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Spanish Adaptation of the Scale of Psychological Empowerment in the Workplace


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El objetivo de este estudio es adaptar al español la escala de Empoderamiento Psicológico en el trabajo desarrollada por Spreitzer (1995a). Se llevó a cabo un proceso de traducción y retrotraducción de los ítems que la componen y se exploraron sus propiedades psicométricas en una muestra de 272 profesionales de enfermería de hospitales públicos en la provincia de Sevilla. Los datos se sometieron a un análisis factorial confirmatorio. La significación del peso factorial mostró la necesidad de especificar un nuevo modelo eliminando un ítem. La versión de 11 ítems mostró una adecuada validez de constructo y consistencia interna. Los resultados confirman la estructural factorial original de cuatro factores obtenida por Spreitzer, a excepción del ítem 10, y apoyan la utilización de la versión española de esta escala en contextos laborales. Futuras investigaciones deben profundizar en la validación del constructo y probar la red nomológica de la operacionalización del constructo en el ámbito del bienestar psicológico en el contexto laboral.

Palabras clave: escala de empoderamiento psicológico, validación psicométrica, contexto laboral, enfermería.
The research construct of psychological empowerment (PE) has become increasingly relevant in recent years because of its demonstrated mediating role in the relationship between a workplace’s structural characteristics (i.e., access to resources, access to information, socio-political support and a workplace culture of unity) and positive work outcomes, including innovation, heightened satisfaction, performance and efficiency, and decreased stress levels (Bonias, Bartram, Legatt, & Stanton, 2010; Chang, Shih, & Lin, 2010; Gregory, Albritton, & Osmonbekov, 2010; Randolph & Edward, 2011; Spreitzer, 1997). PE refers to a series of cognitive processes that modify subjects’ perceptions of themselves, and their setting or context (Conger & Kanungo, 1988; Menon, 2001; Spreitzer, 1995a; Thomas & Velthouse, 1990). Spreitzer (1995a) categorizes it into four types of cognition, each reflecting the individual’s orientation toward work (i.e., meaning, competence, self-determination and impact). Though numerous instruments have been developed to measure PE (Menon, 2001; Speer & Peterson, 2000; Zimmerman, 1995), Spreitzer’s multidimensional scale (1995a) is the one that has gained the most empirical support (Aryee & Chen, 2006; Ergenely, Sag, Ari, & Metin, 2007; Hochwälder & Bergsten Brucefors, 2005). Nevertheless, there remains no adaptation of this instrument for the Spanish language.

Interest in the study of PE in the workplace has grown within organizational psychology research as new challenges have come to necessitate innovative, competitive employees (Bowen & Lawler, 1992). First of all, research in this area has taken a largely relational perspective centered on management practices encouraging participation through such strategies as sharing power or delegating authority between the highest and lowest organizational levels. Conger and Kanungo (1988), and Thomas and Velthouse (1990), suggest this approach does not always reflect how employees feel when they experience empowerment; rather, they believe PE needs to be studied as a psychological experience. The first empirical studies along those lines were conducted by Spreitzer (1996), and Thorlakson and Murria (1996).

The influence of context in manifestations of PE (Maton & Salem, 1995; Rappaport 1984) makes it a challenge for researchers to measure it, given the need for an operational definition to address different populations and contexts. Spreitzer (1995b) has made an effort on that front, developing a scale based on a model stemming from the work of Conger and Kanungo (1988), and Thomas and Velthouse (1990). To Conger and Kanungo, PE is a “process enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal” (Conger & Kanungo, 1988, p.484). Thomas and Velthouse built on that idea, developing a cognitive model in which they understood PE as an intrinsic motivation that manifests itself through four types of cognition, each reflecting an orientation toward work, specifically, meaningfulness, competence, choice and impact. To operationally define each dimension, Spreitzer (1995a) reviewed the available literature on this subject from the perspectives of psychology, sociology, social work and education, and found support for all four, simply changing the dimension labeled choice for self-determination. Meaning is understood as the value of the goal or purpose behind an individual’s work, in terms of his or her ideals or standards (Thomas & Velthouse, 1990). This implies that the requirements of one’s occupational role fit with his or her values, beliefs and behaviors (Brief & Nord, 1990; Spreitzer, 1995a, 1996). Competence, or particular self-efficacy for one’s work, is defined as an individual’s belief in their ability to perform work or tasks well (Gist & Mitchell, 1992). This dimension is rooted in Bandura’s (1987) social cognitive theory about perceived self-efficacy. Self-determination is defined as a person’s belief in his or her autonomy in the decision-making process, and control over executing their work (Deci & Ryan, 1985). It reflects a sense of choice about initiating and regulating one’s actions. Finally, impact is one’s perception of their strategic or administrative influence in the workplace, or of the results of their work (Ashforth, 1989). It involves an individual employee’s sense of control over organizational outcomes, and the belief that one can “make a difference” in the workplace.

In order to measure the dimensions of PE, Spreitzer (1995a) created a multidimensional instrument, each dimension corresponding to a separate scale. She chose scales according to the following criteria: they would be (1) one-dimensional, (2) adaptable to a common format to facilitate their administration (e.g. a 7-point Likert-type scale) and (3) focused on the individual’s experience of the dimension, more than their description of the workplace environment, which may result from said experience. In this way, she developed a 12-item instrument in which each of four dimensions is measured by three items.

To test the convergent and discriminant validity of PE’s four components, Spreitzer (1995b) completed a second-order factor analysis using two samples, one sample of managers and one of insurance company employees. Their results supported a factor structure of the construct made up of four dimensions.

In recent years, the study of PE has become increasingly relevant to professions such as nursing because it is associated with a higher quality of care (Bonias et al., 2010), patient safety (Halbesleben, Wakefield, Wakefield, & Cooper, 2008) and burnout prevention (Laschinger & Leiter, 2006), among other things. Furthermore, studies conducted to validate the scale have confirmed the factor structure Spreitzer obtained (Hochwälder & Bergsten Brucefors, 2005; Kraimer, Seibert, & Liden, 1999).

In Spain, in response to the diverse challenges presently facing the National Health System (sustainability, preventing health inequalities, tending to dependencies, the politics of patient safety, etc.), health services need to meet certain
organizational characteristics that give rise to empowerment among professional nurses. Thus, it stands to reason that we need an instrument to measure professional nurses’ experience of PE.

Given that in Spain, there are no instruments to measure PE in the workplace, and in light of the need to explore and analyze this experience within the context of the health challenges involving professional nurses, the present study’s objective is to adapt a Spanish version of Spreitzer’s scale, and to validate its psychometric properties in a sample of professional nurses.

Methods

Participants

The sample of participants was selected from a population of 1,500 certified nurses, working in three different hospitals in the capital, Seville, deemed by Andalucía Health Services (AHS) to offer specialized care: Virgen Macarena Hospital, Virgen del Rocio Hospital, and Nuestra Señora de Valme Hospital. After obtaining a sample of care units with relatively homogeneous workplace characteristics across the three hospitals, four strata were selected at each hospital: medical-surgical, critical care, pediatric and urgent care units. Next, using employee lists provided by each hospital’s directors of nursing, 510 participants were chosen by means of a systematic random sampling technique. The following inclusion criteria were employed: a) having worked at the hospital for at least a year, b) voluntarily consenting to participate in the study, c) being actively employed at the time of data collection and d) having a set contract or long-term interim standing. If a selected subject did not meet these requirements, he or she was substituted by the next one on the list.

372 employees consented to participate, giving us a response rate of 72.94%. Nevertheless, 100 questionnaires were excluded during the process of data purification for their low quality. Of the remaining 272 participants, 37.9% were from Virgen Macarena Hospital, 38.2% from Virgen del Rocio and 23.9% from Nuestra Señora de Valme. As for the sample’s sociodemographic characteristics, 76.8% were women, with an average age of 40.40 years-old (SD = 7.58) ranging from 23 to 62 years-old. Participants’ number of years holding this job was found to range from 2 to 36 years, with a mean of 16.65 years (SD = 7.08). 50% of the sample carried out their work in medical/surgical units, 18% in critical care, 19.5% in urgent care and 12.5% in pediatrics.

Instruments

Sociodemographic Data Registry: Information was collected about the variables age, sex, time on the job, and care unit.

Spreitzer’s Psychological Empowerment Scale (1995a, 1997). The Spanish version of said scale was utilized; it was created according to the steps recommended in the body of literature on adapting scales (Muñiz & Hambleton, 2000). To ensure the items’ conceptual equivalency, in the first phase, a direct translation of the original items in English was performed, followed by a reverse-translation. This process was performed by two qualified translators who were informed of the scale’s objective and response format. Two expert psychologists were also asked to review the scale; they participated in creating the final instrument. The translated scale is presented in Appendix 1.

The resulting, adapted form of the instrument consisted of 12 items distributed into the sub-scales defined above: Meaning (items 1, 2 and 3), Competence (items 4, 5 and 6), Self-determination (items 7, 8 and 9) and Impact (items 10, 11 and 12). The response format was conserved as well, a 7-point Likert-type scale ranging from 1 (totally disagree) to 7 (totally agree).

Procedure

Once comprehension of the items was confirmed, the instrument went on to be administered to the participants selected. They were informed of the study’s objectives and the confidentiality of their data, and they were asked to verbally consent to participate. In order to guarantee anonymity, each was given an envelope in which the finished instrument could be kept; they were asked to deposit the envelope in a box placed ad hoc. However, to resolve any possible doubts about completing the instrument, the researcher and participants agreed the researcher would pass by their unit in two or three days time after the scales were turned in.

Data Analysis

The statistical package SPSS 13.0 and the program EQS (version 6.0) were employed in carrying out data analysis. The scale’s psychometric properties were explored through: a) a statistical description of the scale’s items that included calculated means, medians, standard deviations, skewness and kurtosis; b) means, standard deviations and correlation matrices were computed for each of the four dimensions; c) to test the four-dimensional structure of the original scale, confirmatory factor analysis was performed. The maximum likelihood method of estimation was utilized, which assumes multivariate normal distribution, and is robust when that assumption is not met (Shermelleh et al., 2003), which occurred in our data. That being said, despite maximum likelihood estimation’s robustness, the Satorra-Bentler (S-B) robust test statistic was also calculated toward the aim of correcting indices of goodness of fit and the errors associated with parameter estimation in non-normal distributions (Satorra & Bentler, 1994). Furthermore, for
each of the scale’s four factors, average extracted variance was computed (Fornell & Larcker, 1981), along with reliability based on factor loadings.

### Results

**Item Descriptions:** Table 1 displays the descriptive statistics mean, standard deviation, skewness and kurtosis for each item. It shows how the highest means correspond to items from the Meaning and Competence sub-scales. The variables exhibit a certain level of skewness, the ones corresponding to the Meaning and Self-determination sub-scales being negative, and the others positive.

**Descriptive Statistics and Matrix of Factor Correlations:** The mean, standard deviation and matrix of correlations for each of the four factors underlying psychological empowerment appear in Table 2. All correlational coefficients obtained were found to be statistically significant, and the values observed were moderate, suggesting independence.

**Confirmatory Factor Analysis:** Figure 1 conveys the structural model obtained using standardized factor loadings and unexplained variance. The model’s overall fit to the data was acceptable (CFI = .919, IFI = .920, GFI = .918), though the indicators most sensitive to sample size and deviations from multivariate normal distribution yielded values lower than .90 (NFI = .87 and NNFI = .89). Furthermore, the Chi Squared test yielded a statistically significant result ($SB \chi^2(50) = 120.59, p < .001$), but the quotient of $SB \chi^2/df = 2.41$ fell below 4 or 5, per the recommendation of some authors (Byrne, 1989; Marsh & Hocevar, 1985). The point estimation of RMSEA (Root Mean Square Error of Approximation) was .072 (CI of 90% = .056 -.089), which is also considered adequate.

Given the percentage of unexplained variance in item 10 (.81) was very high, we decided to remove that item and estimate a new model, consequently improving goodness of fit indices. The Chi Squared test yielded statistically significant results ($SB \chi^2(40) = 76.27, p < .001$), but the quotient’s value was less than 2.0 ($SB \chi^2/df = 1.91$), which is the most conservative criterion employed (Byrne, 1989). The remaining goodness of fit indices were above .90 (NFI = .91, NNFI = .94, CFI = .96, IFI = .92, GFI = .92 and AGFI = .90), an indication of adequate fit to the data. On another note, the point estimator of RMSEA was .058 (CI of 90% = .038 - .077), another value considered appropriate.

The variance extracted from the factors Meaning, Competence, Self-determination and Impact were .77, .73, .60 and .49, respectively. The average extracted variance across the four factors was 0.65. All values, except the one corresponding to Impact, were above .5 and therefore considered adequate (Fornell & Larcker, 1981).

Finally, we calculated a Cronbach’s alpha of .85 for the total scale, and a reliability of .91 for Meaning, .89 for Competence, .82 for Self-determination, and .73 for Impact. In other words, internal consistency was high for the total scale and the sub-scales Meaning, Competence and Self-determination, and moderate in the case of Impact.

### Discussion

This study’s objective was to evaluate the psychometric properties of a Spanish adaptation of Spreitzer’s PE scale in professional nurses in hospitals located in the province of Seville.

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### Table 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITEM 1</td>
<td>3.69</td>
<td>1.513</td>
<td>-1.172</td>
<td>.276</td>
</tr>
<tr>
<td>ITEM 2</td>
<td>3.68</td>
<td>1.072</td>
<td>-.875</td>
<td>.271</td>
</tr>
<tr>
<td>ITEM 3</td>
<td>3.24</td>
<td>1.011</td>
<td>-.313</td>
<td>-.197</td>
</tr>
<tr>
<td>ITEM 4</td>
<td>2.25</td>
<td>1.125</td>
<td>.513</td>
<td>-.608</td>
</tr>
<tr>
<td>ITEM 5</td>
<td>1.97</td>
<td>1.134</td>
<td>.814</td>
<td>-.424</td>
</tr>
<tr>
<td>ITEM 6</td>
<td>1.71</td>
<td>1.130</td>
<td>1.379</td>
<td>.765</td>
</tr>
<tr>
<td>ITEM 7</td>
<td>3.71</td>
<td>1.483</td>
<td>-1.207</td>
<td>.474</td>
</tr>
<tr>
<td>ITEM 8</td>
<td>3.74</td>
<td>1.053</td>
<td>-.933</td>
<td>.567</td>
</tr>
<tr>
<td>ITEM 9</td>
<td>3.38</td>
<td>1.023</td>
<td>-.554</td>
<td>.038</td>
</tr>
<tr>
<td>ITEM 10</td>
<td>2.46</td>
<td>1.113</td>
<td>.313</td>
<td>-.655</td>
</tr>
<tr>
<td>ITEM 11</td>
<td>2.21</td>
<td>1.085</td>
<td>.378</td>
<td>-.765</td>
</tr>
<tr>
<td>ITEM 12</td>
<td>2.07</td>
<td>1.118</td>
<td>.683</td>
<td>-.458</td>
</tr>
</tbody>
</table>

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### Table 2

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaning</td>
<td>6.18</td>
<td>1.025</td>
<td>1</td>
<td>.452**</td>
<td>.291**</td>
<td>.435**</td>
</tr>
<tr>
<td>Competence</td>
<td>6.26</td>
<td>.832</td>
<td>1</td>
<td>.452**</td>
<td>.414**</td>
<td>1</td>
</tr>
<tr>
<td>Self-determination</td>
<td>5.18</td>
<td>1.230</td>
<td>1</td>
<td>.369**</td>
<td>.369**</td>
<td>1</td>
</tr>
<tr>
<td>Impact</td>
<td>5.01</td>
<td>1.156</td>
<td>1</td>
<td>.369**</td>
<td>.369**</td>
<td>1</td>
</tr>
</tbody>
</table>

**p < .01
The results of confirmatory factor analysis reproduced the four-factor structure obtained by Spreitzer (1995a). Though the initial model obtained may have been acceptable, removing item 10 noticeably improved overall fit to the data. This allowed for the creation of a more refined version of the scale consisting of 11 items distributed into four factors. One possible explanation for the behavior of item 10 ("My work is important to my unit's functioning") in the sample studied is that there was hardly any variability across responses; keep in mind that this sample consists mostly of professionals with an elevated sense of responsibility for their care units' functioning.

Regarding the factors' internal consistency, adequate indices of reliability were observed, similar to the ones obtained by Hochwälder et al. (2005), Kraimer et al. (1999), and Spreitzer (1995a).

On a practical level, PE is a motivational construct that plays a distinctly mediating role between an organization’s characteristics and its results, such that this scale as a tool could help healthcare management test the effectiveness of innovative organizational strategies (e.g. facilitating access to resources, information, socio-political support, etc.) (Bonias et al., 2010; Chang et al., 2010; Gregory et al., 2010). That is to say, this scale could be useful in designing models and strategies for which empowering employees may be advantageous to improving the quality of health services, while at the same time increasing healthcare professionals’ quality of life. Meanwhile, it is an easy-to-apply scale requiring minimal time to complete, which guarantees it will make the transition into organizational practice.

Among this study’s limitations, it is important to mention that the majority of participants were women, something it has in common with studies by Kraimer et al. (1999), and Hochwälder et al. (2005), which all address professional nurse populations. Nursing continues to be a predominantly female profession. Also bear in mind that the sample is only representative of professional nurses working in hospitals. Last, the fact that the external validity of this construct was not estimated constitutes an additional limitation to this study.

In light of the above, future research should analyze evidence of validity based on relationships with predictor variables such as organizational empowerment, according to Matthews et al. (2003), or variables that can result from it, such as occupational satisfaction and burnout syndrome. It will also be crucial to observe the construct’s stability over time, and to identify factors that may affect that stability. Next, this model of PE ought to be examined in other contexts and at different organizational levels, as well as in samples where the distribution of participants according to sex is more equal than in the present study.

In summary, we conclude that the psychometric properties of the Spanish version of Spreitzer’s Psychological Empowerment Scale are adequate, thereby taking the first step toward utilizing it in healthcare organizations, as well as in research, in Spain. Nevertheless, it is necessary to more deeply examine construct validity, and to expand upon and test the nomological network of this concept’s operationalization within the context of psychological well-being in the workplace.
References


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APPENDIX

Spreitzer’s Psychological Empowerment Scale (Spanish version)

A continuación se presentan unos enunciados relacionados con su experiencia psicológica en el puesto de trabajo. Redondee la opción que considere más oportuna en su caso, en una escala del 1 al 7, correspondiendo el 1 = Totalmente en desacuerdo y 7 = Totalmente de acuerdo.

<table>
<thead>
<tr>
<th>Enunciado</th>
<th>Puntuación</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Significado</strong></td>
<td></td>
</tr>
<tr>
<td>1. El trabajo que yo hago es muy importante para mí</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2. Mis actividades laborales son personalmente valiosas</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3. El trabajo que realicé es significativo para mí</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td><strong>Competencia</strong></td>
<td></td>
</tr>
<tr>
<td>4. Confío en mi aptitud para hacer mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5. Confío en mi capacidad para desarrollar las tareas que se requieren en mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6. He adquirido dominio en las habilidades necesarias para desarrollar mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td><strong>Autodeterminación</strong></td>
<td></td>
</tr>
<tr>
<td>7. Tengo autonomía para determinar cómo hacer mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8. Yo puedo decidir por mí mismo cómo organizar mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9. Tengo suficiente libertad e independencia para decidir cómo hacer mi trabajo</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td><strong>Impacto</strong></td>
<td></td>
</tr>
<tr>
<td>10. Mi trabajo es importante para el funcionamiento de mi unidad</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11. Tengo suficiente control sobre lo que ocurre en mi unidad</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12. Tengo suficiente influencia en lo que ocurre en mi unidad</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>