The role of gender, age, job level and job security on physician’s engagement in Spanish public hospitals

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1. INTRODUCTION
The public sector aims to promotes general social welfare, the protection of society and has deeper impact objectives than private firms. In this context, public employees might have more potential to show positive attitudes, such as engagement, satisfaction or commitment, compared to private employees (Salas-Vallina et al., 2017). Positive attitudes are considered particularly intense affective experiences that are based on specific situations at work (Gray and Watson, 2001). However, there are contradictory findings in this research field. While some studies tend to show public healthcare physicians (Peña-Sánchez et al., 2014), other studies evidence the contrary (Chivato Pérez et al., 2011; Súñer-Soler, 2014). The concept of work engagement is understood as a vigorous and passionate state at work (Schaufeli et al., 2002).

Research shows that engagement is one of the most important concepts in the management area, with important implications for employees and organizations (Schaufeli et al., 2006). Engagement is frequently examined to raise organizational profitability and competitiveness (Bailey et al., 2015), to reduce burn-out (Schaufeli and Bakker, 2004) and improves task performance and citizenship behavior (Rich et al., 2010). But a lack of engagement is related to absenteeism, poor performance, bad working conditions and turnover intention (Schaufeli, 2017). In a recent research in Spain and Latinoamerican countries, Súñer-Soler (2014) found that Spain presented one of the greatest recognition of mistakes in the care provi-
EXECUTIVE SUMMARY
The purpose of this paper is to examine how the variables of age, gender, job level and job security affect engagement in a knowledge intensive context. Literature shows a lack of research on how these variables facilitate engagement, and our aim is to provide further evidence on this issue. Using a sample of 167 Spanish public physicians, this found that age does not affect engagement, while gender, job level and job security should be considered as demographic engagement determinants.

RESUMEN DEL ARTÍCULO
El objetivo de este artículo es analizar el efecto de las variables edad, género, nivel laboral y seguridad laboral en el compromiso de los empleados, en un contexto intensivo en conocimiento. Las investigaciones previas muestran la necesidad de conocer cómo determinadas variables facilitan el compromiso laboral, y nuestro objetivo es proporcionar nuevas evidencias. Se ha analizado una muestra de 167 médicos especialistas en alergología. Los resultados ayudan a clarificar las contradicciones encontradas en investigaciones previas, pues evidencian que la edad no afecta al compromiso laboral, mientras que el género, el nivel laboral y la seguridad laboral son variables que sí que afectan al compromiso laboral.
ded because of the working conditions. In addition, Spain was one of the most prevalent countries where physicians considered giving up the profession. Once more, Spanish physicians revealed one of the greatest pessimistic perception with a high sensation of personal deterioration derivable from the working conditions.

In line with Bailey et al. (2015) this study highlights the lack of research in determining the demographic and labor variables that affect engagement. Gender, age and job security are analyzed in our study, with the aim of showing the employee profile that best fits to be engaged. Variables such as gender are supposed to be neutral because both men and women can equally be engaged. However, women are exposed to lower pay and a significantly higher risk of unemployment (Rubery and Rafferty, 2013). Little research and contradictory results address the effect of age in engagement at work. Following the job demands-resources theory, it may be assumed that higher management level could lead to higher engagement. However, literature shows inconsistent results. For example, Súñer-Soler (2014) found that public employees are more dissatisfied at work, while Peña-Sánchez et al. (2014) revealed the contrary. Our research also analyses the effect of job security on engagement. Job security is increasingly valued in OECD countries (Anderson and Pontusson, 2007), and we found empirical evidence of its effect on engagement at work.

This paper is organized as follows. First, the concept of engagement is reviewed. Second, the effect of the demographic and labor variables of gender, age, management level and job security on engagement is examined. Finally, findings and discussion are explained.

2. WHAT DO WE KNOW ABOUT ENGAGEMENT?

According to the JD-R (Job demands-resources) model, every job contains demands as well as resources. Job demands refer to elements of the job that need high levels of physical and mental effort and are connected with physiological and psychological costs (Schaufeli, 2017). It means that job demands are negative aspects at work that reduce energy. For example, work overload or job insecurity are considered job demands. Job demands are considered a stress process that lead to negative outcomes, such as poor performance and low positive attitudes, such as commitment or engage-
When job demands are continuously high, employee’s energy is drained, which finally leads to burn-out. On the other side, job resources are positive things that help to achieve goals, reduce job demands and promote personal growth and development. Support from others, job control and performance feedback are examples of job resources. Job resources foster engagement, which results in extra-role behavior and superior work performance. The JD-R model has been widely validated (Schaufeli, 2017) and links job characteristics, employee well-being and different outcomes. We understand well-being as a wide range of positive attitudes. However, it seems that engagement is one of the most representative positive attitudes (Schaufeli, 2017). Schaufeli et al. (2002, p. 74) defined engagement as “a positive, fulfilling work-related state of mind that is characterized by vigor, dedication and absorption”. They suggested that vigor, dedication and absorption together they shape the concept of engagement. Vigor is characterised by high levels of energy and the ability to cope with adverse situations at work, including perseverance in difficult times. Dedication involves experiencing enthusiasm, significance, challenge. Absorption implies experiencing difficulties in disconnecting from work because the employee is at ease, deeply devoted to his/her work, and does not notice the passing of time. We understand engagement in the same way as Schaufeli et al. (2002), as “Employee Work Passion”. Engagement is a special feeling of energy and motivation related to thrill and passion at work. Therefore, we circumscribe engagement in the field of feelings as a result of meaningfulness at work. Engaged employees experience high well-being and perform better (Soane et al., 2010). Other studies found that employee engagement was related to profit, productivity, and customer satisfaction, among others. Despite the fact that the concept of engagement is one of the most relevant contemporary concepts in management literature, literature claims further research on its antecedents, such as demographic and labour variables (Bailey et al., 2015).

2.1. Engagement and gender

Reality demonstrates that women work much longer hours than men (United Nations, 2015, p. 87), and the Organization for Economic Co-operation and Development Employment Outlook 2015 shows that women are exposed to lower pay and a significantly higher risk of unemployment. These circumstances lead us to believe that wo-
men may be less engaged that man. Shantz et al. (2010) revealed that highly engaged woman with children in their care feel burnout, which is the opposite to engagement. Schaufeli et al. (2006) stated that levels of engagement do not differ significantly between women and men. Gálvez (2016) highlighted that Spain presents one of the highest rates of discrimination against women at work, which clearly does not favour female happiness at work (HAW). Women have unfavourable conditions on promotion opportunities, job content and hiring or firing. However, they tend to feel more satisfied and committed at work (Marchiori and Henkin, 2004) because they expect less. Our research is focused in the public health sector, particularly in the allergy specialty, where the proportion of women is higher compared to men. If women bear the most home responsibilities, they will be more negatively affected by engagement. Under these circumstances, work-life balance might counterbalance it. Pasamar and Valle-Cabrera (2013) argue that while public employees benefit from better work-life programmes, the Spanish government supports relatively few family-work plans compared to other European countries. In addition, managers are essential to implement work-life balance programmes in organizations. Engagement is supposed to be gender neutral, as other concepts in management literature. However, we cannot ignore gender in research because it might promote the permanence of discrimination in the workplace (Martin, 2000). Our research aims to clarify the following question: Do women and men differ in their engagement at work?

2.2. Engagement and age

Literature shows little and contradictory research on age as antecedent of employee engagement. In one hand, older workers could be less engaged because they are waiting for retirement. On the other hand, older workers expect job security and a regular increase in pay (D’Amato and Herzfeld, 2008), and they feel more engaged than younger workers. Robinson et al. (2004) found that engagement decreases with age, but from the age of 60 engagement increases. Nylenna and Gulbrandsen (2005), in a longitudinal study among physicians, found that job satisfaction was slightly positively correlated with age. Bailey et al. (2015) claims for more research that investigates the antecedents of engagement from the perspectives of employees from various demographic backgrounds and raises the
possibility that engagement may vary across age groups. Schaufeli states that the relationship between age and engagement is weak and it can barely be seen as meaningful. Research shows that there are no systematic gender differences for engagement (Schaufeli et al., 2006), and that the relationships between age and engagement should be interpreted with prudence (Schaufeli et al., 2006). Therefore, our second question is: *Does age affect work engagement?*

### 2.3. Engagement and job level

Taking the Job Demands-Resources theory as a reference point, it can be assumed that job resources (physical, psychological, social, or organizational characteristics of a job) stimulate positive attitudes such as engagement or organizational commitment. Job level can be considered as a job resources, as it increases power and decision making capacity. As stated by conservation of resources (COR) theory, people aim to acquire, maintain and protect resources, including objects (material goods), personal characteristics (self-esteem, courage), conditions (status) and energies (time, money, knowledge). Besides this, resources enable individuals to secure other resources. (JD-R) connects resources with positive attitudes, stating that job resources promote positive attitudes and job demands explain burn-out. Personal resources are positive self-evaluations which are strongly related to positive attitudes and impact on the working environment successfully, and that stimulate personal growth and development.

A higher job level involves more prestige, status, prestige and power. Previous studies found that job level is connected with career satisfaction. Job level has been negatively related to burn-out (Kim et al., 2017), the opposite to engagement (Schaufeli et al., 2002). In a cross-sectional study of 33,000 employees across the globe, it was found that job level positively affected work engagement (IBM, 2014). However, our research is framed in the public sector, where limited opportunities are found for promotion (Barrows and Wesson, 2001). The characteristics of the public sector are different from the private sector, and this affects attitudes at work. In this sector, hospitals are organizations whose concerns are beyond financial profits, and are focused on social commitment (Meyer et al., 2014). But also, hospitals are organizations under substantial stress. Health care professionals are expected to deal with technical developments, are demanded to be accessible and available,
velop their own evidence-based competences and provide patient-centered care. Hospitals are singular organizations due to the fact that bad physicians result in medical errors, while bad patients promote more burnout physicians, and in turn, contribute to more medical error (Montgomery et al., 2015). The negative working factors of physicians, such as stress, are derived from patient-driven demands and the organizational working context (Montgomery et al., 2015). Young et al. (1998) could not evidence any significant connection between pay and job satisfaction in the public sector. On the other hand, public employees might have more potential to feel happier than private employees. The public sector promotes general social welfare, the protection of society and has deeper impact objectives than private firms. Public employees may feel greater task meaning than private sector employees, because public work involves important social concerns (Salas-Vallina et al., 2017). Nevertheless, public employees generally have been considered as more dissatisfied at work than private sector employees (Súñer-Soler, 2014), presenting some of the lowest scores across industries (IBM, 2014), because despite they can satisfy higher-order needs, the structure of public organizations might obstruct the achievement of these altruistic goals. In addition, public employees present a lower willingness to exert extra effort and are less committed (Buelens and Van den Broeck, 2007). The fact is that there are contradictory findings of public job satisfaction. While some studies tend to show public satisfied employees (Peña-Sánchez et al., 2014), other studies evidence the contrary (Súñer-Soler, 2014). Despite that a higher job level involves a higher salary, employees of public organizations note a weaker association between extrinsic rewards, such as pay or job security, and performance than do private sector employees. Public employee perceptions of weak relationships between rewards and performance, greater procedural constraints, and goal ambiguity may have a detrimental effect on their work motivation (Perry and Wise, 1990). For all the above, our third questions is: Does job level affect work engagement?

2.4. Engagement and job security

Job security is increasingly valued in OECD countries. Greece, Estonia and Spain present the highest exposure of workers with long-term earnings to unemployment. In these countries the average of time being unemployed exceeds two years. Temporary contracts
can facilitate work, but also can be a source of insecurity (2017 OECD Employment Look). The 2017 OECD Employment Look defined labour market insecurity as the risk of being unemployed, with temporal income protection. Job insecurity can be defined as the employee’s perception of a possible and involuntary job loss. Job insecurity produces job stress with negative work consequences. For example, Mauno et al. (2007) evidenced a negative relationship between job insecurity and engagement. On the basis of the JD-R theory, job insecurity can be considered a job demand, as it is a work characteristic that increases uncertainty. High job demands lead to high stress levels and negative outcomes, such as burnout, while job resources (Schaufeli et al., 2002). Therefore, it seems that job insecurity could negatively affect employee’s engagement. The fourth question proposed in this research is: Does job security affect work engagement?

Figure 1 graphically represents the proposed theoretical model. Vigor, dedication and absorption correspond to the three dimensions of engagement, and gender, age, job level and job security involve the variables that are expected to affect work engagement.

Figure 1. Proposed model. VIG = vigor, DEDIC = dedication, ABSOR = absorption
3. THE PUBLIC HEALTH SECTOR CHARACTERISTICS

The Spanish healthcare system is considered the seventh-best worldwide by the World Health Organization in 2000, and comprises tertiary and district hospitals and primary health care centers that provide preventive care, home-based care and rehabilitation. The 17 Autonomous Communities that compose Spain have been delegated most health care management responsibilities. Nevertheless, our study is framed in the medical staff working in allergy units, named allergists. This medical specialty presents similar characteristics across Spain, both from a management and clinical perspective. They usually work under a head of service, which lead a small group of allergists in each public hospital. This organizational structure is different from private allergists, but our work is focused in the health care public sector.

This sector had a considerable effect of the economic crisis, where pressure from Europe and the financial markets and the national and regional governments, has resulted in services being cut, sometimes harshly (Organización Médica Colegial, 2012). Austerity measures involve considerable diminution in public employees’ salaries since 2010 and health spending reductions (Gené-Badia, 2012). This taken measures have often been understood as incoherent are likely to damage the principles of equity and social cohesion. Data is very clear: The 2016 CIS national survey reveals that Spaniards gradually rate worse the public health system. From 2011 and up to today, Spanish citizens have decreased their rating of the health system from 24.24 in 2011 to 19.80 in 2016 (CIS, 2016).

From the point of view of physicians, these austerity policies might negatively impact on their attitudes at work. Physicians have to deal with high overload of work with less resources. The JD-R model facilitates the explanation of how the Spanish health care context affects physician’s engagement. This model argues that less resources lead to burn-out, which is the opposite to engagement (Schaufeli, 2017). It seems that under circumstances of lower resources physicians’ engagement will be affected. For example, Súñer-Soler (2014) evidenced high levels of burnout and turn-over intention, which are considered negative attitudes at work (Schaufeli et al., 2002). Moreover, Heras-Mosteiro et al. (2016) revealed that Spanish physicians presented high burnout levels as a result of lack of resources.
4. WHAT DOES REALITY REVEALS?

In Table 1, we present the main characteristics found in this study for engagement in relation to the type of job contract, which reflect the levels of job security (temporary or permanent), the management level (head of service or staff), gender.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>AVERAGE</th>
<th>STANDARD DEVIATION</th>
<th>STANDARD ERROR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary</td>
<td>43</td>
<td>3.35</td>
<td>1.19</td>
<td>.18</td>
</tr>
<tr>
<td>Permanent</td>
<td>124</td>
<td>3.80</td>
<td>1.23</td>
<td>.11</td>
</tr>
<tr>
<td>Head of service</td>
<td>79</td>
<td>3.17</td>
<td>1.17</td>
<td>.13</td>
</tr>
<tr>
<td>Staff</td>
<td>88</td>
<td>4.15</td>
<td>1.11</td>
<td>.12</td>
</tr>
<tr>
<td>Woman</td>
<td>101</td>
<td>3.43</td>
<td>1.10</td>
<td>.11</td>
</tr>
<tr>
<td>Man</td>
<td>66</td>
<td>4.08</td>
<td>1.34</td>
<td>.12</td>
</tr>
<tr>
<td>Age</td>
<td>167</td>
<td>44.00</td>
<td>9.55</td>
<td>.16</td>
</tr>
</tbody>
</table>

This study reveals that job security as well as job level play a significant role in engagement. As evidenced in Table 1, permanent workers and higher job level employees feel more engaged at work. In contrast, age is not related to engagement. In addition, we found that gender does not affect work engagement.

<table>
<thead>
<tr>
<th></th>
<th>SUM OF SQUARES</th>
<th>DF</th>
<th>ROOT MEAN SQUARE</th>
<th>F</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job security</td>
<td>6.519</td>
<td>1</td>
<td>6.519</td>
<td>4.358</td>
<td>.038</td>
</tr>
<tr>
<td>Job level</td>
<td>39.687</td>
<td>1</td>
<td>39.687</td>
<td>30.654</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>6.555</td>
<td>4</td>
<td>1.639</td>
<td>1.076</td>
<td>.370</td>
</tr>
</tbody>
</table>

Table 3. Gender Brown-Forsythe test (equality of means test).

<table>
<thead>
<tr>
<th></th>
<th>STATISTIC</th>
<th>DF1</th>
<th>DF2</th>
<th>SIG.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>6.519</td>
<td>1</td>
<td>6.519</td>
<td>.038</td>
</tr>
</tbody>
</table>
Results show (Table 4) that for each head of service highly engaged, there are 5.360 staff employees highly engaged. For each temporary employee highly engaged, there are 3.330 permanent employees highly engaged. For each woman highly engaged there are 3.538 men highly engaged.

5. CONCLUSIONS

Spanish health care professionals present one of the greatest rates of turnover intention, burnout and emotional exhaustion compared to other countries (Súñer-Soler, 2014). Family and personal deterioration are further negative effects of the working conditions of health care Spanish physicians (Súñer-Soler, 2014).

Our first conclusion is that public physicians present low engagement levels. The reason behind those low engagement levels, might be explained but the public lack of resources in both the healthcare and education sectors, derived from strong financial cuts coming from the economic crisis.

Our second conclusion is that engagement engagement depends on gender. Despite engagement is considered to be gender neutral, reality shows that women that bear the most home responsibilities,
will be more negatively affected by engagement, may be because of their overcharged life.

Our third conclusion is that engagement does not vary across age groups. Age seems to be less significant in assessing engagement than other factors such as gender, management level and job security.

Our fourth conclusion is that the management level affects engagement. Higher job position does not guarantee that employees will feel more engaged. Public employees perceive greater procedural constraints, and goal ambiguity that may negatively affect work motivation. Besides this, public employees feel a poor relationship between rewards and performance. Following this, our results show that a higher management position (head of health unit services) involves lower engagement levels.

Our fifth conclusion is that job security affects engagement at work. It seems reasonable to hold that job security is a key element to feel good and comfortable at work. Job insecurity derived from temporary work entails lower engagement at work. Job insecurity, leads to lower engagement levels (Schaufeli et al., 2002).

We can suggest that staff employees, male and with permanent contracts present higher probability of being engaged in their work. Besides this, the variable with a higher effect on engagement is management level.

This study offers practitioners new clues to decode why some employees are more engaged compared to others. In particular, our research reveals powerful results to human resource managers. Heads of human resource departments now can focus their engagement human resource policies towards the right direction, devoting more attention and resources where it is more vital, namely, less engaged employees. Physicians in charge of other employees, females and temporally hired workers define the profile of employees more likely of not being engaged. Salary, high working pressures and a lack of power in relation with their responsibilities might be the cause of low engagement among physicians in charge of other employees. In addition, policies focused on gender equality policies should become a priority of human resource managers in health care organizations. Further, accurate HRM policies might help to raise employees capabilityes (López-Cabales et al., 2017), and as a result their work engagement. Finally, it has been proved that job instability negatively affects work engagement. It is a fact that Spa-
nish physicians present one of the highest temporary rates, and this involves less engaged employees and further negative consequences (Schaufeli, 2017). A reduction in temporary employment rates urgently needs to be implemented.

It is our aim to raise awareness among human resource managers of how critical is for organizations and employees to be engaged.

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Retrieved May 9, 2017, from http://innovation.cc


NOTES

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Appendix 1

Encuesta de Bienestar en el Contexto Académico (UWES-S-17) ©
Las siguientes preguntas se refieren a los sentimientos de las personas en el trabajo. Por favor, lea cuidadosamente cada pregunta y decida si se ha sentido de esta forma. Si nunca se ha sentido así conteste “0” (cero), y en caso contrario indique cuántas veces se ha sentido teniendo en cuenta el número que aparece en la siguiente escala de respuesta (de 1 a 6)

<table>
<thead>
<tr>
<th>NUNCA</th>
<th>CASI NUNCA</th>
<th>ALGUNAS VECES</th>
<th>REGULARMENTE</th>
<th>BASTANTES VECES</th>
<th>CASI SIEMPRE</th>
<th>SIEMPRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ninguna vez</td>
<td>Pocas veces al año</td>
<td>Una vez al mes o menos</td>
<td>Pocas veces al mes</td>
<td>Una vez por semana</td>
<td>Pocas veces por semana</td>
<td>Todos los días</td>
</tr>
</tbody>
</table>

1. Mis tareas como estudiante me hacen sentir lleno de energía (VI1)*
2. Creo que mi carrera tiene significado (DE1)
3. El tiempo “pasa volando” cuando realizo mis tareas como estudiantes (AB1)
4. Me siento fuerte y vigoroso(a) cuando estudio o voy a clases (VI2)*
5. Estoy entusiastmado(a) con mi carrera (DE2)*
6. Olvido todo lo que pasa alrededor de mi cuando estoy abstraído con mis estudios (AB2)
7. Mis estudios me inspiran cosas nuevas (DE3)*
8. Cuando me levanto por la mañana me dan ganas de ir a clases o estudiar (VI3)*
9. Soy feliz cuando estoy haciendo tareas relacionadas con mis estudios (AB3)*
10. Estoy orgulloso(a) de estar en esta carrera (DE4)*
11. Estoy inmerso(a) en mis estudios (AB4)
12. Puedo seguir estudiando durante largos periodos de tiempo (VI4)
13. Mi carrera es retadora para mi (DE5)
14. Me “dejo llevar” cuando realizo mis tareas como estudiante (AB5)*
15. Soy muy “resistente” para afrontar mis tareas como estudiante (VI5)
16. Es difícil para mi separarme de mis estudios (AB6)
17. En mis tareas como estudiante no paro incluso si no me encuentro bien (VI6)