). The participants were given all the time they needed. Confidentiality and anonymity of all the data were guaranteed at all times.

**Data analysis**

The analysis of data was carried out using the STATA statistical software package, version 13. We calculated the descriptive statistics of the variables (mean, standard deviation, skewness, and kurtosis), the correlations between them, and the internal consistency coefficients (Cronbach's alpha). Multiple and hierarchical linear regression models were used to determinate the predictor role of social support and work engagement on job satisfaction.
RESULTS

Preliminary analyses

Before checking the aim of the study, several tests were carried out in order to assess the effect of the Common Method Variance (CMV). Since the data were collected through self-reports questionnaires in the same period of time, the common variance associated with the method can overestimate or underestimate the estimates of the relationship between the variables. Harman’s single-factor test was used to confirm the possible effect of the CMV (29). All items of social support, work engagement, and job satisfaction were subjected to exploratory analysis using the method of principal component analysis with varimax rotation and forcing the extraction of a single factor. If the extracted factor explained >50% of the variance, there might be a problem in the CMV. The result of the exploratory factor analysis showed a factor that explained 44,43% of the variance, which means that the effect of the CMV did not seem to significantly affect the relations between the variables of the study (29).

Descriptives and correlations

Table 1 shows the means, standard deviations, skewness, kurtosis and the correlations of the variables studied, as well as Cronbach’s alpha reliability coefficients of the scales. Social support from supervisor (M = 2,96; SD = 0,88) and social support from co-workers (M = 3,07; SD = 0,62) were above the average of the Likert-scale response. With respect to work engagement, the nursing professionals exhibited high levels (M = 4,61; SD = 1,06) while job satisfaction was above the average of the Likert-scale response (M = 4,39; SD = 1,14).

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Support from supervisor</td>
<td>(0,92)</td>
<td>0,45</td>
<td>0,30</td>
<td>0,67</td>
</tr>
<tr>
<td>2. Support from co-workers</td>
<td>(0,93)</td>
<td>0,41</td>
<td>(0,86)</td>
<td>0,67</td>
</tr>
<tr>
<td>3. Work Engagement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>(0,87)</td>
</tr>
<tr>
<td>Mean</td>
<td>4,61</td>
<td>2,96</td>
<td>3,07</td>
<td>4,39</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1,06</td>
<td>0,88</td>
<td>0,62</td>
<td>1,14</td>
</tr>
<tr>
<td>Skewness</td>
<td>-1,25</td>
<td>-0,65</td>
<td>-0,40</td>
<td>-0,06</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>1,59</td>
<td>-0,53</td>
<td>0,28</td>
<td>-0,31</td>
</tr>
</tbody>
</table>

Note: Cronbach’s alpha values are shown in parentheses on the diagonal
All coefficients are significant (p<0,01)

The correlations showed that, as expected, both social support from supervisor and co-workers and work engagement were significantly (p < 0,01) related to job satisfaction, with r values of 0,67 for support from supervisor, 0,67 for support from co-workers, and 0,62 for work engagement. Higher levels of social support (supervisor and co-workers) and work engagement were related to higher levels of job satisfaction in the participants.

Multiple regression models

To check the aim of this study, we conducted a series of multiple and hierarchical regression models. Regressions models were used to assess the ability of social
support (from supervisor and co-workers) and work engagement to predict levels of job satisfaction. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity.

According to the JDR model, in the first model (M1) we introduced social support from supervisor and from co-workers as predictors of job satisfaction. The total variance explained by the model as a whole was 58.62%, $F(2, 197) = 139.55, p < 0.01$. Both types of social support emerged as significant predictors ($p < 0.01$) of job satisfaction, with a Beta values of 0.50 and 0.39 for support from supervisors and from co-workers, respectively.

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta</th>
<th>SE</th>
<th>t</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>- Support from supervisor</td>
<td>0.50</td>
<td>0.05</td>
<td>10.05</td>
</tr>
<tr>
<td>- Support from co-workers</td>
<td>0.39</td>
<td>0.05</td>
<td>7.87</td>
<td>1.22</td>
</tr>
<tr>
<td>M2</td>
<td>- Support from supervisor</td>
<td>0.35</td>
<td>0.04</td>
<td>7.98</td>
</tr>
<tr>
<td>- Support from co-workers</td>
<td>0.33</td>
<td>0.04</td>
<td>7.96</td>
<td>1.25</td>
</tr>
<tr>
<td>- Work Engagement</td>
<td>0.41</td>
<td>0.04</td>
<td>10.05</td>
<td>1.27</td>
</tr>
</tbody>
</table>

*Note: All coefficients are significant (p<0.01)*

Next, we introduced work engagement as a predictor of job satisfaction in the Model 2 (M2). The total variance explained by the Model 2 as a whole was 72.31%, $F(3, 196) = 173.90, p < 0.01$. Work engagement explained an additional 14.10% of the variance on job satisfaction, after controlling social support from supervisor and from co-workers, $R^2$ change = 0.14, $F(1, 196) = 100.97, p < 0.01$. In the final model, all three variables were statistically significant, with a Beta value of 0.35 for support from supervisor, a Beta value of 0.33 for support from co-workers, and a Beta value of 0.41 for work engagement.

**DISCUSSION**

Job satisfaction is one of the most important elements of the quality of work life for nurses, due to its impact on quality of care, nurse-patient relationship, and health and well-being (24). We can highlight work engagement and social support, from supervisor and from co-workers, as two of the most relevant antecedents of job satisfaction in nursing staff (15-18, 20, 21). In this sense, the aim of this study is to test the predictive role of social support and work engagement on job satisfaction in a sample composed of nurses from the south of Portugal. The results showed the positive relationship between work engagement and social support, on the one hand, and job satisfaction, on the other hand. Also, work engagement and social support, both from supervisors and co-workers, were significant predictors of job satisfaction according to the JDR model.

The results showed the positive and significant relationship between work engagement and job satisfaction, in line with the studies conducted by Spence Laschinger (15) and Van Bogaert et al. (16). When nursing professionals feel engaged, they show higher performance levels at work and positively value the tasks they carry out. Consequently, they evaluate their workplace in a positive experiencing higher levels of job satisfaction (11-14, 16).
Similarly, the results also showed the positive relationship between social support, both from supervisor and co-workers, and job satisfaction. The communication with the supervisor and co-workers, the possibility to received support and feedback from the supervisor, useful tips for the accomplishment of tasks by co-workers, and support for coping with stressful situations allow self-regulation of thoughts and feelings at work (17, 18, 21). These elements generate a more positive evaluation of the workplace associated with positive emotions and feelings, increasing levels of job satisfaction. In this sense, the results of this study are consistent with the academic literature about the relationship between social support and job satisfaction in nursing staff (17-21).

Regression models showed that social support from supervisor and from co-workers, and work engagement were positive and significant predictors of job satisfaction, being work engagement the most powerful predictor. These results are in line with other studies carried out with samples of nursing staff (15-18). The Beta values obtained are similar to those obtained by AbuAlRub and colleagues (17, 18) and Spence Laschinger (15). Nurses receive guidance and feedback on performance and tasks through social support. In addition, social support, both from supervisors and co-workers, helps the expression of negative emotions and minimizes the feeling of loneliness of these professionals (19,21). In this sense, social support allows the positive experience and evaluation of job satisfaction. Also, the psychological states associated with work engagement increase personal coping abilities at work, perceiving that the work environment is pleasant and increasing levels of job satisfaction (4, 5, 15, 16).

This study has a number of limitations that should be considered. First, the cross-sectional design precludes drawing causal conclusions from the relationships between variables, although the regression models used assume independent and dependent variables. However, the JDR model allows establishing these relationships between the variables of the study (4, 5). A second limitation has to do with the risk of common method variance. The test showed that such variance does no appear to significantly, but may not entirely ruled their influence (29). On the other hand, survey design is particularly sensitive to certain biases such as desirability bias in responses or the bias in the responses of volunteers for the study (30).

Finally, social support (supervisor and co-workers) and work engagement appear as elements that allow the design of interventions that increase the levels of job satisfaction in nursing professionals. Strategies for the improvement of social support include the creation of formal and informal networks within health services, and training of supervisors in participatory and democratic leadership styles. Given the fundamental role of supervisors in social support, it would be necessary continuous training that enables the development of skills for management, supervision, and advice.

Another line of action would focus on improving the levels of engagement in the workplace, increasing personal and job resources. Organizational resources such as job autonomy or training affect in a positive way to the three dimensions of work engagement. In addition, access to resources and access to opportunities to implement and develop new skills allow the emergence of work contexts that enhance engagement of nursing staff.
REFERENCES