



Research paper

The public image of Italian nurses as perceived by different ethnic groups residing in Emilia Romagna, Italy



Ivan Rubbi^a, Elyaaakoubi Najlaa^a, Luana Conte^{b,c,*}, Roberto Lupo^d, Elsa Vitale^e, Paola Ferri^f, Giorgio De Nunzio^{c,g}, Donato Cascio^b, Valeria Cremonini^a, Claudia Cadas^a, Gianandrea Pasquinelli^h

^a School of Nursing, University of Bologna, 48018 Faenza, Italy

^b Department of Physics and Chemistry, University of Palermo, 90128 Palermo, Italy

^c Advanced Data Analysis in Medicine (ADAM), Laboratory of Interdisciplinary Research Applied to Medicine (DReAM), Local Health Authority (ASL) of Lecce and University of Salento, 73100 Lecce, Italy

^d "San Giuseppe da Copertino" Hospital, Local Health Authority (ASL) of Lecce, 73043 Copertino, Italy

^e Local Health Authority (ASL) of Bari, 70126 Bari, Italy

^f Department of Biomedical, Metabolic and Neural Sciences, University of Modena and Reggio Emilia, 41125 Modena, Italy

^g Department of Mathematics and Physics, University of Salento, 73100 Lecce, Italy

^h Department of Medical and Surgical Sciences (DIMEC), University of Bologna, 40126 Bologna, Italy

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ABSTRACT

Background: The image of nursing is a complex concept influenced by various social and cultural factors, often portrayed in a subordinate manner by the media and stereotypes. However, the COVID-19 pandemic has enhanced the image of nurses, increasing recognition of their value and improving their professional identity. Public perception of nurses influences job satisfaction, performance, and the profession's appeal to potential recruits/students/new graduates. Recent studies suggest the need to monitor and improve this image, particularly in response to social and political changes, to address the shortage of nursing staff. In the Emilia-Romagna region, there is a shortage of approximately 4200–4500 professionals to meet healthcare needs, and the local healthcare culture is strongly oriented toward collaboration, integration, and teamwork — elements that may pose adaptation challenges for professionals coming from regional contexts with more hierarchical and individualistic models. In Italy, studies have been conducted on the perception of the profession, but no research has specifically investigated how different ethnic groups evaluate the image of Italian nurses. This study aims to explore and analyse how the image of Italian nurses is perceived by various ethnic groups present in Italy.

Methods: An observational study was conducted in northern Italy at cultural associations from February to September 2024. A total of 205 observations were collected. The sample consisted of 41.5% (n = 85) Europeans, 22.4% (n = 46) Africans, 22% (n = 45) Asians, 10.2% (n = 21) Americans, and 3.9% (n = 8) classified as 'Other,' referring to individuals of Oceanic and Antarctic origin. The instrument used was the validated Italian version of the Nursing Attitude Questionnaire (NAQ-IV).

Results: Significant differences in perceptions were found among different populations. The overall score across the NAQ-IV domains, on a scale ranging from 30 to 150, indicated a more favourable perception of the profession in European settings, with a mean of 106.3 (SD = 18.77), and in American settings, with a mean of 106.4 (SD = 22.89), compared to the scores reported by Asian groups (mean = 82.5, SD = 22.2) and African groups (mean = 96.2, SD = 23.52). Cultural factors appear to play a key role.

Conclusions: Overcoming stereotypes and enhancing nursing skills must become a priority to promote a more positive perception of the profession. Nurses' behaviour should make the value of professional development more visible.

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* Corresponding author at: Department of Physics and Chemistry, University of Palermo, 90128 Palermo, Italy.

E-mail address: luana.conte@unipa.it (L. Conte).

Summary of relevance

Problem or Issue

The public perception of nurses significantly impacts job satisfaction, professional performance, and recruitment into the profession. Understanding how various ethnic groups perceive nurses is essential to address stereotypes, enhance inclusivity, and improve the attractiveness of nursing careers, especially given the global nursing shortage.

What is already known

Existing studies have generally examined nursing's public image, revealing common stereotypes and media portrayals that undervalue nursing's intellectual and professional dimensions. However, no previous research has specifically investigated how diverse ethnic communities perceive the nursing profession in Italy.

What this paper adds

This study uniquely contributes by identifying significant differences in how various ethnic groups (European, African, Asian, and American) residing in Emilia Romagna, Italy, perceive the image of nurses. Highlighting differences in perceived professionalism, autonomy, advocacy, and stereotypes, these findings provide critical insights for developing culturally tailored strategies to enhance nursing's professional identity and attractiveness across different populations.

1. Introduction

The nursing image is a multidimensional concept influenced by the social environment, historical culture, public perception, mass media dissemination, and stereotypes that have consistently depicted nurses in a subordinate position (Godsey, Houghton, & Hayes, 2020; Rezaei-Adaryani, Salsali, & Mohammadi, 2012).

A study conducted in Iran demonstrated that the primary role of nurses is to obey and execute physician orders, and their caregiving skills are not appreciated (Nikbakht Nasrabadi & Emami, 2006). In Saudi Arabia, the negative public image of the nursing profession highlights the lack of awareness about the profession; Elmorshedy, AlAmrani, Hassan, Fayed, and Albrecht (2020) found that nursing has negative social consequences due to long working hours and night shifts. Moreover, gender mixing in the workplace is seen as a cultural barrier in Saudi society, reinforcing a negative and disrespectful public perception. In China, nursing is described as a virtuous caregiving profession, often overlooking the essential knowledge, skills, and competencies required (Chen, Du, Shen, Qin, & Zhang, 2024). These authors emphasise that nurses should take a proactive role in shaping a more professional and positive image by showcasing their expertise to the public.

Over time, the stereotypical image of nurses has evolved, particularly following the COVID-19 pandemic, which has positively strengthened their image (Li et al., 2021). During the pandemic, the professional identity of nurses significantly improved; this outcome can be attributed to increased public attention, recognition of their value, professional fulfilment, and feelings of being supported, motivated, respected, and appreciated (Zhang et al., 2021). Since media representation has the power to shape public perceptions and values (Kelly, Fealy, & Watson, 2012), it is essential that it remains as objective and realistic as possible to highlight the invaluable contribution of the nursing profession to the healthcare system (ten Hoeve, Jansen, & Roodbol, 2014). While the media's promotion of virtues such as dedication and sacrifice may seem beneficial, in the long term, it might not strengthen the image of the nursing profession. Instead, it could be detrimental, as it fails to capture the full scope of a competent, intellectual, and irreplaceable profession, potentially reducing its attractiveness (McGinity, 2021).

The literature highlights that the nursing profession's image affects job satisfaction and performance, the quality of care, and the work environment (Dignani et al., 2014; Emeghebo, 2012), as well as organisational and managerial policies (Kelly et al., 2012) and individuals' decision to pursue a nursing career (Weaver, Salamonson, Koch, & Jackson, 2013). Misconceptions and prejudices have severely influenced and undervalued the profession's image and worth. The use of reliable and valid measurement tools can help clarify the attributes and characteristics of the nursing image (Zhou et al., 2023), as well as identify and improve the factors that influence it (Rubbi et al., 2024).

On a global scale, recent studies recommend monitoring public perception changes over time, particularly in response to political and social transformations. Assessing and improving the public image of nursing could enhance the profession's attractiveness, helping to counteract the current nursing shortage (Ahmed, 2024; Rubbi et al., 2024). For this reason, some studies have been conducted in Italy to evaluate the Italian population's perception of nursing (Rubbi et al., 2017; Rubbi et al., 2019; Rubbi et al., 2023). However, no study has specifically investigated how different ethnic groups residing in Italy perceive the public image of Italian nurses.

For these reasons, this study aims to explore and analyse how the image of Italian nurses is perceived by different ethnic groups present in Italy.

2. Methods

2.1. Design

A prospective observational study was conducted from February to September 2024 in various cultural associations.

2.2. Setting and participants

The study involved an adult population aged 18 and older with a total of 205 participants. A convenience, non-probabilistic sampling method was employed, involving individuals from various foreign communities residing in northern Italy, particularly in the Emilia-Romagna region. More specifically, the study was conducted in the province of Ravenna. Based on the number of members affiliated with the various cultural centres that participated in the study, the sample size was calculated using an online sample size calculator. By setting the confidence level at 95% and the confidence interval (CI) at 5, the required sample size was estimated to be at least 201 participants. The study lasted seven months and was carried out within the various foreign communities in the province until the required sample size was reached. The questionnaire was distributed online via the Microsoft Forms platform, and data collection took place in the presence of the researcher through a self-administered questionnaire. Participants were informed about the study's purpose, and informed consent was obtained. Data were collected anonymously. Participants were allowed as much time as needed to understand and answer the questions.

2.3. Data collection and instruments

The study used the Nursing Attitude Questionnaire (NAQ) (Toth, Dobratz, & Boni, 1998), which was modified and validated in Italian (NAQ-IV) (Rubbi et al., 2024). The questionnaire consists of two sections. The first section collects general sociodemographic information, including gender, age, religion, ethnicity, profession, education level, presence of a family member or acquaintance who is a nurse, and previous hospital admission. The second section contains questions related to the nursing profession. The questionnaire includes 30 items organised into four domains: Role & Professionalism, Stereotypes, Value & Advocacy, and Motivation & Satisfaction. Additionally, two summary items were added to the NAQ-IV: "Would you recommend nursing as a career to a

relative or acquaintance?” and “Would you consider enrolling in a nursing degree program?” (Rubbi et al., 2023).

2.4. Data analysis

The database was structured using Microsoft Excel, while Jamovi 2.3.18 was used for statistical analysis. Descriptive statistics were computed, including mean, frequency, percentage, and standard deviation (SD) with a 95% CI. Statistical significance was determined using Analysis of variance for continuous variables and the Chi-square test for nominal variables. Correlations were assessed using Spearman's correlation coefficient, while the internal consistency of the instrument was evaluated using Cronbach's alpha. Sample adequacy was measured using the Kaiser–Meyer–Olkin (KMO) test.

3. Results

A total of 205 observations were collected, of which 59% (n = 121) were female and 41% (n = 81) were male. The sample consisted of 41.5% (n = 85) Europeans, 22.4% (n = 46) Africans, 22% (n = 45) Asians, 10.2% (n = 21) Americans, and 3.9% (n = 8) classified as ‘Other,’ referring to individuals of Oceanic and Antarctic origin. The average age of the sample was approximately 29.6 years.

Regarding educational qualifications, 51.7% (n = 106) held a high school diploma, 24.4% (n = 50) had a university degree, 15.1% (n = 31) had a middle school diploma, 5.9% (n = 12) had an elementary school diploma, and 2.9% (n = 6) held a postgraduate diploma.

The occupational status of respondents was significantly represented by students (34.1% [n = 70]), followed by public or private sector employees (25.4% [n = 52]), unemployed individuals (11.7% [n = 24]), self-employed professionals and homemakers, both at 10.7% (n = 22), and retirees (7.3% [n = 15]).

Regarding religious beliefs, nonparametric analysis revealed significant differences based on geographical origin ($P < 0.0001$). Among Europeans, 31.8% (n = 27) identified as Catholic, 16.5% (n = 14) as agnostic, and 11.8% (n = 10) as either Muslim or Jewish. Among Africans, 78.3% (n = 36) were Muslim, while 6.5% (n = 3) were either agnostic or Catholic. Among Asians, 22.2% (n = 10) identified as Jewish or Buddhist,

8.9% (n = 4) as Catholic, and 6.7% (n = 3) as Muslim. Among Americans, 33.3% (n = 7) were Catholic and 14.3% (n = 3) were Jewish.

Overall, religious affiliation within the sample was distributed as follows: 24.9% (n = 51) Muslim, 20% (n = 41) Catholic, 12.2% (n = 25) Jewish, 9.8% (n = 20) agnostic, 9.8% (n = 20) Buddhist, 6.3% (n = 13) belonging to Indian religions, and 17.1% (n = 35) classified as ‘Other,’ encompassing the remaining religious affiliations including Christian denominations and those not explicitly listed in Table 1. Participants were also asked whether they had a family member or acquaintance who was a nurse and whether they had ever been hospitalised. Regarding the first question, 62.9% (n = 129) reported not having a family member or acquaintance who was a nurse. Concerning hospitalisation history, 53.7% (n = 110) had been admitted to a hospital at least once (Table 1).

The instrument demonstrated good internal consistency across all items ($\alpha = 0.938$) and a correlation (R) ranging from 0.714 to 0.937 for all areas of the instrument. The sample size was deemed valid, with an overall KMO measure of 0.935. Table 2 shows significantly different results across all areas of the NAQ-IV in relation to the participants' country of origin.

In the Role & Professionalism domain, Americans had the highest perception scores (M = 54, SD = 12.56), followed by Europeans (M = 53.1, SD = 9.88), whereas the Asian group recorded the lowest score (M = 39.6, SD = 14.10) ($P < 0.001$).

For the Stereotypes domain, the Likert scores were reversed, meaning that higher scores actually indicate a greater level of disagreement with stereotypes. In this domain, Europeans (M = 22.8, SD = 6.66) and Americans (M = 21.9, SD = 5.36) reported significantly higher scores (indicating lower levels of stereotype acceptance) compared to Africans (M = 18.2, SD = 6.83) and Asians (M = 18.4, SD = 7.08) ($P = 0.003$).

Regarding Perceived Values & Advocacy, Europeans (M = 14.0, SD = 3.10), Africans (M = 13.5, SD = 3.72), and Americans (M = 13.5, SD = 3.96) expressed the highest scores, whereas Asians had the lowest (M = 11.0, SD = 3.51) ($P < 0.001$).

In the Motivation & Satisfaction domain, Americans had the highest perception scores (M = 17.6, SD = 5.36), followed by Europeans (M = 16.4, SD = 2.99). Conversely, Asians showed a significantly lower score (M = 13.5, SD = 4.46) ($P = 0.004$).

Table 1
Sample demographics.

	Europe	Africa	Asia	America	Other	Total		
	n = 85 n (%)	n = 46	n = 45	n = 21	n = 8	N = 205 N (%)	X ²	P
Gender								
Female	52 (61.2)	29 (63.0)	27 (60.0)	9 (42.9)	4 (50.0)	121 (59.0%)	3.02	0.553
Male	33 (38.8)	17 (37.0)	18 (40.0)	12 (57.1)	4 (50.0)	84 (41.0)		
Employment status							28.31	0.102
Homemaker	5 (5.9)	8 (17.4)	6 (13.3)	1 (4.8)	2 (25.0)	22 (10.7)		
Public/private sector employee	29 (34.1)	10 (21.7)	6 (13.3)	6 (28.6)	1 (12.5)	52 (25.4)		
Unemployed	6 (7.1)	5 (10.9)	7 (15.6)	4 (19.0)	2 (25.0)	24 (11.7)		
Self-employed professional	5 (5.9)	6 (13.0)	7 (15.6)	4 (19.0)	–	22 (10.7)		
Retired	6 (7.1)	1 (2.2)	6 (13.3)	1 (4.8)	1 (12.5)	15 (7.3)		
Student	34 (40.0)	16 (34.8)	13 (28.9)	5 (23.8)	2 (25.0)	70 (34.1)		
Education level							25.01	0.07
Elementary school diploma	3 (3.5)	3 (6.5)	4 (8.9)	1 (4.8)	1 (12.5)	12 (5.9)		
Middle school diploma	11 (12.9)	10 (21.7)	9 (20.0)	1 (4.8)	–	31 (15.1)		
High school diploma	43 (50.6)	23 (50.0)	23 (51.1)	10 (47.6)	7 (87.5)	106 (51.7)		
University degree	25 (29.4)	10 (21.7)	9 (20.0)	6 (28.6)	–	50 (24.4)		
Postgraduate degree	3 (3.5)	–	–	3 (14.3)	–	6 (2.9)		
Religious belief							146.05	0.0001***
Agnostic	14 (16.5)	3 (6.5)	1 (2.2)	2 (9.5)	–	20 (9.8)		
Catholic	27 (31.8)	3 (6.5)	4 (8.9)	7 (33.3)	–	41 (20.0)		
Islamic	10 (11.8)	36 (78.3)	3 (6.7)	2 (9.5)	–	51 (24.9)		
Judaism	10 (11.8)	2 (4.3)	10 (22.2)	3 (14.3)	–	25 (12.2)		
Buddhism	6 (7.1)	1 (2.2)	10 (22.2)	1 (4.8)	2 (25.0)	20 (9.8)		
Indian religions	2 (2.4)	1 (2.2)	8 (17.8)	–	2 (25.0)	13 (6.3)		
Other	16 (18.8)	–	9 (20.0)	6 (28.6)	4 (50.0)	35 (17.1)		

*** $P < 0.001$

Table 2
Internal consistency, sample adequacy, and total Likert scores per NAQ-IV domain.

		Europe	Africa	Asia	America	Other				
	R	n = 85 M (DS)	n = 46	n = 45	n = 21	n = 8	F	P	α	KMO
Role & Responsibility	14–70	53.1 (9.88)	48.7 (13.06)	39.6 (14.10)	54.0 (12.56)	41.4 (14.55)	10.84	<0.001***	0.937	0.933
Stereotypes	7–35	22.8 (6.66)	18.2 (6.83)	18.4 (7.08)	21.9 (5.36)	20.6 (7.07)	4.82	0.003**	0.826	0.838
Value & Advocacy	4–20	14.0 (3.10)	13.5 (3.72)	11.0 (3.51)	13.5 (3.96)	11.5 (4.75)	6.05	<0.001***	0.751	0.722
Motivation & Satisfaction	5–25	16.4 (2.99)	15.8 (3.81)	13.5 (4.46)	17.6 (4.08)	14.8 (4.92)	4.69	0.004**	0.714	0.724
Total NAQ-IV	30–150	106.3 (18.77)	96.2 (23.52)	82.5 (22.2)	106.4 (22.89)	88.3 (19.98)	10.34	<0.001***	0.938	0.935

* $P = < 0.05$.

*** $P = < 0.001$.

** $P = < 0.01$.

Table 3
Agreement levels for each NAQ-IV item.

	Europe	Africa	Asia	America	Other			
	n (%)					N (%)	X ²	P
1. Nurses are a resource for people with health problems	68 (80)	33 (71.7)	20 (44.4)	14 (66.7)	6 (75.0)	141 (68.8)	17.97	0.021*
2. Being a nurse requires intelligence	39 (45.9)	16 (34.8)	5 (11.1)	11 (52.4)	2 (25.0)	73 (35.6)	26.52	0.001**
3. The service provided by nurses is as important as that provided by doctors	46 (54.1)	12 (26.1)	4 (8.9)	9 (42.9)	4 (50.0)	75 (36.6)	37.07	<0.0001***
4. Nurses integrate health teachings into patient care	67 (78.8)	27 (58.7)	15 (33.3)	18 (85.7)	4 (50.0)	131 (63.9)	3.421	<0.0001***
5. Scientific research is vital for the nursing profession	61 (71.8)	26 (56.5)	15 (33.3)	17 (81.0)	4 (50.0)	123 (60.0)	31.92	<0.0001***
6. Nurses are capable of working autonomously	40 (47.1)	18 (39.1)	9 (20.0)	10 (47.6)	3 (37.5)	80 (39.0)	15.37	0.052
7. Nurses should have the right to strike	77 (90.6)	36 (78.3)	26 (57.8)	18 (85.7)	4 (50.0)	161 (78.5)	27.64	0.001**
8. Men make good nurses	51 (60.0)	22 (47.8)	18 (40.0)	14 (66.7)	2 (25.0)	107 (52.2)	15.41	0.052
9. Nursing is an exciting job	59 (69.4)	35 (76.1)	21 (46.7)	15 (71.4)	2 (25.0)	132 (64.4)	17.56	0.025*
10. Nurses integrate research findings into their clinical practice	66 (77.6)	34 (73.9)	15 (33.3)	15 (71.4)	4 (50.0)	134 (65.4)	41.41	<0.0001***
11. The most important goal of nursing research is to improve patient care	75 (88.2)	41 (89.1)	30 (66.7)	19 (90.5)	4 (50.0)	169 (82.4)	21.47	0.006**
12. Nurses value the time they spend at the bedside taking care of patients	55 (64.7)	25 (54.3)	20 (44.4)	16 (76.2)	3 (37.5)	119 (58.0)	14.20	0.077
13. Nurses should have a degree to practice the profession	52 (61.2)	20 (43.5)	11 (24.4)	13 (61.9)	2 (25.0)	98 (47.8)	24.00	0.002**
14. Nurses with a master's degree make important contributions to patient care	51 (60.0)	24 (52.2)	16 (35.6)	16 (76.2)	4 (50.0)	111 (54.1)	21.65	0.006**
15. Nurses should wear a white uniform for identification	25 (29.4)	25 (54.3)	23 (51.1)	12 (57.1)	1 (12.5)	86 (42.0)	22.493	0.004**
16. If nurses spent more time caring for patients and less time at university, everyone would benefit	20 (23.5)	18 (39.1)	19 (42.2)	3 (14.3)	3 (37.5)	63 (30.7)	11.23	0.189
17. Nurses are sufficiently rewarded for their work by knowing they are helping others	31 (36.5)	22 (47.8)	21 (46.7)	8 (38.1)	5 (62.5)	87 (42.4)	6.28	0.616
18. Nurses follow doctors' orders without objection	21 (24.7)	24 (52.2)	26 (57.8)	6 (28.6)	3 (37.5)	80 (39.0)	22.52	0.004**
19. Many nurses seeking career advancement actually want to become doctors	27 (31.8)	28 (60.9)	30 (66.7)	6 (28.6)	4 (50.0)	95 (46.3)	25.80	0.001**
20. Nurses are adequately paid for the work they do	23 (27.1)	21 (45.7)	24 (53.3)	8 (38.1)	4 (50.0)	80 (39.0)	11.84	0.158
21. One of the advantages of being a nurse is the opportunity to marry a doctor	30 (35.3)	35 (76.1)	34 (75.6)	11 (52.4)	2 (25.0)	112 (54.6)	45.18	<0.0001***
22. Nurses are advocates for patient rights	60 (70.6)	28 (60.9)	14 (31.1)	13 (61.9)	3 (37.5)	118 (57.6)	25.29	0.001**
23. Nurses protect patients within the healthcare system	49 (57.6)	16 (34.8)	14 (31.1)	7 (33.3)	5 (62.5)	91 (44.4)	16.59	0.035*
24. Nurses participate in the development of healthcare policies	41 (48.2)	23 (50.0)	10 (22.2)	10 (47.6)	3 (37.5)	87 (42.4)	16.04	0.042*
25. Nurses are generally kind and compassionate	41 (48.2)	28 (60.9)	14 (31.1)	13 (61.9)	2 (25.0)	98 (47.8)	30.78	<0.0001***
26. Nurses are politically active	16 (18.8)	10 (21.7)	7 (15.6)	10 (47.6)	3 (37.5)	46 (22.4)	20.73	0.008**
27. Nurses strongly oppose inadequate working conditions	46 (54.1)	25 (54.3)	20 (44.4)	15 (71.4)	2 (25.0)	108 (52.7)	21.60	0.006**
28. Nursing is a respected profession	26 (30.6)	15 (32.6)	9 (20.0)	7 (33.3)	3 (37.5)	60 (29.3)	9.96	0.268
29. Nurses continuously update their practice based on the latest healthcare discoveries	65 (76.5)	32 (69.6)	20 (44.4)	13 (61.9)	4 (50.0)	134 (65.4)	29.71	<0.0001***
30. Nurses are satisfied with their work	44 (51.8)	24 (52.2)	15 (33.3)	14 (66.7)	4 (50.0)	101 (49.3)	17.08	0.029*

* $P = < 0.05$.

** $P = < 0.01$.

*** $P = < 0.001$.

Overall, the NAQ-IV registered total scores above 100 among the American population ($M = 106.4$, $SD = 22.89$), followed closely by Europeans ($M = 106.3$, $SD = 18.77$). Africans had an average score of 96.2 ($SD = 23.52$), while the Asian population recorded the lowest score ($M = 82.5$, $SD = 22.2$) ($P < 0.001$).

Table 3 highlights the agreement levels for each NAQ-IV item.

The results show significant differences across a large portion of the instrument. Summarising the highest and lowest agreement percentages, the following findings emerge: 80% of Europeans vs. 44% of Asians perceive nurses as a resource for individuals with health issues, while 52.4% of Americans vs. 11.1% of Asians believe that intelligence is required to be a nurse.

For Question 3, 54.1% of Europeans vs. 8.9% of Asians perceive nursing as equally important as the medical profession. For Question 4, which states that “nurses integrate health teachings into patient care,” and for the following statement, “scientific research is vital for

the nursing profession,” more than 80% of Americans vs. 33.3% of Asians expressed agreement.

Although the differences were not significant, in Question 6, which states that nurses can operate independently, the agreement levels were below 50% across the entire sample, with the lowest agreement from Asians (20%).

However, 90% of Europeans vs. 57.8% of Asians believe that nurses should have the right to strike. 76.1% of Africans consider nursing an exciting job, compared to 46.7% of Asians and 25.0% of other ethnic groups.

For Question 10, which states that nurses integrate research findings into clinical practice, agreement levels were significantly higher among Europeans (77.6%) vs. Asians (33.3%). However, for Question 11, which affirms that “the primary goal of nursing research is to improve patient care,” even the Asian population expressed over 60% agreement, while Americans exceeded 90% agreement.

Regarding the necessity of a degree for nursing practice, 61.9% of Americans consider a nursing degree useful vs. 24.4% of Asians. Similarly, for a master's degree as a qualification to improve patient care, Americans showed 76.2% agreement, whereas Asians reported only 35.6% agreement.

For Question 15, which states that “nurses should wear a white uniform for identification purposes,” Europeans showed the lowest level of agreement (29.4%) compared to the rest of the sample, which reported values above 50%.

For Question 18, which states that “nurses follow doctors’ orders without objection,” agreement levels were below 30% among Europeans and Americans, while the rest of the sample expressed over 50% agreement.

Both African and Asian respondents, with over 60% agreement, believe that many nurses seeking career advancement actually aspire to become doctors. In contrast, Europeans and Americans showed around 30% agreement.

Unlike Asians (53.3%) and Africans (45.7%), both Americans and Europeans had agreement levels below 40% on the statement that nurses are adequately paid for their work.

Another significant stereotype-related item was Question 21, which states that “one advantage of being a nurse is the opportunity to marry a doctor.” Africans (76.1%), Asians (75.6%), and Americans (52.4%) showed significantly higher agreement levels compared to Europeans (35.3%).

70.6% of Europeans vs. 31.1% of Asians view nurses as professionals who advocate for patients’ rights. However, agreement levels decreased when respondents were asked whether nurses protect patients within the National Health System (NHS). On this item, 62.5% of Americans, 22.2% of Asians, 34.8% of Africans, and 57.6% of Europeans expressed agreement.

Regarding nurses’ involvement in healthcare policy development, the entire sample reported agreement levels at or below 50%.

For Question 25, 60.9% of Africans vs. 31.1% of Asians perceive nurses as generally kind and compassionate.

For the statement “Nurses are politically active,” the highest agreement percentage was found among Americans (47.6%), followed by Africans (21.7%), Europeans (18.8%), and Asians (15.6%).

76.5% of Europeans vs. 44.4% of Asians believe that nurses consistently update their practice based on the latest healthcare discoveries.

For the final question, which states that nurses are satisfied with their work, Americans showed the highest agreement (66.6%), followed by Africans (52.2%), Europeans (51.8%), and Asians (33.3%).

For the item “Nursing is a respected profession,” agreement levels were 33.3% among Americans, 32.6% among Africans, 30.6% among Europeans, and 20.0% among Asians.

Table 4 does not show significant differences. Overall, 42% ($n = 86$) of respondents would recommend nursing as a career to a relative or acquaintance, but only 23.9% ($n = 49$) would personally choose to become a nurse. The latter percentage closely aligns with the item in Table 3, which states that nursing is a respected profession (29.3%). Cramér’s V index indicated a weak association for both items, with values below 0.2.

The study demonstrated a positive direct correlation between the summary items and most of the NAQ-IV domains. A negative correlation was observed only in the Stereotypes domain (Table 5).

4. Discussion

Despite widespread media recognition of nurses’ intensive work during the COVID-19 pandemic (Carriero et al., 2021; Conte et al., 2020; Fontanini et al., 2021; Giorgetta & Pasquot, 2021; Vitale et al., 2021a, 2021b), the results indicate differences in the perception of nurses among various ethnic and religious groups. In particular, significant distinctions emerge between European, American, African, and Asian populations. These differences are also evident in previous studies conducted using the NAQ on Italian citizens (Rubbi et al., 2023). Europeans and Americans tend to have a more favourable perception of the nursing profession, whereas Asians, in particular, expressed a more critical view, with significantly lower scores in the areas of advocacy, professional satisfaction, and nursing autonomy (Liu, Aunguroch, & Yunibhand, 2016; Yildirim & Correia, 2015).

The results of this study confirm the initial objective, demonstrating that perceptions of the nursing profession vary significantly based on the sociodemographic and cultural backgrounds of respondents. Existing literature highlights how the perception of the nursing role is often influenced by culture, the local healthcare system, and the education level of the population (ten Hoeve et al., 2014; Vitale et al., 2023; Zhang et al., 2021). Previous studies conducted in Europe and the United States have emphasised that populations in developed countries tend to view nursing more positively, associating it with values such as empathy, caregiving, and the importance of independent work in patient management (Liu et al., 2016; Yildirim & Correia, 2015). This aligns with our findings, where the European and American samples recorded a generally favourable perception, with higher scores in nursing advocacy and professional satisfaction.

On the other hand, the negative results among the Asian sample can be interpreted in light of cultural and structural differences in healthcare systems across many Asian countries, where the nursing profession is often seen as subordinate to physicians and less valued (Välimäki, Mäki-Petäjä-Leinonen, & Vaismoradi, 2020). These ethnic groups expressed critical views on the importance of the nursing profession. A notable finding is the low recognition of nursing as an intellectual profession, with only a small percentage of Asians agreeing that intelligence is required to be a nurse. This lack of intellectual recognition is further reflected in the fact that only 24.4% of Asians and 43.5% of Africans believe a university degree is necessary for nursing practice. Even more significantly, only a small proportion of African and Asian respondents consider nursing as important as medicine. These negative perceptions among the Asian sample may be linked to cultural stereotypes and a lack of recognition of nursing as an autonomous profession (ten Hoeve et al., 2014). In our study, nursing autonomy was perceived at levels below 50% across all respondents, but Africans and Asians recorded the lowest scores. Previous studies have identified several factors contributing to the negative perception of nursing autonomy. For example, a 2022 study in Iran by Balasi, Elahi, Ebadi, Hazrati, and Jahani (2023) highlighted that religious, economic, political, social, and communication factors influence public perception of nurses’ professional autonomy. Similarly, a 2008 study conducted in Jordan by Shuriquie, While, and Fitzpatrick (2008) found a direct relationship between the negative public image of nurses and other factors

Table 4
Agreement percentages for summary items.

	Europe	Africa	Asia	America	Other	Total			
	n (%)					N (%)	X^2	P	V
I would recommend a relative/acquaintance to become a nurse	40 (47.1)	24 (52.2)	9 (20.0)	10 (47.6)	3 (37.5)	86 (42.0)	12.4	0.136	0.174
I would like to / I would have liked to become a nurse	25 (29.4)	12 (26.1)	4 (8.9)	6 (28.6)	2 (25.0)	49 (23.9)	14.6	0.067	0.189

Table 5
Correlation matrix between summary items and NAQ-IV domains.

	I would recommend a relative/acquaintance to become a nurse	I would like to / I would have liked to become a nurse
I would like to / I would have liked to become a nurse	0.601***	–
Role & Professionalism	0.638***	0.575***
Stereotypes	–0.286***	–0.336***
Value & Advocacy	0.562***	0.491***
Motivation & Satisfaction	0.641***	0.536***

*** $P = < 0.001$.

that contribute to a lack of professional respect. These included the perception of nursing as an exhausting job with antisocial working hours and its association with domestic service. Thus, the lack of role clarity often makes nursing a less attractive career choice for intellectually driven individuals. A 2023 qualitative study in Iran by [Zamanzadeh, Ghahramanian, Valizadeh, and Bagheriyeh \(2023\)](#) described nurses as physically resilient workers with strong communication and emotional skills but with limited intellectual capabilities. Unfortunately, these public perception studies yield findings that diverge significantly from the recommendations in the scientific literature. In fact, the academic community in many Asian countries advocates for nursing autonomy as a crucial factor in ensuring and improving clinical outcomes in hospitals, nursing homes, and research facilities ([Järvinen, Heikkilä, Meyermanova, Kuanys, & Molotov-Luchanskiy, 2023](#); [Rababa & Ellis, 2021](#); [Taleghani, Dehbozorgi, Babashahi, Monemian, & Masoumi, 2023](#)). However, our study found positive recognition of nursing research, with Americans expressing the highest level of agreement, followed by Europeans, and moderate agreement from other groups. This encouraging result aligns with recent Asian studies, which emphasise the importance of increasing research output to demonstrate the clinical effectiveness of nursing and its contribution to healthcare policy ([Järvinen et al., 2023](#); [Lupo et al., 2020](#)). The correlation between nursing research and improved patient care was recognised even by the most skeptical ethnic groups, with agreement levels exceeding 65%. However, Asian respondents showed agreement levels below 35% when asked whether nurses integrate research findings into their clinical practice and whether scientific research is vital for the nursing profession. These low agreement levels may also be linked to stigma that fails to acknowledge the intellectual dimension of nursing ([Zamanzadeh et al., 2023](#)). Similarly, African and Asian respondents were hesitant to agree that nurses incorporate health teachings into patient care, a perception that contradicts scientific literature, which strongly emphasises education and knowledge integration as essential for improving nursing practice and advancing the profession ([Zou et al., 2024](#)).

Although Africans generally demonstrated an intermediate level of perception, they expressed relatively high agreement that nursing is an exciting profession and that continuous professional development is essential. This may suggest that, despite significant challenges in recognising nursing competencies, the African population sees nurses as playing a critical role in healthcare provision due to the shortage of physicians. Indeed, in some regions of East Africa, it is not uncommon for nurses to take on the roles of physicians, laboratory technicians, or pharmacists, exposing them to working beyond their scope of practice without proper training, relevant competencies, or legal protection ([Ndirangu, Sarki, Mbekenga, & Edwards, 2021](#)). Another noteworthy aspect that warrants further investigation is the difference in opinions regarding the role of nurses in advocating for patient rights. While 70.6% of Europeans agree that nurses serve as patient advocates, only 31.1% of Asians

share this view. Although these discrepancies may be partly explained by differences in healthcare systems and legal frameworks, advocacy is recognised in the literature as crucial for shaping nurses' self-concept and professional identity. As patient advocates, nurses are in a strategic position to increase their visibility and demonstrate to the public what nursing truly entails ([Donadio, 2016](#)). Regarding stereotypes, even though higher levels of agreement were observed among Asian and African respondents for many stereotype-related items ([Ndirangu et al., 2021](#); [Zamanzadeh et al., 2023](#)), our study found a negative correlation between summary items and the Stereotypes domain. This finding may be seen as an encouraging result since, although the public image of nursing is still associated with many stereotypes, these perceptions appear to be changing. However, compared to previous studies conducted on Italian citizens ([Rubbi et al., 2024](#)), the participants in this study appeared more skeptical about recommending or choosing nursing as a career. The sample of this study, although with variations in sample size among ethnic groups that may not allow for generalisation of the results, appeared very skeptical about recommending or choosing a nursing career.

For these reasons, the vast body of nursing knowledge, if recognised as the foundation of professional behaviour, could help reshape the public image of nursing, increase awareness of its complexity, and enhance the profession's attractiveness. Challenging the notion of a fixed nursing identity, encapsulated in the phrase "A nurse will always be a nurse" ([van der Cingel & Brouwer, 2021](#)), must become an irrevocable priority for the nursing profession.

5. Limitations

This study is not without limitations. First, the sample size may not be large enough to adequately represent all ethnic and religious groups. Second, the quantitative approach allowed for a structured data analysis but limited the exploration of subjective motivations behind responses, as highlighted by [Toth et al. \(1998\)](#). Finally, voluntary participation may have introduced selection bias, as those who chose to participate may have had different perspectives and experiences compared to those who did not ([Rubbi et al., 2024](#)).

6. Conclusions

This study has provided evidence on the perceptions and stereotypes surrounding the nursing profession, highlighting how these are strongly influenced by cultural, ethnic, and social contexts. The complexity of the collected data underscores that, while nursing is universally recognised as essential for the proper functioning of healthcare systems, its perception varies significantly depending on respondents' experiences and socio-cultural backgrounds.

In particular, it is evident that in some geographical areas, nurses are fully valued and acknowledged for their importance, especially in America and Europe. However, in other regions, such as Asia and Africa, more traditional and stereotyped views persist.

These findings should encourage the nursing community to reflect on challenging the notion of an immutable nursing identity, which is sometimes deeply ingrained in the professional framework. Instead, nurses should adopt behaviours and attitudes that make their professional development more visible and appreciated ([King et al., 2021](#)). Further studies with homogeneous samples across the different ethnic groups are recommended.

Authorship contribution statement

Ivan Rubbi: Conceptualization, Methodology, Validation, Investigation, Data curation, Writing – original draft, Writing –

review & editing. **Elyaakoubi Najlaa**: Methodology, Investigation. **Luana Conte**: Software, Formal analysis, Investigation, Data curation. **Roberto Lupo**: Visualization, Investigation. **Paola Ferri**: Supervision. **Giorgio De Nunzio**: Supervision. **Donato Cascio**: Supervision. **Valeria Cremonini**: Validation, Supervision. **Claudia Cadas**: Validation, Supervision. **Gianandrea Pasquinelli**: Supervision, Writing – review & editing.

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Ethical statement

The research was approved by the Bioethics Committee of the University of Bologna (protocol no. 0032008, 06/02/2024).

Conflict of interest

Authors declare no conflicts of interest.

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