



Components of the nursing role as perceived by first-year nursing students

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ABSTRACT

Background: Identifying and acquiring the nursing role is key to the development of nurses' professional identity. Understanding nursing students' perceptions in this regard will enable nursing educators to choose teaching strategies that lead to positive development of their students' professional identity.

Objectives: To describe how nursing students perceive the different components of the nursing role at the beginning of the nursing degree.

Design: Cross-sectional, descriptive, observational study.

Participants/settings: 106 first-year nursing students at the University of Huelva, Spain.

Methods: Data on social and academic variables and variables relating to the instrumental and expressive roles were collected via an adapted, pilot-tested questionnaire assessed by experts.

Results: For participants, caregiving is the core of the nursing role in the clinical setting, including both technical execution and patient care aspects. They highlighted the disease prevention, health promotion, restoration, and education profiles of nurses rather than their teaching, professional, and technical profiles. They were acquainted with the concept of postgraduate professional development, but were unaware of the academic pathways leading to it. They considered nurses to be decision-makers, who are nevertheless subordinate to doctors.

Conclusions: Students did not consider nursing to be an autonomous profession, although they highlighted its decision-making capacity. They placed greater emphasis on the traditional profile of primary care nurses than on their technical profile, and were able to identify the members of the multidisciplinary healthcare team.

1. Introduction/background

Throughout history, the nursing profession has acquired and conveyed knowledge through tradition and authority, trial and error, personal experience and intuition, role modelling, and logical reasoning (Varela-Curto et al., 2012). However, nursing studies have evolved considerably since their incorporation into universities, provoking a shift towards greater autonomy in the role of nursing and the professional skills involved (Varela-Curto et al., 2012). Like other disciplines, nursing encourages, builds, and defends a distinct, specific body of evidence-based knowledge, produced and verified by its members, that provides a reasoned foundation for the nursing role underpinning the identity of the discipline and the profession, differentiating nursing from other disciplines and professions and defining its nature, purpose, know-how, and duties (Vega-Angarita, 2006). According to Olsson and Gullberg (1991), one way to promote such development is by clarifying nurses' role, as their true professional identity is rooted in conscious, autonomous, responsible, non-standardised conduct. Nurses manifest

their professional identity when they perform their professional role with integrity, respecting the individual they are caring for and the members of the team with whom they interact, with quality as their guiding principle (Maya-Maya, 2003, p. 104).

The most widely accepted definition of Nurses' Professional Identity (NPI) was proposed by Fargemoen, who describes NPI as "the values and beliefs held by the nurse that guide her/his thinking, actions and interaction with the patient" that are considered to be inherent to professional development (Fargemoen, 1997, p. 437).

Professional identity is constructed through a socialisation process whereby individuals acquire the attributes of their trade and interact with other members of their profession: colleagues, users, related professional groups, etc. (Arceciado-Marañón, 2013; Pimentel et al., 2011). This process allows individuals to equip themselves with the skills, knowledge, values, behaviours, and attitudes necessary to perform their professional role during their training period (Shinyashiki et al., 2006); it is during this time that individuals build, develop, and cement their NPI.

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Many nursing professionals (Arceado-Marañón, 2013; Celma Vicente, 2007; Fargemoen, 1997; Ohlen and Segesten, 1998; Torres and Sahuena, 2006) have sought to refine or complete the notion of NPI from a clinical, educational, managerial, and academic perspective. Their efforts indicate that the concept encompasses components from three different fields: personal components, such as self-esteem, self-image, and predisposition towards the nursing profession; social components, which are linked to the professional category, interactions with peers and other groups, and the degree of prestige, recognition, and social image of the profession; and professional components, such as professional self-concept and self-image, individual experiences, attributes and characteristics, professional culture, theoretical and practical knowledge, individual actions, professional attitudes, and the professional role.

When individuals acquire a professional role, they enter a particular social group and become submerged in a new culture loaded with expectations, values, and norms (Shinyashiki et al., 2006). In order to acquire this role, individuals must adopt and develop specific knowledge, values, norms, actions, and even emotions that are considered socially appropriate for that role (Berger and Luckmann, 2003). Therefore, if we are to train nurses to develop the various components of their role in a holistic manner—in the form of competencies linked to practical work—we must consider whether nursing students clearly understand the core of their role (Blanco-Sánchez et al., 2007; Jara-Concha et al., 2005). Students are also influenced by exposure to role models during the learning process and it is essential for them to have a solid, science-based foundation that helps them to act correctly in any circumstance (Maya-Maya, 2003). Role modelling also promotes professional development by teaching students to be ‘good nurses’ and ‘good educators’ (Baldwin et al., 2014, 2017; Jack et al., 2017; Shinyashiki et al., 2006).

The training experience transcends the mere acquisition and accrual of knowledge and caregiving skills: the professional nursing role goes beyond the individual nurse and impacts on learners (Jara-Concha et al., 2005). This process involves both clinical nurses and nurse educators, who play an important part in preparing students for nursing practice (Baldwin et al., 2017). This highlights the importance of adopting teaching/learning strategies covering all forms of knowledge transmission when designing training curricula (Baldwin et al., 2014). So that students can adopt, improve, and apply the nursing practice behaviours expected of them (Jara-Concha et al., 2005).

Nursing is a health science that is both humanistic and social in nature, and, as such, the professional role of nurses is dynamic and changes over time. Twenty-first century nurses must adopt a variety of profiles within complex health systems in response to technical advances, self-perception, and changing social, political, and demographic trends (Keeling and Templeman, 2013). This dynamism shapes the very teaching of the professional role, resulting in a reciprocal process whereby training advances the profession and progress in the profession leads to changing training standards, especially considering that one of the main objectives of nursing training is to advance the nursing profession (Olsson and Gullberg, 1991).

The following elements are key to promoting the professional nursing role among students: exploring students’ perceptions of this role at the beginning of their university education; ascertaining whether or not their expectations match the role; and detecting any changes to their perceptions throughout the course of the learning process. Therefore, the aim of this paper is to describe how nursing students perceive the different components of the professional nursing role at the beginning of the nursing degree.

2. Material and methods

2.1. Methods

Cross-sectional, descriptive, observational study.

2.2. Participants

All newly enrolled students in the first year of the Nursing Degree (ND) at the University of Huelva (UHU), Spain.

2.3. Inclusion criteria

Being over 18 years old; being enrolled for the first time on the module “History and Theoretical and Ethical Foundations of Nursing” taught in the first term of the first year of the ND; attending a seminar on the day of data collection; and voluntarily agreeing to participate in data collection. No sampling method was used, as our intention was to include all members of the group.

2.4. Variables

Variables were selected on the basis of the description made by Blanco-Sánchez et al. (2007) of the components of the nursing role. In this description, knowledge, skills, and motivations are seen as prerequisites for effective performance. The role of nursing as a practical discipline centred on human interaction has both technical and social characteristics. The technical characteristics of the role are instrumental aspects determining whether the individual who is to master the tasks and know-how of their field has the necessary technical competence, knowledge and skills as an expert. The social characteristics of the role are expressive aspects, including the combination of attributes, values, norms, and social skills typical of this group of professionals.

- Social and academic variables, including data on: age, sex, access path to the ND, and predisposition towards nursing training.
- Variables relating to the perception of the instrumental role, including: the functional role, consisting of elements of daily nursing work, such as knowledge, techniques, procedures, and actions; nursing profiles, including both technical and professional aspects; and postgraduate professional development in terms of training and research.
- Variables relating to the perception of the expressive role, including: degree of autonomy of the role per se and in relation to other disciplines; teamwork skills and team members; and social interaction skills, associated values, and communication skills.

2.5. Instrument

An adapted version of a questionnaire by Albar and Sivianes-Fernández (2016) was used for data collection. The instrument was divided into two sections. The first section comprised items regarding social, academic, and predisposition data. The second section included four questions: an open-ended question asking respondents to describe the roles of nursing professionals; a 5-point Likert-scale to quantify their stance on the accuracy of the items proposed (fourteen affirmative statements about the characteristics of the professional nursing role, encompassing the variables relating to their perception of the instrumental role); another Likert-scale question in which they had to rate eleven nursing competencies including variables relating to the expressive role (the general competencies in the training curriculum for the ND at UHU); and a final open-ended question in which they had to indicate other professionals with whom nurses work as part of a team.

The questions were pilot-tested for reliability with ten participants, resulting in minor changes in wording, and were then assessed by experts (three lecturers and researchers teaching on the ND).

2.6. Data collection

Data collection was conducted during the first seminar for the aforementioned module in the third week of October. We considered it important to collect data early in the term to prevent students’

perceptions from being altered by the training sessions. Small group sessions (with approximately 15–18 students) were preferred to large group sessions (with approximately 65 students), as they provided the comfortable, reassuring environment needed for our study.

2.7. Data analysis

The first step was to transcribe participants' social and academic data and their responses to the open-ended questions, which were then grouped, classed, and quantified. Data from the Likert scales were also quantified. Subsequently, the data underwent descriptive analysis using SPSS 26.0 software.

2.8. Ethical considerations

This study is part of a project that has received funding under the 22nd Call for Teaching Innovation and Educational Research Grants to improve teaching at the University of Huelva, Spain, and has been approved by the Andalusian Biomedical Research Ethics Committee (PID: "Identidad enfermera"). Prior to the administration of the instrument, participants were informed about the study objectives, the anonymity and confidentiality of their data, the voluntary nature of their participation, and the absence of any relationship between their participation and the module in which data collection took place. Students' written consent to participate was obtained using a standard informed consent form.

3. Results

3.1. Social and academic variables

Of the 135 students enrolled on the aforementioned module, a total of 106 participated in the study once the inclusion criteria had been applied. In terms of social and academic characteristics, their mean age was 19.9 years old, ranging from 18 to 42 years old with a mode of 18 years. Seventy-nine per cent were women, 20% were men, and one respondent left this question unanswered. 56.6% of participants were admitted to the ND after taking the Spanish university entrance exams (EBAU), whereas 35.85% did so after completing vocational training. Admission via university entrance exams for over-25 s (absolute value = 3), over-40s (AV = 0), and prior university study (AV = 5) were barely represented. Students who had been admitted after completing vocational training had carried out their training in the healthcare sector, in areas including Clinical and Biomedical Laboratory (31.58%), Diagnostic Imaging (15.8%), and Anatomical Pathology and Cytodiagnosis (13.16%). The only vocational training reported outside the healthcare sector was Physical Activities and Sports (AV = 1).

Regarding their predisposition towards the ND and, therefore, towards the nursing profession, 76.41% (AV = 81) stated that the ND had been their first choice. Of the 25 participants who reported not having selected the ND as their first choice, 56% had chosen a degree in medicine, followed by a degree in physical therapy (16%), a double degree in physical therapy and sports science (16%), and a degree in veterinary medicine (12%). None of them reported having chosen any degree outside the healthcare sector as their first option.

3.2. Variables relating to the perception of the instrumental role

3.2.1. Components of the role

In response to the question *Could you describe the roles of nurses?*, participants unanimously mentioned healthcare-related tasks, with the words "caregiving" and "providing care" appearing on 78 occasions. These tasks included taking care of patient hygiene, administering medication or blood products, catheterisations, treating wounds, etc. However, other responses related to interacting with patients, such as providing them with company, support, and assistance. The other three

general nursing roles, i.e. conducting research (AV = 20), teaching (AV = 27), and managing (AV = 5) were less represented. The items related to the components of the role or the functional role received the following answers:

Nurses must be knowledgeable about the context, organisation, and management of caregiving obtained a mean value of 4.08 and was most frequently rated as Agree (absolute frequency = 47) followed by Strongly agree (AF = 33).

Nurses are involved in assessment, intervention, and care of individuals and families obtained a mean value of 4.63 and was most frequently rated as Strongly agree (AF = 74) followed by Agree (AF = 27).

Nurses perform techniques and procedures obtained a mean value of 4.54 and was most frequently rated as Strongly agree (AF = 66) followed by Agree (AF = 31).

Nurses play a key role in patient safety obtained a mean value of 4.8 and was most frequently rated as Strongly agree (AF = 84) followed by Agree (AF = 17).

Nurses are qualified to perform life support procedures obtained a mean value of 4.68 and was most frequently rated as Strongly agree (AF = 72) followed by Agree (AF = 24).

3.2.2. Nursing profiles

Moving on to perceptions of the instrumental role, the nursing profiles identified and reported by participants fall within a similar range in [Table 1](#).

As the table shows, the most widely acknowledged profiles are Nursing plays a major role in health promotion, Nursing plays a major role in disease prevention, and Nursing plays a major role in health restoration, all three of which received more than 80% Strongly agree responses. Following closely behind is Nursing plays a major role in health education, with 72.64% Strongly agree responses. In contrast, Nursing is a discipline with a technical profile received only 45.25% Strongly agree and Agree responses. School nursing and the professional and teaching profiles of nursing are in the middle positions, although all three jointly received more than 70% Strongly agree and Agree responses.

3.2.3. Postgraduate development

Postgraduate development was explored via five statements:

Nurses are professionals who do research obtained a mean value of 4.33; 54.7% (AF = 58) of participants strongly agreed with this statement, while 24.53% (AF = 26) agreed with it.

Nurses employ a scientific basis in their work: in line with the previous statement, 89.62% of participants ($n = 95$) strongly agreed (AF = 60) or agreed (AF = 35) with this statement.

Nurses can specialise after finishing their degree: 87 participants (82.1%) strongly agreed with this statement, while 17 (16%) agreed with it.

Nurses working in intensive care units hold a different academic degree to other nurses: 33% of participants (AF = 35) neither agreed nor disagreed with this statement, while 32 (30.2%) disagreed with it.

Nurses can pursue a doctoral degree after finishing their degree: 73 participants (68.9%) strongly agreed with this statement, while 13 (12.26%) agreed with it.

3.3. Variables relating to the perception of the expressive role

3.3.1. Degree of autonomy

Participants' perception of the degree of autonomy of the nursing profession was explored via three statements:

The nursing profession is dependent on the medical profession: the majority response was *Neither agree nor disagree* (29.25%; AF = 31), followed by *Disagree* (20.75%; AF = 22) and *Strongly disagree* (18.9%;

Table 1
Perception of the instrumental role, nursing profiles.

Statement	5	4	3	2	1	NR/DK	Mean value
	Strongly agree	Agree	Neither agree/disagree	Disagree	Strongly disagree	NR/DK	
Nursing is a discipline with a technical profile	16% (17)	29.25% (31)	30.2% (32)	13.21% (14)	6.6% (7)	4.72% (5)	3.36
Nursing is a discipline with a professional profile	53.77% (57)	33.96% (36)	7.55% (8)	1.89% (2)	0.94% (1)	1.89% (2)	4.40
Nursing plays a major role in health promotion	88.68% (94)	8.5% (9)	0.94% (1)	0	0.94% (1)	0.94% (1)	4.86
Nursing plays a major role in disease prevention	80.2% (85)	14.15% (15)	4.7% (5)	0	0.94% (1)	0	4.73
Nursing plays a major role in health restoration	84.9% (90)	13.2% (14)	0.94% (1)	0	0.94% (1)	0	4.81
Nursing plays a major role in schools	39.62% (42)	33.96% (36)	18.86% (20)	3.77% (4)	3.77% (4)	0	4.09
Nursing plays a major role in health education	72.64% (77)	23.6% (25)	0.94% (1)	(0)	0.94% (1)	1.89% (2)	4.7
Nurses play a teaching role	49.05% (52)	29.25% (31)	13.2% (14)	3.77% (4)	0.94% (1)	3.77% (4)	4.26

AF = 20). In contrast, a total of 31.13% of participants strongly agreed (AF = 17) or agreed (AF = 16) with the statement.

Nurses can make care-related decisions without consulting a doctor: the majority responses (69% in total) were *Strongly agree* (AF = 37) and *Agree* (AF = 36). In contrast, a total of 17% of participants strongly disagreed (AF = 4) or disagreed (AF = 14) with the statement.

Nursing is an autonomous profession: the majority response was *Neither agree nor disagree* (35%, 37 participants), followed by *Disagree* (23.6%, 25 participants) and *Strongly disagree* (19%, 20 participants). In contrast, a total of 21.7% of participants strongly agreed (AF = 7) or agreed (AF = 16) with the statement.

3.3.2. Skills and values

Skills and values were explored via three statements:

Nurses provide assistance and support obtained a mean value of 4.75; a total of 95.3% of respondents strongly agreed (AF = 81) or agreed (AF = 20) with the statement.

Nursing has its own professional values obtained a mean value of 4.65; a total of 90.6% of respondents strongly agreed (AF = 76) or agreed (AF = 20) with the statement.

Nurses form relationships, interact, and communicate with the people they care for obtained a mean value of 4.6; a total of 86.8% of respondents strongly agreed (AF = 71) or agreed (AF = 21) with the statement.

3.3.3. Teamwork

Nurses are part of a work team obtained a mean value of 4.7; participants strongly agreed (AF = 76) or agreed (AF = 24) with the statement. When analysing the answers to the question *In your opinion, what professional groups do nurses most frequently work with as a team?*, 21 codes for different professional groups were identified. In order of frequency, doctors were mentioned in 100 of the 106 responses, followed by nursing assistants (AV = 71), porters (AV = 45), psychologists (AV = 25), and other nurses (AV = 14). Table 2 shows the rest of the professionals mentioned.

4. Discussion

Participants were mostly women in their twenties who had accessed university after completing secondary school education or vocational training in the healthcare sector, and had chosen the ND or another health-related degree as their first option. This suggests that participants had a predisposition towards health sciences and this may be a determining factor in how they perceive the nursing role. This predisposition may be influenced by a number of factors including the opinions of

Table 2
Members of the work team.

Professional group	AV	Professional group	AV	Professional group	AV
Doctors	100	Healthcare technicians	8	Occupational therapists	2
Nursing assistants	71	Any healthcare worker	6	Pharmacists	1
Porters	45	Administrative staff	6	Researchers	1
Psychologists	25	Cleaning staff	4	Health science lecturers	1
Other nurses	14	Ambulance staff	4	Odontologists	1
Physical therapists	13	Nutritionists	2	Podiatrists	1
Social workers	8	Educators	2	Patients	1

students' relatives and the career guidance offered by secondary education institutions.

With respect to the first point, recent studies show that, among Spanish students, family members' opinions are the most important factor when deciding which university studies to pursue, although socio-economic factors also play a major role (Olmos-Gómez et al., 2021). This view is also shared by students of other nationalities, as shown in studies by Terry et al. (2020) in Australia and by Gao et al. (2019) in China.

Regarding pre-university career guidance, studies such as Williams et al. (2019) and Mazhindu et al. (2016) suggest that pre-university interventions with students are relevant in increasing recruitment of nursing candidates. Interventions of this kind could be helpful in overcoming established biases such as gender stigma (Liaw et al., 2017; Terry et al., 2020; Gao et al., 2019) and other stereotypes held by family, friends, and the media (Calvo Calvo, 2014; Heierle, 2011; Raymond et al., 2018). Other studies also show that no career guidance or inadequate guidance can result in individuals without any real motivation to care for others commencing nursing studies (Tayebi et al., 2013; Gonçalves dos Santos et al., 2019).

In Spain, a good predisposition towards nursing and pre-university guidance, such as that offered at UHU through the Rumbo

programme¹, are not necessary requirements for entering the ND, as students have to take a general examination at the end of their secondary education that determines the degree courses open to them. As a result, students are selected on the basis of their grades alone, without consideration of their abilities, attitudes, or values. This one-dimensional approach to student selection has been criticised in the literature (Haavisto et al., 2019).

Participants reported that the core of the instrumental role of nursing lies in caregiving. Therefore, according to the students, the basic role of nurses from both a technical and personal perspective is clinical in nature. Skills and values inherent to the nursing role also included providing support and establishing interpersonal relationships. Other traditional nursing roles, such as conducting research, teaching, and managing were less represented. This echoes the findings of Jara-Concha et al. (2005), who reported that first- and second-year students perceived the role of nurses as care coordinators and direct caregivers to patients and families, whereas fifth-year students perceived their role as direct healthcare providers and caregivers. Participants in their study listed nurses' tasks/roles/priorities in the following order: caring directly for individuals/families/the community; coordinating care; collaborating in medical diagnoses; educating patients; conducting research; and teaching (Jara-Concha et al., 2005). Our participants, meanwhile, highlighted profiles that are traditionally associated with primary care and were less accepting of the technical profile, placing the professional, teaching, and school-related profiles in intermediate positions.

In this respect, it is important to note that there may be considerable differences between nursing education institutions in terms of the overall view of the nursing role conveyed to students. Some healthcare managers and many nurse educators maintain a 'vocational' style (Findlow, 2012), finding it difficult to incorporate the current science-based approach to nursing into their educational programmes (Lopes et al., 2014) and to instil an appreciation of research as a core source of nursing knowledge in students (Mitchell et al., 2020).

Regarding the presence of the nursing profession in postgraduate training, there was a certain lack of knowledge about academic pathways among participants, although they were well acquainted with the different stages of the ND.

Our exploration of the expressive role revealed that participants did not perceive nursing as an autonomous profession, meaning that they either did not have a clear idea about it or perceived it as dependent on the medical profession. However, there appears to be a degree of contradiction, as most students believed that nurses have the capacity to make care-related decisions. This perceived dependency may be driven by the lack of visibility and public discussion of the nursing profession, which is partly caused by professionals themselves, but above all, it may stem from the profession's public image, the working environment, professional values, the level of education, and traditional social and cultural values (Hoeve et al., 2013). Many studies echo the perception that nurses are dependent on doctors and report a lack of knowledge of the roles played by nurses, even when these are essential to care, e.g. Pierrotti et al. (2020), Baldrich-Rodríguez et al. (2016), Calvo Calvo (2014), Hoeve et al. (2013), and Heierle (2011). This should be addressed from the beginning of the ND, as it can distort the professional identity of future nurses. In this dynamic process, university training is key to building and shaping NPI (Johnson et al., 2012), which is why nurse educators and placement mentors are crucial (Arreciado-Marañón

and Isla-Pera, 2015), especially in role modelling, as argued by Baldwin et al. (2014, 2017) and Kumaran and Carney (2014). Therefore, as clinical nurses and nurse educators, we must commit to enabling students to identify and develop their autonomous professional role based on critical thinking, scientific knowledge, and nursing methods. According to Johnson et al. (2012), we can help students to build and improve NPI by increasing the quantity and quality of studies on nursing and studies carried out by nurses.

Our participants' stance may also be the result of their subjective interpretation of what collaborative work within a multidisciplinary team entails. Students were able to identify the professional groups making up a team of this kind, although their lists were highly geared towards hospital care and out-of-hospital emergency care settings. It is also interesting to note that one respondent viewed patients as members of the work team, which may represent a step further in the conception of holistic care in future care trends.

5. Conclusions

Participants were mostly women in their twenties who had selected the ND as their first choice and enrolled after completing the Spanish university entrance exams (EBAU).

For the participants in our study, the core of the nursing role is to deliver care from a technical perspective while understanding the importance of interpersonal relationships. The disease prevention, health promotion, restoration, and education profiles of nurses were the most popular, coinciding with the profiles traditionally attributed to primary care and community nurses.

Nursing is not perceived by the participating students as an autonomous profession, but rather as dependent on other professions in a multidisciplinary work team. However, they do believe that nurses have a certain capacity to make care-related decisions independently.

The aspects that participants perceived as most deficient were associated with the expressive role: knowledge of postgraduate training and nurses' research capacity. It is therefore essential to promote these aspects among students in order to improve their understanding of the nursing role and the future prospects of the nursing profession.

We believe that, as nurse educators, we have a great responsibility for and impact on the development of positive nursing roles and identities among our students. We should therefore plan teaching/learning programmes that take into account the construction of these roles and identities among students based on the evidence available in the scientific literature.

Author contributions

The individuals listed as authors have participated in all stages of the preparation of this article, as well as in all stages of the underlying research.

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Declaration of competing interest

Authors declare no conflict of interest.

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¹ Rumbo is an institutional communication programme involving the UHU, its students, and its teaching staff at different educational levels. The programme offers a range of activities, including: open days, providing detailed information to prospective students about the degree courses on offer; the Orienta activity, consisting of visits to secondary schools to promote the degrees on offer at UHU; and the Jornadas, or Conferences, held with secondary school careers advisors and head teachers.

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