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ORIGINAL ARTICLE

Engagement, resilience and empathy in nursing assistants☆

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KEYWORDS
Engagement;
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Abstract
Objective: To analyse the levels of engagement, resilience and empathy, and the relationship between them, in a sample of nursing assistants working in different private institutions in Huelva.
Method: A transversal, descriptive study. The sample comprised 128 nursing assistants working in private health centres of Huelva. They were given the following instruments: resilience scale Wagnild and Young, Interpersonal Reactivity Index and Utrech Work Engagement Scale.
Conclusions: There is a relationship between the cognitive and emotional components of engagement and empathy. Certain sociodemographic variables associated with the organisation of work and working conditions are associated with level of engagement.

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PALABRAS CLAVE
Engagement (compromiso);
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Empatía;
Auxiliares de enfermería

Engagement (compromiso), resiliencia y empatía en auxiliares de enfermería

Resumen
Objetivo: Analizar los niveles de engagement, resiliencia y empatía, y la relación entre ellos, en una muestra de auxiliares de enfermería que desempeñan su trabajo en diferentes centros privados de Huelva.
Método: El diseño corresponde a un estudio descriptivo transversal. La muestra la componen 128 auxiliares de enfermería de centros privados de Huelva, a quienes se les han administrado los siguientes instrumentos: escala de resiliencia de Wagnild y Young, índice de reactividad interpersonal y Utrech Work Engagement Scale.
Conclusiones: Existe relación entre los componentes cognitivos y emocionales del engagement y la empatía. Variables asociadas a la organización del trabajo y las condiciones laborales, como la antigüedad laboral, el tipo de jornada y el turno de trabajo, se encuentran asociadas con el engagement.

What is known?

The psychological wellbeing of people in the caring professions, healthcare specifically, is modulated by psychological variables such as empathy, personality traits and resilience. There is also plentiful empirical evidence on burnout syndrome and its negative impact on the health and quality of life in general of this group of professionals.

What do we contribute?

Nursing assistants are perhaps one of the groups of healthcare professions that receive the least attention. This study provides some primary results on work satisfaction and occupational health and their association with psychological variables such as engagement, resilience and empathy. An analysis of these elements might help towards designing preventive programmes to encourage a better attitude towards this profession, protect against potential occupational diseases, and therefore result in better quality patient care. Furthermore, because there is more access to the sample of healthcare professionals working the public sector, mainly because these are the principal promoters of clinical research, results in fewer studies being undertaken in private centres. This type of analysis will enable a comparison between both populations and to obtain results related to the contextual factors of the working environment.

Introduction

The healthcare professions are considered to be among those most exposed to the psychosocial risks linked to the caring profession. Health workers in general experience high levels of stress, anxiety, fatigue and suffering due to the nature of their work and their workplace. This can result in a reduction in their perception of health and wellbeing.[1]

In recent years, concern for health workers as a collective has led to studies on diseases and traits related with their work. Thus, research studies are being undertaken on burnout syndrome,[2,3] certain personality traits such as resilience (RS), [4] and the capacity for empathy.[5]

There are few studies that directly deal with the professional development of nursing assistants. We can highlight the most relevant characteristics in these studies that evidence the impact, both physical and emotional, of particular working conditions on the performance of nursing assistants. The studies outline their increased real shifts, sometimes due to a need for greater financial gain, and sometimes simply due to the way their work is organised; their patients' need for ongoing care; the monitoring and scrutiny that they are subjected to, and other activities such as academic meetings that they are obliged to attend.[6] Similarly, it should be stressed that the nursing assistant is the last link in a chain, and because of the idiosyncratic nature of the profession, they routinely suffer high levels of stress and other associated diseases.

However, recent trends reflect an increase in studies on the line of work in relation to positive psychology. The risk factors with negative consequences are not as relevant as the protective factors that help to prevent these risks.

From this perspective, the emphasis is now being placed on engagement, and there now two new tendencies: the first, that considers engagement an inverse process to the 3 dimensions of burnout (emotional exhaustion, cynicism and poor personal fulfilment),[7] and the second where it is considered a phenomenon in its own right, independent of any other process.[8]

Salanova and Llorens[9] highlight the lack of a term in Spanish that reflects its meaning, very much in contrast to the other concepts defined in the literature, such as work involvement, organisational commitment, work dedication or workaholism.

The precise origin of the term employee engagement is unknown. Kahn[10] was the first author to conceptualise employment engagement as that experienced by members of an organisation who fully harness themselves to their own work roles. From this concept, engaged employees are described as being physically, emotionally and cognitively engaged in the performance of their roles. Engagement is defined as a type of behaviour characterised by an experiential state, termed psychological presence, which motivates people to devote energy to the roles they perform at work. Engagement brings positive results, both individually, in terms of personal growth and development, and organisationally, in terms of quality of performance. There is scientific evidence to show that the quality of care given by nursing staff, specifically, increases.[11]

As Salanova and Shaufeli[12] indicate, there are 3 essential psychological conditions that people require in their work roles if they are to feel engaged: satisfaction (the work itself is meaningful and challenging for the person), safety (the workplace is reliable, safe and predictable creating a positive working climate for the person) and availability (the necessary physical and psychological resources are available to the person to improve their work role).

Engagement is currently analysed from 2 different perspectives: role theory and occupational health. Each perspective considers it a process of 3 components: vigour (behavioural, energy level component), absorption (cognitive component) and dedication (emotional component).

As we mentioned earlier, research studies have placed the emphasis on relating burnout syndrome with other dispositional variables such as RS and empathy. This has not been the case with engagement, even though some authors consider it the opposite to burnout.

Resilience is associated with psychological wellbeing[13] and presented as a modulator in stress processes in general, however literature that looks at the health professions is scant. RS is the result of a process of adaptation after experiencing a highly stressful or risk situation, i.e., a person's ability to cope with challenging situations.[14] As Cerezo et al.,[15] indicate, for healthcare professionals to have RS requires a different way of analysing the facts that will enable them to detect and mobilise the resources of people, their environment, the services and the social networks, and this in turn will enable them to implement more appropriate and efficient intervention strategies.

Likewise, empathy is another variable studied, defined as the ability of people to put themselves cognitively in the place of the other.[16] Empathy can be felt differently according to multiple variables associated with each person, and this affects whether it can be analysed as a factor that affects that person positively or negatively and, by extension, affects the health professional. Thus, it can be associated with a lack of satisfaction and cause stress due to burnout, in other words, ''compassion fatigue''[17]; or by contrast, it can be viewed as an opportunity to provide a benefit in a care situation, and result in ''healthcare benefits''.[18]

The impact of remodelling the health system in recent years that has added to the habitual work overload of health professionals was the motivation behind this paper, which aims to evaluate other variables from a more positive perspective. Therefore it was this study's main objective to analyse levels of engagement, RS and empathy and the relationship between them in a sample of nursing assistants working in different private centres in the city and province of Huelva.

Method

A descriptive, cross-sectional study was undertaken and the data was collected between September 2015 and April 2016. A non-probability sampling by convenience was adopted to access the group of participants. The criterion for inclusion was to work as a nursing assistant in private centres in Huelva. Having more than one job was an exclusion criterion. The sample size was calculated with a prevalence of .5 with a .95% confidence level, and 3% precision, and a total of 140 participants were obtained. After the assessment tests, 12 participants were eliminated (because they failed to pass the tests) and the final sample included a total of 128 nursing assistants. All the participants were informed of the voluntary nature of their participation in the study, were assured anonymity and data confidentiality, and signed their informed consent.

The instruments below were used for the sample individually:

- The Utrecht Work Engagement Scale (UWES)[19] that assesses engagement in 17 items with a Likert response format (between 0 and 6) comprising 3 dimensions: vigour, dedication and absorption. It provides 3 partial scores and one total score, establishing 5 categories of engagement: low, very low, average, high, and very high. The reliability indices in the Spanish version vary between .8 and .86.[20]
- Wagnild and Young's RS scale[21] that evaluates the level of RS through 25 items with a Likert response format (from 1 to 7), grouped into 5 subscales: perseverance, equanimity, meaningful life, self-reliance and existential aloneness. The score range is between 25 and 175; a score lower than 121 indicates low RS, from 121 to 146 moderate, and more than 147 is high.[22] In terms of psychometric properties, although there is no available data for the Spanish populations, those from Latin American samples (this study used the translation into Spanish of the Argentinean version) vouch for its reliability with Cronbach alpha values ranging from .72 to .86.[23,24]
- The interpersonal reactivity index (IRI)[25,26] that assesses level of empathy through 28 items, with a Likert response format (between 1 and 5), grouped into 4 subscales: perspective taking (PT), fantasy (FS), empathetic concern

(EC) and personal distress (PD). The reliability coefficients obtained in the Spanish sample range, for the different subscales, from .56 to .7.[27]
- Protocol for collecting data on sociodemographic variables of interest for the objectives of this study: sex, age, length of service in the job (less than 10 years or more than 10 years), shifts (fixed or rotating) and work hours (part or full time).

With regard to data analysis, the descriptive analysis was undertaken obtaining central tendency and dispersion statistics for the continuous variables, and frequencies and percentages for the categorical variables. Kolmogorov–Smirnov tests were performed for analysis of the data to check the normality of the variables. For the comparative analyses, student's *t*-tests were used for independent samples, and Pearson's correlation values to calculate the association between metric variables. The data obtained were analysed using SPSS 20.0.

Results

Of the total subjects that made up the sample (128 nursing assistants), 37 (29%) were male and 91 (71%) female, with a mean age of 58.20 years (SD = 9.40). In terms of length of service, 71% (n = 91) had been in the job for less than 10 years and 29% (n = 37) for more than 10 years; with regard to working shifts, 64% (n = 82) worked fixed and 36% (n=), rotating shifts. Finally, in relation to work hours, 43% (n = 55) worked full time and 57% (n = 73) part time.

With regard to the psychological variables that were specifically evaluated in this paper, the descriptive statistics (means and standard deviations) obtained from the evaluation instruments are shown in Table 1. Firstly, with regard to the UWES, the mean scores of the subscales range from 3.54 (SD = 1.18) (vigour) to 3.12 (SD = 1.08) (absorption), the total mean score of 3.29 (SD = 1.14) on the scale corresponds to an ''average'' engagement category.

With regard to RS, the mean value obtained ($\bar{X} = 35.82$; SD = 17.69) is a ''moderate'' RS level. The results of the different levels of categories that determine the total RS score indicate that of the total nursing assistants, 10.9% (n = 14) have high RS, 24.9% (n = 32) are classified as having a low level, whereas the majority (64.2%) (n = 82) have medium or moderate RS.

Finally, the values of the 4 subscales of the IRI are shown. As can be seen, the means and the high scores correspond to perspective taking, one of the cognitive components of empathy and empathetic concern, the emotional reaction to adopting an empathetic attitude, respectively.

Moreover, Table 2 describes the results obtained in the study variables of sex and occupational conditions (time in the job, shift and working hours). The empathy subscale data is detailed, since the evaluation instrument does not offer a total score for empathy. Firstly, significant differences can be seen in relation to engagement in terms of working conditions, working fixed shifts, full time and less than 10 years in the job are the variables that score highest. There are no differences with regard to sex. Secondly, there are no differences in terms of RS. Finally, with regard to the subdimensions of the empathy variable, there are differences with regard to sex; the women's higher score is noteworthy in empathic concern and personal distress. Similarly, significant differences can be seen with regard to length of service and personal distress, the workers who have been in the job for longer than 10 years score the highest.

With regard to correlations between the variables studied, as Table 3 shows, in terms of empathy and its association with engagement, statistically significant relationships can be seen only between the subscales of perspective taking and absorption, and between personal distress and dedication (with a negative association in this case). With regard to RS, there are statistically significant positive correlations between personal satisfaction, self-esteem and perseverance, and the 3 engagement subscales.

Table 1 Means and standard deviations of the scores obtained in the Utrech Work Engagement Scale (UWES), resilience scale (RS) and interpersonal reactivity index (IRI).

	M	DT
UWES	3.29	1.14
Vigour	3.54	1.18
Dedication	3.21	1.24
Absorption	3.12	1.08
RS	135.82	17.69
Self-esteem	36.18	5.92
Equanimity	19.41	2.95
Perseverance	35.57	6.58
Personal satisfaction	21.22	2.89
Existential aloneness	15.73	2.81
IRI		
Perspective taking	23.02	5.44
Fantasy	16.15	5.44
Empathetic concern	21.67	4.79
Personal distress	18.11	5.16

Table 2 (Continued) Mean scores and standard deviations obtained for engagement, resilience and empathy, according to gender and working conditions. Comparisons of means.

	Engagement			Resilience		
	$\bar{X}$	SD	*t*	$\bar{X}$	SD	*t*
Gender						
Female (n = 91)	3.32	1.09	.95	138.23	18.20	1.58
Male (37)	3.21	1.12		133.68	16.77	
Shift						
Fixed (n = 82)	3.49	1.08	2.22*	134.14	15.42	1.12
Rotating (n = 46)	3.09	1.04		137.49	16.58	
Work hours						
Full time (n = 55)	3.66	1.12	3.87**	137.96	15.25	.83
Part time (n = 73)	2.92	1.01		133.68	14.98	
Length of service						
< 10 years (n = 91)	3.57	1.09	3.13*	135.20	14.94	.48
> 10 years (n = 37)	3.01	1.02		136.44	15.27	

	Empathy											
	Perspective taking			Fantasy			Empathetic concern			Personal distress		
	$\bar{X}$	SD	*t*	$\bar{X}$	SD	*t*	$\bar{X}$	SD	*t*	$\bar{X}$	SD	*t*
Gender												
Female (n = 91)	22.14	4.92	1.04	18.22	5.02	2.04	24.18	4.98	3.47**	22.18	4.62	2.85*
Male (37)	20.72	4.58		16.51	4.99		20.67	5.10		17.35	4.75	
Shift												
Fixed (n = 82)	22.83	4.87	1.59	17.34	4.94	2.17	21.21	4.88	1.45	22.43	4.71	1.14
Rotating (n = 46)	23.15	4.63		15.97	4.85		21.44	5.04		21.44	4.69	
Work hours												
Full time (n = 55)	23.76	4.91	.85	17.89	4.93	2.27	22.92	4.93	1.54	21.35	4.73	1.04
Part time (n = 73)	23.81	4.64		16.01	4.87		21.96	4.98		20.04	4.58	
Length of service												
<10 years (n = 91)	22.10	4.44	.97	18.12	4.87	1.14	22.71	4.74	.87	18.44	4.73	3.74*
>10 years (n = 37)	22.87	4.72		17.33	4.61		22.94	4.98		22.57	4.98	

* $p > .01$.
** $p > .001$.

Discussion

The objectives of this paper included an analysis of levels of engagement, RS and empathy in a sample of nursing assistants from the private sector. And the relationships that these variables had with each other, and with other factors associated with the working organisation and conditions. Firstly, with regard to the potential relationship of occupational conditions such as length of service, shifts and working hours, in levels of engagement and RS, the results indicate an association with engagement, in the sense that workers who have been in the job for less than 10 years, who work fixed shifts and full time have the highest levels of engagement. These findings might be explained by the studies within the model of occupational demands and resources[28] used to predict burnout, organisational commitment and engagement. The results we found with regard to sex were diverse, some similar to the findings of this paper, in that the women achieved significantly higher scores than the men for fantasy, empathetic concern and personal distress.[29] Other studies indicate that women score higher than men in all the dimensions.[27] With regard to the number of years of experience, the results are contradictory; there are papers that conclude that this has no influence on levels of engagement,[2] while others find that it explains 4.8 (%) of the variance.[30]

Similarly, significant differences can be observed with regard to years in the job and personal distress. These results cannot be compared with previous research studies, since most concern burnout and compassion fatigue, neither term being conceptually comparable with engagement.

With regard to empathy, which includes cognitive and emotional factors, the results indicate that the sample of nursing assistants stand out for their higher scores in perspective taking and empathic concern. These results highlight, on the one hand, the attempts of these

Table 3 Correlations between engagement, resilience and empathy.

	UWES					
	Vigour		Dedication		Absorption	
	r	*p*	*r*	*p*	*r*	*p*
IRI						
Perspective taking	.055	.605	.019	.295	.445**	.001
Fantasy	.183	.282	.297	.075	−.254	.074
Empathetic concern	.015	.727	.086	.562	.155	.314
Personal distress	−.120	.306	−.371*	.007	.154	.325
RS						
Personal satisfaction	.340*	.005	.322*	.011	.401**	.001
Existential aloneness	−.204	.084	.280	.082	.125	.294
Self-esteem	.371*	.004	.415**	.001	.365**	.010
Equanimity	−.046	.815	.092	.754	−.271	.084
Perseverance	.397*	.003	.354*	.009	.299*	.009

* $p < .05$.
** $p < .001$.

professionals to adopt the viewpoint of others (in the working environment, and of the people under their care) and, therefore, that they experienced feelings of concern and compassion for the distress of others. Without doubt, of the 4 components of empathy that were evaluated, these are the most important and responsible for forming a mature empathetic response based on understanding of the other person and sharing their emotional state.[27] With regard to this aspect, other authors[31] reached similar conclusions on the perspective taking dimension, in a sample of 194 professionals (84 doctors, 54 nurses and 56 nursing assistants), finding that empathic concern scored normative values while perspective taking scored slightly higher than the normative values, and conversely in the case of personal distress.

With regard to the relationships between empathy and engagement, the results indicate that there is a relationship between the subscales of perspective taking and absorption and between personal distress and dedication, respectively. Similarly, as mentioned earlier, perspective taking is a cognitive factor of empathy, absorption is the corresponding cognitive component of engagement, understood as a state of raised concentration when performing tasks at work. The positive association found means that professionals with a greater capacity to adopt the point of view of others become more involved in their work and are able to maintain a greater state of concentration. By contrast, fantasy (people's capacity to imagine themselves in fictitious situations) which in some way implies a coping style that involves avoidance, bears no relationship with any of the components of engagement. Along these lines, there are contradictory results with regard to the role of fantasy and how it is linked with emotional contagion, as a potential risk as well as a protective factor.[32]

Meanwhile, we also found an association (negative, this time) between the emotional factors of both constructs (personal distress and dedication, respectively). In this case, the sense of relationship indicates that enthusiasm, considering work a challenge, does not necessarily result in engaging with the negative emotions of the people who are being cared for.

With regard to RS, understood as a multidimensional construct of personality, consistent with the results from other studies, most outstanding in this paper were the scores obtained in self-esteem and perseverance, and the relationships found between resilience and engagement, in such a way that the nursing assistants with strategies of resilience had more confidence in their own abilities to cope with adverse situations, which will result in a stronger feeling of wellbeing in general,[33] and at work in particular, and lead to higher levels of engagement, involvement and satisfaction with their job. These results coincide with those of other authors that highlight the positive association between RS and its beneficial effects on personal wellbeing.[34,35] Likewise, it was found that a personality that is both optimistic and resilient relates to engagement.[36]

Therefore, the most relevant conclusions of this paper are, on the one hand, the association found between engagement and some variables associated with the organisation of work and conditions at work such as length of service, work hours and work shifts, and on the other, the relationship between the cognitive and emotional components of engagement and empathy.

This study's main limitation resulted from the technique used for sampling. As with all non-probability techniques, the representativeness of the sample could not be guaranteed, nor the degree of precision established, therefore the generalisation of the results obtained is compromised. Furthermore, the descriptive methodology, although it enabled us to refer to a relationship between variables, did not enable us to establish causal relationships between them.

Finally, as lines for future research, it would be advisable to replicate this study increasing the number of participants and including nursing assistants from the public health sector. Thus, the results could lead to explanatory models that examine in depth the causal relationships between psychological variables such as engagement in this occupation. Without doubt, improved job satisfaction, as well as

contributing in general to the quality of life of nursing assistants, will also have a direct impact in improving the quality of care received by the patient.

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Conflict of interests

The authors have no conflict of interests to declare.

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