Abstract

Aims: The objective of this study is to build a scale of the wellbeing of teachers in education centres. In addition, it examines the incidence of human resources management on educational performance, both directly and through the mediating effect of the wellbeing of teachers in terms of both the psychological and the physical.

Methodology: The study uses the methodology of structural equations, and a sample of 315 questionnaires for teachers working in secondary education.

Results: This study corroborates the significant effect of human resources management on educational performance. The relationship was observed both directly and through the mediating effect achieved when improving psychological wellbeing. Although human resources management reduces physical wellbeing, we did not observe any direct relationship between this physical wellbeing and a reduction in performance.

Limitations: The study is intended as an exploratory analysis of these relationships. Consideration of a larger sample, or its extension to other areas, could further support our results.

Practical implications: These results imply the need for improvement in human resources policies in schools, especially positive policies linked to improving the psychological wellbeing of teachers. Thus, better management of human resources produces an improvement
in both the wellbeing of teachers (their satisfaction, their happiness and their relationship with students) and also educational performance. Furthermore, this management process has a significant effect on reducing discomfort (negative emotions, emotional symptoms, and negative physical states).

**Keywords:** Human Resources Management (HRM); Wellness; Educational performance.

**JEL codes:** A21.

文章摘要

研究目的：本研究是以为各教育机构的教育工作者建立身心健康为目的。此外，本项目研究人力资源管理对教育绩效的直接影响，或通过教育工作者（生心理）健康的调解作用所产生的影响。

分析方法：该研究应用结构方程模型，对315位中学教师的问卷调查样本进行分析。

研究结论：研究证明了人力资源管理对教育绩效有着重大的影响。这关系能够直接地，或通过改善心理健康而产生调解作用中观察到。尽管人力资源管理消耗体力，但我们并未观察到这情况与教育绩效下降之间有着直接关系。

研究局限：本研究目的是要对这些关系进行探索性分析。若有更多的研究样本，或者将其延伸至其他领域，也许能够完善我们的研究结果。

实际应用：这些结果指出，我们需要改善教育机构的人力资源政策，尤其是推动有关改善教师心理健康政策。因此，更好的人力资源管理可以改善教师的身心健康（感到满足、快乐和与学生有良好关系）和其教育绩效。除此以外，这方面的管理在减少负面情况（负面情绪、情绪化症状和不良健康状况）中具有重要作用。

关键词：人力资源、身心健康、教育绩效。

JEL 分类号: A21。
1. Introduction

By observing the relevance of the wellbeing of teachers for the improvement of educational performance, as a key focus, this study aims to create a model that addresses the effect of human resources management (HRM) on educational performance, both directly and through the mediating effect of teacher wellbeing intervening in these relationships. At the same time, the work analyses the incidence of the teacher welfare variable in depth, creating a scale for its measurement. This scale was later incorporated within the empirical model.

No work has been found in the general literature that looks at the mediating effect of wellbeing in the relationship between appropriate HRM and organisational performance. This lack is more pronounced in the educational field, where, although there are some studies that have observed a relationship between the mentioned variables, such as Bouwmans, Runhaar, Wesselin & Mulder (2019), who relate certain HRM practices with performance, or Franco-Santos & Doherty (2017), who relate wellbeing with performance, there is, however, no model that includes the three variables considered.

The results of this study may be relevant in the theoretical field, when observing new relationships between these variables that could open the door to possible future models. In turn, the emphasis on the study of the measurement of wellbeing may assist new research that uses this scale as a basis for future studies.

2. Theory and creation of hypotheses

As a theoretical basis this study will use the combination of three theoretical models: firstly, the AMO theory, secondly, the model of labour demand and labour resources, and, thirdly, the theory of social exchange. As regards the AMO theory (Appelbaum, Bailey, Berg, Kalleberg, & Bailey, 2000), we focus on a development of this that emphasizes that the implementation of HRM practices should focus on wellbeing, supporting the AMOW approach, in which wellbeing (W) is part of the performance equation (Gould-Williams, 2016). Regarding the model of labour demands and resources (Demerouti, Bakker, Nachreiner & Schaufeli, 2001), it proposes that the health and wellbeing of employees are the result of a balance between labour resources and demand for that labour (Van Woerkom, Bakker, & Nishii, 2016). Finally, the theory of social exchange explains the relationship between HRM practices and performance, influencing the processes which motivate social exchange (Blau 1964). Thus, perceptions of social exchange influence the behaviour and attitudes of employees (Grant, Christianson, & Price, 2007), highlighting a positive relationship between their wellbeing and the commitment of the organisation (Nishii et al., 2008; Koys, 2001).

Taking the previous theories as a reference point, research projects from different disciplines have attempted to highlight the repercussions of combinations of HRM
practices on performance results, both at the individual and organisational levels (Paauwe, 2009; Paauwe & Richardson, 1997), demonstrating a positive and significant influence of these HRM practices on company performance (Huettermann & Bruch, 2019; Lee & Cogin, 2020).

Human resources are crucial in organisational performance and competitive advantage (Huselid & Becker, 1996; Porter, 1990). Thus, staff are considered the main potential for the competitive advantage of organisations (Chadwick & Flinbaugh, 2020), mainly by providing knowledge and skills (Larsen, 2001). Organisations seek to develop committed workers, in an effort to reduce churn and absenteeism; improve individual performance and work-related attitudes (Walton, 1985) –and, jointly with this– organisational performance.

Certain HRM practices, especially those associated with a high degree of employee involvement (Combs, Liu, Hall, & Ketchen, 2006; Van Esch, Wei, & Chiang, 2018), help to improve individual and organisational performance (Peccei & Van De Voorde, 2019) through the positive attitudes of employees and their wellbeing at work (Appelbaum et al., 2000; Guest, 2002). Specifically, the positive relationship between HRM practices and systems, employee wellbeing and organisational performance has been evidenced (Veld, Paauwe & Boselie, 2010; Van de Voorde, Paauwe, & Van Veldhoven, 2012). Happy and satisfied employees are more willing to work hard and improve their performance to achieve the organisation’s goals than those who are unhappy or dissatisfied (Cropanzano & Wright, 2001; Martel & Dupuis, 2006). The result is a translation of these practices into greater job satisfaction, lower employee turnover, higher productivity, and better decision-making, all of which help improve organisational performance (Shen, Benson & Huang, 2014).

Consequently, we propose the following hypothesis:

**H1: HRM positively influences organisational performance.**

Considering employee wellbeing as a multidimensional construct (Guerci, Hauff & Gilardi, 2019), much of the literature focuses on two basic dimensions of wellbeing (Van De Voorde et al., 2012), which differentiate between psychological wellbeing and health-related wellbeing (Heffernan & Dundon, 2016). Psychological wellbeing or happiness focuses on the subjective experiences of employees, such as their level of commitment. While physical wellbeing is related to the health of employees and encompasses factors such as stress, tension, or the need for recuperation (Peccei, Van de Voorde, & Van Veldhoven, 2013). This shows that HRM practices can have contradictory effects on wellbeing (Van De Voorde et al., 2012), in addition to possible trade-offs between these types of wellbeing (Clinton & Van Veldhoven, 2013; Guerci et al., 2019).

The dominant approach posits that HRM activities make work more varied, independent and rewarding, and that it increases the wellbeing of employees, while at the same time leading to greater organisational performance (Wright & MacMahon, 1992). This “happy-productive worker” thesis (Wright & Staw, 1999) is based
on increased satisfaction. Research shows that investment in HRM systems (Luu, 2019) positively affects employee happiness and labour relations (Kim, 2019; Peccei, 2004). This concern for their wellbeing (Chuang & Liao, 2010; Van De Voorde & Beijer, 2015), creates a favourable climate for employees to do their job and feel committed (Albrecht & Marty, 2017).

On this point, the literature shows a positive relationship between practices of a high level of HRM participation, happiness, and relational wellbeing (Appelbaum et al., 2000; van de Voorde et al., 2012). Specifically, work commitment reflects a positive, satisfactory, and motivating state of wellbeing related to work (Schaufeli, Salanova, González-Romá, & Bakker, 2002). Engaged employees have high energy levels and are enthusiastic about their work (Schaufeli et al., 2002) and, in turn, perform better and have better health (Halbesleben, 2010; Christian, Garza & Slaughter, 2011). From the above we can deduce the following hypothesis:

**H2: HRM systems positively influence the psychological wellbeing of employees.**

Contemporary HRM has not paid enough attention to certain practices that neglect employees by promoting performance (Guest, 2017), ignoring the consequences on the health of employees (Van De Voorde et al., 2012). In this sense, it has been proven that various HRM practices aimed at increasing the wellbeing of employees and the performance of the organisation, enter into conflict, and even contradict each other (Loon, Otaye-Ebede & Stewart, 2019). For example, it has been shown that, in professions such as teaching with high levels of demand and limited resources, these jobs present high levels of stress and exhaustion (Bottiani, Duran, Pas & Bradshaw, 2019).

Taking into account that the dimension of health, as a result of wellbeing, is linked to stress and is measured through the need for recovery (Grant et al., 2007), it has been shown that employees who have been exposed to very demanding work situations experience a greater need for recuperation (Sonnentag, 2003), which can cause long-term stress and health problems (Colligan & Higgins, 2006). In addition, this greater effort at work is strongly related to poorer wellbeing (Avgoustaki & Frankort, 2019), while various studies demonstrate the mediation of stress between intensified work and musculoskeletal disorders (Chowhan, Denton, Brookman, Davies, Sayin, & Zeytinoglu, 2019). From all the above, we posit the following hypothesis:

**H3: HRM systems negatively influence the physical wellbeing of employees.**

It has traditionally been assumed that happy workers have higher levels of performance than unhappy ones (Soriano, Kozusznik, Peiró, & Mateo, 2018; Warr & Nielsen, 2018). This hypothesis, introduced into psychology by the Human Relations Movement from Hawthorne’s studies in the 1930s, has contributed to this widespread belief (Wright, Cropanzano, & Bonnett, 2007), establishing itself as
The mediating role of wellbeing in the effect of human resources management…

The mediating role of wellbeing in the effect of human resources management…

the dominant hypothesis on the relationship between emotions and performance. However, this happiness-performance relationship has also been questioned (Judge, Thoresen, Bono, & Patton, 2001; Bowling, 2007), even considering that the variables of wellbeing and performance are not related to each other (Peiró, Kozusznik, Rodríguez-Molina, & Tordera, 2019).

However, much of the literature has shown a positive and significant relationship between individual wellbeing and task performance (Harrison, Newman, & Roth, 2006; Christian et al., 2011). Thus, individuals with greater subjective wellbeing or happiness are successful in many different areas of life, including work performance and health (Magnier-Watanabe, Uchida, Orsini, & Benton, 2020; Salgado, Blanco, & Moscoso, 2019). On the other hand, the literature confirms that people with a positive mood (affective state) are more useful and creative; they are better negotiators and more persistent in uncertain tasks (George & Brief, 1992); they obtain more positive supervisory evaluations and they carry out actions for the benefit of the organisation (Lyubomirsky, King & Diener, 2005).

More recently, the relationship between wellbeing and performance has included other constructs such as affect (Barsade, & Knight, 2015) and commitment (Bailey, Madden, Alves, & Fletcher, 2017). Thus, the disposition towards positive affect can be an important predictor of performance (Staw & Cohen-Charash, 2005), productivity (Lyubomirsky et al. 2005) or director effectiveness in decision-making (Staw & Barsade, 1993).

On the basis that positive emotions contribute to the formation and development of skills and social ties (Fredrickson, 2001), individuals with positive moods are more cooperative (Isen & Baron 1991); which probably contributes to productivity in collaborative work contexts. They can also improve performance in complex tasks by improving creative problem-solving (Madjar, Oldham & Pratt, 2002). In addition to immediate effects, positive emotions also promote the acquisition of new resources (skills such as creativity and social capital) that can be used later (Fredrickson 2001), and contribute to long-term productivity (Zelenski, Murphy, & Jenkins, 2008). Given this:

H4: Psychological wellbeing has a positive influence on organisational performance.

The negative relationship between stressors and productivity (Wilson, 1991) and counterproductive behaviour in the workplace (Kuhn, 1988) has also been contrasted. However, the literature suggests that stressors are not always harmful, with both positive and negative effects (Boswell, Olson-Buchanan & LePine, 2004; LePine, Podsakoff & LePine, 2005). Coinciding with this aspect, in the behavioural sciences, there are two theoretical models that compete with each other, relating stress to performance (Jamal, 1984). The first model, the most popular one (Ivancevich & Matteson, 1981), suggests an inverted U-shaped relationship between stress and performance (Yerkes & Dodson, 1908). It suggests that moderate stress is optimal for the individual to be active and perform (Cohen, 1980), while higher levels of
stress make the individual spend more time reducing and coping with stress and may, consequently, reduce work performance. The second model equates stress with “challenge” (Meglino, 1977) and proposes a positive relationship between work stress and performance (high levels of stress are experienced as a challenge, becoming constructive and performance-enhancing activities).

Occupational stress generates negative psychological and physical feelings in the workplace, as demands do not correspond to the capacities and resources of the employees (Wang, Waldman, & Zhang, 2014). This increases the probability of lower motivation and satisfaction, lower performance and productivity (Leka, 2005), and can negatively impact performance (Nisar & Rasheed, 2019). Thus, employees may experience a higher level of intensification and job strain (Ramsay, Scholarios & Harley, 2000), leading to a decrease in job performance (Babin & Boles, 1996). Consequently:

H5: Physiological wellbeing exerts a negative influence upon organisational performance.

Figure 1. Causal model

3. Methodology

The data from the study has been obtained by means of non-probabilistic sampling by convenience, of 75 secondary education centres, owned by both public and private bodies, located in the provinces of Valencia, Madrid, Murcia and Malaga. For data collection, a link with access to a web questionnaire was sent by email to teachers, directors and heads of studies, in order to guarantee anonymity. The final sample was made up of 315 secondary school teachers, of whom 104 were men and 211 were women. With an average age of 43.34 years, the minimum age being 25
and the maximum age, 65. Respondents also had to indicate years of teaching, their hierarchical level in the centre (management, head of studies or department) and the type of centre (subsidized, public or private).

For the study of the data, the methodology of structural equation models was used. The results of this study were estimated from the variance and covariance matrices by the procedure of maximum probability, using the EQS 6.4 statistical software (Bentler, 2006). Following this procedure, in the first place, a study was run on the dimensionality, reliability and validity of the “wellbeing” scale, in order to ensure that we were measuring the construct that was intended. This analysis also allowed us to refine the scale, eliminating non-significant items. The final number of items considered in the study was 23 (see table 1).

For the measurement of HRM, items adapted from the Delmotte, De Winne & Sels (2012) scale were used. Based on the theoretical approach of Bowen & Ostroff (2004), it identifies the following as being characteristics of a solid HRM system: distinctiveness (visibility, relevance), consistency (validity) and consensus (agreement, impartiality), measuring the perceived strength of the system of HRM (see table 3).

To measure wellbeing, two dimensions are considered: physical wellbeing and psychological wellbeing (Hefferman & Dundon, 2016). Regarding physical wellbeing, three subdimensions are considered: emotional exhaustion (Peccei et al., 2013), psychosomatic disorders (Van Horn, Taris, Schaufeli & Schreurs, 2004) and physical health (Nixon, Mazzola, Bauer, Krueger, & Spector, 2011). And regarding psychological wellbeing, three subdimensions are considered: relational elements (Jennings, 2015), working conditions or satisfaction (Boxall & Macky, 2014) and happiness (Wright & Staw, 1999; Salgado et al., 2019).

Emotional exhaustion was measured by items of the emotional exhaustion subscale of the Maslach burnout questionnaire (MBI) (1986). Psychosomatic disorders were half items based on Dirken’s (1969) psychosomatic complaints questionnaire. Physical health symptoms were half items adapted from the Nordic Musculoskeletal Questionnaire (Dickinson, Campion, Foster, Newman, O’rourke & Thomas, 1992). To measure the relationships, items adapted from the depersonalization subscale of the Maslach burnout questionnaire (MBI-ES) (1986) were used. Job satisfaction was measured with items adapted from the Williams & Anderson (1991) scale. Happiness was measured using items from the Oxford Happiness Questionnaire (Hills & Argyle, 2002).

For organisational performance in education centres, performance was broadly conceived in terms of school or education for students, understood as a measure of added value (Bryson & Green, 2018). Given the difficulty in measuring and obtaining objective data, 4 items were used based on self-assessment (Tippins & Sohi, 2003) and on the reliability of these measures that suggested positive correlations between subjective and objective performance measures (Wall, Wood, & Leach, 2004). Respondents were asked to rate the performance of their workplace in relation to other centres (Wu, Hoque, Bacon & Bou Llusar, 2015) (see table 3).
In the case of the wellbeing scale, the elements that shared the same dimension were averaged to form composite measures (Bandalos & Finney, 2001; Bou-Llusar, Escrig, Roca, & Beltrán, 2009; Landis, Beal, & Tesluk, 2000). The composite measures of “wellbeing” are combinations of elements used to create score aggregates; the scores are subsequently subjected to confirmatory factor analysis (CFA), together with the rest of the scales considered in the study, in order to validate them. In CFA, the use of composite measures is useful for two reasons. First, it allows better fulfilment of the normal distribution assumption of the maximum likelihood estimate. Second, it leads to more parsimonious models, since it reduces the number of variances and covariances to be estimated. In this sense, it increases the stability of the parameter estimates, improves the relationship between the size of the variable and that of the sample, and reduces the impact of sampling error in the estimation process (Bagozzi & Edwards, 1998; Bandalos & Finney, 2001; Little, Cunningham, Shahar & Widaman, 2002; McCallum, Widaman, Zhang & Hong, 1999).

In addition, for the scale of perceived values, the invariability of the measurement instrument was verified, thus ensuring comparability between the estimated parameters, taking composite measurements as inputs (Satorra, 2011). Thus, a composite measure was introduced for each dimension of wellbeing, as an indicator variable in the analyses carried out to evaluate the dimensionality, reliability and validity of the scales. The causal relationships for the entire sample were then determined in order to test hypotheses 1 to 5.

4. Results

4.1. Validation of the scales

In the first phase of the analysis we focus on the study of the psychometric properties of the wellbeing scale. Regarding the measurement of the variable, from the confirmatory factor analysis of the 23 items that finally make up the scale, we obtained six dimensions: emotional exhaustion, psychosomatic symptoms, back pain, relationship with students, favourable working conditions (satisfaction) and happiness. As can be seen in Table 1, the probability associated with the Chi-square reached a value higher than 0.05 (0.40144), which indicated a good global adjustment of the scale (Jöreskog & Sörbom, 1996). Convergent validity was demonstrated in two ways. In the first place, because the factor loads were significant and greater than 0.5 (Bagozzi & Yi, 1988; Hair, Black, Babin, Anderson, & Tatham, 2006); and, secondly, because the average variance extracted (AVE) for each of the factors was greater than 0.5 (Fornell & Larcker, 1981). The reliability of the scale was demonstrated because the composite reliability indices of each of the dimensions obtained were greater than 0.6 (Bagozzi & Yi, 1988).
Table 1. Analysis of dimensionality, reliability and validity of the wellbeing scale

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PHYSICAL WELLBEING</strong></td>
<td></td>
</tr>
<tr>
<td>Emotional exhaustion (AVE: 0.62; CR: 0.79)</td>
<td></td>
</tr>
<tr>
<td>I feel that my work consumes me emotionally.</td>
<td>0.69***</td>
</tr>
<tr>
<td>I feel exhausted at the end of the day.</td>
<td>0.84***</td>
</tr>
<tr>
<td>My daily work makes me feel tension.</td>
<td>0.71***</td>
</tr>
<tr>
<td>Psychosomatic symptoms (AVE: 0.68; CR: 0.83)</td>
<td></td>
</tr>
<tr>
<td>You feel sad.</td>
<td>0.85**</td>
</tr>
<tr>
<td>You feel depressed.</td>
<td>0.86**</td>
</tr>
<tr>
<td>You feel frightened.</td>
<td>0.65**</td>
</tr>
<tr>
<td>Back pain (AVE: 0.76; CR: 0.89)</td>
<td></td>
</tr>
<tr>
<td>My job negatively affects my back.</td>
<td>0.89***</td>
</tr>
<tr>
<td>I suffer from lumbago.</td>
<td>0.71***</td>
</tr>
<tr>
<td>I often feel pain in my back.</td>
<td>0.95***</td>
</tr>
<tr>
<td><strong>PSYCHOLOGICAL WELLBEING</strong></td>
<td></td>
</tr>
<tr>
<td>Relations with students (AVE: 0.64; CR: 0.84)</td>
<td></td>
</tr>
<tr>
<td>I care a lot about what happens to my students.</td>
<td>0.70***</td>
</tr>
<tr>
<td>I love working with my pupils.</td>
<td>0.78***</td>
</tr>
<tr>
<td>I feel I help my students to solve their problems.</td>
<td>0.81***</td>
</tr>
<tr>
<td>I feel satisfied with my work with the students.</td>
<td>0.74***</td>
</tr>
<tr>
<td>Favourable working conditions (satisfaction) (AVE: 0.67; CR: 0.89)</td>
<td></td>
</tr>
<tr>
<td>I have the chance to do different things.</td>
<td>0.80***</td>
</tr>
<tr>
<td>I am fairly paid for my work.</td>
<td>0.75***</td>
</tr>
<tr>
<td>I have opportunities to use my abilities.</td>
<td>0.85***</td>
</tr>
<tr>
<td>I have freedom to try out my own methods.</td>
<td>0.70***</td>
</tr>
<tr>
<td>The working conditions are good.</td>
<td>0.80***</td>
</tr>
<tr>
<td>Happiness (AVE: 0.67; CR: 0.89)</td>
<td></td>
</tr>
<tr>
<td>I am happy with the way I am.</td>
<td>0.71***</td>
</tr>
<tr>
<td>I feel that my life is gratifying.</td>
<td>0.93***</td>
</tr>
<tr>
<td>I feel satisfied with my life.</td>
<td>0.93***</td>
</tr>
<tr>
<td>I am capable of doing what I want to do in life.</td>
<td>0.72***</td>
</tr>
<tr>
<td>I am happy with my life.</td>
<td>0.91***</td>
</tr>
</tbody>
</table>

Note: The model fits, Chi-square ($\chi^2$): 212.4569; df: 208; p: 0.40144; RMSEA: 0.018; CFI: 0.998; NNFI: 0.996. AVE is the Average Variance Extracted, CR is the Composite Reliability. *p <0.05; **p <0.01; ***p <0.001.
Table 2 shows the discriminant validity of the construct considered, evaluated through the average variance extracted - AVE (Fornell & Larcker, 1981). For this, a construct must share more variance with its indicators than with other constructs in the model. This occurs when the square root of the AVE between each pair of factors is greater than the estimated correlation between those factors; as occurs here, thus ratifying its discriminant validity.

Table 2. Discriminant Validity of Wellbeing

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Emotional</td>
<td>0.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Symptoms</td>
<td>0.60**</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Back pain</td>
<td>0.42***</td>
<td>0.37**</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Relationship students</td>
<td>-0.02 (NS)</td>
<td>-0.12 (NS)</td>
<td>-0.05 (NS)</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Favourable working conditions (satisfaction)</td>
<td>-0.22 (NS)</td>
<td>-0.28*</td>
<td>-0.22*</td>
<td>0.47***</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>6. Happiness</td>
<td>-0.11 (NS)</td>
<td>-0.36*</td>
<td>-0.14*</td>
<td>0.51***</td>
<td>0.54***</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Note: Below the diagonal: estimated correlation between the factors. Diagonal: square root of AVE. *p <0.05; **p <0.01; ***p <0.001; NS: Not significant.

Subsequently, following Bandalos and Finney (2001), Bou-Llusar et al., (2009) and Landis et al., (2000), once the composite measures of the elements that share the same dimension in wellbeing have been set, we analysed the psychometric properties of the scales that make up the model. As can be seen in Table 3, the probability associated with the Chi-square reached a value higher than 0.05 (0.35562), which indicates a good global fit for the scale (Jöreskog & Sörbom, 1996). Convergent validity was demonstrated, on the one hand, because the factor loads were significant and greater than 0.5 (Bagozzi & Yi, 1988; Hair et al., 2006) and, on the other hand, because the mean variance extracted (AVE) for each of the factors was greater than 0.5 (Fornell & Larcker, 1981). Regarding the reliability of the scale, the composite reliability indices of each of the dimensions obtained are greater than 0.6 (Bagozzi & Yi, 1988). It should be noted that the elements that make up the wellbeing scale have been divided into two dimensions: psychological wellbeing and physical wellbeing.

Table 4 shows the discriminant validity of the construct considered, since the square root of the AVE between each pair of factors is greater than the estimated correlation between the factors, thus ratifying its discriminant validity.
Table 3. Analysis of the dimensionality, reliability and validity of the scales of measurement

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources (AVE: 0.75; CR: 0.95)</td>
<td></td>
</tr>
<tr>
<td>They tell us about the action they are taking.</td>
<td>0.83***</td>
</tr>
<tr>
<td>They pay attention to our requests, suggestions, pleas or ideas.</td>
<td>0.90***</td>
</tr>
<tr>
<td>Their action provides value or improvement for teachers.</td>
<td>0.88***</td>
</tr>
<tr>
<td>The employees get the recognition and the rewards that their work deserves.</td>
<td>0.85***</td>
</tr>
<tr>
<td>Treats all the staff equally.</td>
<td>0.84***</td>
</tr>
<tr>
<td>Is clearly aligned with the centre directors.</td>
<td>0.78***</td>
</tr>
<tr>
<td>Worries about the mood of the teaching staff.</td>
<td>0.83***</td>
</tr>
<tr>
<td>Clearly transmits the policy of the centre and the objectives set.</td>
<td>0.84***</td>
</tr>
<tr>
<td>Physical wellbeing (AVE: 0.53; CR: 0.71)</td>
<td></td>
</tr>
<tr>
<td>Emotional exhaustion.</td>
<td>0.72***</td>
</tr>
<tr>
<td>Psychosomatic symptoms.</td>
<td>0.69***</td>
</tr>
<tr>
<td>Back pain.</td>
<td>0.61***</td>
</tr>
<tr>
<td>Psychological wellbeing (AVE: 0.60; CR: 0.78)</td>
<td></td>
</tr>
<tr>
<td>Relations with students.</td>
<td>0.63***</td>
</tr>
<tr>
<td>Favourable working conditions (satisfaction).</td>
<td>0.89***</td>
</tr>
<tr>
<td>Happiness.</td>
<td>0.67***</td>
</tr>
<tr>
<td>Performance (AVE: 0.63; CR: 0.80)</td>
<td></td>
</tr>
<tr>
<td>The quality of education.</td>
<td>0.82***</td>
</tr>
<tr>
<td>The services offered (dining-room, after-school activities etc.).</td>
<td>0.74***</td>
</tr>
<tr>
<td>The demand of the centre.</td>
<td>0.70***</td>
</tr>
</tbody>
</table>

Note: The model fits, Chi-square ($\chi^2$): 182.3554; df: 176; p: 0.35562; RMSEA: 0.018; CFI: 0.996; NNFI: 0.994. AVE is the Average Variance Extracted, CR is the Composite Reliability. *p <0.05; **p <0.01; ***p <0.001.

Table 4. Discriminant validity of the scales associated with the model

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Human resources</td>
<td>0.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Physical wellbeing</td>
<td>0.24*</td>
<td>0.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Psychological wellbeing</td>
<td>0.61**</td>
<td>-0.33**</td>
<td>0.73</td>
<td></td>
</tr>
<tr>
<td>4. Performance</td>
<td>0.60**</td>
<td>-0.32**</td>
<td>0.61**</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Note: Below the diagonal: estimated correlation between the factors. Diagonal: square root of AVE *p <0.05; **p <0.01; ***p <0.001.
4.2. Causal relationships and moderating effects

To test hypotheses 1 to 5, we then ran an analysis of causal relationships (Table 5). This was suitable, in the first place, because the probability of the Chi-square was greater than 0.05 (0.20433), secondly, because the RMSA was close to 0 and finally because the NNFI and the CFI were close to the Unit. The result of the analysis showed that four of the five relationships proposed in the model were supported. Thus, HRM is a history of psychological wellbeing (H1), physical wellbeing (H2) and performance (H3). Furthermore, performance is also determined by psychological wellbeing (H4). However, the relationship between physical wellbeing and performance was not significant (H5).

Table 5. Relationships obtained from the structural model

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Parameter</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Human resources ➔ Psychological wellbeing</td>
<td>0.79***</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>Human resources ➔ Physical wellbeing</td>
<td>-0.24**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Human resources ➔ Performance</td>
<td>0.36**</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>Psychological wellbeing ➔ Performance</td>
<td>0.40**</td>
<td>Supported</td>
</tr>
<tr>
<td>H5</td>
<td>Physical wellbeing ➔ Performance</td>
<td>-0.11 (NS)</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Note: The model fits, Chi-square ($\chi^2$): 125.1714; df: 113; p: 0.20433; RMSEA (Root Mean Square Error of Approximation): 0.019; CFI (Comparative Fit Index): 0.996; NNFI (Non-Normed-Fit Index: 0.995. * \( p <0.05; \) ** \( p <0.01; \) *** \( p <0.001.\)

5. Discussion, conclusions and limitations

This study has run an analysis of the influence of HRM on performance. Observing the wellbeing of teachers as the main variable, the work has looked in detail at the direct relationship of this management in terms of performance, and also the moderating effect of wellbeing, both positive (psychological) and negative (physical), in educational performance.

The work has innovated not only in establishing these relationships but has also devised a scale to measure the wellbeing of teachers (see items in Table 1). This wellbeing has been observed through two dimensions, each one compound. These are psychological wellbeing and physical wellbeing.

After the theoretical approach of the model, and the establishment of hypotheses, the study has observed that all the relationships observed were supported by the data. The only exception was the relationship between physical wellbeing and performance, since, although here the direction we observed fitted the theory, this relationship was not significant.
In this direction, this study provides backing for the model and the theoretical bases, confirming the relationship between HRM practices, fundamentally those with a high level of participation (Marin-Garcia & Tomas, 2016; Van Esch et al., 2018) and the performance of organisations (Lee & Cogin, 2020). This corroborates the theory of social exchange (Kehoe & Wright, 2013), highlighting the importance of the staff (Lee & Cogin, 2020) and with it of HRM (Chowhan, 2016) as key elements in the competitive advantage of organisations.

Furthermore, the model contrasts both this direct relationship as well as through the mediating effect of wellbeing. This aspect highlights the confirmation of the AMOW model (Gould-Williams, 2016), confirming the relevance of HRM in psychological wellbeing, a question also supported by multiple authors who stress the positive relationship between HRM and various aspects of wellbeing such as happiness or relational wellbeing (Peccei, 2004; Van De Voorde et al., 2012), and satisfaction (Macky & Boxall, 2009). The results also contrast the opinions of the model of demands and job resources (Demerouti et al., 2001), as well as other studies that warn of HRM practices such as continuous demand that can negatively affect the wellbeing of workers related to health (Van De Voorde et al., 2012, Heffernan & Dundon, 2016) exhausting them, increasing their tension (Bakker & Demerouti, 2007) and stress (Guest, 2017), and even producing musculoskeletal problems (Chowhan et al., 2019), decreasing their satisfaction (Gould-Williams, 2007) and reducing their wellbeing (Nishii et al., 2008), an issue also pointed out from the theory of social exchange.

This aspect also confirms the fact that employee wellbeing is a multidimensional construct (Clinton & Van Veldhoven, 2013; Guerci et al., 2019), an aspect corroborated by our study when constructing the wellbeing variable, and upon verifying that wellbeing consists of two differentiated dimensions, which would correspond to psychological or positive wellbeing and negative wellbeing as related to health (Heffernan & Dundon, 2016).

In turn, the study observed the significance of the “positive” relationship between psychological wellbeing and the performance of the organisation (Soriano et al., 2018; Warr & Nielsen, 2018), while confirming the contradictory relationship between wellbeing and physical health and performance (Van De Voorde et al., 2012), our work thus confirming that this is not significant. In other words, certain HRM practices, such as providing adequate resources, reduce levels of stress or tension. This reduction in stress, and the consequent increase in levels of wellbeing, can have a positive impact on performance. However, the fact that the linear relationship is not significant does not imply that it does not exist, but rather that the relationship is in another form, such as the inverted U-shape mentioned in our review of the bibliography.

After these results, we consider that our analysis is relevant since it makes up for various shortcomings in the literature. Thus, although the relationship with HRM has been widely studied, the mediating analysis of teacher wellbeing has not to such an extent. The work is relevant in theoretical terms due to the empirical analysis...
of the significance of these relationships, and by its pioneering influence – both theoretically and empirically – upon the relevance of different factors related to the wellbeing of teachers, and in producing a scale that allows measurement of this. In turn, the results, fundamentally when observing the greater and more significant effect of psychological wellbeing as compared to physical wellbeing, open the way to new perspectives of analysis which may combine various theories on leadership and motivation theories that explain these effects. Moreover, the practical implications are important, since there is now a greater promotion of HRM policies (such as participation, flexibility, or variety) that promote working environments that captivate and satisfy teachers so that they reach their maximum potential. This has relevant and significant repercussions upon improvement in the quality of education.

The analysis is limited by the size of the sample, and its application within a highly specific geographical area. Future studies may apply the model using other samples, or other fields of application. In turn, other studies could expand the proposed scale, or observe other variables in the model, so that they could enrich it.

Declaration of conflicts of interest

The authors declare that they have no conflicts of interest in relation to the research, authorship, or publication of this work.

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Notes on Contributors

Name: Esther Pagán-Castaño
Position: 
School / Faculty: 
University: ESIC Busines & Marketing School
Address: Av. Blasco Ibáñez, 55
Phone: +34 963 614 811
Email: esther.pagan@esic.edu
ORCID: 

Name: Fernando J. Garrigós-Simón
Position: 
School / Faculty: ETSINF
University: Universitat Politècnica de València
Address: Camino de Vera s/n. 46022 Valencia, Spain
Phone: +34 963 877 680
Email: garrigos@doc.upv.es
ORCID: 0000-0001-6580-9124

Name: Javier Sánchez-García
Position: 
School / Faculty: 
University: Universitat Jaume I Castelló
Address: Av. Vicent Sos Baynat, s/n 12071 Castellón de la Plana, Spain
Phone: +34 964 728 000
Email: jsanchez@uji.es
ORCID: 0000-0002-7865-0076