

# Nurses' Perception about Stakeholders' Image of a Nurse

Ana Vaz De Braganca<sup>1</sup> R. Nirmala<sup>2</sup>

<sup>1</sup>Institute of Nursing Education, Bambolim, Goa, India

<sup>2</sup>Goa Business School, Goa University, Goa, India

**Address for correspondence** Ana Vaz De Braganca, MSc, Institute of Nursing Education, Bambolim Goa 403202, India (e-mail: braganzaana@gmail.com).

J Health Allied Sci<sup>NU</sup>:2021;11:12–17

## Abstract

**Introduction** The diversity in the public image about nurses, the nursing profession, and the comprehension about the true functions and domains of nurses' job engagement is one of the powerful contrivances that impact nurses' self-esteem and authority, and recruitment and retention in the health industry.

**Objective** This study aims at identifying the difference between nurses' perception about the different stakeholders' image of a nurse.

**Methods** Self-reports on nurses' perception about doctors' image of a nurse, patients' image of a nurse, other hospital staffs' image of a nurse, and self-perception about a nurse were collected from a sample of 749 registered nurses selected using stratified random sampling from different settings across the state. Data were collected using an adapted version of the Porter Nursing Image Scale.

**Results** Data were tested for the mean and standard deviation (SD); and within-subjects difference using the general linear model and repeated measures analysis of variance indicated a difference in the nurses' perception about image of a nurse with respect to doctors (mean = 53.22; SD = 6.5), patients (mean = 51.91; SD = 6.9), other hospital staff (mean = 53.05; SD = 6.8), and self (mean = 58.36; SD = 6.9), with  $F(2.625, 1963.5) = 352.656, p < 0.000$ , and  $R^2 = 0.32$ .

**Conclusion** The findings indicate a difference in the nurses' perception about the stakeholders' image of a nurse. This research suggests the need for strategies toward promoting positive nurse image among stakeholders.

## Keywords

- ▶ doctors
- ▶ hospital staff
- ▶ nurses
- ▶ patients
- ▶ perception
- ▶ self-reports

## Introduction

Despite the impressive evolution of the profession and the expanded role toward delivery and intensification of health care services, nurses across the globe continue to stumble through the challenges of shortage,<sup>1</sup> the increasing need due to retiring workforce,<sup>2</sup> and the retention of juvenile nurse graduates. Furthermore, the experienced nurses do not wish to advocate nursing career for the younger generation.<sup>3</sup> Although the societal appraisal of nurses is determined through their role performance as well as the significance of their work,<sup>4</sup> there is diversity in the public image about the profession and the professionals as well as concerning the

knowledge about the true functions and domains of nurses' job engagement.<sup>5</sup> This image perception is one of the powerful contrivances that impact nurses' self-esteem and authority,<sup>6</sup> and recruitment and retention in the health industry.<sup>7</sup>

## Literature Review

Several researchers have explored physicians' image of a nurse,<sup>8,9</sup> whereas others have assessed patients' perception.<sup>8,10</sup> Some have explored other health care workers' image of a nurse,<sup>10</sup> public image of a nurse,<sup>2,11-13</sup> and media image.<sup>14-16</sup> A few have also identified the image from nurses themselves<sup>8,17</sup> as well as among nursing students.<sup>13,18</sup>

**published online**  
September 18, 2020

**DOI** <https://doi.org/10.1055/s-0040-1716810>  
**ISSN** 2582-4287.

© 2020. Nitte (Deemed to be University).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

Thieme Medical and Scientific Publishers Pvt. Ltd. A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

A few researchers have disclosed a significant relationship between image of a nurse and job satisfaction/performance. The stereotypical, traditional public as well as the image of a nurse among nurses themselves has been identified as having a significant relationship with their job satisfaction and retention plans,<sup>19</sup> self-esteem, self-concept, job satisfaction, job performance,<sup>20</sup> turnover intentions,<sup>21</sup> intention to migrate,<sup>22</sup> and professionalization of these professionals.<sup>23</sup> ten Hoeve et al<sup>24</sup> indicated the diversity in the actual public view about nurses and the need of identifying strategies that will encourage nurses to improve their public image, which is crucial in enhancing professionalization and professional attitudes among these professionals.

## Objective

Extant research related to the construct, image of a nurse and/or nursing among physicians, patients, general public, nursing students, and nurses themselves has emanated from the developed countries. There is limited exploration of this construct in the developing countries including India. Moreover, there is limited research on image of a nurse by stakeholders from the nurses' perspective especially in the Indian setting. India is a developing nation, and the nurses from this country serve as a major segment of health care human resource for the developing countries. Also, doctors and patients are the imperative members of the health care team and other hospital personnel directly or indirectly influence nursing care services. What and how the nurses perceive what the stakeholders think about a nurse can influence the professionals' behavior and attitude. Hence, this study tries to explore and test the difference in the stakeholders' image of a nurse from the perspective of nurses employed in the various settings within the state. The aim of the study is to identify the difference in nurses' perception about different stakeholders' image of a nurse.

## Methods

### Study Design

An exploratory survey was used to identify the nurses' perception about the stakeholders' image of a nurse.

### Materials

An adapted version of the Porter Nursing Image Scale<sup>25</sup> designed to capture nurses' self-image as a 32-item three-dimensional bipolar semantic differential scale was used to collect data in this study. The adaptation process was based on the guidelines outlined by Van Widenfelt et al.<sup>26</sup> Permission was sought from the original author for use as well as for adaptation of the scale. Item reduction was performed by deleting items having a similar meaning. The tool was validated by 11 experts from the nursing and management domain. The tool was also validated by the original authors. The item content validity index was between 0.875 to 1 and scale content validity index was 0.982. Reliability test for internal consistency of the tool indicated Cronbach  $\alpha$  value of 0.851. A unipolar five-point rating scale was finalized with 14 items on three

dimensions (**►Supplementary Material**, available in the online version).

### Population and Sample

The sample in this study was selected using the stratified proportionate random sampling technique. The population of registered nurses was stratified based on the health care sectors within the state of Goa. The accessible population of nurses employed in the government ( $N = 1,289$ ), private ( $N = 338$ ), and autonomous ( $N = 35$ ) considered as each strata was 1,662. The calculated sample size for the accessible population at 95% confidence level and 5% margin of error was 322 (using the table for estimating sample size for 2,000 population, sample size calculator indicated a sample size of 312, or 10% of population as a good sample size). List of nurses with a minimum of six months' work experience was obtained from the management of each setting. Individual sampling frames were prepared, and a specific code number was assigned to each nurse for each stratum. Around 50% of the nurses, i.e., 833 (government = 645; private = 170; and autonomous = 18) were randomly selected as a proportionate study sample using the lottery method.

### Ethical Considerations

Ethical approval was sought from the ethical committee in the government sector, and written permission was obtained from individual private and autonomous hospital administrative heads. Written informed consent was obtained from every respondent after due explanation and confidentiality assurance.

### Data Collection

Data were collected as self-reports from registered nurses regarding their perception about doctors' image of a nurse, patients' image of a nurse, other hospital staffs' image of a nurse, and self-perception about a nurse using nurses' perception about stakeholders' image of a nurse scale. The tool administered to 830 registered nurses was collected after a day. Due to attrition, data were obtained from 749 nurses and used for analysis in SPSS (IBM Corp.). The sample demographics are shown in **►Table 1**.

## Results

The data in **►Table 2** tested for the mean and standard deviation (SD) indicate that the nurses' perception about the different stakeholders' image of a nurse was favorable but differed with respect to every stakeholder. Furthermore, the mean values indicate that the nurses themselves had the most favorable image of a nurse (mean = 58.37; SD = 6.91). They perceived that the doctors had more favorable image of a nurse (mean = 53.22; SD = 6.49) as compared with other hospital staff (mean = 53.06; SD = 6.78) and that the patient's favored the image of a nurse the least (mean = 51.91; SD = 6.89).

As data were gathered from the sample regarding four individual stakeholders, further test for within-subjects

difference using the general linear model and repeated measures analysis of variance (ANOVA) in SPSS was performed to identify the difference in the nurses' perception. This analytical technique creates the "Within-Subjects Factor," which is considered as an independent variable from among

the two or more existing variables, which then are considered as the levels of the new independent variable.<sup>27</sup>

## Repeated Measures ANOVA

Assumptions of repeated measures ANOVA include the following:

- Independence of observations (within-subjects or repeated measures).
- Deviations from the mean of each person's score on one measure and more than one measure for each person.
- The covariance involves deviations from the mean of each of two measures for each person.
- Homogeneity assumption known as sphericity mandates equal variances and covariance for every level of within-subjects variable.

Behavioral science data rarely meets the sphericity assumption, which can seriously influence the results. Fortunately, this problem can be dealt with by adjusting the degrees of freedom (dfs) or using multivariate tests of the within-subjects effect and test whether the ratings are equal. The sphericity assumption is tested using the Mauchly test, the Huynh-Feldt tests, and/or the Greenhouse-Geisser test.

Data in ►Table 3 show that all the four tests in the multivariate analysis have the same *F* values and are significant (230.502;  $p < 0.000$ ). However, Wilks' lambda is a commonly considered multivariate test. The significant *F* (230.5;  $p < 0.000$ ) indicates that there is a difference in how the construct, nurses' perception about different stakeholders' image of a nurse, is rated.

Further, as seen in ►Table 4. Mauchly's test for sphericity is used to test the level of significance and obtain the epsilon (Greenhouse-Geisser or Huynh-Feldt). Mauchly's test statistics is significant ( $W = 0.815$ ;  $p < 0.01$ ) and the epsilons (Greenhouse-Geisser = 0.872; Huynh-Feldt = 0.875), which are measures of degree of sphericity, are less than 1.0. This indicates that the assumption of sphericity is violated.

In such case, either the results of the multivariate tests or the epsilons are used to adjust the "dfs" numerator and denominator. Correction is made to reduce the dfs by multiplying them by epsilon. Greenhouse-Geisser' test is used when Mauchly's *W* is  $< 0.75$  and Huynh-Feldt's test is used when Mauchly's *W* is  $> 0.75$ . The test of within-subjects effects indicates the dfs as 3 and 2,244, as shown in ►Table 5.

**Table 1** Sample demographics ( $n = 749$ )

Variable	Classification	Frequency	Percentage
Age (y)	20–30	375	50
	30–40	217	29
	40–50	122	16.3
	50–60	35	4.7
Marital status	Married	458	61.1
	Single	291	38.9
Qualification	GNM	422	56.3
	B. Sc. Nursing	319	42.6
	M. Sc. Nursing	8	1.1
Area of work	Medicine	150	20
	Surgery	163	21.8
	Obst-Gynae	75	10
	Pediatrics	89	11.9
	Emergency/ICU	164	21.9
	Psychiatry	25	3.3
	Community	83	11.1
Sector	Government	586	78.2
	Private	151	20.2
	Autonomous	12	1.6

Abbreviations: ICU, intensive care unit; Obst-Gynae, obstetrics and gynecology.

**Table 2** Mean and SD related to nurses' perception about different stakeholders' image of a nurse ( $n = 749$ )

No.	Measure	Mean	SD
1	Nurses' perception about doctors' image of a nurse	53.22	6.49
2	Nurses' perception about patients' image of a nurse	51.92	6.89
3	Nurses' perception about other hospital staffs' image of a nurse	53.06	6.78
4	Nurses' perceived image of a nurse	58.37	6.910

Abbreviation: SD, standard deviation.

**Table 3** Multivariate tests<sup>a</sup> indicating the *F* values and level of significance

Effect		Value	<i>F</i>	Hypothesis df	Error df	Significance	Partial eta squared
Image	Pillai's trace	0.481	230.502 <sup>b</sup>	3.000	746.000	0.000	0.481
	Wilks' lambda	0.519	230.502 <sup>b</sup>	3.000	746.000	0.000	0.481
	Hotelling's trace	0.927	230.502 <sup>b</sup>	3.000	746.000	0.000	0.481
	Roy's largest root	0.927	230.502 <sup>b</sup>	3.000	746.000	0.000	0.481

Abbreviation: df, degree of freedom.

<sup>a</sup>Design: Intercept Within Subject Design: image

<sup>b</sup>Exact statistics computed using  $\alpha = 0.05$ .

Note: Design: Intercept Within-Subjects Design: image

**Table 4** Within-subject effects with Mauchly's test of sphericity<sup>a</sup>

Within-subjects effect	Mauchly's W	Approx. chi-square	df	Significance	Epsilon <sup>b</sup>		
					Greenhouse-Geisser	Huynh-Feldt	Lower bound
Image	0.815	152.439	5	0.0000	0.872	0.875	0.333

Abbreviation: df, degree of freedom.

<sup>a</sup>Design: Intercept Within Subject Design: image.

<sup>b</sup>May be used to adjust the degrees of freedom for the averaged tests of significance.

Notes: Tests the null hypothesis so that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix. Corrected values are displayed in Table 6.

**Table 5** Within-subjects effects with dfs

Source		Type III sum of squares	df	Mean square	F	Significance	Partial eta squared
Image	Sphericity assumed	18,594.250	3	6,198.083	352.656	0.000	0.320
	Greenhouse-Geisser	18,594.250	2.615	7,110.178	352.656	0.000	0.320
	Huynh-Feldt	18,594.250	2.625	7,083.092	352.656	0.000	0.320
	Lower bound	18,594.250	1.000	18,594.25	352.656	0.000	0.320
Error (image)	Sphericity assumed	39,439.250	2244	17.575			
	Greenhouse-Geisser	39,439.250	1,956.139	20.162			
	Huynh-Feldt	39,439.250	1,963.620	20.085			
	Lower bound	39,439.250	748.000	52.726			

Abbreviation: df, degree of freedom.

Note: Values computed using  $\alpha = 0.05$ .

Since the assumption sphericity is violated in these data, and Mauchly's W is more than 0.75, correction is made using the Huynh-Feldt epsilon (0.875), which is multiplied by 3 and 2,244, yielding dfs of 2.625 and 1963.5, respectively.

► **Table 6** shows that values obtained after correcting the dfs are the same as the table values. Hence, using repeated measures ANOVA and Huynh-Feldt's correction, the findings can be considered as indicative of the difference in the nurses' perception about the different stakeholders' image of a nurse with respect to doctors, patients, and other hospital staff, as well as self-perception, with  $F(2.625, 1963.5) = 352.656$ ,  $p < 0.000$ , and  $R^2 = 0.32$ .

## Discussion

The findings of this study indicate that there is a difference in the nurses' perception about the stakeholders' image of a nurse. The construct, image of a nurse, has been explored by several researchers and have reported varied findings. General public had a positive professional view of nurses.<sup>11</sup>

However, nurses themselves did not hold positive self-image, which was consistent with public image.<sup>20</sup> This is further contradicted by Siebens et al<sup>17</sup> and Takase et al.<sup>21</sup> Nurses' image differed according to the departments; department of nursing had the most positive image, followed by physical therapy, radiology, emergency medical technology, and least by clinical pathology.<sup>28</sup> Image of nurses was low among second- and third-year nursing students.<sup>18</sup> Slovenian newspapers presented a relatively positive image of nurses.<sup>15</sup> Nurses' appraisal was lower among patients as well as among doctors as compared with the appraisal by nurses themselves.<sup>8</sup> Patients visiting acute care units of private hospitals in South Africa described a positive image of nurses.<sup>10,12</sup> However, the South African newspapers presented negative images of nurses.<sup>16</sup> Self-perception of nurses' image was higher than the perceived public image among nurses.<sup>13</sup> ten Hoeve et al<sup>24</sup> discussed that the actual public image of nurses is varied and incongruous.

The findings also indicate significant practice-related implications. Nurses serve as the most significant members of the

**Table 6** Corrected values using dfs and Huynh-Feldt's epsilon

Image df	Huynh-Feldt df	Huynh-Feldt epsilon	Value obtained after correction
3	2.625	0.875	$0.875 \times 3 = 2.625$
2,244	19,63.620		$0.875 \times 2,244 = 1963.5$

Abbreviation: df, degree of freedom.

multidisciplinary health care team across all health care settings; hence, identification of this construct with reference to varied stakeholders was considered important. The common understanding holds that doctors are all powerful, authoritative, and knowledgeable, but nurses' are less professional subordinates, merely following doctors' orders. Nursing is not even considered as a professional career. The perception of nurse image by different stakeholders is interconnected. Nurses' perception about their image by various stakeholders influences their thought, actions, and particularly interpersonal and professional relations in the team. It is important to understand doctors' image of a nurse because a trustworthy and respectful relationship between the nurses and doctors facilitates effective communication and promotes confidence. This further endorses efficient nursing care practices and significantly influences patient care outcomes. Patients' as well as other hospital staffs' image of a nurse is important as it can be a powerful tool that directly and quickly extends the nurses' image throughout the community. This image has the potential to stimulate prospective new entrants into the profession as well as influence the recruitment, performance, and retention of these professionals. Positive stakeholders' image in conjunction with the positive nurses' perceived image of a nurse is associated with enhanced self-esteem, fruitful interpersonal relations among the team, and improved job satisfaction, leading to productive participation in decision-making, maintaining standards of practice, and improving patients' satisfaction. This is a cyclic process that can prop up the image of a nurse.

## Conclusion

The findings of this study indicate that although the overall perception of nurses' about the stakeholders' image of a nurse is favorable, there is a difference in the nurses' perception with respect to the doctors', patients', and other hospital staffs' image of a nurse, as well as self-perception. Nurses' perceived image of a nurse was more favorable as compared with the nurses' perception about doctors' image of a nurse followed by nurses' perception about other hospital staffs' image of a nurse. The rating, though favorable, was lowest on nurses' perception about patients' image of a nurse. This research suggests the need for nurses to maintain favorable therapeutic team relations besides providing quality patient care services as well as management to facilitate favorable practice environment that will boost the nurses in providing enhanced care, thereby improving their image among the stakeholders in the health care system.

### Conflict of Interest

None declared.

## References

- Halperin O, Mashiach-Eizenberg M. Becoming a nurse - a study of career choice and professional adaptation among Israeli Jewish and Arab nursing students: a quantitative research study. *Nurse Educ Today* 2014;34(10):1330-1334
- Glerean N, Hupli M, Talman K, Haavisto E. Young peoples' perceptions of the nursing profession: an integrative review. *Nurse Educ Today* 2017;57:95-102
- Emeghebo L. The image of nursing as perceived by nurses. *Nurse Educ Today* 2012;32(6):e49-e53
- Bakalis NA, Mastrogrianni E, Melista E, Kiekkas P. The image and profile of the nursing profession in Greece: attitudes of high school students, nursing students and nurses. *Int J Nurs Clin Pract* 2015;2:125
- Hadid S. Status and image of the nurse as perceived by the public. *J Nurs Care* 2016;4(Suppl)
- Gunawan J, Aunguroch Y, Sukarna A, Efendi F. The image of nursing as perceived by nurses: A phenomenological study. *Nurs Midwifery Stud* 2018;7(4):180-185
- Ingwu JA, Ohaeri BM, Iroka OL. The professional image of nursing as perceived by nurses working in tertiary hospitals Enugu, Southeast Nigeria. *Afr J Nurs Midwifery* 2016;4(1):595-602
- Włodarczyk D, Tobolska B. Professional image of nurses as perceived by doctors, patients and nurses themselves [in Polish]. *Med Pr* 2011;62(3):269-279
- Belete H, Kidane T, Bisrat F, Molla M, Mounier-Jack S, Kitaw Y. Routine immunization in Ethiopia. *Ethiop J Health Dev* 2015;29(1):1-6
- Van Tonder A, van Wyk NC. The perceptions of visitors at acute care units in two private hospitals in Gauteng, South Africa regarding the image of nurses and nursing. *Int J Nurs Midwifery* 2011;3(9):128-139
- Lam M. The views of the general public on the image of professional nurses. *Hong Kong Nurs J* 2005;41(3):17
- Van Wyk NC, Meiring A. The image of nurses and nursing as perceived by the South African public. *Afr J Nurs Midwifery* 2013;15(2):3-15
- Mostafa GM. Implications of stereotypical self and public nursing image on performance of nurses and nursing students. *Int J Manag* 2013;4(3):151-162
- Kalisch BJ, Begeny S, Neumann S. The image of the nurse on the internet. *Nurs Outlook* 2007;55(4):182-188
- Popovic P, Pahor M. Public image of Slovenian nurses: analysis of daily newspaper delo [in Slovene]. *Obzornik Zdravstvene Nege*. 2011;45(4):239-245
- Oosthuizen MJ. The portrayal of nursing in South African newspapers: a qualitative content analysis. *Afr J Nurs Midwifery* 2012;14(1):49-62
- Siebens K, Casterlé BD, Abraham I, et al; representing the BELIMAGE group. The professional self-image of nurses in Belgian hospitals: a cross-sectional questionnaire survey. *Int J Nurs Stud* 2006;43(1):71-82
- Jeong HS, Yoo YS. Image of nurses as perceived by nursing students and image determinants. *J Korean Pub Health Nurs* 2010;24(1):29-38
- Cowin LS, Johnson M, Craven RG, Marsh HW. Causal modeling of self-concept, job satisfaction, and retention of nurses. *Int J Nurs Stud* 2008;45(10):1449-1459
- Abdelrahman SM. Relationship among public nursing image, self-image, and self-esteem of nurses. *IOSR J Nurs Health Sci* 2018;7(1):10-16
- Takase M, Maude P, Manias E. Impact of the perceived public image of nursing on nurses' work behaviour. *J Adv Nurs* 2006;53(3):333-343
- Hendel T, Kagan I. Professional image and intention to emigrate among Israeli nurses and nursing students. *Nurse Educ Today* 2011;31(3):259-262
- Toren O, Kerzman H, Kagan I. The difference between professional image and job satisfaction of nurses who studied in a post-basic education program and nurses with generic education: a questionnaire survey. *J Prof Nurs* 2011;27(1):28-34

- 24 ten Hoeve Y, Jansen G, Roodbol P. The nursing profession: public image, self-concept and professional identity. A discussion paper. *J Adv Nurs* 2014;70(2):295–309
- 25 Porter RT, Porter MJ. Career development: our professional responsibility. *J Prof Nurs* 1991;7(4):208–212
- 26 van Widenfelt BM, Treffers PD, de Beurs E, Siebelink BM, Koudijs E. Translation and cross-cultural adaptation of assessment instruments used in psychological research with children and families. *Clin Child Fam Psychol Rev* 2005;8(2):135–147
- 27 Leech NL, Barrett KC, Morgan GA. *SPSS for Intermediate Statistics: Use and Interpretation*. Psychology Press; 2005
- 28 Seo EH. Nurses' image perceived by nursing and health allied college students in Korea. *J Korean Acad Nurs Adm* 2009;15(4):610–616