Factors affecting nurses' organizational commitment
Pripadnost medicinskih sester in opredelitev njenih dejavnikov

Mateja Lorber, Brigita Skela-Savič

Abstract
Introduction: Commitment to an organization can be described as employee's belief in the goals of the organization and determination to remain a part of the organization. The aim of the study was to establish the level of nurses' commitment and to identify the factors affecting the commitment.

Methods: 5.4% of the total nursing population in Slovenian hospitals participated in the study. The questionnaire that was employed included statements related to leadership style, interpersonal relationship, organizational support, nurses' job satisfaction and commitment. The statistical analysis included the correlation analysis, ANOVA analysis and multivariate regression analysis.

Results: Leaders in nursing are statistically significantly ($F = 41.588$, $p < 0.001$) more committed to an organization than other nurses. There is a positive correlation between nurses' commitment, job satisfaction, interpersonal relationship, organizational support and leadership style. With multivariate regression analysis, 78% of total variability of nurses' commitment can be explained with interpersonal relationship, job satisfaction, organizational support and leadership style.

Discussion and conclusion: Employees' commitment and job satisfaction correlate with quality, performance of hospitals and their competitiveness. The responsibility of managers and leaders in nursing is also to consider and direct people in the field of commitment and not only to provide quality services. It is recommended that once a year the managers survey the satisfaction and commitment of all employees.

Key words: hospital; nurses; job satisfaction; commitment

IZVLEČEK


Metode: V raziskavi je sodelovalo 5,4 % vseh zaposlenih v slovenskih bolnišnicah. Vprašalnik je vseboval trditve, ki se nanašajo na način vodenja, medosebne odnose, organizacijsko podporo, zadovoljstvo pri delu ter pripadnost zaposlenih. Za obdelavo podatkov je bila uporabljena deskriptivna statistika, ANOVA in multivariatna regresijska analiza.

Rezultati: Vodje v zdravstveni negi so statistično značilni ($F = 41.588$, $p < 0.001$) bolj pripadni organizaciji od ostalih sodelujočih medicinskih sester. Obstaja pozitivna korelacija med pripadnostjo zaposlenih, zadovoljstvom pri delu, medosebnimi odnosmi, organizacijsko podporo in stilom vodenja. Z multivariatno regresijsko analizo je bilo ugotovljeno, da lahko 78% celotne variabilnosti pripadnosti medicinskih sester pojasnimo z medosebnimi odnosi, zadovoljstvom pri delu, organizacijsko podporo in stilom vodenja.

Diskusija in zaključek: Pripadnost zaposlenih ter zadovoljstvo pri delu korelira s kakovostjo, uspešnostjo bolnišnic in njihovo konkurenčnostjo. Managerji in vodje v zdravstveni negi morajo upoštevati in nameniti skrb zaposlenim na področju zadovoljstva in pripadnosti in ne samo skrbeti za zagotavljanje kakovosti storitev. Smiselno bi bilo enkrat na leto spremljati zadovoljstvo in pripadnost vseh zaposlenih.
Introduction

Employees' commitment is a professional multidimensional construct (Meyer & Herscovitch, 2001; Varona, 2002; Yoon & Thye, 2002) which is defined by the identification of the organization's mission and work ethic; and the effect on employees' work behavior using two approaches. The above authors noted that one is the emotional/affective approach, which is focused on job satisfaction, and the other is cognitive approach, focused on the perceptions received by leaders' support (organizational support). Organizational support and job satisfaction were considered to be predictors of nurses' commitment to an organization (Rhodes & Eisenberg, 2002; Kuokkanen, et al., 2003; Makanjee, et al., 2006; Chang, et al., 2007; Cohen, 2007; Markovits, et al., 2008; Al-Hussami, et al., 2011). Mihalič (2008) notes that employees' commitment can be recognized as an expressed sense of an individual belonging to an organization, and a team that wants to help colleagues in the organization to support their leader to act. Leaders have to work in accordance with work ethic and professionalism, be committed to their employees, and not leave an organization in a crisis. They have the honour to do their job, promote the good name of the organization, and the like. Musek Lešnik (2006) explains that the real employees' commitment indicates identification and internalized involvement of employees with organizations. Meyer and Herscovitch (2001); Musek Lešnik (2006) and Mihalič (2008) note that there are several types of employees' commitment, like employees' commitment to a team or group, to a career, to an organization, and other. Musek Lešnik (2006) also observes that employees can work successfully only if they are satisfied. Mihalič (2008) states that employee commitment is an important variable in studying behavioral patterns of employees and their efficiency. Various studies (Lok & Crafford, 2001; Loke, 2001; Avolio, et al., 2004; Lok & Crafford, 2004; Pillai & Williams 2004; Lok, et al., 2005; Leach, 2005; McColl-Kennedy & Anderson, 2005) reveal the relationship between leadership style and employees' commitment. Some studies (Meyer & Herscovitch, 2001; Allen, 2003; Chen & Francesco, 2003; Vandenberghe, 2003; Powell & Meyer, 2004) have established a strong positive relationship between employees' commitment and desirable work outcomes, such as performance, adaptability and job satisfaction. Other studies (Ingersol, et al., 2002; Redfern, et al., 2002; Wu & Norman, 2006; Chang & Chang, 2007; Lu, et al., 2007; Güleryüz, et al., 2008; Yang & Chang, 2008) reveal positive effects of job satisfaction on employees' commitment. Some organizational studies also show that the level of education affects employees' commitment (Casper & Buffardi, 2004; Chen, et al., 2005; Lee, 2005; Nogueras, 2006; Al-Hussami, 2009). A review of the relevant literature reveals that several studies have been conducted to identify the organizational commitment in nursing (McNeese-Smith, 2001; Ingersoll, et al., 2002; Nogueras, 2006; Carver & Candela, 2008).

Aims and objectives

Employees' commitment is important for health care institutions, not only for the quality of care, but also for patients' satisfaction. The aim of the study was to determine the level of commitment of nurses and to identify factors of nurses' commitment. The hypothesis is as follows:

H1: Job satisfaction, interpersonal relationship and leadership style are related to nurses' commitment.

Methods

This study was a secondary analysis of data collected in a cross-sectional survey of employees in nursing in Slovenian hospitals which was originally conducted in the year 2009. A nonexperimental quantitative research method was used in the current study.

Description of the research instrument

The data were collected through a questionnaire consisting of 78 closed-type questions. The questionnaire was prepared on the basis of literature review (Allen & Meyer 1990; Meyer & Herscovitch, 2001; Mihalič, 2008) and in cooperation with the O. K. Consulting d.o.o. (Company for education and transformational management), and was tested in a pilot study (10 leaders and 30 employees).

The first part of the questionnaire included demographic data: gender, age, institution, years of employment, years of employment in a leading position, and the level of education. The second part of the questionnaire contained 20 items of leadership style (Cronbach α was 0.788), 10 items referred to interpersonal relationship (Cronbach α was 0.803), and 10 items assessed the organizational support (Cronbach α was 0.798). In the third part of the questionnaire, 20 items were related to job satisfaction (Cronbach α was 0.849), and 18 items to employees' commitment (Cronbach α was 0.792). For the statements a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used.

Sample description

The questionnaire was distributed to 750 nursing employees, i.e. 26.8 % of 2802 nurses working in Slovenian hospitals participating in the study, or 8 % of the 9404 nursing employees in all Slovenian hospitals (Trdić, et al., 2010). 110 questionnaires were sent to middle-level and unit-level nurse leaders and 640 to other nursing employees. The purposive sampling was used in the study including only those nurse leaders.
whose job was relevant to the research. The maximum time to return the completed questionnaire was 20 days. The questionnaires were collected in special boxes designed to ensure anonymity. 509 questionnaires were properly completed, and the response rate was 67.8 %. This sample represented 5.41 % of all employees in nursing in Slovenian hospitals.

The study included 96 nursing leaders and 413 other employees in nursing. There were 11 men and 498 women. The average age of leaders was 43.5 years (range 33-59), and of other employees 38 years (range 21-60). On average, leaders spent 10.1 years in the leading position (10 % had been in the leading position for a year or less and 6.3 % more than 25 years), while other employees were employed for an average of 16.5 years in the participating hospitals.

Procedures and statistical methods

The study took place in 4 major Slovenian hospitals. Out of 25 hospitals from the hospital list, every fifth major Slovenian hospital was selected, one hospital declined participation in the study. The questionnaires were distributed in the morning shift, by authors in one hospital and by the research coordinator in other 3 hospitals. A waiver of consent for the study was granted by all participating hospitals. The survey took approximately 15-20 minutes to complete.

For statistical analysis, the Statistical Package for the Social Sciences version 20.0 (IBM; SPSS Inc., Chicago, IL, USA) was used. The differences between individual variables were analyzed using one way ANOVA, while the Pearson correlation analysis was used to identify the relationship between the studied variables. To reduce the number of variables of commitment we used the factorial analysis (principal component analysis). In addition, the Kaiser-Meyer-Olkin and Bartlett’s tests were used to assess the suitability of using the factor analysis, and to identify nurses’ commitment factors. The multivariate regression analysis was used to determine the impact of independent variables on employees’ commitment. Furthermore, the proportion of total variation of nurses’ commitment was explained with the selected independent variables. A p-value < 0.05 was considered to be statistically significant.

Results

The level of commitment for nursing leaders (\(\bar{x} = 4.09, s = 0.98\)) and other nurses (\(\bar{x} = 3.12, s = 1.02\)) are at a high-medium level. Nevertheless, there were significant differences (\(F = 41.588, p < 0.001\)) between the perception of commitment in nursing by leaders and other employees. With the correlation analysis (Table 1), a strong positive correlation was established between nurses’ commitment and job satisfaction (\(r = 0.509, p < 0.001\)); interpersonal relationship (\(r = 0.730, p < 0.001\)), organizational support (\(r = 0.838, p < 0.001\)) and leadership style (\(r = 0.680, p < 0.001\)).

In order to establish the overall nurses’ commitment, the multiple regression analysis was conducted. The model analysis included five independent variables: job satisfaction, interpersonal relationship, organizational support, level of education, and leadership style.

The linear combination of five independent variables was significantly related to the dependent variable (nurses’ commitment), \(R^2 = 0.779, F = 319.291, p < 0.001\).

Table 1: Pearson correlation coefficient of commitment, job satisfaction, organizational support, interpersonal relationship, leadership style and level of education

<table>
<thead>
<tr>
<th></th>
<th>CO</th>
<th>JS</th>
<th>IR</th>
<th>OS</th>
<th>LE</th>
<th>LS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>1</td>
<td>0.590**</td>
<td>0.733**</td>
<td>0.838**</td>
<td>0.084</td>
<td>0.680**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>/</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.057</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>JS</td>
<td>0.590**</td>
<td>1</td>
<td>0.549**</td>
<td>0.556**</td>
<td>0.036</td>
<td>0.514**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>&lt;0.001</td>
<td>/</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.413</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>IR</td>
<td>0.733**</td>
<td>0.549**</td>
<td>1</td>
<td>0.687**</td>
<td>0.021</td>
<td>0.793**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>/</td>
<td>&lt;0.001</td>
<td>0.644</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>OS</td>
<td>0.838**</td>
<td>0.556**</td>
<td>0.687**</td>
<td>1</td>
<td>0.031</td>
<td>0.681**</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>/</td>
<td>0.486</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>LE</td>
<td>0.084</td>
<td>0.036</td>
<td>0.021</td>
<td>0.031</td>
<td>1</td>
<td>0.018</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>0.057</td>
<td>0.413</td>
<td>0.644</td>
<td>0.487</td>
<td>/</td>
<td>0.693</td>
</tr>
<tr>
<td>LS</td>
<td>0.680**</td>
<td>0.514**</td>
<td>0.793**</td>
<td>0.681**</td>
<td>0.018</td>
<td>1</td>
</tr>
<tr>
<td>Sig (2-tailed)</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>&lt;0.001</td>
<td>0.693</td>
<td>/</td>
</tr>
</tbody>
</table>

Legend/Legenda: * Correlation is significant at the 0.05 level or less/statistična značilnost pri stopnji 0.05 ali manj; ** Correlation is significant at the 0.001 or less/statistična značilnost pri stopnji 0.001 ali manj; CO – Commitment/pripadnost; JS–Job satisfaction/ zadovoljstvo pri delu; IR–Interpersonal relationship/medosebni odnosi; OS – Organizational support/podpora organizacije; LE – Level of education/stopnja izobrazbe; LS – Leadership style/stil vodenja
An estimate 78 % of the variance of the nurses’ commitment index can be accounted for by the linear combination of predictors: job satisfaction, interpersonal relationship, organizational support, level of education, and leadership style. As indicated in Table 2, four measures as predictors, namely, job satisfaction, interpersonal relationship, organizational support, and leadership style were strongly related to nurses’ commitment.

This conclusion is supported by the strength of the bivariate correlation between organizational support and nurses’ commitment, which was 0.84, \( p < 0.001 \), and interpersonal relationship, which was 0.73, \( p < 0.001 \). The level of education was not a significant predictor of nurses’ commitment when it was used with other independent variables. The multiple regression analysis indicated 78 % of the total variance in nurses’ commitment which was explained considering the principal independent variables.

Nurses’ commitment was assessed by eighteen questions. For the evaluation and examination of the screen chart, only five factors (and all including statements) were taken into the consideration. The value of Kaiser-Meyer-Olkin test statistics was 0.913, which shows a good suitability assessment. Five factors extracted from the principal component analysis explained 66 % of nurses’ commitment (Table 3). The first factor explained 27 % of the entire variance, the second factor explained 8 %, the third factor 8 %, the fourth factor 7 %, and the fifth factor 6 %. The first factor refers to the commitment to organization including 5 ranked items. The second factor refers to the commitment to leaders including 4 ranked items. The third factor refers to the commitment to co-

### Table 2: Multiple linear regressions for a single set of predictors

<table>
<thead>
<tr>
<th>Independent variables/ Neodvisne spremenljivke</th>
<th>( B )</th>
<th>Std. Error</th>
<th>( \beta )</th>
<th>( t )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job satisfaction</td>
<td>0.086</td>
<td>0.021</td>
<td>0.113</td>
<td>4.114</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Interpersonal relationship</td>
<td>0.189</td>
<td>0.030</td>
<td>0.244</td>
<td>6.346</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Organizational support</td>
<td>0.473</td>
<td>0.026</td>
<td>0.586</td>
<td>17.899</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Level of education</td>
<td>0.003</td>
<td>0.001</td>
<td>0.057</td>
<td>2.623</td>
<td>0.083</td>
</tr>
<tr>
<td>Leadership style</td>
<td>0.032</td>
<td>0.042</td>
<td>0.029</td>
<td>0.767</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Legend/Legenda: \( B \) – unstandardized coefficient/nestandardizirani koeficient; Std. Error – standard error/standardna napaka; \( \beta \) – standardized regression coefficient/standardizirani regresijski koeficient; \( t \) – t-test value/vrednost t-testa; \( p \) – statistically significant at 0.05 or less/statistična značilnost pri 0.05 ali manj

### Table 3: Rotated factor matrix for five factors of nurses’ commitment

<table>
<thead>
<tr>
<th>Statements/Stališča</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO</td>
</tr>
<tr>
<td>I am proud to work in this organization.</td>
<td>0.723</td>
</tr>
<tr>
<td>I speak positively about the organization.</td>
<td>0.600</td>
</tr>
<tr>
<td>I wouldn’t leave the organization.</td>
<td>0.569</td>
</tr>
<tr>
<td>Our organization has a good reputation.</td>
<td>0.534</td>
</tr>
<tr>
<td>Our organization grows on individuals.</td>
<td>0.529</td>
</tr>
<tr>
<td>Leaders are interested in the growth of employees.</td>
<td>/</td>
</tr>
<tr>
<td>Leaders know that interpersonal trust is necessary.</td>
<td>/</td>
</tr>
<tr>
<td>I respect leaders.</td>
<td>/</td>
</tr>
<tr>
<td>I am always ready to help my leader.</td>
<td>/</td>
</tr>
<tr>
<td>All co-workers can show their abilities.</td>
<td>/</td>
</tr>
<tr>
<td>I am independent and autonomous at work.</td>
<td>/</td>
</tr>
<tr>
<td>I always want to help my co-workers.</td>
<td>/</td>
</tr>
<tr>
<td>I help workers at work.</td>
<td>/</td>
</tr>
<tr>
<td>I believe in successful development.</td>
<td>/</td>
</tr>
<tr>
<td>I think that my work is respectable.</td>
<td>/</td>
</tr>
<tr>
<td>My work is useful and important.</td>
<td>/</td>
</tr>
<tr>
<td>I represent the vision of our organization.</td>
<td>/</td>
</tr>
<tr>
<td>Concern for employees is necessary.</td>
<td>/</td>
</tr>
</tbody>
</table>

Legend/Legenda: CO – Commitment to organization/pripadnost organizaciji; CL – Commitment to leader/pripadnost vodji; CC – Commitment to co-workers/pripadnost sodelavcem; CJ – Commitment to job/pripadnost delu; CV – Commitment to vision/pripadnost viziji
workers including 4 ranked items. The fourth factor refers to the commitment to job including 3 ranked items. The fifth factor refers to the commitment to vision including 2 ranked items.

Discussion

In spite of a plethora of research on commitment, the studies focused on nurses' commitment in hospitals are scarce, also in Slovenia. The results of the study indicate that the level of nurses' commitment is at a high-median level. However, we also proved that nursing leaders' commitment is statistically significantly higher than that of other nurses. The results of this study revealed a positive correlation between nurses' commitment, job satisfaction, interpersonal relationship, organizational support and leadership style. Organizational support reflected the strongest correlation, followed by interpersonal relationship, leadership style and job satisfaction. The multiple regression performed in this study indicated that 78% of the variance of nurses' commitment was accounted for by the linear combination of job satisfaction, organizational support, interpersonal relationship, and leadership style. Similarly, some other studies (Rhodes & Eisenberg, 2002; Kuokkanen, et al., 2003; Makanjee, et al., 2006; Chang & Chang, 2007; Chang, et al., 2007; Cohen, 2007; Al-Hussami, 2008; Markovits, et al., 2008; Al-Husami, et al., 2011) established that organizational support and job satisfaction are important predictors of employees' commitment. The findings of the current study are consistent with those of Wong and Sohal (2000) and Kuvaas (2007) who found that interpersonal relationship affects employees' commitment. In the present study, the level of education was not a significant predictor of nurses' commitment, but many previous studies (Lok & Crawford, 2001; Yoon & Thye, 2002; Casper & Buffardi, 2004; Chen, et al., 2005; Lee, 2005; Lok, et al., 2005; Nogueras, 2005; Al-Hussami, 2008; Al-Hussami, 2009) showed that the level of education affects employees' commitment.

The results of the present study are in agreement with other studies (Lok & Crafford, 2001; Loke, 2001; Avolio, et al., 2004; Pillai & Williams, 2004; Leach, 2005; McColl-Kennedy & Anderson, 2005), which showed that leadership style also influences nurses' commitment. Only committed leaders can care for commitment of other employees. The study also produced results which support previous research by Karsh and colleagues (2005) that the job and organizational factor predict nurses' commitment.

The research established five factors of commitment (organization, leaders, co-workers, job, and vision) extracted from the factor analysis which explain for 78% of the total variance of nurses' commitment. This corroborates other research findings (Meyer & Herscovitch, 2001; Mihalič, 2008; Musek Lešnik, 2009) which refer to different types of commitment and define the commitment as a multidimensional construct. There are also other variables which determine organizational commitment, but they were not included into the research.

Study limitations

The previously tested questionnaire was redesigned and upgraded in cooperation with Company for education and transformational management and tested prior to its wider distribution. It was composed of multiple choice closed-ended questions which limited the respondents with a list of answer choices from which they were allowed to choose. Distribution of the questionnaire by post presented another disadvantage as no additional information or support to the respondents could be provided when completing the questionnaire.

Conclusion

Whereas employees' commitment is important for the growth and efficacy of every organization it would be reasonable to monitor the nurses' commitment according to different components of commitment. Furthermore, it would be useful to learn which components of commitment are rated lower by nurses in different departments or organizational units. It is recommended that satisfaction and commitment of all employees in hospitals and other healthcare organizations be monitored once a year. Thus, greater efficiency of the organization can be achieved and individuals' expectations can be met.

With the ever changing healthcare system, hospitals will have to recognize that employees' commitment has a profound impact on the overall organizational performance. Employees in nursing are more likely to be committed to an organization when they have appropriate support. For future research, we recommend to replicate this study or conduct a similar one on nurses and other employees in other healthcare organizations in Slovenia. One of the key challenges for every organization is to maintain the commitment of employees and increase their motivation.

Literature


PMid:21569152


PMid:18080971


PMid:18394625


PMid:18253944

PMid:12021566

PMid:162856902

PMid:12856902


PMid:15891486


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PMid:17391673

[http://dx.doi.org/10.1177/0730888402029001005](http://dx.doi.org/10.1177/0730888402029001005)

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