The mediator role of social phobia in the association between resiliency and job performance among nurses of Ali Ibn Abi Taleb hospital of Rafsanjan, Iran (2017)

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Abstract

Background: Due to its professional nature, nursing is a very difficult, stressful, and phobia-orienting occupation. Social phobia, after depression, is the most important mental problem in today's world, and it affects the quality of life of nurses. The present study was conducted to determine the mediator role of social phobia in the association between resiliency and job performance among nurses of Ali Ibn Abi Taleb hospital of Rafsanjan in 2017.

Materials and Methods: The present study is a descriptive and an applied study. According to Cochran formula, 174 nurses were selected by random sampling method; three standardized questionnaires (resiliency, job performance and social phobia), all of which had acceptable validity and reliability, were used to collect required data. Structural equation modeling of minimum squares method, Smart PLS and SPSS (version 20) were used to analyze the data.

Results: Results showed that resilience had a significant effect on job performance (p <0.05), however, the effect of social phobia on job performance was not significant. Therefore, social phobia does not mediate the association between resiliency and job performance.

Conclusion: Resilience could lead to a significant decrease in social phobia; on the other hand, it increases job performance. Therefore, it seems that strengthening different psychological aspects in nurses, such as flexibility and controlling social phobia, helps their lives in the workplace and increases job performance.

Keywords: Resilience, Social Phobia, Job Performance, Nurses, Iran.

Introduction

Due to the growing importance of human resources and the huge cost of the organization, organizational researchers have been increasingly focused on the problems of employees; fortunately, they have made good progress and have obtained good results. (1) Hospitals and other medical-health centers, like a single industrial unit, have done their best to contribute to the process of preservation, return, and promotion of human health, and nurses are the human resources of these centers (2). As a powerful arm of the health care system, nurses play a significant role in the development of care, treatment, improvement, and promotion of community health (3). Resiliency is an indicator of good adaptation to adverse conditions, such as traumatic or unpleasant events (4). Resilient individuals exhibit more capacity to regain their physiological, psychological and social equilibrium after stressful events (5). According to Bandora, resilient individuals behave through four process of cognitive, emotional, motivational, and selective processes. These individuals view the challenges
as an opportunity for growth (cognitive), with minimal stress (emotional), maximum upbringing (motivational), and reorientation (optional). (6)

After depression, social phobia is the most important mental problem in today's world (7). The main concern of individuals suffering from social phobia is the fear of being taken into consideration and receiving negative evaluation from others due to the disclosure of phobia symptoms (8). According to interpersonal theory, individuals with social phobia disorder have some kind of problem in social skills. These people rank their social skills more negatively (9).

Performance is defined as the extent to which a person fulfills duties assigned to him over a specified period (10-11). The results of Tahmasebi and Efkar Al-Din et al studies showed that resiliency can predict phobia and promote resilience with desirable outcomes such as decreasing phobia (12, 13). The results of Joayandeh's study showed that there is a positive, significant association between resiliency and job performance in nurses, and resilience can predict job performance (14). Also, the results of Amiri's study showed that there is a significant and positive association between job resiliency and job performance of Shiraz municipality staff (15).

Given the importance of preserving and promoting proper functioning of nurses and keeping them healthy, first as human being then as those responsible for maintain health and well-being of other members of the community, it is necessary to measure the response rates such as social phobia in nurses in order to determine the reasons for their phobia, implement proper measures, increase job performance and reduce their phobia. The present study was conducted to determine the mediator role of social phobia in the association between resiliency and job performance among nurses of Ali Ibn Abi Taleb hospital of Rafsanjan in 2017.

Materials and Methods

The present research is a descriptive-correlational study based on path analysis. The statistical population included all nurses of Ali Ibn Abi Taleb hospital in Rafsanjan in 2017; the total number was 319 subjects, 174 of whom were randomly selected as samples through the Cochran formula. To determine the sample size, the Cochran formula was used with the following hypothesis.

\[
    n = \frac{z_{1-\alpha/2}^2 \cdot q \cdot (1-q)}{d^2} \cdot \left(1 + \frac{1}{N\left(\frac{z_{1-\alpha/2}^2 \cdot q \cdot (1-q)}{d^2} - 1\right)} \right)
\]  

where:
- \( z = \frac{1.96 \cdot \text{percentile in the normal distribution of standard}}{0.05} \)
- \( \alpha = 0.05; \text{Error or probability of committing first type error} \)
- \( d = 0.05 \text{is the maximum estimation error}. \)
- \( N = \text{volume of statistical population} \)
- \( p = 0.5 \text{is the probability of being selected} \)
- \( q = 1 - p \text{is the probability of not being selected} \)
- \( n = \text{sample size} \)

Testing and assessing the measurement pattern: Partial least squares (PLS) method consists of two parts; the first section examines the measurement model in terms of validity (internal consistency) and reliability (divergent validity) of the structures and research tools. In order to evaluate the validity of structures, Frenel and Laker suggest three criteria that include the validity of each item, the combined validity of each construct, and the mean variance (16); factor load of 0.7 and more is indicative of well-defined structure of each individual item, and items should not have a significant factor load on other structures. If the CR (Compensative Reliability) value for each construct is higher than 0.7, it shows the internal stability for the measurement model and a value less than 0.6 shows the absence of reliability. The next criterion is to examine the fit of measuring models or convergent validity, which examines the correlation of each structure with its questions (indexes) assessed by AVE criterion. Megener et al. (4.2) introduced a load of 0.4 sufficient for AVE. (17)

Structural Pattern Test: PLS structural model and research hypotheses were used to determine the significance of path coefficients by examining the coefficients (Beta); additionally, the bootstrap method was used to determine the value of Z statistic in determining the significance of path coefficients. Paths coefficients are, in turn, used to determine the contribution of each independent variables in explaining the variance of dependent variables. The significance coefficients of Z related to the questions of the research variables turned out to be more than 1.96, which indicates the significance of these questions at 95% confidence level (17). The second criterion for examining the fit of a structural model in this research is the coefficients of R2 related to the hidden (dependent) variables of the model. R2 is a criterion that indicates the effect of an exogenous variable on an endogenous variable, and three values of 0.19, 0.33 and 0.67 are considered as the criterion value for weak, moderate and strong R2 values. The R2 value of social phobia turned out to be 0.072, indicating weak level, and that of job performance was 0.497, indicating moderate level, both of which determine the predictive potential of the model.
Models that are fitted with an acceptable structural part should have the ability to predict indices related to the model's intrinsic structures. That is, if in a model, the relationships between structures are properly defined, the structures will be able to have an adequate impact on the indicators and, thus, validate the hypotheses properly. If the Q2 value is zero or less than zero for an internal structure, it indicates that the relationships between the other structures of the model and that of the internal structure are not well explained, and therefore the model needs to be corrected. Regarding the strength of the predictive power of the model, for internal structures, the values of 0.02, 0.15 and 0.35, respectively, indicate weak, moderate and strong predictive power of the model for the endogenous structures. [18]. Regarding the Q2 value for social phobia and job performance variables, these intraocular variables have poor predictive ability with their own constructs. According to the credit check indicator, these variables are positive and the model has a good quality measurement.

Being employed and willing to participate in the research were the main inclusion criteria and filling incomplete or misleading questionnaires were the main exclusion criteria. After explaining the goals of the research to the participants and obtaining their consent, the questionnaires were completed with the help of the researcher. In this study, ethical considerations, such as informed consent and confidentiality of responses, were observed.

Research Tools: Conner & Davidson’s (CD-RISC) Resiliency questionnaire: This scale has 25 points and is based on a five-point Likert scale, ranging from always true (five points) to completely false (one point). Mohammadi has adapted it for use in Iran. The minimum score for this scale is 25 indicating the lowest amount of resiliency, and the maximum score is 125, indicating the highest level of resiliency (19). Cronbach's alpha coefficient of this scale turned out to be 0.87 in Samany Sahararg and Jokar's study (20). The reliability of the tool was 0.49 and its validity was 0.43, both of which are generally acceptable.

Job Performance Questionnaire: The questionnaire consists of 14 questions taken from Nikeel et al. Job Performance scale (22). The grades are based on five-point Likert scale, ranging from totally agree (five points) to the totally disagree (one point). Scores range from 14 (lowest job performance) to 70 (highest job performance). Cronbach’s alpha coefficient was 0.77 in Marwan Hosseini and Lari Behesh's study (23). The reliability of the tool was 0.9 and its validity was 0.76, both of which are generally acceptable.

Social Phobia Inventory: Social Phobia Inventory (SPI) is a self-assessment scale consisting of 17 items and three sub-scales of phobia (6 items), avoidance (7 items) and physiological discomfort (4 substances), rated according to five Likert degrees, ranging from very high (five points) to zero (0 point). Scale range varies between zero and 85. Based on the results obtained for the interpretation of the scores, the cut point 40 with an accuracy of 80% accuracy and a cut point of 50 with an efficiency of 89% differentiate people with social phobia from non-infected individuals (24). The reliability of the tool as 0.97 and its validity was 0.91, both of which are generally acceptable. In this study, the validity and reliability of variables were calculated using smart PLS software.

Results

According to the data analysis, among the subjects examined 107 (52.7%) of the subjects were male and 67 (36.7%) were female. 161 (92.5) were married and 13 (7.5%) were single. 28 subjects (16.1%) had associate degree, 116 (66.7%) had BA and 17 (9.8%) had MA and higher degrees; 38 (36%) had fewer than 10 years of work experience, 49 (46.1%) had between 10 to 20 years of work experience and 20 (19.7%) had between 20 to 30 years of work experience. The age distribution of the nurses was as follows: 24 (22.5%) were under 25, 38 (36.1%) were 25 to 35, 27 (24.7%) between 35-45 and 18 (17.8%) above 45 years of age. The mean and standard deviation of resiliency scores, phobia, and job performance turned out to be 3.60 ± 0.62, 2.60 ± 0.86, 3.73 ± 0.56. The factor load of Questions 2 and 3 related to resiliency variable was eliminated from the model due to being lower than 0.4. Table 1 shows the combined reliability and the convergent validity of the research variables; the values of this table represent the sufficient validity of the variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Resiliency</th>
<th>Social phobia</th>
<th>Job performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined reliability</td>
<td>0.94</td>
<td>0.97</td>
<td>0.9</td>
</tr>
<tr>
<td>Convergent validity</td>
<td>0.43</td>
<td>0.91</td>
<td>0.76</td>
</tr>
</tbody>
</table>

Table 1: Combined reliability and convergent validity of research variables among nurses working in Ali Ibn Abi Taleb (AS) hospital in Rafsanjan in 2017.
As shown in Table 2, the AVE value of the variables in gaps of the matrix’s original diameter is more than the correlation between them that are arranged in the lower and left gaps of the original diameter. Therefore, it can be stated that the structures (the variables) in the model interact more with their indexes than with other structures in the present study. In other words, the divergent validity of the model is appropriate. Also, according to correlation matrix, the highest correlation among variables is related to the association between resiliency and job performance.

Table 2: Correlation matrix and divergent validity of research variables among nurses working in Ali Ibn Abi Taleb (AS) hospital in Rafsanjan in 2017

<table>
<thead>
<tr>
<th>Variable</th>
<th>Resiliency</th>
<th>Social phobia</th>
<th>Job performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resiliency</td>
<td>0.657</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social phobia</td>
<td>-0.293</td>
<td>0.95</td>
<td>-0.298</td>
</tr>
<tr>
<td>Job performance</td>
<td>0.653</td>
<td></td>
<td>0.871</td>
</tr>
</tbody>
</table>

As shown in Table 3, the path coefficients between resiliency and job performance was 4.281, which was more than 1.96. Therefore, it can be stated that the hypothesis of the researcher is confirmed with 95% confidence and with respect to the path coefficient being positive (0.46), it can be said that resiliency has a positive and significant effect on job performance, indicating that the resiliency accounts for 46% of the variation in job performance.

Table 3: Path coefficients and significant coefficients between resiliency and social phobia among nurses working in Ali Ibn Abi Taleb (AS) hospital in Rafsanjan in 2017

<table>
<thead>
<tr>
<th>Path</th>
<th>Path coefficient</th>
<th>T value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resiliency ← Job performance</td>
<td>0.46</td>
<td>4.281</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Resiliency ← Social phobia</td>
<td>-0.31</td>
<td>2.112</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Social phobia ← Job performance</td>
<td>-0.145</td>
<td>1.512</td>
<td>P&lt;0.05</td>
</tr>
</tbody>
</table>

The significant path coefficient between resiliency and social phobia is 2.122, which is more than 1.96. Therefore, it can be stated that the hypothesis of the researcher is confirmed with 95% confidence and, given the negative trend of the path coefficient (-0.31), it can be said that resiliency has a negative and significant effect on social phobia and suggests; thus, resiliency explains 31% of the variations in social phobia in the opposite direction. The path coefficient between social phobia and job performance is 1.1512 (less than 1.96). Therefore, the hypothesis of the research is not confirmed with 95% confidence, and it can be said that social phobia has no significant effect on job performance; consequently, social phobia does not play a role in the association between resiliency and job performance.

Discussion
The present study was conducted to determine the mediator role of social phobia in the association between resiliency and job performance among nurses of Ali ibn Abitaleb Hospital. Based on these findings, it can be said that nurses with lower phobia can take steps toward becoming more resilient and presenting more efficient job performance. Resiliency reduces social phobia and increases job performance. Therefore, strengthening different psychological aspects such as flexibility and reducing social anxiety helps increase job performance in nurses (25-26). The results indicate that resiliency had a direct impact on job performance; it affects the improvement of job attitudes and outcomes, especially job performance (13). It seems that people who are resilient can, in different situations, have good adaptation to the internal and external environment, and make the most optimum decisions and choices to enhance their job performance as much as possible. The results showed that social phobia does not mediate between the resiliency and job performance. On the one hand, the results indicate that resiliency has a negative and significant effect on social anxiety, which is consistent with the findings of Eftekharddin et al and Tahmasebi’s studied; they stated that resiliency creates the factors that support individuals during stress (13-14). Therefore, there seems to be a positive association between stress relief and resiliency enhancement. In the stress-oriented disease model, individuals are diagnosed with a disease or disorder that initially
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has a biological, psychological, or social background for having the disorder or disease when they are placed under stress. While many people have the condition of many diseases, they are not all affected. What prevents people from becoming stressful is the way they use stress relief. These methods work on the basis of resiliency features. The nature of some occupations and experiences endangers their mental health and threatens their integrity (22). Therefore, resiliency, which is a promising concept, can be considered and used in preventative programs in order to reduce social phobia. On the other hand, the results indicate that social phobia does not affect job performance; there was no evidence for a rejection or confirmation of such a claim. It seems that the ineffectiveness of these two variables in the present study seems to be due to the fact that social anxiety is affected by some other variables such as organizational commitment, job satisfaction, and job burnout. Considering that this research has been carried out on nurses of Ali Ibn Abi Taleb hospital in Rafsanjan, generalizing the findings to other groups should be done with utmost precision and care. The main limitation of this research is cognitive errors of nurses (such as halo error, centered error and tolerance error) while completing the questionnaire.

Conclusion
Correlation results showed that there is a positive and significant correlation between resiliency and performance. Resilient individuals exhibit more capacity to regain their physiological, psychological and social connections after stressful events. It is suggested that hospital managers provide conditions that enable nurses to adapt to necessary changes to remedial problems, to strengthen stress and to remove barriers to their goals through in-service psychology education in the organization.

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Conflict of interest: None declared.

References