

ORIGINAL ARTICLE

Factors in the drop in the migration of Spanish-trained nurses: 1999–2007

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Aim: To reveal correlates of the decrease of Spanish nurse migration (1999–2007).

Background: Nursing outmigration is a concern for countries. Nurse migration from Spain began in the 1990s.

Introduction: From 1999 to 2007, the yearly number of migrations dropped significantly. We ask what social, economic and policy factors could be related to this drop.

Methods: We used publicly available statistics to confirm hypothesis (1) The drop in nursing migration coincided with a drop in nursing unemployment. Then we hypothesized that this coincided with (1a) a decrease in the number of graduates, (1b) an increase in the number of hospitals and/or beds functioning, and/or (1c) an increase in the ratio of part-time contracts.

Results: Our analysis confirms hypotheses (1) and (1c) and disconfirms (1a) and (1b).

Conclusion: The greater availability of part-time contracts seems to have encouraged nurses to remain in Spain.

Implications for Nursing Management: The strategy to reduce nursing unemployment with more part-time contracts, while temporarily successful in Spain, brings with it major challenges for patient care and the working life of nurses. We suggest that nurse leaders and health policymakers consider proactive policies to adjust the balance between supply and demand without decreasing the quality of available positions.

KEYWORDS

Europe, labour market, migration, mobility, nurses, policy, Spain, work conditions

1 | INTRODUCTION

The sustained global shortage of health workers, caused by the unresolved labour market gap between supply and demand, leads migrants to seek better wages and living conditions, often moving from lower to higher income countries (Dywili, Bonner, & O'Brien, 2013; Kingma, 2007; Salami, Nelson, Hawthorne, Muntaner, & McGillis Hall, 2014). Migration of nurses in particular tends to be cyclical, linked to national policies that impact hiring budgets and fluctuations in education spending (Organization for Economic Cooperation and Development (OECD) 2015).

We examine Spain's drop in nursing migration in order to try to uncover related factors, with the hope that the results could be extrapolated to other countries experiencing nursing emigration. In the case of Spain, nursing migration began some time in the 1990s. There are, however, no direct statistics available on the number of Spanish nurses migrating to other countries. Despite the lack of specific data on the migration of nurses, we have been able to develop a proxy for migration by taking advantage of the fact that nurses wishing to work in other European Union or European Economic Area countries (Ministry of Education, Culture and Sports (MECD) Statistical Education Indicators

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(SEI) 2015) are required to have their credentials validated by MECD (according to Directive 2005/36/EC and formerly Directive 89/595/EEC). Beginning in 1997, the Ministry began to keep records on these applications, and these records allow us to have approximate figures on the number of nurses who commenced the migration process.

2 | BACKGROUND

2.1 | Spanish nurse migration

Since the 1990s, nurses have emigrated from Spain to work in other countries, and, as we have found recently, this phenomenon has increased since the beginning of the global economic crisis in 2009 because of various factors such as the changes suffered by the National Health System that affected human resources; the reduction in the occupation of hospital beds; public expenditure also decreased and nurses were also negatively impacted by the changes introduced in the labour market (Galbany-Estragués & Nelson, 2016).

Between 1995 and 2007, Spain underwent a period of significant economic growth that generated employment rates above the European Union (EU) average. The country thus attracted immigrant workers from around the world, and from 2001 to 2008, Spain experienced the world's second-highest rate of immigration, only surpassed by the USA (Palma Martos & Martín Navarro, 2010). However, despite the overall context of significant immigration, in 1999, 2,856 nurses educated in Spain requested validation of their qualifications in order to emigrate (MECD SEI, 2015). Commencing in the early 2000s, international mobility, especially towards European countries, allowed Spanish-trained nurses to find work abroad (Dumont & Zurn, 2007).

Between 1999 and 2007, 13,546 Spanish-trained nurses¹ applied for credential validation² in order to migrate and work in another European country. Between 1999 and 2004, the number of nursing validations widely exceeded the number of validations for other health professions. However, this difference later shrank drastically. The period 2005–2007 shows a reduction in the number of nursing validations, to the same level as that of pharmacists, although above that of doctors. However, coinciding with the beginning of the crisis in Spain, a slight increase in intent to migrate was reported during the period 2007–2008, from 275 to 327 validations. Figure 1 reports the official declarations of intent to migrate, the number of people who applied to receive an accreditation of their studies to migrate to another European country between 1999 and 2007. These data can tell us how many nurses seriously contemplated emigrating; our operating assumption is that many – though not all – of these nurses later migrated. Total nurse migrations are likely higher because nurses who migrated to work as nursing assistants were not required to have their degrees validated and therefore are not reflected in these figures.

Although the total number of nurses who emigrated from Spain is unknown and not all OECD countries provide data on nursing

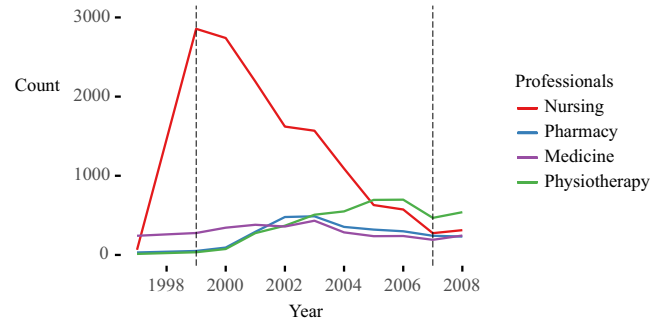


FIGURE 1 Number of official declarations of intent to migrate [Colour figure can be viewed at wileyonlinelibrary.com]

migration, according to available OECD data, the main destinations of Spanish-trained nurses were Portugal (a cumulative 1,545 Spanish trained nurses working in 2002 and 1,362 in 2007), France (511 in 2002 and 1,147 in 2007), Italy (213 in 2002 and 489 in 2007) and Belgium (29 in 2002 and 53 in 2007).³ Although England is one of the main destinations of Spanish nurses, the exact number of nurses who migrated to this country between 1999 and 2007 is unknown (Plotnikova, 2011).

2.2 | Factors facilitating emigration of Spanish trained nurses

Changes in education policy, international relations and the labour market facilitated the migration of nurses to work in other European countries, beginning in the 1990s.

2.2.1 | Education policy

During the 36 years of the Franco dictatorship, which ended in 1975, nursing studies underwent significant modifications that were out of step with professional developments elsewhere, resulting in limited mobility for Spanish-trained nurses. For instance, in 1953, the titles of 'nurse' (enfermera) and 'midwife' (matrona) were downgraded to 'Assistant Health Technician' (Ayudante Técnico Sanitario, ATS). Training for this new role was technically rather than professionally focused and took place at designated ATS schools rather than nurse and midwifery schools. With this highly specific kind of education, Spanish nurses were unattractive to the foreign labour market and mobility was negligible. With democratization, following a long period of negotiations, nursing studies and the associated qualifications were re-established across Spain and moved to the university level in 1977, with the 'diploma in nursing' established as the entry to practice credential (Miró, Gastaldo, Nelson, & Gallego, 2012). This diploma was a 3 year, 4,600 hour programme. The qualifications and titles of 'nurse' and 'midwife' were restored, and that of 'specialist nurse' was established in 1987. During the 1990s, the education of nurses

¹This figure does not include the 20 midwives that requested validation during this period.

²The validation of the studies is a simple and free administrative procedure. In 1997, 65 Spanish-trained nurses applied to have their credentials validated, in compliance with the EU directive, in order to work outside of Spain. No MECD records are available for 1998. From 1999, yearly records have been kept.

³OECD/Eurostat/WHO-Europe joint questionnaire 2015. Information provided by Mr Gaetan Lafortune.

incorporated the Alma Ata Conference recommendations, placing emphasis on primary health care, geriatric nursing and behavioural sciences (Zabalegui & Cabrera, 2009). These changes made migration feasible for nursing graduates because their qualifications were on a par with those of nurses trained elsewhere in Europe.

2.2.2 | International relations

The creation of the EU and the implementation of common regulations and currency had a profound impact on labour mobility within the European Economic Area (Buchan, Glinos, & Wismar, 2014). The mobility of health workers within Europe has been facilitated since the 1970s by the implementation of the recognition of qualifications under the OECD (OECD 2015). Spain joined the European Economic community in 1986.

During the 1990s, the Bologna Declaration promoted the free movement of workers by introducing a European Area of Higher Education (Zabalegui & Cabrera, 2009). During this period, European directives increased worker mobility across European borders (for example, Official Journal of the European Union (OJEU) L 341 23 November 1989, OJEU L 255/22 7 September 2005).

The most significant treaties and agreements regarding the free movement of persons within the EU and that have directly affected the mobility of Spanish nurses are: The Single European Act (1986), which implemented an internal market, and the Schengen Area (1985, signed by Spain in 1991), which established the free movement of persons across member state borders (European Legal Legislation (ELL) 2016a, 2016b). These developments meant that Spanish nurses, who after 1977 had university nursing qualifications, could ask for the validation of their studies in order to work in another European country.

2.2.3 | Labour market

Number of job seekers: In 1999, the rate of unemployment for nurses in the OECD countries was insignificant or non-existent, except for Spain, where the rate of unemployment in nursing amounted to 7.66% (OECD, 2004). Public Employment Services (SEPE) from Spain shows that on 1 January 2000 there were 17,922 nursing job seekers in Spain (Figure 2).

The culture of precarious work: During the 1980s, Spanish employment policies shifted in order generate jobs in view of the high unemployment rate, and to align legislation with the European requirement to introduce more flexibility into the economy (Ortiz García, 2013). The legislative changes paved the way for temporary contracts or fixed-term contracts (Miguélez & Prieto, 2008). These contracts became commonplace, creating a so-called 'culture of the precarious' (Ortiz García, 2013). Workplace precariousness includes unemployment, short-term contracts, part-time contracts and low pay (Alcañiz Moscardó, 2015; Pyöriä & Ojala, 2016) and have been described as working conditions that carry the constant threat of termination (Pyöriä & Ojala, 2016). Work by Casanovas, Escudero Rodríguez, and Esteve (2004) and Casanovas et al. (2006) demonstrates that the

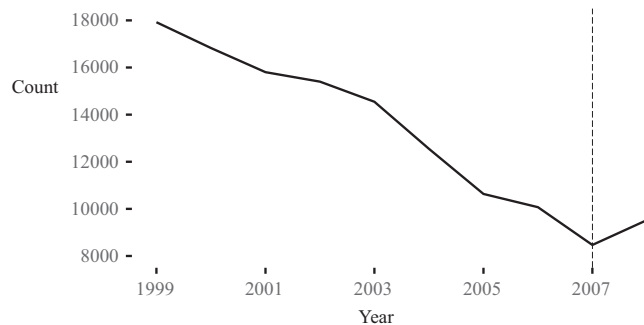


FIGURE 2 Number of job-seeking nurses in Spain

labour market insertion for nursing students who graduated in 1999–2000 was high and the period they took in finding the first job was very short. However, after 4 years of their graduation, labour insertion working conditions remained unstable and precarious.

Emigration provided a solution to the unemployment rate of Spanish nurses. Commencing in 2000, in order to facilitate the mobility of Spanish nurses, the Ministry of Health signed agreements with the governments of the United Kingdom and France and made more informal arrangements with Italy (Dumont & Zurn, 2007; Plotnikova, 2011). England and France offered very attractive work contracts, such as, permanent contracts or a term of at least 2 years, including holidays, language classes and 6 months accommodation financed by the institution (Government of France, 2004; Plotnikova, 2011).

Given these factors encouraging migration we wondered why nursing migration to Europe fell steadily from 1999 to 2007. While several studies describe the experiences of Spanish trained nurses working abroad (Baganha & Ribeiro, 2007; Darriba Rodríguez, 2010; Masanet Ripoll, 2010; Ruzafa-Martínez, Madrigal-Torres, Valendrin-Nicolás, & López-Iborra, 2008), there are no studies explaining this drop. Therefore we aimed to identify factors related to this drop in Spanish nursing migration over this period.

3 | METHODOLOGY

3.1 | Design

We formulated a primary hypothesis and then three secondary hypotheses and tested them using publicly available statistics:

Hypothesis (1): The drop in nursing migration coincided with a drop in nursing unemployment in Spain.

When our initial results confirmed this hypothesis, we tested three secondary hypotheses about factors potentially related to these parallel drops:

Hypothesis (1a): The drops coincided with a decrease in the number of nursing graduates.

Hypothesis (1b): The drops coincided with an increase in the number of hospital beds functioning and/or of hospitals.

Hypothesis (1c): The drops coincided with an increase in the ratio of part-time nursing contracts.

3.2 | Data

In order to test our hypotheses, we used published statistics that enabled us to reconstruct patterns related to each hypothesis during the study period, 1999–2007. Table 1 shows the data analysed for each hypothesis. All data were obtained from publicly available websites between June 2015 and February 2017.

3.3 | Ethical consideration

No formal ethical scrutiny was required or undertaken.

3.4 | Analysis

We present quantitative data in time series in order to illustrate trends visually. The data were processed in R with the integrated development environment RStudio and translated to graphics with R's ggplot2 package.

3.5 | Rigour and trustworthiness

We triangulated data from multiple sources to ensure validity, and the two authors jointly arrived at an interpretation of the data. Additionally, an outside expert was consulted in order to validate our methodology. We followed Yin (2014) in accomplishing rigour through adherence to protocol and well-structured procedures for data analysis.

TABLE 1 Data analysed for each hypothesis

Hypothesis	Institution	Area	Search term
Hypothesis (1)	National Institute of Statistics (INE) <i>Instituto Nacional de Estadística</i> (INE) EPSC (2015) The Organization for Economic Cooperation and Development (OECD) Ministry of Employment and Social Security (MESS) <i>Ministerio de Empleo y Seguridad Social</i> (MESS)	Registered Health Professional Statistics (INE, EPSC) Health Statistics 2015 (OECD) Public Employment Service (SEPE)	Registered nurse (INE) Professionally active nurse (OCDE) Registered inactive nurse (INE and OCDE) Job-seeking nurse (MESS)
Hypothesis (1a)	Ministry of Education, Culture and Sports (MECD) <i>Ministerio de Educación Cultura y Deporte</i> (MECD)	Integrated University Information System (SIIU) from MECD, and Statistical Education Indicators. The figures of education in Spain (MECD, SEI)	Nursing graduates
Hypothesis (1b)	Ministry of Health, Social Services and Equality (MSSSI) <i>Ministerio de Sanidad, Servicios Sociales e Igualdad</i> (MSSSI)	Information System of the National Health System (MSSSI, SISSNS)	Number of hospitals and number of beds functioning
Hypothesis (1c)	Ministry of Health, Social Services and Equality (MSSSI) <i>Ministerio de Sanidad, Servicios Sociales e Igualdad</i> (MSSSI)	Information System of the National Health System (MSSSI, SISSNS)	Part-time and full-time nursing contracts in hospitals

4 | RESULTS

4.1 | Hypothesis 1: The drop in nursing migration coincided with a drop in nursing unemployment in Spain

In order to answer this question, we drew creatively on several databases that use different terminology. We begin with a definition of these categories:

- Registered nurse: The National Institute of Statistics (INE, EPSC) keeps figures on the number of nurses members in Spain's nurses' guild or college.
- Professional active nurse: The Organization for Economic Cooperation and Development (OECD) keeps figures on practising nurses and other professionals whose employment requires a professional nursing degree.
- Registered inactive nurse: By subtracting the number of registered nurses from the number of professional active nurses, we extrapolated this category, which covers registered nurses that are unemployed, registered but retired nurses, registered nurses working in roles that do not require formal nursing qualifications, and registered nurses working abroad.
- Job-seeking nurse: The Ministry of Employment and Social Security (MESS) keeps figures on nurses who have registered as seeking nursing employment.

4.1.1 | Registered inactive nurses

During the period 1997 to 1998, the number of registered inactive nurses expanded from 40,810 to 51,498 (Figure 3). In other words, Spain's number of inactive nurses grew by nearly 11,000

in only 1 year. If we take as a reference the number of nursing graduates in 1998, which was 8,041, and compare this number with the increase in registered inactive nurses from 1997 to 1998 (10,688), it suggests that a cohort of graduate nurses would have been unemployed at the end of their studies during that period. The peak in the number of registered inactive nurses occurred in 1999, with 52,673. Following 1999, the number dropped and, in the year 2000, it returned to the 1998 level of 51,752 registered inactive nurses. During 2001, 2002 and 2003, this number decreased drastically, to 29,302, when it remained relatively constant until 2006, reaching 29,217. It then dropped steeply and levelled out at 24,157 registered inactive nurses in 2007 (Figure 3). Overall, these figures show a drop in registered inactive nurses during the study period.

4.1.2 | Job-seeking nurses

Another way to measure nursing unemployment is through figures on job seekers. Figure 2 shows data from the MESS's Public Employment Services (SEPE) between 1999 and 2007. On 1 January 2000 there were 17,922 people seeking nursing jobs in Spain. This figure dropped year after year until 2007, when it reached 8,469 job seekers (MESS SEPE, 2015).

Hypothesis (1) is thus confirmed; the drop in nursing migration (Figure 1) coincided with a drop in nursing unemployment, as measured through figures for registered inactive nurses (Figure 3) and job-seeking nurses (Figure 2).

When our initial results confirmed this hypothesis, we tested three secondary hypotheses about factors potentially related to these parallel drops.

4.2 | Hypothesis (1a): The drop in migration and unemployment coincided with a decrease in the number of nursing graduates

The Ministry of Education, Culture and Sports (MECD) keeps records on the total number of nursing graduates, distinguishing between public and private universities. Between 1999 and 2007, there are no significant differences in the number of nursing graduates for either type of university. Public universities had 7,289

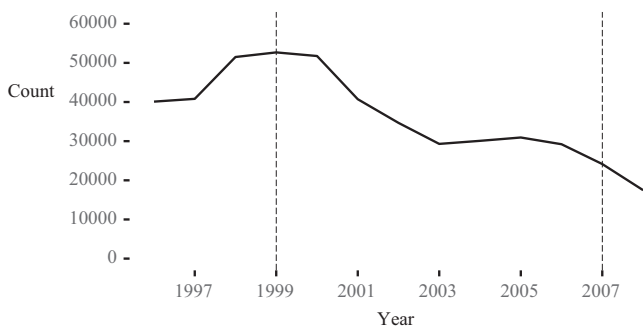


FIGURE 3 Number of registered inactive nurses in Spain

nursing graduates in 1999 and 7,747 in 2007, with a minimum of 7,052 in 2004. Private universities had 647 graduates in 1999, and 1,016 in 2000. From this year until 2007 the number remained relatively constant, with a total of 1,052 graduates in 1999. In total, there were 7,936 nursing graduates in 1999 and 8,799 in 2007. The total number of graduates for this period was 75,988, or an average of 8,447 new nurses per year (MECD Integrated University Information System (SIU) 2015). Hypothesis (1a) is thus disconfirmed; the drop in migration and unemployment does not coincide with a drop in the number of nursing graduates.

4.3 | Hypothesis (1b): The drop in migration and unemployment coincided with an increase in the number of hospital beds functioning and/or of hospitals

Beginning in the 1990s Spain's health care system was reorganised, including its human resources. Between 1997 and 2007, the number of hospitals was reduced from 788 to 764, reaching a low point of 741 in 2003. There was also a decrease in the number of beds functioning between 1997 and 2007, from 151,345 to 146,840, with a minimum of 144,916 in 2003 (Ministry of Health, Social Services and Equality (MSSSI) Information System of the National Health System (SISSNS) 2017). Therefore, paradoxically we see a drop in both hospitals and beds functioning during the same period that both migration and unemployment dropped. Hypothesis (1b) is disconfirmed.

4.4 | Hypothesis (1c): The drop in migration and unemployment coincided with an increase in the ratio of part-time nursing contracts

In order to answer this question, we examined the relationship between types of contract (hours per week) in hospitals of the Spanish health system (MSSSI SISSNS, 2017):

- Between 1999 and 2001 the number of nurses with contracts of 36 hours per week or more (full time equivalent⁴) dropped, but the number of nurses with contracts of less than 36 hrs per week (part time) increased significantly (Figure 4). If we examine this fact in terms of the ratio of full-time nurses to part-time nurses, we can see that this ratio goes from 23.8 in 1999 to 7.3 in 2001 (Figure 5). In this sense, job precariousness increased.
- Between 2001 and 2003, the change was in the opposite direction, with an increase in the ratio of full- to part-time nurses to 20 (Figure 4).
- Between 2003 and 2007, both types of contract increased, but the ratio of full- to part-time nurses decreased to 14.5 (Figure 4). This means that overall, we see a drop in the ratio between 1999 and 2007 from 23.8 to 14.5. Because the proportion of full-time contracts is much greater than that of part-time contracts, it is difficult to distinguish in Figure 4 the change in the proportion of the two

⁴Full-time equivalent employment is the number of full-time equivalent jobs, defined as total hours worked divided by average annual hours worked in full-time jobs (OECD, 2016).

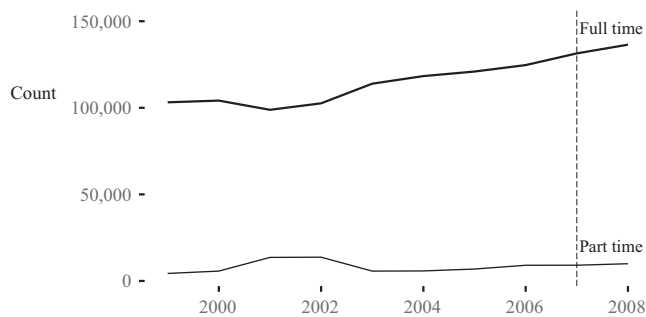


FIGURE 4 Number of employed nurses per type of contract

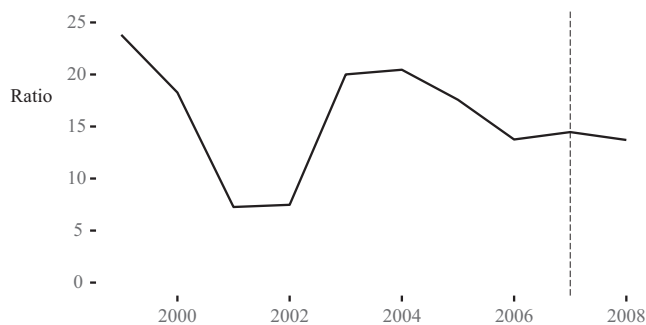


FIGURE 5 Ratio of nursing employment contracts (Full time)/(Part time)

types of contract. Therefore, Figure 5 presents changes in the ratio over time.

In our description of results related to hypothesis (1b) we explained that over the study period, the number of hospitals and the number of beds functioning decreased. Paradoxically, during this same period the number of employed nurses increased year after year. This contradiction can be explained by the relative increase in part-time contracts (Figure 5).

Hypothesis (1c) is thus confirmed; the drop in nursing migration and unemployment coincides with an increase in the ratio of part-time contracts.

5 | DISCUSSION

During the study period we see a reduction in migration and unemployment. Surprisingly, we also saw a decreased number of hospitals and beds functioning and an increase in nurses working in hospitals. But this latter increase does not indicate a greater number of full time equivalent workers (MSSSI SSSNS-Ministerio de Sanidad, Servicios Sociales e Igualdad, 2017). Rather, the increase is due to a higher ratio of part-time nurses.

This finding is counterintuitive, given that generally poor working conditions (such as job instability) have been interpreted as a cause of migration (Galbany-Estragués & Nelson, 2016; Dywili et al., 2013). Nonetheless, this study shows that, at least during the first decade of the millennium, Spanish nurses appear to have preferred to stay

in their country under less stable working conditions than to migrate to countries where the working conditions were apparently better. In fact, measures adopted by countries such as England and France to attract Spanish nurses (Government of France, 2004; Plotnikova, 2011) do not seem to have had a major impact on Spanish nurse migration, given that migration continued to decline after their introduction in 2000.

While the numbers of graduating nurses remained stable in 1999–2007, the ratio of full-time nurses decreased. Despite this trend, during the 1990s and 2000s, nursing programmes continued to attract students. This high level of interest in studying nursing continued both because there was work, although part-time (a fact that increased precariousness; Alcañiz Moscardó, 2015) and because of the transformation of the profession in the preceding decades, both in terms of status and in the new roles nurses played in the Spanish health care system (Zabalegui & Cabrera, 2009).

In spite of the creation of part-time work, structural barriers to labour market entry for new graduates and advancement of experienced nurses within the system ensured that in some parts of Spain, migration continued to offer the only opportunity for stable employment (Germán Bes, 2010). From 1999 to 2007, Spain featured the fourth lowest ratio of nurses per inhabitant of the OECD countries (OECD, 2017). It is important to note that while this article focuses on the decrease of migration over this period, the numbers were still high enough that Spain was a supplier country of nurses for other European countries.

6 | LIMITATIONS

The MECD validations reflect the intention to emigrate rather than actual migrations.

7 | CONCLUSION

The purpose of this research was to uncover factors involved in the decrease in the migration of nurses trained in Spain to the rest of Europe between 1999 and 2007. Our research found it coincided with a decrease in nursing employment and an increase in part-time contracts. We do not have evidence regarding the direction of causality linking migration and unemployment. The drop in unemployment could have provoked the drop in migration. Alternatively, the aggregate number of migrants over the years could have contributed to the drop in unemployment. In terms of the ratio of part-time contracts, it seems most likely that this was a cause of, rather than a result of, unemployment; further research on this question is required. Given the free circulation of workers from Spain and the constant number of nursing school graduates, what appears to have enabled migration to decrease was the restructuring of the nursing labour market. The changes created more positions of lower quality, allowing more nurses to be employed overall, but at less than full-time.

The confirmation of our first two hypotheses would have implied the existence of positive education and health policy aimed at the retention of nurses (reducing job seekers and increasing jobs). We have found that neither of these proactive paths was taken. Rather, the path taken reduced job security for nurses, who seemed still to have preferred to remain in their home country, at least temporarily.

8 | IMPLICATIONS FOR NURSING MANAGEMENT

Paradoxically, worsening labour conditions may have helped to retain nurses in Spain at the turn of the millennium. However, other research has found serious consequences for nurses' quality of life and patient care when working conditions are unstable (Burke, Eddy, & Wolping, 2015). Additionally, the retention was only temporary, because migration again began to climb at the beginning of the financial crisis in 2007. This strategy to reduce nursing unemployment through growth in part-time contracts, while temporarily successful in the case of Spain, brings major challenges for patient care and the working life of nurses. Notwithstanding these concerns, the apparently positive short-term impact of the growth in part-time contracts on nursing retention is of particular relevance to nursing managers as they strive to retain skilled staff in the context of decreased resources.

In order to mitigate the negative consequences of a high proportion of short-term nursing contracts on patients and the nursing workforce, it is essential for nurse leaders, policymakers, health care providers and educators to understand the inter-relationship between national education and professional reforms, labour market reorganisation and mobility agreements in order to develop policies that better meet the health care needs of the population. It is also important to note the inter-relationship between the domestic nursing labour market and macro policy shifts such as EU membership.

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ETHICAL APPROVAL

No formal ethical scrutiny was required or undertaken.

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