

Presenteeism in nurses: comparative study of Spanish, Portuguese and Brazilian nurses

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Aim: To compare presenteeism levels among three samples of nurses and to identify the relationship between presenteeism and sociodemographic and professional characteristics.

Background: Presenteeism (going to work ill) is a phenomenon studied from different perspectives, and it has become especially important during the current COVID-19 outbreak; its connection to high healthcare costs, patient safety breaches and negative nurse well-being has been proved.

Introduction: The nursing profession is particularly associated with caring for the culture of teamwork, loyalty to colleagues and professional identity. This condition enhances the ‘super nurse phenomenon’, even though nurses do not feel physically and psychologically able to work.

Methods: A multicentre, cross-sectional study was conducted in three different country contexts: Oviedo (Spain), Porto (Portugal) and São Paulo (Brazil). Nurses performing functions in hospitals and primary health care were enrolled. Informed consent and data collection questionnaires were hand delivered. The Stanford Presenteeism Scale-6 was applied.

Results: A total of 659 nurses participated. Portuguese nurses showed greater prevalence of presenteeism, followed by Brazilian and Spanish nurses. Younger nurses with less professional experience presented lower levels of presenteeism but greater psychological commitment. Male participants showed lower capacity to complete work when ill than female participants.

Conclusions: Age and length of professional experience proved to be significant predictors of total presenteeism, although only professional experience revealed statistical significance in the adjusted model.

Implications for Nursing and Health Policy: The knowledge of this phenomenon among nurses highlights the need for the development of strategies in the curriculum of nursing students and organizations. Resilience and ergonomic training should be applied in the training programmes of the students and reinforced by the health centre managers. It is essential that healthcare systems design worksite wellness programmes that pursue greater physical and mental well-being for healthcare professionals.

Keywords: Brazil, Comparative Study, Nurses, Nursing, Occupational Health, Portugal, Presenteeism, Psyc, Spain

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Introduction

Work and especially its contexts have been undergoing numerous changes. New models of management, scientific and technological progress, mobility and competitiveness are some of the factors that are reflected, among others, in workers' productivity and mental health (Aysun & Bayram 2017; Carvalho et al. 2017). Although work can be experienced positively, the literature has shown that workers tend to focus essentially on its negative impact (Areosa 2018).

As in many other professions, nurses experience periods of job instability due to precarious work, hourly overload and emotional demands and are susceptible to numerous risks, such as psychosocial and biological risks (Borges 2018; Carvalho et al. 2017). As a result of globalization and economic crises, these problems have worsened, and nurses from different countries, such as Spain, Portugal and Brazil, have shown cultural and linguistic proximity to common problems (Baladono et al. 2018; Borges 2018; Silva et al. 2016).

As a consequence of these poor working conditions, many workers have replaced absenteeism with presenteeism, which does not imply a reduction in remuneration. Presenteeism is defined by permanence in the workplace, despite workers evidencing physical or psychological disturbances in their performance (Johns 2011; Martinez & Ferreira 2012). This phenomenon has been studied from different perspectives, and its connection to higher healthcare costs, patient safety breaches and negative nurse well-being has been proved (Dietz & Scheel 2017; Rainbow & Steege 2017; Yang et al. 2018).

Background

Although the importance of health in the workplace has in recent years been given greater visibility and attention by organizations (Heuvel et al. 2018), and ensuring safety and health at work are one of the objectives of the International Labor Organization (2017), currently there is a prevailing need motivated by the COVID-19 crisis. The International Council of Nursing has confirmed that nurses are front-line workers who are more affected by the pandemic than are other medical staff, with 260 professionals already deceased for this reason (ICN, 2020). Not only do they have new or exacerbated physical symptoms during this crisis, they also experience high levels of depression and anxiety (Chew et al. 2020; Zhang 2020). According to Ellis & Pompili (2002), different factors intervene in work contexts and can be grouped into organizational (e.g. environment, work scheduling and work content) and individual (e.g. personality traits and career development stages) factors, and they can be accentuated in a sanitary emergency of the magnitude of COVID-19.

The phenomenon of presenteeism presented by Hemp (2004) as well as other authors (Letvak et al. 2012; Martinez & Ferreira 2012) is fundamentally associated with workers who are affected by presenteeism in their work position. However, according to Johns (2009), we can find two perspectives (North American and European) in the literature, although different, they have contributed to greater visibility of the concept. The American view is associated with economic issues (paying more attention to the impact of presenteeism on productivity), while the European view is associated more with the consequences that it can have for the health and well-being of workers.

Of the different existing theoretical models on the phenomenon of presenteeism, the job demands–resources (JD-R) model argues that, while all professions may have their own risk factors associated with work stress, these can be grouped into two main categories: job demands and job resources (Bakker & Demerouti 2007). Johns (2009) also presented a dynamic model of presenteeism and absenteeism, pointing to the presenteeism resulting from a health event.

Factors such as work overload, interpersonal relationships and physical and ergonomic conditions have been identified as causes of occupational stress, which, due to their consequences, can affect workers' performance physically or psychologically and can even lead them to leave the workplace (Santana et al. 2016; Vieira et al. 2016). Although it may be present in different professions, presenteeism has a higher incidence in those professions associated with education and health (Brborovic et al. 2016; Rainbow & Steege 2017; Yang et al. 2018).

Presenteeism in nurses

As a relatively new concept, presenteeism is of growing interest, particularly for nurses (Aronsson et al. 2000). The nursing profession, which is particularly associated with caring for the culture of teamwork, loyalty to colleagues and professional identity (Johns 2009), enhances the 'super nurse phenomenon' (Rainbow & Steege 2017), even though nurses do not feel physically and psychologically able to work.

As a research subject in different countries (Al Nuhait et al. 2017; Aysun & Bayram 2017), presenteeism has antecedents, such as stress, health problems and professional identity, as well as consequences for workers, namely increasing the cost of health care, reducing the quality of care and health problems (Rainbow & Steege 2017).

In Spain, Portugal and Brazil, nurses face similar problems: a shortage of human and material resources, poor working conditions, physical and psychological demands, labour insecurity and turnover (Borges 2018; Sánchez-Zaballos et al.

2018; Santos et al. 2018). These factors increase the occurrence of presenteeism. Santos et al. (2018) identified the prevalence of presenteeism among nursing professionals as a reduction in performance by manifesting muscular–skeletal lesions, which are associated with diminution of concentration. According to Sánchez-Zaballos et al. (2018), healthcare professionals present a prevalence of presenteeism of 52%.

Barbosa (2016) identified a presenteeism prevalence of 91.4% in nurses, showing more psychological than physical involvement. Borges et al. (2017) identified low values of presenteeism among nurses, with concentration difficulties at work revealing higher psychological commitment. On the part of organizations, nurses should receive particular attention in the context of intervention strategies that respond to this phenomenon and promote a healthy work environment, as recommended by the World Health Organization (2010).

Thus, the consequences of presenteeism for the health of nurses and the quality of care make it necessary to deepen the knowledge of this phenomenon and compare its characteristics in different contexts.

Aim of the study

This study, integrated into an international occupational health (INT-SO) project (From Work Contexts to the Occupational Health of Nursing Professionals, a Comparative Study Between Portugal, Brazil and Spain), aims to compare presenteeism levels among three samples of nurses (from Oviedo, Spain; Porto, Portugal; and São Paulo, Brazil) and to identify the relationship between presenteeism and sociodemographic and professional characteristics.

Methods

Design and settings

We carried out a multicentre cross-sectional study from January 2016 to September 2107.

Sample

The study was conducted with nurses who worked in three different countries (Portugal, Brazil and Spain) and performed functions in hospitals and primary health care. Verbal consent was obtained from all the participants, and the procedures were conducted in line with the guidelines of the Declaration of Helsinki. The inclusion criteria were being a nurse, taking care of medical patients and agreeing voluntarily to participate. Nursing assistants were included in the sample from Brazil, as they performed functions and competences equivalent to those of nurses in Portugal and Spain. Those

healthcare professionals who were not involved in direct patient care (supervisors, managers, et al.) were excluded.

Instrument

An anonymous questionnaire with a sociodemographic and professional characterization was applied. It included the Stanford Presenteeism Scale (SPS-6), which comprises six items evaluated through a Likert scale (from 1 = totally disagree to 5 = totally agree) and was used to evaluate presenteeism in the versions of each country (Baldonado-Mosteiro et al. 2019; Ferreira et al. 2010; Koopman et al. 2002; Paschoalin et al. 2013). The participants responded to the items that they have experienced in the last month, even working with health problems. SPS-6 allows the overall evaluation of presenteeism (the total score of the instrument with all six items) and two different dimensions: completed work (CW; items 2, 5 and 6) and avoided distraction (AD; items 1, 3 and 4). The CW dimension refers to the amount of work performed by workers when they are under the influence of the causes of presenteeism (Ferreira et al. 2010), and the AD dimension refers to the concentration capacity demonstrated by workers before experiencing symptoms of presenteeism (Ferreira et al. 2010). According to Koopman et al. (2002), CW is manifested through physical causes and AD is associated with psychological causes.

To calculate the total score, it is necessary to invert the items of the AD dimension, and all the scores are calculated considering the average of the items. Higher values are associated with more presenteeism, which corresponds to a better psychological state of the worker, meaning that workers, despite health problems, are being effective in their tasks (Koopman et al. 2002).

Procedures for data collection

After obtaining approval from all the ethics committees involved, we contacted the institutions where the nurses worked, which provided us with formal authorization. All the nurses who met the inclusion criteria were invited to participate in the study. After receiving participants' verbal informed consent, a single researcher in each country personally handed out and collected the questionnaire. To ensure privacy and confidentiality, all the nurses were reminded about the anonymous character of the questionnaire, and a closed box was placed in each centre to facilitate collection. To allow comparisons, the same procedures were used in all the countries.

Statistical analyses

The analyses were performed using SPSS v24 IBM software, and a significance level of 0.05 was considered in all the

analyses. Descriptive data analysis was performed using the absolute and relative frequencies, mean and standard deviation or median and interquartile range. The comparison of the characteristics of the participants according to the country was made using the chi-square test and the ANOVA. The Scheffe test was performed to carry out multiple comparisons of the ANOVA.

For the identification of potential predictors of the quantitative-dependent variables under analysis and with normal distribution, mixed linear models were used, considering the country as a random effect (given the multilevel nature of the study). In the first approach, univariate models were used, and the multivariate model was elaborated, considering all the independent variables (except for the 'local' and 'professional category' variables, since the data were not available for all the countries). Finally, we tested the country's interactions with the independent variables that proved to be significant.

Ethical approval

The study was previously approved by the Regional Clinical Research Ethics Committee of the Principality of Asturias (102/15), the Ethics Committee of the Porto Nursing School (8/2016) and the Ethics Committee of the School of Nursing and University Hospital of the University of São Paulo (1262482_E1).

RESULTS

A total of 659 nurses participated (response rate: 62.81%), of which 134 nurses were from Oviedo, Spain; 388 nurses were from Porto, Portugal; and 137 nurses were from São Paulo, Brazil. Of the total number of participants, 82% were female, with a mean age of 37.4 years (SD 9.1 years); 57% had a partner; 72% performed functions in a hospital context; 58% worked rotating shifts; and 52% had work experience of less than 13 years (mean 13.7 years, SD 8.5 years).

To perform the comparative analyses with adjusted models for the results of presenteeism, it was necessary to know the sociodemographic and professional variables in total and by country. We verified the existence of statistically significant differences between countries for all the variables analysed except marital status (Table 1). Thus, Portugal presented a higher percentage of men, and the average age of the participants was lowest in Portugal and highest in Brazil. There were no nurses who worked in health centres in Spain, and nurses in Brazil worked only in a hospital. Almost all of the participants in Spain had rotating shifts, and all of the participants in Brazil had fixed shifts. The participants in Brazil had more professional experience than the other cohorts. The prevalence of presenteeism among Portuguese nurses (55%) was higher than that among Brazilian (36%) and Spanish (30%) nurses.

Table 1 Sociodemographic characteristics of the study sample (in total and by country)

	<i>Total</i>		<i>Portugal</i>		<i>Spain</i>		<i>Brazil</i>		P
	n	%	n	%	n	%	n	%	
Total	659	100	388	58.9	134	20.3	137	20.8	
Gender									
Male	118	17.9	89	22.9	15	11.2	14	10.2	<0.001
Female	541	82.1	299	77.1	119	88.8	123	89.8	
Age, mean (SD)	37.4 (9.1)		35.1 (8.5)		40.3 (9.0)		41.1 (8.8)		<0.001
Marital status									
No partner	286	43.4	181	46.6	51	38.1	54	39.4	0.128
With partner	373	56.6	207	53.4	83	61.9	83	60.6	
Workplace									
Hospital	471	71.5	229	59.0	105	78.4	137	100	<0.001
Primary care	109	16.5	109	28.1	0	0.0	0	0.0	
Other	79	12.0	50	12.9	29	21.6	0	0.0	
Shift									
Fixed	277	42.0	133	34.3	7	5.2	137	100	<0.001
Rotating	382	58.0	255	65.7	127	94.8	0	0.0	
Professional experience									
<13 years	345	52.4	236	60.8	56	41.8	53	38.7	<0.001
≥13 years	314	47.6	152	39.2	78	58.2	84	61.3	

Total presenteeism

In the total sample, Cronbach's alpha of the SPS-6 was calculated, obtaining values of 0.711 for the global scale, 0.671 for CW and 0.770 for AD. The total mean score of the SPS-6 for the complete sample was 20.23 (SD 4.44). Regarding the Likert point scale, the mean was 3.36 (SD 0.74) (Table 2). Portuguese nurses had a higher score, and statistically significant differences between the countries were found (Table 2). Considering the multiple comparisons, although the countries are different from each other, the global difference was not significant (Table 3).

Through the analysis presented in Table 3, it is possible to verify that the variables of age and professional experience were significant predictors of total presenteeism, but only professional experience maintained its significance in the adjusted model. The participants with less professional experience presented a lower level of presenteeism than the participants with more professional experience, controlling for the remaining variables. There was no statistically significant interaction between country and work experience.

Completed work

Using multiple comparisons, we can verify that only Portuguese and Brazilian nurses showed inter-variable differences in the CW dimension (Table 2). Gender and professional experience were predictive factors of the CW dimension (Table 3), maintaining a statistically significant variable only for gender in the model that was not adjusted. Male participants showed lower CW scores than female participants, controlling for the remaining variables. There was no statistically significant interaction between country and gender.

Avoided distraction

Regarding the AD dimension (Table 2), Spaniards and Brazilians were no different (i.e. only nurses from Portugal

were distinguished from those in the other two countries). The variables of age and professional experience (Table 3) were significant predictors of AD, remaining significant in the model adjusted to the professional experience variable. The participants with less professional experience presented a higher score than those with more professional experience, controlling for the remaining variables. Testing the interaction between the country and the professional experience variable showed that there was no statistically significant interaction.

Discussion

Our research consisted of a comparative study of presenteeism in nurses from three different countries. Although we did not find any previous literature focused on this type of association, this phenomenon has been studied among nurses from different contexts (Brborović et al. 2017; Dietz & Scheel 2017; Rainbow & Steege 2017; Yang et al. 2018). In addition, Portuguese (Laranjeira 2013; Martinez & Ferreira 2012), Spanish (Revuelta Reyes 2014) and Brazilian (Paschoalin et al. 2013; Santos et al. 2018) researchers have found significant prevalence of presenteeism in these professionals. Moreover, our sample showed rates similar to other studies that established prevalence between 30% and 68% (Graf et al. 2016; Skerjanc & Fikfak 2020) and a mean score comparable with our results (Santos et al. 2018).

According to the results, there were no significant differences in the multiple comparisons among the three countries. However, Portugal differs from the other countries, with nurses showing moderate levels of presenteeism with greater psychological impairment, a result that is corroborated by studies undertaken by Borges et al. (2017) and Martinez & Ferreira (2012). However, some studies have identified higher physical as well as psychological impairment of nurses (Letvak et al. 2012; Umann et al. 2012).

Table 2 Comparative analyses of total presenteeism and dimensions by country

	<i>Total Mean (SD)</i>	<i>Portugal Mean (SD)</i>	<i>Spain Mean (SD)</i>	<i>Brazil Mean (SD)</i>	<i>P</i>
Total SP6-6					
Completed work	11.86 (2.34)	11.50 (2.12)	12.31 (2.41)	12.36 (2.75)	0.002
Avoided distraction	9.64 (3.21)	9.15 (3.02)	10.20 (3.27)	10.46 (3.51)	<0.001
Total presenteeism	20.23 (4.44)	20.37 (4.37)	20.11 (4.34)	19.90 (4.88)	0.041
Likert points in SPS-6					
Completed work	3.93 (0.78)	3.85 (0.72)	4.01 (0.79)	4.10 (0.91)	0.002
Avoided distraction	3.22 (1.07)	3.01 (1.02)	3.50 (1.01)	3.52 (1.13)	<0.001
Total presenteeism	3.36 (0.74)	3.42 (0.74)	3.23 (0.67)	3.29 (0.79)	0.041

Table 3 Univariate models and adjusted models for total presenteeism, completed work and avoided distraction

	<i>Not adjusted</i>		<i>Adjusted</i>	
	<i>Coefficient (ep)</i>	P	<i>Coefficient (ep)</i>	p
Total presenteeism				
Country				
Portugal	0.132 (0.736)	0.858	0.197 (0.733)	0.788
Spain	−0.029 (0.738)	0.969	−0.025 (0.737)	0.973
Brazil	0	—	0	—
Gender				
Male	−0.100 (0.075)	0.184	−0.098 (0.075)	0.193
Female	0	—	0	—
Age	0.010 (0.003)	0.002	0.002 (0.005)	0.668
Marital status				
Without partner	−0.075 (0.058)	0.197	−0.020 (0.060)	0.735
With partner	0	—	0	—
Workplace				
Hospital	−0.031 (0.090)	0.733		
Primary care	0.079 (0.110)	0.476		
Other	0	—		
Shift				
Fixed	0.066 (0.068)	0.334	−0.004 (0.079)	0.955
Rotating	0	—	0	—
Professional experience				
<13 years	−0.217 (0.058)	<0.001	−0.187 (0.090)	0.038
≥13 years	0	—	0	—
Random effect	0.538 (0.030)	<0.001	0.529 (0.029)	<0.001
Completed work				
Country				
Portugal	−0.249 (0.781)	0.750	−0.187 (0.783)	0.811
Spain	−0.084 (0.783)	0.915	−0.073 (0.787)	0.926
Brazil	0	—	0	—
Gender				
Male	−0.169 (0.080)	0.035	−0.159 (0.080)	0.048
Female	0	—	0	—
Age	0.008 (0.003)	0.026	0.004 (0.005)	0.424
Marital status				
Without partner	−0.079 (0.061)	0.198	−0.048 (0.064)	0.458
With partner	0	—	0	—
Workplace				
Hospital	−0.057 (0.097)	0.556		
Primary care	−0.017 (0.118)	0.887		
Other	0	—		
Shift				
Fixed	0.079 (0.074)	0.284	0.005 (0.084)	0.954
Rotating	0	—	0	—
Professional experience				
<13 years	−0.126 (0.062)	0.041	−0.041 (0.096)	0.670
≥13 years	0	—	0	—
Random effect	0.606 (0.033)	<0.001	0.603 (0.033)	<0.001

Table 3 Continued

	Not adjusted		Adjusted	
	Coefficient (ep)	P	Coefficient (ep)	p
Avoided distraction				
Country				
Portugal	−0.512 (1.045)	0.624	−0.575 (1.042)	0.581
Spain	−0.022 (1.047)	0.983	−0.012 (1.047)	0.991
Brazil	0	–	0	–
Gender				
Male	0.044 (0.107)	0.680	0.032 (0.107)	0.304
Female	0	–	0	–
Age	−0.013 (0.005)	0.004	0.000 (0.007)	0.995
Marital status				
Without partner	0.077 (0.082)	0.347	−0.005 (0.085)	0.950
With partner	0	–	0	–
Workplace				
Hospital	−0.013 (0.130)	0.922		
Primary care	−0.135 (0.159)	0.394		
Other	0	–		
Shift				
Fixed	−0.082 (0.105)	0.435	0.021 (0.112)	0.849
Rotating	0	–	0	–
Professional experience				
<13 years	0.322 (0.082)	<0.001	0.332 (0.128)	0.010
≥13 years	0	–	0	–
Random effect	1.085 (0.060)	<0.001	1.067 (0.059)	<0.001

In the current study, age and length of professional experience proved to be significant predictors of total presenteeism, although only professional experience revealed statistical significance in our adjusted model. Younger nurses with less professional experience presented lower levels of presenteeism but greater psychological commitment. Thus, the working behaviour of nurses with fewer practical skills can be considered to pose a risk of negative consequences for workers' health. Our results support the findings of other researchers (D'Errico et al. 2013) but disagree with those of Yang et al. (2018), whose study identified younger professionals as showing greater presenteeism. Consequently, further research should be conducted to investigate and clarify the relationship between presenteeism and work experience.

The male participants in our study showed lower values for CW. Studies by Aronsson & Gustafsson (2005), Aronsson et al. (2000), Laranjeira (2013), Martinez & Ferreira (2012), Queiroz-Lima et al. (2016) and Santos et al. (2018) indicated greater prevalence of presenteeism in females, but no differences in gender related to CW have previously been demonstrated.

The reasons for presenteeism in healthcare workers should be studied in greater depth; according to the literature, a feeling of duty to the patients and a desire not to incur repercussions from the leadership or co-workers have been established as explanations for workers choosing to work despite being ill (Chambers et al. 2017; Wilson et al. 2019). It is possible that the current high healthcare pressure resulting from the COVID-19 crisis influences the phenomenon of health professionals working in poor conditions; thus, specific variables related to presenteeism motivations should be included in future investigations. Several strategies have been identified to lower the high levels of presenteeism, including educational and organizational actions (Grimani et al. 2019; Johnson et al. 2015).

Study limitations

The design of the study (cross-sectional) can be considered a limitation; thus, we advocate the development of longitudinal studies in different work contexts. More variables related to workers' health conditions (such as mental health, chronic/acute illness or occupational disease) might be included in

future research to analyse the possible relationships and negative consequences for nurses.

Conclusions

The results allow us to confirm that 30–35% of nurses in Brazil, Portugal and Spain work while they are ill, with Portugal showing a higher prevalence. The variables of age and professional experience in our study were significant predictors of total presenteeism and concentration capacity, demonstrated with symptoms of presenteeism (AD). On the other hand, male participants had a lower capacity to complete their work when under the influence of the causes of presenteeism (CW). According to the multiple comparisons, the countries differ in total presenteeism and in its dimensions. In addition, there were no statistically significant interactions among country, gender and professional experience.

Implications for nursing and health policy

Protecting nurses' health has turned into an extreme need during the last few months. The magnitude of the COVID-19 outbreak involves thousands of people sick and hospitals overwhelmed. Nurses are not only at high risk of contracting the infection, but they also suffer from mental health disorders related to this emergency (Huang et al. 2020). Nurses' professional commitment in this crisis needs to be noticed by health care administrators, and taking care of their physical and mental health is essential (Catton 2020).

The knowledge of presenteeism among nurses in the three countries allows the development of strategies in the curriculum of nursing students and organizations. Resilience and ergonomic training should be applied in the training programmes of the students and reinforced by health centre managers, seeking a multidisciplinary point of view in which other professionals provide tools for their development.

Additionally, it is essential that health systems carry out systematic assessment of workers' well-being status that can indicate the health status of workers, and it is necessary to design worksite wellness programmes to pursue greater physical and mental health of health professionals. Furthermore, being aware of the presenteeism levels among nurses in organizations can allow the implementation of individual and group strategies to reduce nurses' negative well-being and avoid adverse events for patients. Therefore, there is a need to promote networked research partnerships.

For all of these efforts, a real engagement of leaders and supervisors is required, as nurses are essential figures in strategic positions of health policy.

Authorship contributions

Study design: EB, MPMD, PB, MA, CQ, VF, MB, MSZ

Data collection: MB, MSZ, FB, SC

Data analysis: CQ, EB

Study supervision: MPMD, EB, PB, VF, MA

Manuscript writing: MPMD, MB, MSZ, SC, CQ

Critical revisions for important intellectual content: MPMD, EB, CQ, MA, PB, VF.

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