



Original Article

Previous knowledge about the specialty of Occupational Nursing in undergraduate nursing students at the University of Cadiz (Spain)

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ABSTRACT

Objective: To explore knowledge about the specialties, particularly in relation to occupational nursing and occupational health concepts.

Methods: Cross-sectional study in October 2023 in third-year nursing students in Algeciras (Cádiz). An ad hoc pre-test post-test questionnaire was administered. For quantitative variables, median and minimum and maximum values were calculated due to non-normality of the sample. For qualitative variables, frequencies and percentages were calculated. Chi² test and Fisher's exact test were used to compare pre- and post-test variables, considering a statistical significance level of $p < 0.05$.

Results: The prevalence of the female sex (92.1%), the majority of patients were from Cadiz (28.9%) followed by Malaga (23.7%). There was a high level of knowledge about the duration of the specialty (89.5%) and occupational hazards (89.5%). Initial disinterest in doing an internship in an SPRL decreased from 39.5% to 25.8%, although the difference was not significant. After receiving information, 10.5% of those who would do the specialty went to 48.4% ($p < 0.001$).

Conclusions: The data reveal a lack of knowledge about specialties. Many would consider doing internships in an SPRL with additional information. This deficit needs to be addressed in undergraduate training so that students can make an equal choice of specialty, which will result in quality nursing care.

Keywords: nursing students; Occupational health nursing; Specialties, Nursing

Article history

Received: May 27, 2024

Revised: June 29, 2024

Accepted: July 22, 2024

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Introduction

Nursing, as a discipline of care in the field of health care, has undergone significant development in terms of specialization and professional roles as the complexity of health care has increased, as have the specific demands of various specialties within nursing. In particular, this expansion has intensified in recent decades and specifically in Spain since the publication of the Royal Decree on nursing specialties in 2005 (1).

Despite this evolution, there is still a perceptible gap in the understanding and awareness of the different specialties in society, in the organization of the current healthcare system, and also among undergraduate nursing students (2). Today's nursing students are immersed in a dynamic and changing environment, where making decisions about specialty choice becomes a crucial factor in their career development. Despite this, it is clear that many students may lack a comprehensive understanding of the various specialties available and thus face difficulties in making informed decisions about their future careers (2,3).

Consequently, addressing the existing barriers that contribute to this lack of awareness, such as poor undergraduate orientation and lack of systematized information about specialization opportunities becomes necessary. In addition to examining the implications of this lack of awareness in terms of missed opportunities for students' personal and professional growth, as well as for the improvement of the overall quality of healthcare (4).

Through this research we seek to provide a comprehensive view of the importance of awareness of nursing specialties during undergraduate education with a focus on occupational nursing, with the intention of fostering more informed and strategic decision making by students, which will ultimately contribute to the strengthening and enrichment of the nursing landscape today.

Therefore, this study aims to explore the degree of knowledge about nursing specialties in undergraduate nursing students and specifically about the specialty of occupational nursing, as well as about some occupational health concepts.

Methods

A cross-sectional study was conducted in October 2023 on third-year students of the nursing faculty of Algeciras (Cadiz) during an introductory seminar on occupational nursing to analyze the degree of knowledge about the specialty after authorization from the center and following the requirements of the Declaration of Helsinki.

The data collected were treated according to the provisions of the General Data Protection Regulation of the European Union (GDPR) and the Organic Law 3/2018, of December 5, on the Protection of Personal Data and guarantee of digital rights (LOPDGDD).

An *ad hoc* questionnaire was administered and completed online by the students before and at the end of the seminar.

Before starting the seminar, the sociodemographic variables age, sex and origin were collected, as well as the variables related to knowledge of the specialty through the questions:

1. Do you know how many nursing specialties exist? (Categories 1 to 10 and don't know)
2. Do you know how many years the specialty lasts? (Categories 1 to 4 and I don't know)
3. Do you have an idea, even approximate, of the number of positions that are offered in any specialty? (Open answer)
4. Do you know if the residency is paid? (Categories Yes/No)
5. Do you know of any risk, other than getting pricked by a sharp, that affects nursing? (Categories Yes/No)
6. Can you tell a nurse who has had an accident at work what to do? (Categories Yes/No)
7. Can you mention any preventive specialty other than occupational medicine/nursing? (Open answer)
8. Can you say if it is compulsory for companies to have their own occupational health service? (Categories Yes/No)

Finally, they were asked before and after the seminar if they would consider doing a residency in occupational nursing (Categories Yes, No, I don't know) and if they

considered it interesting to do an internship in an occupational risk prevention service (Categories Yes/No).

Statistical analysis

For quantitative variables, median and minimum and maximum values were calculated due to sample non-normality. For qualitative variables, frequencies and percentages were calculated.

In the comparison of the pre-test and post-test variables, the Chi² test and Fisher's exact test were used, considering a statistical significance level of $p < 0.05$. SPSS software version 26 (IBM Corp, 2019) was used.

Results

In the sociodemographic variables, female sex (92.1%) and origin from Cadiz (28.9%) and Malaga (23.7%) stand out.

Table 1. Demographics characteristics (n=38)

		Mean \pm SD, n (%)
Age (years)		21.5 (19-48)
Sex	Man	3 (7.9%)
	Woman	35 (92.1%)
From	Cadiz	11 (28.9%)
	Cordoba	6 (15.8%)
	Granada	2 (5.3%)
	Huelva	1 (2.6%)
	Huesca	1 (2.6%)
	Jaén	1 (2.6%)
	Madrid	1 (2.6%)
	Malaga	9 (23.7%)
	Seville	6 (15.8%)

Table 2. Knowledge of the specialty (n=38)

		Mean \pm SD, n (%)
Number of specialties	Five	7 (18.4%)
	Six	12 (31.6%)
	Seven	13 (34.2%)
	Ten	2 (5.3%)
	Do not know	4 (10.5%)
Years of specialization	One	2 (5.3%)
	Two	34 (89.5%)
	Four	2 (5.3%)
Number of places offered		98 (1-1000)
Remuneration of the residence	Yes	24 (63.2%)
	No	14 (36.8%)
Risk other than punctures	Yes	34 (89.5%)
	No	4 (10.5%)
Accident recommendation	Yes	24 (63.2%)
	No	14 (36.8%)
Preventive Specialty	Nursing	
	Family and community	5 (13.2%)
	Case Manager	1 (2.6%)
	Research	1 (2.6%)
	Midwife	1 (2.6%)
	Do not know	30 (78.9%)
Own SP Mandatory	Yes	31 (81.6%)
	No	7 (18.4%)

Table 2 shows the results of the questions on knowledge of the specialty. Of note are the values of 89.5% on the duration of the specialty, 89.5% on whether they know of any risk other than needlestick injuries and 81.6% who said yes to the question on whether it was obligatory for companies to have their own prevention service.

In the pre- and post-test comparison to analyze whether, after the information received, they would do the specialty, there was an increase in the number of students who changed their opinion (10.5% to 48.4%, $p < 0.001$). In the question on whether they thought it would be interesting to do an internship in an SPRL, no significance was reached, although the percentage of those who did not think it would be interesting a priori went from 39.5% to 25.8%.

Table 3. Comparative pre-test post-test on interest in SPRL internships and occupational nursing residency. (n=69)

		Pre-test (n=38)	Post-test (n=31)	p Value
Work in a nursing residency	No	14 (36.8%)	10 (32.3%)	<0.001
	Do not know	20 (52.6%)	6 (19.4%)	
	Yes	4 (10.5%)	15 (48.4%)	
Interesting to do an internship in SPRL	No	15 (39.5%)	8 (25.8%)	0.23
	Yes	23 (60.5%)	23 (74.2%)	

Discussion

The aim of this study was to explore the degree of knowledge about nursing specialties and especially about the specialty of occupational nursing among undergraduate nursing students.

The results showed a lack of knowledge about the specialties and an increased interest in pursuing the occupational nursing specialty after receiving information about it.

Lack of knowledge about nursing specialties is a significant concern that affects both students and the overall quality of health care (5). Student and faculty perceptions of the lack of adequate guidance regarding various nursing specialties hinders informed future career decisions (6). This lack of expertise can negatively impact students' professional development and the quality of care they provide to individuals, families and communities (7).

If a lack of knowledge about nursing specialties is evident, the lack of knowledge about preventive specialties is absolute. A total of 78.9% of those surveyed answered that they did not know any specialty other than occupational medicine/nursing and the rest could not identify any specialty. Although the preventive specialties are more related to the business world, it is important to value the fact that students should also receive training in occupational risk prevention as future workers, an importance recognized by the students themselves (8,9).

The fact that the percentage of those considering a residency in occupational nursing increased from 10.5% to 48.4% ($p < 0.001$) after the presentation of the specialty highlights the need to increase undergraduate training in this area. In addition, this fact may increase motivation and positively influence academic results (10) and in the recognition of the research carried out by specialists, facilitating its application by the nursing community in the daily care of people (11).

The fact that the 39.5% of students who did not consider it interesting to do an internship in a prevention service dropped to 25.8% is in line with the increase in interest in doing a residency (although this did not reach statistical significance). These internships could be decisive in deciding whether the student finally decides to opt for a position for which undergraduate training is necessary.

Limitations of the study

This study has several limitations. In addition to the lack of causality typical of cross-sectional descriptive studies, there is the low sample size, the use of an unvalidated questionnaire and a possible informant bias that could have influenced the students' responses. As advantages, the questionnaire is very quick and easy to apply and allows us to obtain an overview of the degree of knowledge on the subject.

Conclusions

In conclusion, there is a lack of knowledge about the specialties and an increased interest in pursuing the occupational nursing specialty after receiving information about it. These findings underscore the importance of addressing the lack of knowledge about nursing specialties in the undergraduate education curriculum. Inclusion of related education about the various nursing specialties in faculties may help students make more informed decisions about their future careers, which in turn could contribute to improving the overall quality of health care.

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