Original Article

The Public Nursing Image as Perceived by Nurses and Citizens: A Questionnaire Survey

Nekouei Marvi Langari Maliheh, MSN, RN, Doctoral Candidate
University Teacher, Department of Nursing Science, University of Eastern Finland, Finland

Abdollahi Ashraf, MSN, RN
Nurse, Department of Mental Health and Management, School of Nursing and Midwifery, Mashhad University of Medical Sciences, Mashhad. Iran

Heidarian Miri Hamid, PhD
Assistant Professor of Epidemiology, Social Determinants of Health Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Shakeri Mohammad Taghi, PhD
Professor, Biostatistics Department, Mashhad University of Medical Sciences, Mashhad, Iran

Heshmati Nabavi Fatemeh, PhD
Associate Professor, Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Correspondence: Heshmati Nabavi Fatemeh, PhD, Associate Professor, Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran Ebne Sina St., Doktora Crossing, Mashhad, Iran, Email: heshmatinf@mums.ac.ir

Abstract

Background: The public nursing image is influenced by stereotypes, culture, mass media and even the nurses' perception of their own image in the society. Nursing shortage, turnover, and sexism are threatening the nursing profession. Hence, it is crucial to evaluate and compare the perceived public nursing image of nurses and public as they both contribute to the formation and improvement of the public nursing image.

Aim: to describe and compare the perspectives of both urban citizens and nurses on the public nursing image. In addition, investigating the association between the perceived public nursing image of nurses with their passion for work, job satisfaction and work experience.

Method: A questionnaire survey study was performed for the sample consists of urban citizens (n = 1100) and nurses (n = 520) working in six teaching hospitals. Citizens were recruited with a two-stage cluster sampling and stratified sampling method was used for nurses. The validated Porter Nursing Image Scale (PNIS) consisting of 30 paired items on a seven-point Likert scale was used. The score range was between -90 and +90. Data was analyzed with SPSS 19.0 software.

Result: Citizens and nurses' perceptions of the public nursing image were relatively low. Nevertheless, the nurses' perception of the public nursing image was higher than citizens. Among nurses, the higher public nursing image was found positively correlated with passion for the nursing profession, job satisfaction and work experience.

Conclusion: Nursing profession has been developed rapidly in the past years, but not the public nursing image. Not only elevating working condition, education and number of nurses in management positions will help but also highlighting the role of nurses via mass media may contribute in promoting the contemporary public nursing image and nurse's job satisfaction consequently.

Keywords: Culture, Cross-sectional, Nurse, Nursing profession, Public nursing image, Public perception, Stereotype, Survey,

Introduction

The nursing image is considered a long-term challenge in the nursing profession (Rezaei-Adaryani, Salsali & Mohammadi, 2012, Varaei et al., 2012). The image of nursing is a dynamic and paradoxical concept (Rezaei-Adaryani, Salsali & Mohammadi, 2012, Ten Hoeve, Jansen & Roodbol, 2014, Girvin, Jackson & Hutchinson, 2016), which is closely tied to the nurses' professional identity and role (Varaei et al., 2012).

Nursing is a highly trusted but less known and valued profession in the society (Girvin, Jackson & Hutchinson, 2016). It is believed that both public and nurses contribute to the development of the nursing image in the society (Cabaniss, 2011) and a positive nursing image is connected to the nurse's professional competence and job satisfaction (Coplu, Tekinsoy, 2018). Whereas nurses obtain their own professional identity from the Public Nursing Image (PNI) (Cabaniss, 2011, Ten Hoeve, Jansen & Roodbol, 2014) and nursing education (Cukljek et al., 2017), improvement of the PNI affects organizational, educational and individual nursing performance (Rezaei-Adaryani, Salsali & Mohammadi, 2012).

The knowledge is sparse on how nurses perceive their public image and what factors affects the nurse's self-image, job performance and motivation to work (Takase, Maude & Manias, 2006, Rezaei-Adaryani, Salsali & Mohammadi, 2012). On the other hand, nursing image is influenced by socio-cultural aspects, which vary across the countries (Varaei et al., 2012, Girvin, Jackson & Hutchinson, 2016). In this respect, some Asian countries still suffer from gender prejudice (Valizadeh et al., 2014, Feng et al., 2016) and stereotypes related to women working out of home (Varaei et al., 2012). Evidently, presence of gender stereotypes in nursing contributes to male nursing shortages (Valizadeh et al., 2014, Ashkenazi et al., 2016, Feng et al., 2016). Most of the studies on the evaluation of the PNI and associated factors were conducted in the western countries (Ten Hoeve, Jansen & Roodbol, 2014) so more studies are needed in the Muslim countries having family-centered culture with different or unequal rights for women. To the best of our knowledge, this is the first questionnaire survey in the Iranian context to examine:

- What is the difference between the perceptions of citizens and nurses on PNI?

- What is the relationship between the perceived PNI of nurses and their passion for work, job satisfaction and work experience?

Background

Image is the visualization of reality or the effect of people or subjects with a long-term effect on the mind. The nursing image is defined as how nurses or people perceive the nursing profession in society (Ten Hoeve, Jansen & Roodbol, 2014). The evolutionary concept analysis showed that nursing image is "multi-dimensional, all-inclusive, paradoxical, dynamic, and complex concept" (Rezaei-Adaryani, Salsali & Mohammadi, 2012). The PNI refers to the perceptions of the public on the nursing profession. The PNI is dynamic and important concept as nurses obtain their self-concept and professional identity from the PNI (Ten Hoeve, Jansen & Roodbol, 2014). Moreover, the PNI influences job performance, turnover and nursing shortage (Takase, Maude & Manias, 2006, Rezaei-Adaryani, Salsali & Mohammadi, 2012). Previous studies identify several sources which are contributing to shape a positive or negative PNI including stereotypes, uniforms, mass media, costumes, communications and nurse's behaviors (Ten Hoeve, Jansen & Roodbol, 2014).

Nursing stereotypes are the major source for shaping the PNI. Stereotype refers to "a cognitive representation or impression of a social group that people form by associating particular characteristics and emotions with the group" (Smith, Mackie, 2000). In fact, the mental image controls human behaviors and the stereotypical image manipulates the human's judgment on every single person from a specific group (Cabaniss, 2011). Moreover, experiences, interests, tendencies and the sociocultural context of the society affect each image and judgment in people's mind. Nurses used to be seen as feminine, dependent and challenging professionals with the low level of knowledge, capabilities and mental skills compared with physicians (Cabaniss, 2011, Rezaei-Adaryani, Salsali & Mohammadi, 2012). Apart from stereotypes, former studies showed that nursing attire and appearance also influence the PNI (Rezaei-Adaryani, Salsali & Mohammadi, 2012, Hatfield et al., 2013) and nursing uniform is recognized as "a nonverbal communicator of professionalism and competent care" (Fogle, Reams, 2014).

Media is another influential source for creating the PNI in the society which presents the gender stereotypes and unreal nursing role in the society (Calvo-Calvo, 2014). In today's digital world, mass media has a symbolic role in the human's life and affects people's knowledge (Dwivedi, Pandey, 2013) and behaviors like a real-life experience (Cabaniss, 2011). For example, media has been reluctant to highlight the integral role of nurses alongside other professions in the global health crisis management of Ebola (McGillis, Kashin, 2016). Nevertheless, media presents an impaired image of nursing as a troubled profession with nurses' failures, shortage and incompetency (Rezaei-Adaryani, Salsali & Mohammadi, 2012, Girvin, Jackson & Hutchinson, 2016).

Finally, nurses are blamed for the low public image due to the low presence in public events for discussing the impact and value of their roles in the health care (Ten Hoeve, Jansen & Roodbol, 2014). While proper inter-professional communication enhances the PNI, still the nursing profession has less prestige and value compared with other health care professionals (Fletcher, 2006). In fact, nurses spend more time with patients than any other healthcare professionals (Heidary, Mazlom & Ildarabadi, 2012) and nurses' behavior and communication are tied to the patient's comfort and satisfaction (Asgari et al., 2011).

Therefore, nurses' attitude and behavior with patients and healthcare providers are introduced as another source of shaping the PNI in society (Girvin, Jackson & Hutchinson, 2016).

Methodology

A questionnaire survey was conducted in 2014. A sample of 1100 people from the city population and 520 nurses from six teaching hospitals in the same city participated in this study. Sample sizes have been calculated separately for urban citizens and nurses using formula for one proportion with $p = 0.5$, $α = 0.05$, $d = 0.03$ and 0.04 respectively. As the total number of teaching hospital's nurses was 3100, the assumption of infinite population was not met, hence finite population correction was used to adjust the sample size. Inclusion criteria for citizen were being adult ($≥18$ years) and residing in urban area. All nurses including staff nurse, head nurse, nurse manager with a bachelor or master's degree in nursing were included.

Two different sampling methods were used for citizens and nurses. A two-stage cluster random sampling method was used for selecting a sample from urban citizens in the large geographical area of the city. In the first stage, 22 postal addresses were randomly chosen from the whole city. Each address and its neighbors that formed a city block were regarded as a cluster. In the second stage for reaching the sample of 1100, we selected 50 participants in each cluster from the block's households by a clockwise door-to-door movement starting from the selected address.

To sample nurses, a stratified convenience sampling method was used in a way that three wards (emergency, general and intensive care unit) with about 170 nurses were selected from the six teaching hospitals in the city. Nurses of each ward in the morning, afternoon and night work shifts were invited until 520 nurses were included. We used the Porter Nursing Image Scale (PNIS) after back translation and pilot testing. This tool has 30 pairs of bipolar adjectives on a seven-point Likert scale. The participants had a wide range of choices from very positive (+3), relatively positive (+2), little positive (+1), neutral (0), little negative (-1), relatively negative (-2) and very negative (-3). The total score was between min -90 and max +90 and higher scores indicated more positive nursing image. The reliability of the PNIS was evaluated using the test re-test method with 10 samples from both target groups of citizens and nurses in a two-week interval. The comparison of the results between the two groups conceded a high correlation coefficient between the group of citizens (0.82) and nurses (0.77). For testing the internal consistency of the instrument, the Cronbach's alpha coefficients of the PNIS items were calculated for citizens ($α = 0.89$) and nurses ($α = 0.90$). In addition, nurses were asked to rate their passion for the nursing profession and job satisfaction on a numerical scale of 0-10 at the end of the questionnaire. Frequencies, means, percentages and standard deviations were calculated with SPSS version 19.0. The Kolmogorov-Smirnov test was used to check the normal distribution of variables. For the non-parametric and ordinal variables of PNI, the Mann-Whitney U test was used to assess the difference between two groups. For evaluating the significant effect of each background variables of citizens with their PNI, Mann-Whitney U (for two variables) or Kruskal-Wallis

(for multiple variables) were used as applicable. The significance level was set at P < 0.05. Besides, the Pearson correlation coefficient was calculated to find the correlation between job satisfaction, working experience and passion for work with the perceived PNI of nurses.

Ethical Approval The ethical approval was obtained from the research committee affiliated with the Mashhad Medical Sciences University (approval number/Mums 921649). Moreover, permission for implementing research were obtained from target teaching hospitals in the city. Completing and returning the questionnaire was considered implied consent. All participants had the right for confidentiality, anonymity and withdrawal from the study.

Results

Demographic characteristics of the citizens and nurses: As illustrated in Table 1, the proportion of men and women was the same (50%) and more than sixty percentage of them were 35 years old or younger. About half of the citizens declared that they had a nurse or nursing student in their family. 60% of citizens had hospitalization history but the majority of them (78.6%) had the experience of being the family caregiver. Nearly 61% knew that not all staffs working in the hospital were nurses. More than half of the participants believed that a minimum level of education for nurses was bachelor degree and about 53% declared that they recommend the nursing profession to their relatives. More than two-thirds of the nurses were women. Nearly, 45% of nurses were young (21-31 years) and 65.6% had 10 or more years of work experience. Mostly staff nurses had the bachelor's degree (96.5%). Only one-third of the nurses declared their plan to change the nursing job (Table 1).

The public nursing image from the perspective of the citizens and nurses: In Table 2, the total mean score of the PNI was +19.29 out of ±90 (SD = ±23.03). From the perspective of the citizens, nurses were more active, neat, intelligent, logical, confident, scientific, respectful, influential, powerful, cheerful, and rational respectively. On the contrary, they perceived that nurses were less leader, dominant, warm and nurturing. On the other hand, the total mean score of the PNI perceived by the nurses was +22.94 out of ±90 (SD = ±26.02). The PNI perceived by nurses was high in terms of these adjectives respectively; neat, intelligent, logical, compromising, influential, scientific, rational,

powerful, confident, active, respectful, friendly, independent and sympathy. Nevertheless, nurses perceived themselves less leader, warm and dominant. (Table 2)

The difference between the perceived public nursing image of citizens and nurses: In Table 2, the difference between the total mean of two groups on their PNI was statistically significant (P < 0.001). The difference between the groups were statistically significant in 50 percent of the items on the PNIS scale including active, controlled, logical, powerful, influential, intelligent, nurturing, patient, cheerful, friendly, leader, rational, independent, compromising and logical (P < 0.001). To find whether non-significant results could be due to insufficient sample size, statistical power was calculated using PASS for comparison of two means and adjusted for the Mann-Whitney U test. The size of adjustment was based on the assumption that the distributions are uniform, which is the most conservative assumption among the available options. The power analysis showed that in almost all non-significant cases, we had a very low power to reject the null hypothesis. In other words, the sample size was not high enough to detect whether citizens and nurses have a different perspective on some of the variables of the PNI.

The association of background information of the citizens and nurses with their perceived public nursing image: In Table 3, the perceived PNI of citizens was found associated with advising the nursing profession to relatives, experienced various type of hospital (private/public) during individual hospitalization and being a family caregiver and estimation of the minimum level of nursing education. Moreover, the age of citizens was found associate with their perceived PNI (P < 0.05). Among all background information of nurses, the intention to change the profession in the future, type of ward and education level of nurses were chosen to be tested for any association with the nurse's PNI. The nurse's perception of the PNI was found associated with the type of ward and their intention to leave the nursing profession. (P < 0.05).

Correlation of the job satisfaction, work experience and passion for job of nurses with their perceived public nursing image: The job satisfaction (r = 0.269, P < 0.001), work experiences (r = 0.632, P < 0.001) and passion

for nursing (r = 0.168, P < 0.001) had positive correlation coefficients with the PNI. The higher job satisfaction, work experience and passion for work, the more the perceived PNI was. (Table 4)

Discussion

Major finding of this study was the low PNI from the perspective of citizens, which concedes the earlier study result on the low importance of the nursing profession in the Iranian society (Heidary, Mazlom & Ildarabadi, 2012) . The Stevens (1989) emphasized the importance of the public image of any profession in the society and how this image creates strong social structures and norms. Thus, low PNI may reflect the power of existing stereotypes in the society, which is counted as an obstacle to the improvement of nursing professionalism (Kalisch, Kalisch, 1983). From on hand, nursing shortage is one of the worldwide challenges in this profession which is connected to the professional nursing image in society (Juliff, Russell & Bulsara, 2016). On the other hand, potential nursing students especially women make a decision for their future job based on various factors including the image of the profession in the society (Aboshaiqah, 2016). In the Iranian society, high school students choose the nursing profession based on the obtained score from the national examination and the social prestige of this profession. With the presence of such cultural and educational barriers toward nursing in Iran, former studies confirmed both nurses (Valizadeh, et al., 2016) and student nurses (Hakim, 2014) have low satisfaction for studying nursing profession. Hence, it is rather important to work on presenting a real picture of the nursing image in the society (Cukljek et al., 2017) and having constant evaluation to promote the nursing image even in the nursing schools (Chauke, Van Der Wal & Botha, 2015) and society.

Our study findings showed that nurses had higher perception of PNI than the citizens, however, nurses' perception was relatively low, which is in line with the findings of Fletcher (2007). Besides, it was mentioned that contributing sources in shaping the PNI including media, society and colleagues have been described widely in the literature, whereas, the PNI is less studied and closely affected with the nursing self-image (Fletcher, 2007). It is believed that the low PNI contributes to low motivation especially for men becoming a nurse and the existence of gender stereotypes in this profession (Ashkenazi et al.,

2016). However, our study revealed no significant association between gender and perceived PNI of nurses in the partial society of Iran. It should be reminded that Iran is located in the Middle East and similar to many other Muslim countries in the region is a family-centered society and suffers from gender stereotypes (Varaei et al., 2012). In such society, women are more accepted to have traditional role of working at home and caring for family members only. With considering the fact that the majority of nurses in Iran are women, the lack of finding any association between PNI and gender in this study could be a promising outcome for future promotion of nursing profession in this Muslim country.

Citizens believed that nurses were more active and intelligent. Likewise, nurses mainly perceived that they are neat and intelligent in the eyes of the public. These findings concede the results of study by Ten Hoeve et al. (2014) that nursing role in providing care and the nursing image are invisible to the society and nurses should contribute actively to present the real picture of nurses by using media, having managerial positions and special clinical expertise.

Although, both urban citizens and nurses participated in this study perceived nurses less warm, leader and dominant. But these findings are in contrast with the other Iranian study where public recognized the nurses to be kind, sympathetic, supportive and contributed to patient's satisfaction and comfort (Asgari et al., 2011). The contradictory results can be explained in terms of applying different research methods where in the former study distributing questionnaires were during the annual celebration of the National Nurses Day in Iran. Therefore, the positive opinion of participants toward the nursing profession could be biased. In addition, both nurses and citizens participated in this study perceived the management role of nurses to be low. The findings are against the result of a study of Takase et al. (2006) where the management role of nurses was ranked the highest compared to their caring role. The absence of Iranian nurses at the administrative level and subordinate position in the physician and nurse relationship at the working place may contribute to the current impaired image in the Iranian society.

In this study, the perceived PNI by citizen was found associated with advising the nursing

profession to relatives, experiencing various type of hospital during individual hospitalization, being a family caregiver and estimated the minimum level of education for nurses. This means that perception of nursing image among public was found associated with their knowledge, encounter and understanding of nursing profession. People's interaction with nurses is one of the sources for shaping the nursing image but not the only one (Donelan et al., 2008, Girvin, Jackson & Hutchinson, 2016). Publicity and visibility of nursing professional expertise at work is the missing in the society which also determine the image of nursing in public (Ten Hoeve, Jansen & Roodbol, 2014). Our results showed the association between the PNI as perceived by nurses with the ward that they work and their plan for changing their profession. This findings are in accordance with the study findings of Emeghebo (2012) where hospital nurses had positive perceptions toward nursing image whereas, nurses working in maternal healthcare had negative perceptions. This difference in the perceptions can be explained by the working environment and distinct responsibilities of nurses in different wards.

The secondary study findings were related the positive correlation coefficient of the perceived PNI of nurses with their passion for work, job satisfaction and work experience. Similarly, in the study of Takase et al. (2006) the higher self-image and public image of nurses were found related to higher job performance and lower turnover intention among nurses.

This study had some limitations. First limitation is related to using stratified convenience sampling method for recruitment of nurses which reduces the generalizability of this study findings to the whole nursing population. Second, the low number of study participants made it difficult to find more significance between the perspectives of citizens and nurses in all adjectives of PNI. Third, not using a specific tool to evaluate the passion for work and job satisfaction was another study limitation. Fourth, self-assessment in the survey studies is subjective which may lead to a biased perception. Future research may address these mentioned limitations and duplicate the study in other Islamic counties and investigate further the association between the PNI and nurse's clinical performance.

Conclusions: The contemporary image of nursing is impaired in the Iranian society and more actions should be taken at different levels to promote it. Nurses, nurse educators, nurse managers and policymakers' contribution are needed to work together for improving the nursing image in the society. Nurses should speak up to the society about their integral role in the healthcare system. They need to get involve in public events, social media and public educational channels for introducing the reality of their work and its value to the society (Girvin, Jackson & Hutchinson, 2016). Supporting nursing education for training knowledgeable and skillful nurses is another solution at the academic level. Constructing a positive PNI requires development in the salary and nurses' working condition. Moreover, assigning leadership positions to nurses and bringing them up to political level could be a bigger step to change positively the old fashion image of nursing in the society.

References

Aboshaiqah, A. (2016). Strategies to address the nursing shortage in Saudi Arabia, International Nursing Review, 63; 3,. 499-506.

Asgari, M., Mohammadi, E., Falahi, M. & Tamadon, M. (2011). Hemodialysis patients' perception from nurses' role in their adjustment with hemodialysis, Koomesh, 12; 4, 385-395. (in Farsi)

Ashkenazi, L., Livshiz-Riven, I., Romem, P. & Grinstein-Cohen, O. (2016). Male Nurses in Israel: Barriers, Motivation, and How They Are Perceived by Nursing Students, Journal of Professional Nursing, 33;2, 162-169.

Cabaniss, R. (2011). Educating nurses to impact change in nursing's image, Teaching and Learning in Nursing, 6; 3, 112-118.

Calvo-Calvo, M. (2014). Sexist stereotypes and biases associated with the female nursing model in advertising communication, Texto & Contexto - Enfermagem, 23; 3, 530-537.

Chauke, M.E., Van Der Wal, D. & Botha, A. (2015).Using appreciative inquiry to transform student nurses' image of nursing, Curationis, 19;38(1); 1.

Coplu, M. & Tekinsoy, K.P. (2018). Professional self-concept and professional values of senior students of the nursing department, Nursing ethics, 26; 5 1387-1397.

Cukljek, S., Juresa, V., Grgas Bile, C. & Rezek, B. (2017). Changes in Nursing Students' Attitudes Towards Nursing During Undergraduate Study, Acta clinica Croatica, 56; 1, 36-43.

Donelan, K., Buerhaus, P., DesRoches, C., Dittus, R. & Dutwin, D. (2008). Public perceptions of nursing careers: the influence of the media and nursing shortages, Nursing economic$, 26; 3, 143-50, 165.

Dwivedi, P.K. & Pandey, I. (2013). Role of media in social awareness, Humanities & Social Sciences Reviews, 1;1, 67-70.

Emeghebo, L. (2012). The image of nursing as perceived by nurses, Nurse Education Today, 32; 6, e49-53.

Feng, D., Zhao, W., Shen, S., Chen, J. & Li, L. (2016).The influence of perceived prejudice on willingness to be a nurse via the mediating effect of satisfaction with major: A cross-sectional study among Chinese male nursing students, Nurse Education Today, 42, 69-72.

Fletcher, K. (2007). Image: changing how women nurses think about themselves. Literature review, Journal of Advanced Nursing, 58; 3, 207-215.

Fletcher, K. (2006). Beyond dualism: leading out of oppression, Nursing forum, 41; 2, 50-59.

Fogle, C. & Reams, P. (2014). Taking a uniform approach to nursing attire, Nursing, 44; 6, 50-54.

Girvin, J., Jackson, D. & Hutchinson, M. (2016). Contemporary public perceptions of nursing: a systematic review and narrative synthesis of the international research evidence, Journal of nursing management, 24(8), 994-1006.

Hakim, A. (2014). Nursing students' satisfaction about their field of study, Journal of Advances in Medical Education & Professionalism, 2; 2, 82-87.

Hatfield, L.A., Pearce, M., Del Guidice, M., Cassidy, C., Samoyan, J. & Polomano, R.C. (2013). The professional appearance of registered nurses: an integrative review of peer-refereed studies, The Journal of Nursing Administration, 43; 2, 108-112.

Heidary, A., Mazlom, R. & Ildarabadi, E. (2012). Nursing's position in health care delivery system in Iran. Reaserch nursing, Iranian journal of Nursing Research, 7; 25, 37-43. (Original in Farsi)

Juliff, D., Russell, K. & Bulsara, C. (2016). Male or Nurse what comes first? Challenges men face on their journey to nurse registration, Australian Journal of Advanced Nursing, 34; 2, 45-52.

Kalisch, B. & Kalisch, P. (1983). Improving the image of nursing, American Journal of Nursing, 83; 1, 48-55.

McGillis Hall, L. & Kashin, J. (2016). Public Understanding of the Role of Nurses During Ebola, Journal of Nursing Scholarship: an official publication of Sigma Theta Tau International Honor Society of Nursing, 48; 1, 91-97.

Rezaei-Adaryani, M., Salsali, M. & Mohammadi, E. (2012).Nursing image: an evolutionary concept analysis, Contemporary nurse, 43; 1, 81-89.

Smith, E.R. & Mackie, D.M. (eds) (2000).Social Psychology, Second edn, Psychology press, Philadelphia PA.

Stevens, P.E. (1989). A critical social reconceptualization of environment in nursing: implications for methodology, Advances in Nursing Science, 11; 4, 56-68.

Takase, M., Maude, P. & Manias, E. (2006). Impact of the perceived public image of nursing on nurses' work behaviour, Journal of advanced nursing, 53; 3, 333-343.

Ten Hoeve, Y., Jansen, G. & Roodbol, P. (2014).The nursing profession: public image, self-concept and professional identity. A discussion paper, Journal of advanced nursing, 70; 2, 295-309.

Valizadeh, L., Zamanzadeh, V., Habibzadeh, H., Alilu, L., Gillespie, M. & Shakibi, A. (2016).Experiences of Iranian Nurses that Intent to Leave the Clinical Nursing: a Content Analysis, Journal of Caring Sciences, 5; 2, 169-178.

Valizadeh, L., Zamanzadeh, V., Fooladi, M.M., Azadi, A., Negarandeh, R. & Monadi, M. (2014). The image of nursing, as perceived by Iranian male nurses, Nursing & health sciences, 16; 3, 307-313.

Varaei, S., Vaismoradi, M., Jasper, M. & Faghihzadeh, S. (2016). Iranian nurses self-perception - factors influencing nursing image, Journal of Nursing Management, 20; 4, 551-560.