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Quality of life at work and its relationship with engagement

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Resumen

Con el objetivo de explorar la relación funcional entre el engagement y la calidad de vida en el trabajo (CVT), en el presente estudio se utilizó una estrategia de investigación asociativa con 221 empleados de una institución de educación superior en Colombia, quienes accedieron a participar de manera voluntaria. Para evaluar la CVT se aplicó el instrumento “Perfil de Calidad de Vida Laboral”, desarrollado por Gómez (2010), conformado por 39 ítems que evalúan ocho dimensiones; mientras que, para evaluar el engagement, se utilizó la adaptación realizada por Ospina y Delgado-Abella (2014) del UWES (Utrecht Work Engagement Scale), desarrollada por Schaufeli y Bakker (2004), que consta de 17 ítems que evalúan tres dimensiones: vigor, dedicación y absorción. Como resultado, se halló una asociación significativa entre las distintas variables del estudio a partir de un modelo de ecuaciones estructurales; y se encontró evidencia sobre las dimensiones de la CVT que más aportan para su configuración, además de las diferencias por sexo en las puntuaciones de las variables de estudio.

Palabras clave: engagement, calidad de vida en el trabajo, ecuaciones estructurales.

Abstract

In order to explore the functional relationship between Engagement and Quality of Life at Work, an associative research strategy was used. 221 employees of a higher education organization in Colombia participated, who voluntarily agreed to be part of the study. To evaluate the quality of life at work, the instrument "Perfil de Calidad de Vida Laboral" developed by Gómez (2010) was applied, which consists of 39 items that evaluate 8 dimensions of this construct. To evaluate the variable Engagement, the adaptation made by Ospina and Delgado-Abella (2014) of the UWES - Utrecht Work Engagement Scale developed by Schaufeli and Bakker (2004) was used, which consists of 17 items that evaluate three dimensions: vigor, dedication and absorption. There was a significant association between the study variables. The relationship and the adjustment are presented in a model of structural equations. Evidence was found about the dimensions of the QWL that contribute most in the configuration of this variable, and the differences by sex in the puntuations of the research variables.

Key words: Engagement, Quality of Life at Work, Structural Equations.
Introduction

Today, personnel management in organizations poses important challenges for managers of various companies in the world in terms of the transformations that have occurred in different areas over the last four decades in social dynamics in general, and in the structuring and management of organizations in particular. 

Business leaders are facing a highly dynamic business environment, characterized by permanent technological innovation, a blurring of the boundaries between industries and business sectors, changes in consumer behavior and talent shortages, etc. (Boston Consulting Group, 2014). 

Currently, organizations face important changes in personnel management, the workplace and the labor world (Deloitte, 2017), so that human resources management (HRM) has also been transformed and has gone from personnel management to becoming a strategic function of organizations whose management policies and practices should have the dual purpose of contributing to productivity and competitiveness, as well as seeking the development and welfare of workers regardless of the type of hiring they have.

In this respect, a key HRM strategy that contributes to the competitiveness of organizations in the current work context refers to "employee experience": “The redesign of the workplace, welfare programs and labor productivity systems are becoming part of the HR management issues” (Deloitte, 2017, page 7).

In this way, HRM in a context of transformations in society and the labor world also requires changes of paradigms in the psychology applied to personnel management in organizations, to move from a model focused on the disease to one focused on health and well-being (Salanova & Martínez, 2005). In this regard, a perspective that is currently gathering momentum for HRM with an orientation towards development, commitment, health and well-being, is positive psychology, which, in the field of organizations, has been called "positive organizational psychology." This is defined as "the scientific study of the optimal functioning of the health of people and groups in organizations, as well as the effective management of psychosocial well-being at work and the development of healthy organizations" (Salanova, Martínez, & Llorens, 2014, page 23).

A healthy organization is one that is characterized by intentional, systematic and collaborative efforts to maximize employee well-being and productivity through the provision of meaningful and well-designed jobs, an environment of social and organizational support, and accessible and equitable career opportunities and work-family enrichment. (Wilson, DeJoy, Vandenber, Richardson, & McGrath, 2004, page 567).

One of the fundamental purposes of positive psychology and a relevant characteristic of healthy organizations is the effort made for the continuous improvement of the quality of work life (QWL) (Salanova, Martínez, & Llorens, 2014); this concept involves both subjective and objective aspects associated with the solution of workers’ needs and their perception of priorities.

The QWL is defined as a "multidimensional concept that is based on the satisfaction, through employment, of a wide range of personal needs, placing it as the key to personal, family and social fulfillment and as a means to preserve the economy and health" (González, Hidalgo, & Salazar, 2007, page 121). This concept involves actions both in the design of a healthy working environment, as well as in the interest of identifying and seeking to satisfy the personal needs of employees.

At a similar level to the interest for the QWL, organizational leaders require and are interested in maintaining high levels of commitment from their employees. "Culture and commitment are key aspects in the employee’s experience, and leading organizations are expanding their focus to include from a person’s first contact with an employer to retirement and beyond" (Deloitte, 2017, page. 7).

A particular but broader perspective of the study of commitment in the context of positive psychology is the concept of engagement, which has been defined as "a positive psychological state characterized by high levels of energy and vigor, dedication and enthusiasm for the work, as well as the total absorption and concentration in the work activity " (Salanova & Schaufeli, 2004, page 109).

Both QWL and engagement have proven to be important variables that affect work performance, impacting both the productivity and competitiveness of organizations (Garcia & Forero, 2016, Yongxing, Hongfei, Baoguo, & Lei, 2017). Given that these two variables are key in the management of organizations, it is important to analyze the relationship between them, since finding possible relationships allows understanding the characteristics of the interactions between their dimensions in a more defined way and providing evidence-based orientations for the development of strategies aimed at achieving high levels of employee commitment through programs to improve the QWL. Based on this, the present study was proposed in order to identify the relationship between QWL as a predictor variable and engagement as a criterion variable.

It is expected that evidence-based elements will provide a guide for the development of processes that improve QWL
in organizations and provide adequate levels of engagement. Likewise, it is expected that able to identify the contributions of the sex variable in this relationship will be able to be identified, since previous studies suggest the existence of important differences in the relationship of this variable with both the QWL (Gómez & Ponce de León, 2010) and with engagement (Salas-Vallina & Alegre, 2017).

**Method**

**Design**

An associative strategy was used, with the objective of exploring the functional relationship between variables. Specifically, a transversal predictive design (DPT from its acronym in Spanish) was used, which allowed analysis of the relationship between QWL and engagement (Ato, López, & Benavente, 2013).

**Participants**

A non-probabilistic sampling was used, involving 221 employees of a higher education institution (HEI), who voluntarily agreed to collaborate. The fact that they were workers hired by the company and whose labor relationship time was greater than three months was taken into account as participation criteria. SENA apprentices, interns and university interns were excluded.

Table 1 shows the percentage distribution of the socio-demographic variables. 59.5% of the participants were women and 40.5% were men. The total average age was 40.6 years. In regard to the level of study, the staff with full postgraduates predominated with a participation of 29.5%. With regard to marital status, the highest percentage was shown in married participants with a participation of 36.4%.

**Instruments**

For the variable QWL, the instrument "Quality of Work Life Profile” developed by Gómez (2010) was applied, the validation of which was made with a sample of 250 employees from three companies from both the public and private sectors of Bogotá, Colombia. In the original study the instrument obtained a reliability index of 0.88 (Rasch model), and in the present study .915.

This instrument was developed from the dimensions proposed by Walton (1973) and consists of 39 items that evaluate 8 dimensions:

1. Compensation and Benefits (CyB).
2. Conditions of the environment and work (CAT).
3. Nature of the task (NT).
5. Organizational democracy (OD).
6. Fundamental rights (DF).
7. Labor balance (EL).
8. Social impact (IS).

<p>| Table 1. |
| Percentage distribution of socio-demographic variables |</p>
<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Men</td>
<td>89</td>
<td>40.5</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>131</td>
<td>59.5</td>
</tr>
<tr>
<td>Age</td>
<td>M: 40.6 years SD: 10.63 years. Minimum 20, Maximum 63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incomplete Elementary</td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Complete Elementary</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Incomplete High School</td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Complete High School</td>
<td>17</td>
<td>7.7</td>
</tr>
<tr>
<td></td>
<td>Technician/ Technologist Incomplete</td>
<td>12</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Technician/ Technologist Complete</td>
<td>49</td>
<td>22.3</td>
</tr>
<tr>
<td></td>
<td>Incomplete Professional</td>
<td>15</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>Complete Professional</td>
<td>33</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>Incomplete Postgraduate</td>
<td>11</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Complete Postgraduate</td>
<td>65</td>
<td>29.5</td>
</tr>
<tr>
<td></td>
<td>No reply</td>
<td>1</td>
<td>.5</td>
</tr>
<tr>
<td>Estado civil</td>
<td>Married</td>
<td>80</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>Divorced</td>
<td>9</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>Separated Couple</td>
<td>7</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>76</td>
<td>34.5</td>
</tr>
<tr>
<td></td>
<td>Common Law Marriage</td>
<td>46</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>2</td>
<td>.9</td>
</tr>
</tbody>
</table>
The response scale has four levels: Strongly disagree, partially disagree, partially agree, and strongly agree. For the variable engagement the adaptation made by Opsina and Delgado-Abella (2014) of the Utrecht Work Engagement Scale (UWES) developed by Schaufeli and Bakker (2004) was used, which consists of 17 items that evaluate three dimensions: vigor, dedication and absorption. The answer scale consists of 7 levels with a possible score from 0 to 6: Never (0 times), equivalent to 0, Almost Never (Rarely in a year), Sometimes (Once a month or less), regularly (Rarely per month), Quite a few times (Once a week), Almost always (A few times a week) and Always (Every day), equivalent to 6. This adaptation was made in a sample of professors and administrative staff of a university in the city of Bogotá and obtained a reliability index (Alfa de Cronbach) of .902. In the present investigation the Alpha was .87.

Procedure

Initially, authorization was obtained from the Direction of the Human Resources Management Division of the HEI. Subsequently, the instruments were placed in "Google Forms" through which they sent to the administrative staff via e-mail. With the General Services staff the questionnaires were given in person in meeting groups for the application. All participants voluntarily agreed to be part of the study. After the data collection and filtering, the corresponding analysis of the results with the SPSS software and the AMOS was started.

Ethical aspects

The employees of the HEI gave informed consent where it was verified that they received sufficient information about the questionnaires and the procedure. Additionally, the employees who participated in the study, under the terms of Law 1581 of 2012, informed the investigators of their authorization, freely, previously and voluntarily, to give the treatment of the data provided by each one through the form.

Analysis of data

In order to describe the labor characteristics of the participants, the percentage distribution of the variables related to the work is presented first. Then descriptions of each one of the dimensions of the two instruments applied are shown. In addition, the mean of each one of the dimensions of the instruments used was compared by sex since this variable contributed to the model found. Finally, the analysis of the relationship between the variables was performed with the model of structural equations, and since the variables did not adjust to a normal distribution, the asymptotically distribution free (ADF) method was used, as it is typically applied when the model's variables are categorical (Lara, 2014; Browne, 1984).

For the goodness-of-fit analysis of the model, the indications in the literature were followed (Pilatti, Godoy, & Brussino, 2012). The chi-square statistics (CMIN), the chi-squared ratio on the degrees of freedom (CMIN / DF), the comparative adjustment index (CFI), the goodness index of the global adjustment (GFI), the non-normalized index of adjustment or Tucker Lewis (TLI), the IFI (Incremental Fit Index) and the square error of approximation to the middle roots (RMSEA) were used.

The chi-square statistic indicates the absolute fit of the model, but it is very sensitive to the size of the sample, therefore, the chi-square ratio was used on the degrees of freedom: values less than 3 indicate a good fit. The CFI and GFI indexes vary between 0 and 1: 0 indicates absence of adjustment and 1 optimal adjustment. Values of .95 or higher are considered excellent, and values greater than .90 suggest an acceptable fit of the model to the data. The RMSEA index is considered optimal when its values are .05 or lower and acceptable in the range .05-.08. The TLI is considered acceptable with scores greater than or equal to .90 (Escobedo, Hernández, Estebané & Martínez, 2016), and the IFI (Incremental Fit Index), with values above .90 indicative of a good fit (Leal-Costa, Tirado-González, Rodríguez-Marín, & vander-Hofstadt-Román, 2016).

The proposed model implies the QWL as a predictor variable and its relationship with engagement as a criterion variable, as well as the possible relationship between some of the constitutive dimensions of the two study variables and the sociodemographic and work variables.

Results

In order to examine the functional relationship between engagement and QWL, the descriptive analysis of the variables related to the work and the dimensions of the variables QWL and engagement was done first. Afterwards, the differences of means by sex were established and, finally, the analysis was made between the variables being studied with the model of structural equations.

Of the participants, 85.9% , which corresponds to 189 people, answered the questionnaires virtually while the remaining percentage responded using a physical document. Table 2 presents the percentage distribution of the variables related to the work. People have, on average, 10.4 years working in the organization; the highest percentage of the positions performed was distributed among auxiliaries (32.7%) and professionals (33.2%). A greater proportion of the participants are in administrative areas (71.36%), and 80.5% of the participants have an indefinite term contract.
Table 3 presents the descriptors of each one of the dimensions from the two instruments applied. The highest average score in the QWL variable was obtained by the IS dimension (3.58), with a maximum score of 4. For the engagement variable, the highest average score was obtained by the “dedication” dimension (5.25), with a maximum score of 6.

The means of each of the dimensions in the two variables were compared by sex. Regarding the QWL variable, only statistically significant differences were found in the “nature of the task” dimension (NT), seen in Table 4. The mean of men was higher than the average of the women.

In regard to the variable engagement, statistically significant differences were found in the vigor and dedication dimensions, seen in Table 5. Contrary to the QWL variable, the average for women was higher than the average for men.

For the analysis of the relationship between the variables, the structural equations were used. Table 6 shows some indicators of model adjustment.

Indexes of goodness-of-fit obtained with the AMOS were the following: the ratio between the value of chi-square ($\chi^2$)
and the number of corresponding degrees of freedom $\chi^2 / \text{gl}$ whose value was $1.471$. The global adjustment index (Goodness of Fit Index), GFI = .98 and the comparative fit index, CFI = .93. The CFI compares the improvement in the adjustment of the model in question to a null model, in which all the items are independent and common factors are not allowed. The CFI compares the improvement in the fit of the model with regard to a null model, in which all the items are independent and common factors are not allowed, and is one of the most commonly used indexes, as it is not overly sensitive to the size of the sample (Sternberg, Prieto, & Castejón, 2000). The RMSEA = .05, square error of approximation to the middle roots (Root Mean Square Error of Approximation). The confidence interval of the RMSEA ranged between [.021 and .071].

Figure 1 shows the diagram of the structure, with the respective indicators of the relationships between the variables and their dimensions, based on the average scores (PROM) of each one. The first eight values of regression coefficients, between the latent variables and the observed dimensions: .74, .75, .79, .77, .80, .69, .68 and .74 correspond to the influence of the variable latent QWL on the observed dimensions CyB, CAT, NT, DSL, DO, DF, EL and IS. The first eight values of the regression coefficients between the latent variables and the observed dimensions: .74, .75, .79, .77, .80, .69, .68 and .74 correspond to the influence of the variable latent QWL on the observed dimensions CyB, CAT, NT, DSL, DO, DF, EL and IS. The influence exerted by the latent variable on the observed dimensions indicates that when QWL increases one unit, CyB and IS increase in proportions of .74 and .74, respectively. Since all the regression coefficients have a positive sign, the relationship between the latent variables (QWL and engagement) and the observed dimensions is direct.

Although the general objective was to identify the relationship between the QWL and engagement in a higher education organization in Colombia, in the structural equations model, socio-demographic variables were included for analysis: sex, age, schooling and marital status and labor variables: position held, position level, area, type of contract and working time in the institution. The only variable whose contribution was significant was sex with a value $p = .023$ and a regression weight of .80. Between the QWL and the engagement, a positive effect of the first variable on the second was found, since the relationship between these two variables has an estimated value load of .61, with a level of significance of .04. In other words, the regression weight for the QWL in the engagement prediction is significantly different from zero at the 0.05 level.

Based on the results, it was established that there is a direct relationship between the QWL and engagement, with a positive effect of the first variable on the second, given that the relationship between these two variables has an estimated value load of .61 (recommended value $\geq .07$) (Escobedo et al., 2016). It was also established that the dimensions that contribute the most to the QWL are DO (.80), MNT (.79), DSL (.77), CAT (.75), CyB (.74) and MEL (.74).

<table>
<thead>
<tr>
<th>Table 4. Differences of means by sex in the scores obtained in the dimension NT</th>
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<tbody>
<tr>
<td>Dimension</td>
</tr>
<tr>
<td>NT</td>
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<td></td>
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<table>
<thead>
<tr>
<th>Table 5. Differences of means by sex in the scores obtained in the dimensions vigor and dedication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>VIGOR</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>DEDICACIÓN</td>
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<table>
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<tr>
<th>Table 6. Evaluation of the adjustment of the analyzed model</th>
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<tbody>
<tr>
<td>CMIN</td>
</tr>
<tr>
<td>72.083</td>
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</table>
Discussion

The main purpose of this research was to identify the relationship between QWL and engagement in an HEI in Colombia. The proposed model suggested a relationship between these two variables and the results confirm this hypothesis. In this sense, the study offers relevant information for HRM in work organizations.

In an increasingly complex and varied labor world, in which multiple factors can affect the way employees relate to and perceive their job, QWL plays a preponderant role in the level of commitment of employees to work and to the organization, so that knowledge of the dynamics and composition of factors associated with QWL allows managers of organizations and in particular the HRM, directing its management efforts focusing on the intervention of those aspects that have the greatest impact on organizational performance.

The present study has allowed us to identify a direct relationship of incidence of QWL on engagement, as well as some key characteristics about the relationship between dimensions with the respective variables.

As for QWL, the average scores of the various dimensions are above 50% (see table 3), which shows that, in general, the employees of the organization perceive very good conditions of QWL. However, the regression coefficients in the relationship of the dimensions with the variable (see Fig. 1) show that, of the eight dimensions, six of them with scores higher than .70, are the ones that contribute the most to the variable. This shows that the dimensions with the greatest load in the configuration of QWL are those related to personal aspects: development and job security (DSL) and nature of the task (NT) with aspects of the work and institutional context: conditions of the environment and work (CAT) and social impact (IS) and those related to conditions of justice and equity: compensation and benefits (CyB) and organizational democracy (DO).

Factors of work and institutional context, the conditions that facilitate the personal and professional development of employees, as well as equity and "organizational justice" (Colquitt, Conlon, Wesson, Porter, & Ng, 2001), constitute fundamental components of QWL.

Organizational justice is a concept of behavioral sciences that refers to the perception of equity in the treatment received...
by employees in an organization (Hosmer & Kiewitz, 2005). As Yadav & Yadav (2016) have suggested, the most important asset of any organization is its employees, as well as the reason for competitive advantage in any business sector. Therefore, the main concern of any organization should be focusing on efforts to achieve satisfaction, commitment, high levels of performance and well-being at work, and any initiative to strengthen them should always have organizational justice as its framework. In relation to engagement, the three dimensions obtained high mean scores (see table 3), which shows high levels of engagement in the employees of the organization. As Salanova & Schaufely (2004) note, this variable is the opposite of burnout, a persistent negative mental state characterized mainly by emotional exhaustion, which negatively affects QWL and work performance. In this order of ideas, high levels of engagement act as protectors in the development of burnout states.

In terms of the significant differences by sex found in the QWL variable, related to the dimension NT, the highest mean score of men (3.59), with significant differences from the mean in women, evidences the perception of a greater articulation between personal abilities and job position, as well as a greater autonomy and variety in work. The dimension NT allows us to identify the perception of employees about the way in which the roles they perform "permit the use and development of their professional and personal abilities, autonomy, the use of multiple skills, execution of global and non-segmented tasks, clear information about the activities performed and planning possibilities" (Gómez, 2010, page. 119).

With respect to the significant differences by sex found in the variable engagement for the dimensions vigor and dedication, (see table 5), which refer to high levels of energy and mental resistance at work, and enthusiasm and pride in work, respectively (Salanova & Schaufeli, 2004), the highest mean score of women (5.29 in vigor and 5.48 in dedication) with significant differences with respect to the mean in men, shows higher levels of engagement in women in these two dimensions.

In relation to the model presented in Fig. 1, the effect of QWL on engagement was identified. These findings suggest that the efforts executed by the organizations under the improvement of QWL generate positive effects in the levels of engagement. In this regard, when employees perceive that the organization for which they work provides adequate conditions for their QWL, especially in aspects that favor both their development and organizational justice, they will be more willing to commit to their work. Previous research has shown similar relationships, specifically in engagement as a mediating variable in the relationship between organizational justice and organizational citizenship behaviors (Rodriguez, Martinez, & Salanova, 2014); for these authors, "when employees are treated fairly, equitably, with dignity and respect, they can feel more engaged with their jobs" (page. 970).

In this order of ideas, the actions aimed at improving QWL produce effects in two ways: on the one hand, it is an interest that the organization manifests by the employees themselves in relation to the benefits they receive directly, and, on the other hand, the greater involvement and commitment of employees in their work will result in better levels of performance and productivity with benefits to the organization.

In this way, the results obtained show solutions that are consistent with the theory since "scientific research has shown as possible causes of Engagement: labor resources (e.g. autonomy, social support) and personal (e.g. self-efficacy)" (Salanova & Schaufeli, 2004, page 119). An important finding of this research is related to the moderation effect of the sex variable in the relationship between QWL and engagement. "A moderating variable is the one that alters the magnitude and/or the direction of the relationship between X and Y" (Ato and Vallejo, 2011, page 554). In the proposed structural equation model, the direct effect of QWL on engagement is considerably increased when the sex variable is introduced in the model, which suggests that the relationship between QWL and engagement is affected by sex. This implies that when establishing programs in organizations aimed at improving QWL in order to increase the levels of engagement, differences of sex must be taken into account when designing them, because the same actions do not impact men and women equally.

Future research should consider the possibility of conducting qualitative or mixed studies that, through narratives, offer textual data that allow us to understand aspects of the subjectivity of workers involved in the daily activities of work that relate to their perception of the QWL and engagement, or the differences in their effects depending on the sex of the employees. Likewise, the horizon is opened to review the relationship of the incidence of the variables that make up QWL and engagement by sectors of the economy, to draw more precise quality of life programs that impact commitment of workers in a timely and effective manner, focusing the resources and investments of the programs of Human Management areas.

References


Quality of life at work and engagement


