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(Article begins on next page)
Nurses’ meaningful work and satisfaction

The relationships of meaningful work and narcissistic leadership with nurses’ job satisfaction

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Nurses’ meaningful work and satisfaction

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Abstract

Aim - The study investigated the association of narcissistic leadership, workload and emotional demands with nurses’ job satisfaction and the mediational role of meaningful work.

Background - Considering the strong positive relationship that meaningful work has with job satisfaction, investigating its antecedents is crucial.

Method - A group of 602 nurses participated in the study completing a self-report questionnaire. Structural equation model analysis was applied.

Results - Narcissistic leadership showed a negative association while emotional demands showed a positive one with meaningful work. The three determinants had a negative association with job satisfaction, while meaningful work showed a positive one. The indirect relationship with job satisfaction mediated by meaningful work was negative for narcissistic leadership and positive for emotional demands.

Conclusion: The study adds to the literature mainly by the investigation of the mediational role of meaningful work in a sample of nurses.

Implications for Nursing Management - Measures should promote supportive, instead of narcissistic, leadership behaviours. Moreover, nurses should be assisted in identifying emotional demands as a meaningful aspect of their work.

Keywords: job satisfaction; meaningful work; narcissistic leadership; emotional labour; nursing.
Nurses’ meaningful work and satisfaction

Introduction

Job satisfaction (JS) refers to employees positive feeling towards their job, resulting from the characteristics of the individual, the job activities and the organisation (Adams & Bond, 2000). For the nursing profession specifically, Liu, Aungsuroch and Yunibhand (2016) defined JS as resulting from three factors: “happiness or gratifying emotional responses towards working conditions; fulfilment of desired needs within the work settings; job value or equity” (p. 87).

The preservation of high levels of satisfaction in nursing is a fundamental aspect of nursing management (Parveen, Maimani, & Kassim, 2017). JS is indeed a major indicator of well-being: it prevents the risk of voluntary turnover (Poghosyan, Liu, Shang, & D’Aunno, 2017) and is associated with better work performance (Ahmad & Oranye, 2010). Moreover, JS shows a positive relationship with occupational health (Khamisa, Oldenburg, Peltzer, & Illic, 2015) and has a buffering role, preventing, for instance, burnout (Lu, Barriball, Zhang, & While, 2012).

In order to understand the processes that influence satisfaction, this study investigates two characteristics of the task (workload and emotional demands), one characteristic linked to work relationships (narcissistic leadership, NL) and the mediational role of meaningful work (MW).

Meaningful work

MW has been variously defined as “the perception of doing a meaningful job that enables people to express their potential and to achieve their purpose” (Gatti, Ghislieri, & Cortese, 2017, p. 4), to build meaning from their work and to contribute to the common good. The literature offers a variety of definitions of ‘the meaning of work’. In this study, MW has been investigated considering aspects which recall the sub-dimensions of “positive
meaning”, “greater-good motivation”, and “meaning-making through work” suggested by Steger, Dik and Duffy (2012).

Healthcare professions are socially valuable and bring workers a deep sense of fulfilment, since they may strongly affect others’ lives (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). In these professions, MW thus has a crucial role and we can expect it to strongly impact several outcomes. These outcomes include: work motivation, absenteeism, engagement, stress, individual performance and, of course, JS (Rosso, Dekas, & Wrzesniewski, 2010).

Hypothesis 1. MW is positively related to JS.

While the link between MW and people’s satisfaction with the job has been explored and confirmed, the antecedents of MW and the mechanisms involved in the link with JS have still to be clarified. According to the job characteristics model, task significance, task identity and skill variety are the main antecedents of MW; to these dimensions, Bremner and Carrière (2011) added autonomy. Among the main sources of MW, Rosso et al. (2010, p. 95) indicate: “the self, other persons, the work context and spiritual life”, devoting a subsection specifically to leaders as being among the significant “others” who influence MW, while Fouché, Rothmann and van der Vyver (2017) list four factors that contribute to MW: “firstly, work is meaningful when there is a fit between individuals and the organisation's values and mission. Secondly, the nature of the task (e.g. the significance, purposefulness and comprehensibility thereof) contributes to meaningful work. Thirdly, the camaraderie people experience in their workplace relationships results in experiences of meaningful work. Fourthly, meaningful work is associated with work beliefs” (p. 2).

Workload and emotional demands
Nurses’ meaningful work and satisfaction

Among the characteristics of the task related to both MW and JS, workload and emotional demands have been considered in this study. Workload is the nurses’ perception of how much work they have to do in a certain time and at a certain working pace. In the literature, the negative relationship between workload and nurses’ JS has been largely demonstrated (McVicar, 2016), while fewer studies have considered its association with MW. It could be expected that high levels of workload could be perceived as a condition that hinders the opportunity to make meaning through the work (see, for instance, Anandarajah, Quill, & Privitera, 2018).

Hypothesis 2. Workload is negatively related to a) MW and b) JS.

Hypothesis 3. The negative association between workload and JS is partially mediated by MW.

The second characteristic of the job taken into consideration is emotional demands, which consist in handling intense emotional situations at work in caring for patients (Donoso, Demerouti, Hernández, Moreno-Jiménez, & Cobo, 2015). According to the distinction between hindrance and challenge job demands (LePine, Podsakoff, & LePine, 2005), two facets of emotional demands emerge. They can be challenge demands, having the potential to promote motivation and personal growth and function as good stressors that make the effort to cope with them worthwhile, also in the nursing profession (Donoso et al., 2015): the emotional component of the nursing job is probably one of the reasons driving people to choose and enjoy this profession; thus, the emotional requests connected with interacting with and helping others may be a source of the positive meaning that nurses give to their work. Nevertheless, if certain conditions are not guaranteed, the emotional component of nursing practice may be a hindrance that decreases nurses’ well-being and JS because of the excessive constraints involved (McVicar, 2016).
Nurses’ meaningful work and satisfaction

Hypothesis 4. Emotional demands are a) positively associated with MW and b) negatively associated with JS.

Hypothesis 5. MW partially mediates the relationship between emotional demands and JS.

Narcissistic leadership

As a further antecedent of both MW and JS, we considered followers’ perception of their leaders’ narcissistic attitudes and behaviours. While a large number of studies investigated the positive effects of transformational leadership (Malloy & Penprase, 2010) and authentic leadership (Wong, Laschinger, & Cummings, 2010) in different organizational contexts, including nursing, the study of “destructive” leadership and its “dark side” is less common; nevertheless, attention on this topic is growing. Tepper (2007) reported that in the US, abusive supervision concerns 13.6% of workers, with an important cost for companies (absenteeism, turnover, low performance).

The interest in the dark side of leadership dates to the 1980s. Early work focusing on leadership derailment or failure (McCall & Lombardo, 1983) founded it to be caused by a combination of factors where the leader’s dysfunctional inclinations had a role in the organisational process (Higgs, 2009). The topic of “bad” leadership reappeared in the literature at the beginning of the new millennium, linked to a general worsening in performance (Benson & Hogan, 2008).

Focusing on the dark side of leadership, some scholars have pointed out the role of narcissism in leader-follower relationships (Kets de Vries, 1995; Maccoby, 2000). Furthermore, the so-called dark triad of personality specifically includes, in addition to Machiavellianism and psychopathy, narcissism (O’Boyle, Forsyth, Banks, & Story, 2013), defined as “a personality disposition encompassing grandiosity, arrogance, self-absorption, entitlement, weak self-esteem and sometimes hostility” (Ghislieri & Gatti, 2012, p. 262).
Nurses’ meaningful work and satisfaction

Among the different facets of the dark side of leadership, narcissistic leadership is insidious, because of the double nature of narcissism itself, which is characterized by grandiosity and positive self-presentation, making narcissists more disposed to seek leadership positions and more likely than others to be recognized as leaders (Kets de Vries, 1995). Though narcissism can bring short-term success, it will eventually lead to negative consequences in terms of lower support for followers’ professional growth, lower levels of well-being and poor quality of work because of narcissistic leaders’ tendency to strengthen their self-image to the detriment of others in order to gain more power (Higgs, 2009). Despite the fact that they need approval and affirmative interactions with their environment, narcissists do not engage in long-lasting positive relationships and do not care about others’ well-being (Braun, 2017).

Narcissistic leadership has not been extensively investigated in the nursing context, even though misbehaviours of subjects with leadership or supervisory roles may have important costs for nurses and for patients. NL, for instance, could have a negative impact on followers’ MW since it is not focused on collective benefit and well-being but on leaders’ self-interest (Benson, Jordan, & Christie, 2016, in Braun, 2017). It thus threatens the nursing profession’s prosocial nature, or its nature as a “calling” (Wrzesniewski et al., 1997).

Moreover, NL, interacting with MW, could also indirectly impact on well-being-outcomes.

**Hypothesis 6.** NL is negatively related to a) MW and b) JS.

**Hypothesis 7.** The negative relationship between NL and JS is partially mediated by MW.

The theoretical model and the hypotheses are summarized in Figure 1.

--- Insert Figure 1 around here ---

**Methods**
Nurses’ meaningful work and satisfaction

**Participants and procedure**

The sample consisted of 602 nurses employed in two hospitals in different towns in the north-west of Italy: 68.6% (n = 413) of respondents worked in hospital 1 and 31.4% (n = 189) in hospital 2. All nurses working in the two hospitals, i.e., 559 nurses in hospital 1 and 300 nurses in hospital 2, received a paper-and-pencil questionnaire. The overall response rate was 79.1% in hospital 1 (n = 442 respondents) and 69.3% in hospital 2 (n = 208 respondents). Afterwards, because of missing data, the first subsample was cleaned by deleting 29 questionnaires and the second one by deleting 19 questionnaires. Since the hospitals show no differences that can be relevant for the study’s purposes, the total sample has been used to test our hypotheses.

The sample of 602 nurses consisted mostly of women (86.7%) whose mean age was 39.9 years (SD 7.89, min = 23, max = 60). As for education level, 44.7% of respondents had at most a high school diploma, 41.3% had a bachelor's degree, and 15.0% a master's degree or other post-graduate qualification. Almost all respondents had a permanent contract (97.3%), and there was a high percentage of respondents with a full-time contract (82.7%), while only 17.3% had part-time contract. Average hours worked per week was 34.9 (SD 5.61, min = 18, max = 50). Nurses’ tenure in the organisation was 14.9 years on average (SD 8.88, min = 1, max = 40), while their average length of employment was 17.9 years (SD 8.93, min = 1, max = 41). Working areas were as follows: 37.5% of respondents worked in medicine, 21.2% in surgery, 24.4% in intensive care and 16.8% in the service area.

The study was conducted pursuant to Italian data protection legislation and the Helsinki Declaration (World Medical Association, 2001) and was authorized by the hospitals’ nursing directors. As the investigation included no treatments capable of causing any kind of discomfort to participants, no further ethical authorisation was necessary. Each participant sealed the completed questionnaire in an envelope provided by the researchers and returned
it in drop boxes. The questionnaire was accompanied by a cover letter which a) explained that participation in the study was voluntary and not rewarded, b) guaranteed anonymity and confidentiality of data, and c) provided instructions for completing the questionnaire.

**Measures**

*Job satisfaction* was assessed using 4 items (Pejtersen, Kristensen, Borg, & Bjorner, 2010) scored on a 5-point Likert scale (1 = very dissatisfied, 5 = very satisfied). One item was, for example, “How pleased are you with... the physical working conditions?”. Cronbach's alpha in this study was .82.

*Meaningful work* was investigated by 5 items from two different scales (Leiter, Harvie, & Frizzell, 1998; Ashmos & Duchon, 2000). Participants answered using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). An example item was “The work I do is connected to what I think is important in life”. Cronbach’s alpha was .86.

*Narcissistic leadership* was measured using 5 items (Schmidt, 2008). Participants answered using a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). An example item was “My supervisor thinks that he/she is more capable than others”. Cronbach's alpha was .90.

*Workload* was measured by 4 items (Bakker, Demerouti, & Verbeke, 2004) scored on a 5-point Likert scale (1 = never, 5 = always). An example item was “Do you have too much work to do?”. Cronbach's alpha was .76.

*Emotional demands* were assessed through 3 items (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003) assessed through a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). An example item was “Is your work emotionally demanding?”. Cronbach's alpha was .83.
Nurses’ meaningful work and satisfaction

All the scales used in this study should be interpreted as follows: high scores on the scale identify a high level on the construct represented by the scale. For instance, a high score on workload indicates a high perception of that demand by the respondent.

**Data analysis**

In order to calculate descriptive data analysis, Pearson correlations between variables and Cronbach’s alpha coefficient of each measure we used the software IBM SPSS 24. According to Podsakoff, MacKenzie, Lee and Podsakoff (2003), the risk of common method variance was addressed by testing Harman’s single-factor through a confirmatory factor analysis (CFA; ML solution). CFA results \[\chi^2 (189) = 4219.42, p < .001, \text{RMSEA} = .19 (.18, .19), \text{CFI} = .31, \text{TLI} = .24, \text{SRMR} = .18\] showed that one factor did not explain the variance in the data, thus ruling out common method variance.

Then, a full structural equation model (SEM) was tested with the aid of Mplus 7 in order to assess the measurement model and the hypothesized model; maximum likelihood (ML) was used as a method of estimation. In the model, gender and job tenure were considered as control variables in relation to job satisfaction (in line with the previous literature, see for instance Magee, 2013, for gender and Kirkcaldy and Siefen, 1991, for job tenure). As suggested by the literature (Bollen & Long, 1993), the model was evaluated through several goodness-of-fit criteria. The first is the \(\chi^2\) goodness-of-fit statistic where a good model fit is provided by a non-significant result (Barrett, 2007); nevertheless, this statistic is sensitive to sample size (Bentler & Bonnet, 1980). For this reason, the Root Mean Square Error of Approximation (RMSEA) and the Standardized Root Mean Square Residual (SRMR) were evaluated as additional fit indexes; values of both RMSEA and SRMR lower than .08 indicate a good fit. The Comparative Fit Index (CFI) and the Tucker Lewis Index (TLI) were also considered; for these indexes values greater than .90 indicate an adequate fit.
Nurses’ meaningful work and satisfaction

Regarding the cut-off values of the goodness of fit indexes and their interpretation here, see Byrne (2012).

Finally, extracting 2000 new samples from the original one, bootstrapping procedure estimated the significance of direct and indirect effects (Preacher & Hayes, 2008). Since the study had a cross-sectional design, the relations between the investigated variables must be considered associations where causality is presumed by the researchers. Thus, terms like “increase” or “influence” have been used in some cases only to facilitate interpretation of our findings but should not be interpreted literally.

Results

According to results, JS had a moderate positive correlation with MW ($r = .42; p < .01$) and negative correlations with both NL ($r = -.23; p < .01$) and workload ($r = -.23; p < .01$). Moreover, MW showed a negative correlation with both NL ($r = -.14; p < .01$) and job tenure ($r = -.12; p < .01$) and a positive correlation with emotional demands ($r = .20; p < .01$). For more details about correlations see Table 2, while mean and standard deviation of all variables are displayed in Table 1.

--- Insert Tables 1 and 2 around here ---

The full SEM of the hypothesized model showed an acceptable fit to the data: $\chi^2 (218, N = 602) = 633.81, p < .001$, RMSEA = .06 (.05, .06), CFI = .93, TLI = .92, SRMR = .05. Figure 2 depicts the model with standardized parameters. The measurement model showed a good solution, which was consistent with the literature. It was only necessary to correlate the residuals of two items of NL, specifically item 4 (“My supervisor believes that he/she is an extraordinary person”) and item 5 (“My supervisor thrives on compliments and personal...
Nurses’ meaningful work and satisfaction

accolades”). As for the structural model, NL was negatively associated with MW ($\beta = -.16; p < .001$) while emotional demands were positively related to MW ($\beta = .25; p < .001$), which, in turn, reported a strong positive relationship with JS ($\beta = .48; p < .001$). Moreover, NL ($\beta = -.18; p < .001$), workload ($\beta = -.15; p < .01$) and emotional demands ($\beta = -.13; p < .01$) showed a negative relationship with JS. Among control variables, female gender showed a negative relationship with JS ($\beta = -.10; p < .05$) while job tenure did not report a significant path. Finally, emotional demands was positively correlated with workload ($r = .28; p < .001$). The variance explained by the model was 33% for JS and 8% for MW.

--- Insert Figure 2 around here ---

In order to verify the mediation of MW, the bootstrapping procedure was applied. Results in Table 3 confirmed the negative mediation effect of MW between NL and JS ($\beta = -.08; p < .01$) and the positive mediation effect of MW between emotional demands and JS ($\beta = .12; p < .001$).

--- Insert Table 3 around here ---

Discussion

The study contributes to the nursing literature in that it is the first, to the best of our knowledge, that considers one facet of the dark side of leadership, viz. leaders’ narcissistic attitudes and behaviours, in relation to MW and JS in a sample of nurses. These dimensions and the relationships between them have been investigated in other areas (e.g., Arnold, Turner, Barling, Kelloway, & McKee, 2007), but they seem to be particularly important for nursing, because of the crucial role played by leaders (i.e., head nurses) in relation to nurses’
Nurses’ meaningful work and satisfaction

well-being and satisfaction at work (see Morton & Hyrkas, 2012). In addition, this study sheds a clearer light on variables which are typical of the nursing profession, i.e., MW and emotional demands, showing that the latter can be both hindrance and challenge demands in this profession.

The first hypothesis was fully confirmed, since we found a strong positive relationship between MW and JS. This result was not an original contribution (e.g., Rosso et al., 2010); nevertheless, our findings highlighted the presence of this relationship also in healthcare contexts, supporting the importance of the role of MW for nurses.

Three antecedents of both MW and JS have been investigated. The first, workload, showed a negative direct association with JS, in line with the wide literature on nurses’ JS (McVicar, 2016). However, a significant relationship with MW did not emerge. Thus, results partially confirmed hypothesis 2 and rejected hypothesis 3. There is evidence in the literature that several job characteristics are antecedents of MW (e.g., skill variety and autonomy; Bremner & Carrière, 2011). Our purpose was to clarify the role of workload, an aspect which has been less frequently investigated in this dynamic so far. However, results suggested that it is not a factor that interacts with the meaning nurses give to their work.

Conversely, we found interesting results related to emotional demands. These showed a direct negative association with JS (hypothesis 4), confirming that emotional demands can operate as hindrance demands for nurses’ well-being and JS, under certain conditions (McVicar, 2016). On the other hand, a positive association between emotional demands and MW emerged, showing that the emotional requirements typical of this job may also be a challenge demand (Donoso et al., 2015). Indeed, in the helping professions, such as nursing, the relationship with patients and the resulting intense emotional involvement is a crucial component of the job, which requires effort but also contributes to giving a positive sense and meaning to the job itself. In turn, through the mediation of MW, emotional demands
Nurses’ meaningful work and satisfaction

showed a positive indirect relationship with JS, confirming hypothesis 5. In other words, linking the emotional component of the work to its own positive meaning for others’ health and lives, allows nurses to feel more satisfied with their job and to perceive emotional demands as a positive challenge.

Finally, we considered a less investigated antecedent of both MW and JS for nurses, namely NL, which in our study was negatively related to both outcomes. Results confirmed that despite narcissistic leaders’ need to have affirmative relationships with people (Braun, 2017), their behaviours may have negative consequences for their followers. As suggested in the literature, leaders’ actions may have a significant relationship with MW (Rosso et al., 2010; Fouché et al., 2017); in particular, we found a negative relationship between NL and MW, where the self-interest and the lack of concern for others negatively interacts with the meaning of the nursing profession, which is strongly characterized by taking care of others and by prosocial values (Wrzesniewski et al., 1997). Moreover, narcissistic leaders may be unable to support their followers in recognizing and valuing the meaning of their work. In addition, leaders’ narcissistic behaviours showed a negative association with JS, which was both direct and mediated by MW. Thus, hypotheses 6 and 7 were both confirmed.

Limitations

Despite its contribution to the literature, the study also has limitations. First, its cross-sectional design makes it impossible to define causal effects among variables; longitudinal studies (Polit & Beck, 2004) would be necessary to overcome this limitation. Furthermore, a more complex research design, such as a multilevel study, would be helpful for investigating the dynamics of leadership. Moreover, in this study only self-reported data have been analysed, and thus, the common method variance could be a further limitation. Other-reported data and/or objective data provided by the hospitals should be considered in
future studies. Finally, findings may be influenced by cultural characteristics; the replication of this study in other cultural contexts would be necessary. In addition, since the investigated variables are specific for nurses but can also apply to other professions, it would be advisable to replicate the study on other kinds of professionals to test whether these findings are generalizable. This further development might be beneficial in a more general sense: if this complex role of MW is borne out, this will clarify an important mechanism to tackle the issue of well-being at work.

Implications for nursing management

Our findings suggest two types of measures which can be taken, in order to reduce the negative effects of leaders’ narcissism and increase MW and thus augment job satisfaction. For the first type of measures, it could be useful to investigate personality traits of candidates for leadership positions. This investigation could employ tools for psychological assessment, for instance personality tests or group tests for revealing narcissistic traits and behaviours (Gentile et al., 2013). At the same time, it could be helpful to carry out training programmes dealing with leaders’ roles: not only classical classroom training to improve relationship behaviours but also individual training adopting mentoring and coaching techniques (Ghislieri & Gatti, 2012; Malloy & Penprase, 2010), in order to increase awareness of one’s own leadership behaviours, the personal needs which nurture them and – if narcissistic tendencies emerge – the potential damage that can be caused to the perceived meaningfulness of, and satisfaction with, one’s own job and those of followers. Lastly, the organisation’s top management could work on organisational culture in order to counteract and hopefully eliminate those beliefs which link a narcissistic style (and thus a conceited, bossy, manipulative and self-centred style) to “good and right” leadership.
Regarding the second type of measure, the literature has recognized the importance of internal communication about the value of nurses (Gatti et al., 2017) in supporting MW and thus increasing JS. Though the need to look for ways to reduce emotional demands in the nursing profession still holds (Elfering, Häfliger, Celik, & Grebner, 2018), also in view of their direct negative association with JS, the positive relationship between emotional demands and MW and the positive indirect effect to JS suggest another path. Recognizing the high emotional load of nursing as an intrinsic characteristic which increases its social value could have a positive impact on the work’s perceived meaningfulness. In other words, providing nurses with support in redefining the emotional load of their job, which can be perceived as a demand as well as a value, could positively affect nurses’ well-being and satisfaction. Support could also be provided through mindfulness or individual training (Grover, Teo, Pick, & Roche, 2017), which can bring out internal emotional resources improving emotional regulation abilities (Donoso et al., 2015).

References


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Nurses’ meaningful work and satisfaction


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Nurses’ meaningful work and satisfaction


Nurses’ meaningful work and satisfaction


Nurses’ meaningful work and satisfaction


Nurses’ meaningful work and satisfaction


Nurses’ meaningful work and satisfaction


### Table 1

Means and standard deviations for each variable.

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Scale</th>
<th>% of the sample in mean slots</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td>3.23</td>
<td>.71</td>
<td>1–5</td>
<td>46.5% = M ≤ 3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>53.5% = M &gt; 3.00</td>
</tr>
<tr>
<td>Meaningful work</td>
<td>5.13</td>
<td>1.12</td>
<td>1–7</td>
<td>5.1% = M ≤ 3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>39.4% = 3.00 &gt; M ≤ 5.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>55.5% = &gt; 5.00</td>
</tr>
<tr>
<td>Narcissistic leadership</td>
<td>2.31</td>
<td>1.23</td>
<td>1–6</td>
<td>76.2% = M ≤ 3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23.8% = M &gt; 3.00</td>
</tr>
<tr>
<td>Workload</td>
<td>3.36</td>
<td>.66</td>
<td>1–5</td>
<td>39.4% = M ≤ 3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>60.7% = M &gt; 3.00</td>
</tr>
<tr>
<td>Emotional demands</td>
<td>3.86</td>
<td>.78</td>
<td>1–5</td>
<td>20.1% = M ≤ 3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>79.9% = M &gt; 3.00</td>
</tr>
</tbody>
</table>
### Table 2

Cronbach’s alphas and correlations between the variables.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Job satisfaction</strong></td>
<td>(.82)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. Meaningful work</strong></td>
<td>.42**</td>
<td>(.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Narcissistic leadership</strong></td>
<td>-.23**</td>
<td>-.14**</td>
<td>(.90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Workload</strong></td>
<td>-.23**</td>
<td>-.04</td>
<td>.10*</td>
<td>(.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Emotional demands</strong></td>
<td>-.06</td>
<td>.20**</td>
<td>.03</td>
<td>.27**</td>
<td>(.83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Gender (1 = F)</strong></td>
<td>-.08</td>
<td>.01</td>
<td>-.04</td>
<td>-.04</td>
<td>.07</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>7. Job tenure</strong></td>
<td>.06</td>
<td>-.12**</td>
<td>-.04</td>
<td>-.09*</td>
<td>-.08*</td>
<td>.14**</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. * p < .05; ** p < .01. Values on the diagonal are Cronbach’s Alpha.*
Nurses’ meaningful work and satisfaction

Table 3

Indirect effects tested through bootstrap procedure (2000 replications).

<table>
<thead>
<tr>
<th>Indirect effects</th>
<th>Bootstrap</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Est.</td>
<td>SE</td>
<td>p</td>
<td>CI 95%</td>
</tr>
<tr>
<td>Narcissistic leadership → Meaningful work → Job satisfaction</td>
<td>-.08</td>
<td>.03</td>
<td>.003</td>
<td>(-.13, -.03)</td>
</tr>
<tr>
<td>Emotional demands → Meaningful work → Job satisfaction</td>
<td>.12</td>
<td>.03</td>
<td>.000</td>
<td>(.07, .18)</td>
</tr>
</tbody>
</table>

*Note.* All parameter estimates are presented as standardized coefficients. Est. = estimation; SE = standard error; CI = confidence interval.
Figure 1
The theoretical model.

Figure 2
The final SEM model (standardized solution; * $p < .05$; ** $p < .01$; *** $p < .001$; all item loadings are statistically significant at $p < .001$). Continuous arrows indicate significant relationships whereas dashed arrows indicate non-significant relationships ($p > .05$).