



In Search of a Professional Identity: An Analysis of Photographic and Illustrative Images of Nurses in Japan

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Purpose: Inaccurate portrayals of nurses and their roles in the media contribute to misleading public stereotypes that negatively affect the status and value of nurses. This study aims to clarify how nurses are portrayed visually on the Internet in Japan and what these images suggest about the role, value, and professional status of nurses in Japan.

Methods: A descriptive mixed methods study: Forty photographs of nurses and 40 illustrations of nurses were analysed to make judgments about consistency with a contemporary profile that informs guidelines for professional education and practice.

Results: Over three quarters (77.5%) of the images showed only female nurses and 55% were depicted smiling politely. None of the images depicted nurses engaged in high level care consistent with that of a professional dealing with typical contemporary client/patient needs.

Conclusion: Our study suggests that in common with overseas research, nurses were predominantly being portrayed as feminine and caring but not as professionals capable of independent practice. Although representations were usually positive, the depictions were not entirely accurate, and this was more evident in the illustrations. Imagery can have a profound effect on ideas, attitudes and behavior; it is imperative that nurses are depicted as appropriately educated professionals and that stereotypes such as nurses being young, subservient, and female should be challenged.

Keywords: Image of nursing; Japan; Public perceptions; Professionalism; Gender; Stereotypes

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INTRODUCTION

Visual research focuses on what can be seen and perceptions and meanings attributed to an image or object (Reavey & Prosser, 2012). There has been a significant amount of research into the visual representation of nurses in the media over many years and longstanding concern over the public image of nursing as a profession (Takase, et al. 2006). The public's stereotypical images of nursing impact the status and value of nurses (Godsey, et al. 2020) in their own eyes, by other health professionals, and the public. This, in turn, impacts nurses' working conditions, approach to education and learning outcomes, visibility, leadership, ability to influence decision making, and scope of practice (Godsey, et al. 2020; Ravn et al., 2020). Nurses and the general public have stereotyped views of the nursing profession that have proved enormously resistant to change (Fletcher, 2007).

While media images are only one part of the solution to improving the image of a profession like nursing, it is, nevertheless, an important one. Image is socially and culturally constructed, and accurate portrayals of nurses and their roles are necessary for all media (Carroll & Rosa, 2016). While a lot has been written over the years on this subject, recent literature on images of

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nurses – as distinct from images of nursing - is scarce suggesting that this subject should be revisited. Our mixed methods, descriptive research focuses on an analysis of how nurses are portrayed visually in Japan on the Internet. We were interested in interpreting emerging trends in the depiction of nursing and what the images suggest about nursing stereotypes, roles. The researchers were asking i) Will the full suite of contemporary nursing roles and functions in contemporary society be represented? and ii) What is the impact of the emerging trends in imagery on attracting newcomers to the profession? We assumed that expectations about levels of education for contemporary practice and the value of nursing in Japan would also be impacted.

Literature review

Research into visual representations of nurses fits within the extensive literature on the public image of nurses. Imagery pervades our world to a greater extent than in the past from pictures in advertising, posters, and packaging (Buresh, Gordon, & Bell, 1991) and film and television and health information. Images are potent and imbued with symbolic and emotional meaning (Buresh et al., 1991), and when a picture accompanies the text, we usually first view the picture (Kang, 1997). Examination of visual images of nurses is vital because of the ability to engage the viewer and the immediacy of this method of communication (Escobar et al., 2007).

Some of the earliest visual images of nurses dating from the fifteenth century show female nurses caring for mostly male patients in bed, and this representation of nurses wearing uniforms and working in acute areas of nursing has remained dominant (Darbyshire & Gordon, 2005; Price & McGillis Hall, 2013) while images from other fields of nursing have not been foregrounded. While, researchers have examined visual imagery of nurses over a range of modalities, including film (Stanley, 2008); depictions on YouTube (Kelly, et al. 2012); children's books (Carroll & Rosa, 2016); greetings cards (Pierce et al., 2002); advertisements (Lusk, 2000); websites of American hospitals and universities (Kasoff, 2006) and the nurse as heroine in propaganda posters and postcards (Dower, 2008) none has examined cartoon and images on the internet.

Stereotypes

The term stereotype originally described a printing method in which a metal printing plate was formed from a mould of the movable type so that the plate could be used repeatedly without alteration (History Teaching Institute, 2021). Stereotypical images of people are conventional, formulaic, and oversimplified, and

particular clothing stereotypes are used as a shorthand to denote professions, for example, a white coat and stethoscope around the neck for a doctor, a nurse's cap or apron for a nurse. In the west, the stethoscope has an iconic status for doctors and medical students and has become a symbol of their high status (Rice, 2010), and anecdotal evidence suggests that the same is true in Japan. Clothing norms are used in subtle but purposeful ways to reflect varying degrees of cultural and economic capital and reflect professional boundaries in education and practice and authority (Jenkins, 2014).

Stereotyping also includes value judgments, which may be positive and negative; however, stereotyping may lead to "gross simplifications" and overgeneralization (van der Cingel & Brouwer, 2020). Stereotyping is evident in representations of nurses: Some of the more stereotypical images of nurses involve 'transactions or routines', showing them performing tasks, such as giving medicine to patients, taking temperatures, or assisting with personal hygiene (van der Cingel & Brouwer, 2020). The public and nurses themselves have been found to have a stereotypical view of nursing, in which nurses may be regarded as not part of a profession, as less intelligent than doctors, subservient to doctors, lacking in authority to make sound decisions and clinical judgments, powerless and underpaid (Fletcher, 2007; Takase et al., 2006). This portrayal may be perpetuated by inaccurate visual portrayals underestimating the full extent of the role and expertise of a nurse (Carroll & Rosa, 2016). An early media study identified four commonly depicted stereotypes: ministering angel, battle-axe, naughty nurse, and doctor's handmaiden (Bridges, 1990). The nurse as heroine has also been used in propaganda posters and postcards (Dower, 2008), and in the current pandemic crisis the stereotype of nurses as self-sacrificing angels has been reignited and controversial images intended to show the sacrifice and heroism of Chinese nurses having their hair shaved were widely shared (Yan, 2020). These harmful stereotypes distort the public's concept of nursing, affect the quality and number of people who enter nursing and the decisions of policymakers, and undermine nurses' self-confidence" (Fletcher, 2007; Price & McGillis Hall, 2014).

Gender has been an important factor in the stereotyped image of nurses, and problems with image "are bound to broader societal gender issues" (Fletcher, 2007). The World Health Organization (2002) defines gender as the term used to describe the characteristics of women and men that are socially constructed, while sex refers to those that are biologically determined. The social construction of gender relates to behaviors and attributes based on received ideas of masculinity and femininity. In contrast, sex refers to the biological aspects of an individual as determined by their

anatomy and affected by chromosomes and hormones (Office for National Statistics, 2019).

Caring is often seen as being a feminine characteristic and nurses as being typically female (van der Cingel & Brouwer, 2020): this has its basis historically in nursing being a form of "gendered and class-bound domestic work" (Kelly et al., 2012). These ideals and values are inseparable from the identification of nursing as women's work and the societal value placed on women and caring (Fletcher, 2007). A content analysis using Goffman's (1976) indicators of gender stereotyping suggested that although the images of nurses changed in a positive direction over the years that advertisements in journals portrayed nurses as "conciliatory rather than autonomous, and attractive rather than learned" with female nurses placed in a subservient position compared to men.

Imagery

The concept of nursing image representation is complex (Kasoff, 2006). Kasoff (2006) analysed how nurses were depicted on hospital websites in North America with the view that these images, and the captions about these images, are essential for recruitment and providing an accurate picture of a nurse's role. She developed a checklist to assess images which included whether pictures showed nurses represented by different ethnicities, cultures, gender, and age; and how they were dressed but found that pictures of nurses and their roles were scarce and difficult to locate and concluded that given that nurses comprise the largest health profession that they are underrepresented (Kasoff, 2006).

Most of the research on the image of nursing has been in Western countries, including the U.K., USA, Australia, and Canada (Kalisch, et al. 2007), with other research from Hong Kong, and Taiwan, (Kress, et al., 2018; Tzeng, 2006) and more recently Africa (Ndirangu, et al. 2021). There are few if any studies on the visual depictions of nurses from southeast Asia: the exception is a Korean study that indicated that nurses were portrayed from the perspective of femininity and mothering in hospital administration journals and television dramas (Kim et al., 2013; Park, et al., 2010).

In a country famous for manga, Japanese graphic novels, visual communication is used extensively in advertising and conveying important information to the public. This form of communication is effective because it grabs the attention, is more concise than only the written word, and simplifies communication (Nimoto, 2019) but it may also exaggerate or reinforce stereotypes and overly simplify the message.

The status of nursing in Japan

In order to examine imagery around nurses and nursing, it is

first essential to ascertain the contemporary role of the nurse globally and in Japan. Nurses provide healthcare from a holistic perspective, which centers on working with the whole person (mind, body, and spirit) and preventing, or treating symptoms and curing illness and disorders (Klebanoff & Hess, 2013). There are similarities and differences between the Japan Nurses Association (JNA)'s definition of nursing, which is brief and straightforward, and the International Council of Nurses (ICN) definition. Although the JNA definition does note that nurses care for patients "on their own," it also states that the nurse often acts under the direction of a doctor. The ICN definition also notes that the nurse practices with awareness and conducts research to improve nursing practice; these are elements consistent with the designation as a profession. While the JNA mentioned clinical practice in its definition, ICN notes the nurse's role in supervising and training nursing and health care auxiliaries. Similarly, the ICN definition notes the role of patient education.

A 2013 Japanese survey of the general public revealed that 79.5% (N = 2,244) of the respondents viewed nurses as kind and considerate; disturbingly, their perceptions of what a nurse's role entailed included "accurately inform your doctor of your illness" (61.5%); none of the other roles they noted extended beyond basic nursing care, kindness, and understanding (Cabinet Office, 2013). Although fundamental to clinical safety and excellence nurses also have a range of other competencies such as the ability to lead. Asked about the impression they had of nurses as people, 64% said "being gentle and warm", other high rating answers included "having a bright personality", "kindness", "a feeling of cleanliness", "being reliable", and "having a sense of responsibility" (Cabinet Office, 2013). Less frequent answers included "being snappy", "scary", "cold", "strict", and "unfriendly" and in relation to what desirable qualities a nurse should have, none mentioned intellectual ability; "being kind" and "compassionate" was seen as the major attribute (Cabinet Office, 2013).

Conceptual framework

The basis of nurses' self-concept and professional identity is "public image, work environment, work values, education, and traditional social and cultural values" (Hoeve, et al., 2014). A negative image of nursing affects the quality and quantity of people attracted to the profession (Kalisch et al., 2007), and the perception of nursing as a female profession affects recruitment (Fletcher, 2007; Seago, et al., 2006). It impacts the public's view of nurses' role and professionalism and the policy maker's allocation of resources and decisions about salary (Kalisch et al., 2007).

Various methodologies have been used to research the image of

nursing. [Koo and Lin \(2016\)](#), in 2014, set out to explore how the nursing profession was being portrayed on the Internet by two popular sources of photographic images. They analysed the first 100 images obtained using the search term "nurse" on both Google Images and Shutterstock but searched only photographs. The visual content of the retrieved images was analysed for attributes such as sex, ethnicity, eye contact with the camera, facial expression, posture, whether the nurse was shown in the presence of a patient or other medical personnel, whether the nurse was shown touching a patient, the presence of a stethoscope, what the nurse was holding, what activity the nurse was engaged in, and the image's context. [Goffman's \(1979\)](#) classic study of latent meaning in advertisements also guided the analysis. He maintained that subtle details in images, rather than their manifest content, can reveal assumptions about gender. Thus, in addition to [Koo and Lin's methodology \(2016\)](#) and following [Lusk \(2000\)](#) we used specific, detailed criteria to categorize images to facilitate objective, unambiguous interpretation and to allow for replication. Thus, we carefully noted context, positioning, eye contact, and spatial arrangement of the images.

This study was designed to explore how nurses are portrayed on Google in Japan in the contrasting media of photographs and illustrations. Previous research ([Lusk, 2000](#)) led us to anticipate that nurses would be portrayed as young women and will be depicted in a subordinate status relative to male physicians. Cartoon or drawn images of nurses have not been analysed in previous research. This study will include these because they are commonly used on teaching materials and conference PowerPoints in Japan and elsewhere. Only Google images were used for the search because Google is a commonly used search engine.

METHOD

Following a small-scale pilot study using the intended search terms to standardize the process and identify potential problems, the student researchers (HA & MI) used two sets of search terms -s "Japan + nurse" and "Japan + nurse + illustration" on Google Images. The first 40 images using these search terms retrieved from Google images on a single day in June 2021 were analysed. Having acquired the 40 images, the trends were clear, so the researchers believed they had a representative sample that would allow for analysis, that is interpretation of messages conveyed through the choice of imagery. In addition, the "SafeSearch" filter, which helps to block explicit images from the search results, was activated.

The images were recorded on an Excel sheet the [Supplementa-](#)

[ry Table 1](#) and website addresses and attributes for analysis and discussed with the supervisor a PhD qualified nurse researcher.

Inclusion and exclusion criteria

The criteria for the inclusion of images were based on the literature review and consideration of the Japanese context of the study. Included were images that related to cosplay; actors/esses playing nurses; nurses depicted on university and hospital sites; in films and news items. Excluded were historical images of nurses, apparently non-Japanese people, images from non-Japanese sites, and advertisements for nurses' uniforms/costumes.

Analysis

The retrieved images were analysed for several attributes: context, gender, age, facial expression, eye contact with observer, posture, mask, nurses' cap-wearing, other elements, care activities, and other people present. Additionally, the underlying aim to assess how nurses were presented in the media and whether the full suite of contemporary nursing roles and functions in contemporary society was represented was considered in the analysis. There was consideration of what the image suggested about the role/value/gender of nurses in Japan.

For this study, gender was defined as culturally established categories of sex, such as female or male, and the term gender display as defined as conventionalized portrayals of these correlates ([Kang, 1997](#)). Some elements of gender display were used in the analysis of the images, including; the relative size of males and females, function ranking: this refers to the status of a function performed by males/females; typically, the male will be depicted performing the more prestigious or executive function and ritualization of subordination: postures of deference include lowering oneself physically or other of subjugation ([Kang, 1997](#)).

Trustworthiness

Trustworthiness is concerned with the extent to which the study is conceptually sound, based upon which the value of the qualitative research can be judged ([Bowen, 2009](#)). To enhance the trustworthiness, rigor, and transparency of the research, an audit trail was created. This notated how the study was carried out and conclusions made ([Carcary, 2020](#)).

Following [Rodgers and Cowles \(1993\)](#), this included methodological decisions, procedures for data collection and analysis, and self-awareness of the researcher. The student researchers, translator (JM), and supervisor (TS) shared weekly reflections by email, and decisions made at meetings were recorded on this email trail, and the documentation retained. This study followed the

COREQ checklist criteria for reporting qualitative research (Tong, et al., 2007).

In common with other qualitative research, the research design changed through the processes of data collection and analysis and required us to alter decisions (Carcary, 2020). Following a pilot data collection, it was decided that, unlike Koo and Lin (2016), we would collect only 40 photographs and 40 illustrations because we planned to describe them in more detail. There was extensive discussion of the disparity between Japanese and Western researchers in interpreting the illustrations. As a result, the decision was made that the Japanese researchers did the initial coding, and those discrepancies were to be discussed following their interpretation.

Ethics

Ethics approval was not required for this research because information was freely available in the public domain.

Findings

Eighty images were retrieved from the internet search: 40 of these were photographs and 40 illustrations (Supplementary Table 1). The majority (n = 23) of the 40 photographs were derived

from hospital websites; seven (P1,9,18,19,22,29,30) from health organization websites (ex: Japanese Nursing Association, Japan Association for Emergency Nursing, and Japan Council of Nursing Programs Colleges); six (P15,27,32-35) related to news items; three (P13,37,38) from university websites; and one (P26) was an educational item regarding a nursing textbook.

Of the 40 illustrations, 24 were taken from a free illustration site and seven from a commercial website entitled “Nursing-roo!” that claims to be a media support site aimed at supporting nursing students and young nurses (2021). The site shares nursing information, medical news, a nursing terminology dictionary, tips for the national examination and nursing technology videos, and hosts bulletin boards, lifestyle articles, manga, psychological tests, and omikujji (fortune-telling) (Nursing-roo!, 2021). Four of the remaining illustrations (D21.D26.D30.D38) were from a health staff recruitment website; two (D23.D27.D28) from the front cover of nursing textbooks; one (D28) from a nurse’s autobiography; and two (D10.D34) from a website dedicated to collating illustrations drawn by the general population and nurses are a popular subject.

The attributes of the retrieved images are summarized in Table 1.

Table 1. Attributes of nurse images from Google images of “Japan + nurse” and “Japan + nurse illustration”

Attribute	N (%)		
	Total (n = 80)	Photographs (n = 40)	Illustrations (n = 40)
Gender			
Female-only	62 (77.5)	27 (67.5)	35 (87.5)
Male-only	0 (0.0)	0 (0.0)	0 (0.0)
Both	17 (21.25)	12 (30.0)	5 (12.5)
Uncertain	1 (1.25)	1 (2.5)	0 (0.0)
Age (estimate)			
20-29 (young)	33 (41.25)	8 (20.0)	
30-50 (mature)	28 (35.0)	13 (32.5)	
51 plus (older)	6 (7.5)	6 (15.0)	
All ages mixed	12 (15.0)	12 (30.0)	
Uncertain	1 (1.25)	1 (2.5)	
Facial expression			
Polite smile	44 (55.0)	20 (50.0)	24 (60.0)
Genuine smile	9 (11.25)	3 (7.5)	5 (12.5)
Neutral	7 (8.75)	4 (10.0)	2 (5.0)
Unsmiling	1 (1.25)	0 (0.0)	1 (2.5)
Face is masked	10 (12.5)	9 (22.5)	1 (2.5)
Realization	1 (1.25)	0 (0.0)	1 (2.5)
Surprised	1 (1.25)	0 (0.0)	1 (2.5)
Thoughtful	1 (1.25)	0 (0.0)	1 (2.5)
Angry	1 (1.25)	0 (0.0)	1 (2.5)
Afraid	1 (1.25)	0 (0.0)	1 (2.5)
Mixed	4 (5.0)	4 (10.0)	2 (5.0)

(Continued to the next page)

Table 1. Continued

Attribute	N (%)		
	Total (n = 80)	Photographs (n = 40)	Illustrations (n = 40)
Eye contact			
At the observer	49 (61.25)	25 (62.5)	24 (60.0)
At visible object	10 (12.5)	8 (20.0)	2 (5.0)
Looking at others	7 (8.75)	6 (15.0)	1 (2.5)
Some other point	3 (3.75)	0 (0.0)	3 (7.5)
Eyes closed	8 (10.0)	0 (0.0)	8 (20.0)
Mixed	3 (3.75)	2 (5.0)	2 (5.0)
Posture			
Formal	46 (57.5)	22 (55.0)	24 (60.0)
Informal	32 (40.0)	18 (45.0)	14 (35.0)
Both	2 (2.5)	0 (0.0)	2 (5.0)
Masks			
Yes	12 (15.0)	11 (27.5)	1 (2.5)
No	68 (85.0)	29 (72.5)	39 (97.5)
Nurse's cap			
Yes	12 (15.0)	0 (0.0)	12 (30.0)
No	68 (85.0)	40 (100.0)	28 (70.0)
Other elements			
Identity badge	22 (68.75)	22 (55.0)	0 (0.0)
Stethoscope	6 (7.5)	4 (10.0)	2 (5.0)
Clipboard	14 (17.5)	5 (12.5)	9 (22.5)
Pen	7 (8.75)	4 (10.0)	3 (7.5)
Document	5 (6.25)	3 (7.5)	2 (5.0)
PPE without mask	4 (5.0)	4 (10.0)	0 (0.0)
Computer	2 (2.5)	2 (5.0)	1 (2.5)
Medical device	1 (1.25)	3 (7.5)	0 (0.0)
Textbook	3 (3.75)	1 (2.5)	2 (5.0)
Watch	2 (2.5)	2 (5.0)	0 (0.0)
Certificates	2 (2.5)	2 (5.0)	0 (0.0)
Intravenous	3 (3.75)	0 (0.0)	3 (7.5)
Bag	1 (1.25)	0 (0.0)	1 (2.5)
Sign	1 (1.25)	0 (0.0)	1 (2.5)
Chair	1 (1.25)	0 (0.0)	1 (2.5)
Trolley	1 (1.25)	0 (0.0)	1 (2.5)
Hair wash table	1 (1.25)	0 (0.0)	1 (2.5)
Bandage	1 (1.25)	0 (0.0)	1 (2.5)
Syringe	2 (2.5)	0 (0.0)	2 (5.0)
Medicine	2 (2.5)	0 (0.0)	2 (5.0)
Soap	1 (1.25)	0 (0.0)	1 (2.5)
Telephone	1 (1.25)	0 (0.0)	1 (2.5)
Other	8 (10.0)	8 (20.0)	2 (5.0)
None	23 (28.75)	9 (22.5)	17 (32.5)
Care activity			
Patient care	4 (5.0)	2 (5.0)	2 (5.0)
Conversing	1 (1.25)	0 (0.0)	1 (2.5)
None	74 (92.5)	38 (95.0)	36 (90.0)
Other people			
Patient	4 (5.0)	2 (5.0)	2 (5.0)
Doctor	1 (1.25)	1 (2.5)	0 (0.0)
Mixed	5 (6.25)	0 (0.0)	5 (12.5)
Others	1 (1.25)	1 (2.5)	0 (0.0)
None	69 (86.25)	36 (90.0)	33 (82.5)

Gender

Thirty-nine of the 40 photographs depicted female nurses. One photograph (P33) was unclassified because the person was photographed from a distance with the face obscured. Twelve photographs included male nurses.

All illustrations included a female nurse. The female nurses were shown with males in eight illustrations (D2.D15.D23.D26.D28.D29.D30.36). The Supplementary Table 1 Of the 16 males depicted, only five (D2.D15.D26.D29.D30) were judged to be nurses. The other 11 males included six patients (D23.26.28.36), one of which was a baby in a humidicrib; three figures were judged to be doctors (D15.28.30); one (D15) an allied health staff member. We were unable to classify the intended identity of one male figure (D 26).

There was little difference in the relative size of males and females in the photographs, although naturally, the male nurses as somewhat taller than their female counterparts. In contrast, P39 shows the only male nurse at the back, and to the side of the photograph, P17 and P30 have males to the side of photographs have females in the central dominant position Neither males nor females were shown deferring to each other.

With regards to the illustrations was little difference in the relative size of males and females except for D30, which depicts a male doctor as larger than the female nurse in the foreground and a taller male nurse with a female nurse in the background and D2 and D 26 and which show the male nurse as being somewhat taller than the female.

Age

All ages were based on estimate only (Table 1). In the 40 photographs of nurses there were 17 (P1,3,7,9,12-15,19,22,24,26,34,36-39) judged to be nurses in their 20s; 25 (P1-6,8,10-12,14,16,17,19-22,24,28,30,31,35,36,39,40) with aged 30-50; and nine photos (P17,18,21,23,25,27,29,30,32) with nurses aged 51 and older. Of the 40 illustrations, 23 depicted (D1,2,4,8-10,12,13,15,18-23,26,29,31-34,36,39,40) nurses in their 20s; 18 (D3,5-7,11,14-16,17,23-25,27,28,33,35,37,38) with nurses aged between 30-50; and four (D23,26,27,30) with 51 and older.

Facial expression

The facial expression on the nurses depicted in photographs were categorized into five categories. In 21 of the 40 photographs nurses were categorized as smiling politely (P1,2,4,9-11,13,14,17-19,21,23,25,28-31,38-40); five (P7,12,20,22,37) appeared to have a genuine smile; six (P3,6,8,15,22,24) had a neutral expression; one (P9) was unsmiling; and the nurses in the 11 (P5,7,16,

24,26,27,32-36) were masked.

In contrast the nurses depicted in the illustrations showed a wider range of expressions. Of the 40 illustrations, 26 (D1,2,5-9,12-18,20,23,26-30,35-38,40) were classified as having a polite smile; nine (D3,4,18,19,24-26,28,31) with a genuine smile; three (D18,28,33) appeared to be angry; two (D10,34) had a neutral expression; two (D18,22) looked thoughtful or confused; one illustration (D11) showed a nurse wearing a mask; one (D21) was unsmiling; and one (D39) looked scared.

Eye contact

Of the 40 photos, there are 26 (P1-4,6-8,9-14,17-19,21,23,25,28-31,38-40) looking at the observer; 10 (P5,9,16,22,24,26,33,34,35,36) at a visible object (e.g. document, clipboard, monitor, etc.); and seven (P15,20,24,27,32,36,37) looking at others.

In 22 of the 40 illustrations the nurse is depicted as looking at the viewer with eyes closed (D1,2,5,19,20,24,26,28,31,35,36); at other people in seven illustrations (D20,23,26,27,28,30,37); and in three illustrations at some other point (D13,21,32); at a computer laptop in one (D11); at a paper (D38): two of these (D13,32) showed the character with a “thought bubble” symbol to depict thinking. In six of the seven illustrations where the nurse was looking at another person, it was at a patient (D23.26.27.28.30.37) because they were undertaking care activities, and the other (D20) showed a junior nurse looking intently at a senior nurse.

Posture

The majority 22 (P1-4,6,8,10,11,13,14,17,18,20,21,23,25,28,29-31,38,40) of the photographs show nurses standing or sitting in a formal manner whereas in the illustrations 10 (D1-3,5-6,8,12,15-16,18) were drawn in a formal pose (eg illustrations with the nurse guiding someone), 23 (D4,10-11,13,19-28,31-36,38-40) in an informal pose (eg the illustrations nurses caring for patients), two (D17, 30) in formal and informal pose, and five (D7,9,14,29,37) were not classified In addition, eight illustrations (D2,19-20,26,29-31,40) were that of a nurse raising their fists in the air signifying achievement, these illustrations were included in the informal classification.

Attire, masks, and caps

In the majority of photographs, female clinical nurses were wearing white tunics and trousers (P1-17,19-26,31,36,37,40); one was wearing a white uniform dress (P19,31); one surgical scrubs (P28); in three photographs (P33,34,35), nurses were shown in full personal protective clothing; a nursing student in

non-uniform clothes (P38) and in another (P39) nurses were shown in a casual uniform maroon top and navy trousers. The great majority of non-clinical nurses were photographed wearing formal attire, including suits (P18,27,29,30,32). In these, and in all 40 photographs, there are four (P18,27,29,32) with president of Japanese nursing organizations. Of the 40 photographs, there were 12 (P2,4,5,8,16,17,20,23,28,30,31,39) with Certified Nurses; four (P6,10,25,40) with Certified Nurse Specialists; and three (P11,12,14) with both classifications.

None of the 40 photographs depicted nurses wearing a cap. There were 11 photographs (P5,7,16,24,26,27,32-36) showing nurses wearing masks, and 29 without. Nine (P5,16,26,27,32-36) of the 11 with masks were related to COVID-19 or were taken during the pandemic. The majority of the 29 nurses without masks were photographed in a formal posture, and only seven (P9,12,15,19,22,37,39) of the 29 without masks are depicted in a relaxed posture.

All of the illustrations showed nurses in uniforms: most of these were white, a small minority were pink and pale blue. A small majority of the female nurses wore uniform dresses, but several wore tunics and trousers (D2, 11, 12, 19, 20, 21, 23, 27, 29). The other twenty-one illustrations showed figures from the waist up, and it was impossible to ascertain what they were wearing. In contrast to photographs, 13 of the illustrations (D1,3,8,10,14-16,18,24,25, 34,37,39) pictured nurses wearing caps and only one (D 11) showed a nurse wearing a mask.

Other elements

A range of elements was depicted in both the photographs and illustrations. There are only nine photographs with no other elements in them. There are 22 (P1,3-8,12,14-17,19-26,31,39) with identity badges; five (P5,9,16,24,37) with clipboards; four (P7,22,26,37) with stethoscopes; four (P5,16,24,26) with pens; four (P26,33-35) with gowns, gloves, and caps, three (P19,32,36) with documents; three (P15,24,27) with microphones; three (P5,19,22) with monitors; two (P21,31) with certificates; two (P3,6) with watches; two (P19,36) with computers; one (P7) with an incubator; one (P9) with a textbook and sphygmomanometer; one (P22) with a bed; and one (P34) with goggles.

Of the 40 illustrations, there were 23 showing another element while the others have none. In ten, (D2,8,10,13,14,17,18,30,37), nurses are holding clipboards. In other illustrations, there were pens (D3,37,40); books (D7,11), stethoscopes (D9,17); intravenous apparatus (D10,28,30); medicines (D10,37); telephone (D16) paper (D19,38); bag (D20); sign (D24); chair (D27); trolley (D11); PC(D1); hair washing table (D36); bandage

(D37); and syringe (D37).

Care activities

Only two photographs showed nurses engaged in inpatient care: one (P9) depicted a nurse taking a blood pressure and the other (P22) a nurse pushing a patient in a bed. There were only six illustrations of nurses conducting patient-related activities. Nurses were shown talking with a patient (D23.28.30); pushing a wheelchair (D26); massaging a patient's shoulders (D27), hugging a baby (D28); checking the patient's health (D28), and washing a patient's hair (D36).

Other people present

Thirty-six photographs show nurses without other people. In those depicted with other people, one (P7) shows a nurse with a baby in an incubator; one (P15) with television presenters; one (P19) with a doctor; and one (P22) with a patient lying in bed.

Thirty-three illustrations showed only a nurse in those with others six (D23,26-28,30,36) were with a patient; three (D15,28,30) were with a doctor, and three (D15,23,26) with other health staff; and one (D26) was with people dressed in suits.

Ethnicity

The inclusion criteria dictated that only Japanese nurses and nurses from Japanese websites were included. Therefore, all photographs were of Japanese nurses.

Ascertaining the intended ethnicity of nurses depicted in illustrations was less straightforward. Of the 40 illustrations, 26 (D1,2,4,5,8,11-21,24,28,31-36,38,39) were identified as looking Japanese by the Japanese researchers; 11 (D6,7,9,10,23,25-27,30,37,40) as Caucasian; and six (D3,22,29) were not clearly Japanese although the search term suggest they were. The Australian researcher (TES) found the images difficult to classify because hair color, skin tone, and eye shape were ambiguous or looked Caucasian in many instances.

DISCUSSION

Our research set out how are nurses portrayed in visual images in Japan on the Internet and what the images suggest about the stereotypes, role, and value of nurses in Japan. Our findings suggested that nurses in Japan were portrayed in Google photographs and illustrations predominantly as young women, in traditional hospital settings, were not depicted engaged in highly skilled/professional care; the photographic images of nurses were assessed as being more representative of contemporary Japanese nursing than

were the illustrations.

The majority of the photographs analysed in this small-scale study were derived from hospital websites; the target audience for these are the general public as well as health professionals. Few nurses were shown in a clinical setting, but of those all were typical inpatient acute settings. It is likely that the intent of the photographs is to showcase positive aspects of the hospital, familiarize the public with the services, and lower the anxiety of potential patients. Data collection was conducted in the second year of the COVID-19 pandemic, and of the 40 photographs, six were news items, and of these five (P27,32,33,34,35), related to COVID-19. It was pleasing to note that several of the photographs showed nursing leaders – presidents of nursing organizations – and Certified Nurses and Certified Nurse Specialists who have extended clinical roles. It is likely these represent public relations news releases and hospitals showcasing their specialist staff.

Many of the illustrations were derived from sites providing stock images for public use. A significant number from a commercial site, <https://www.kango-roo.com>, (Nursing-roo!, 2021) with a character called kangoru, a slightly clumsy nurse targeting nursing students and young nurses. The Japanese word for nursing is kango, and the similarity in pronunciation of kango and kangaroo are similar may have led to the creation of the character. The stated goal of this character is to make all nurses happy, and she has a range of nursing tips packed in her “tummy pocket” (Nursing-roo!, 2021). While the site may offer practical advice along with fun activities such as fortune-telling and cartoons, the “kawaii” illustrations may reinforce the stereotype of cute but unprofessional female nurses.

The nurses depicted in photographs in our study fitted the stereotype in terms of being predominantly female and predominantly young although the photographs depicted more mature female nurses. This does reflect the reality that women constitute the majority of Japan's nurses: in 2018, male nurses accounted for only 7.8% of the total nursing workforce (Ministry of Health Labour and Welfare, 2019). Linguistically the word for nursing was gendered: it was as late as 2001 that the name for nursing in Japanese changed from kangofu (nursing woman) to kangoshi (nurse), a gender-neutral term (Sakashita, 2018). Although the sparse representation of male nurses in photographs and illustrations may represent the reality, it also reinforces a stereotype of nurses as female and may discourage men from considering nursing as a career choice. There was little to suggest differences in function raking or ritualization of subordination (Kang, 1997), although P6 shows the lone male nurse in the central position and P36 shows the male nurse instructing the females. There was no

evidence of differences in function raking or ritualization of subordination (Kang, 1997): neither males nor females were shown in definite roles or were shown deferring to each other.

Western articles have discussed a range of stereotypes associated with nursing, including angel, battle-axe, and nymphomaniac or sex object and “the empty-headed nurse who is kind but dumb” (Darbyshire & Gordon, 2005) capable only of being a doctor's handmaiden. None of the sampled photographs showed these explicit stereotypes; all the nurses were dressed professionally and, although none were shown performing anything that highlighted clinical expertise or competence, they were not depicted performing trivial tasks. None of the images identified in our research showed a battle-axe image, although three illustrations showed angry nurses.

In contrast, the illustrations typified stereotypes of “kind but dumb” and pretty nurses. Closed eyes often denote smiles or winking in Japan and the characters are shown with closed or wide eyes. Most figures tended to have large heads which render them younger and more childlike. The smiling females look cute (kawaii) rather than intelligent; submissive and willing rather than autonomous or professional, and none were depicted in any challenging clinical activities. The Japanese culture of kawaii or cute pervades the manga and is evident in many of the illustrations of nurses in our study: kawaii is used to describe an aesthetic of “adorable beauty and innocent attractiveness”, cheerfulness and purity as well as mute, insecure, helpless and bewildered (Cheok & Fernando, 2012) (Kinsella, 2015). Manga characters express exaggerated emotions and are frequently drawn with two dots for eyes and a smiling mouth (Kinsella, 2013) such as in many of the nurse illustrations. The head of many illustrations is disproportionately large in relation to the size of an adult body and this elicits a nurture response because the proportions are typical of a baby (Cheok & Fernando, 2012). Stereotypical gestures were also common among the images with nurses frequently shown punching the air in triumph, gesturing helpfully, looking shocked or coming to sudden realizations.

Two illustrations (D 10 and 34) conform to the sexualized stereotype of female nurses looking beautiful and ultra-feminine. Two other illustrations are suggestive of medical dominance: in one (D15), nurses stand respectfully with hands crossed submissively in front of them to the side of the central medical figures, the male doctor in a dominant stance, the female with a clipboard and along with the allied health workers all have stethoscopes and more dominant stances. The other (D28), concerning, is the cover of a first-person account of nursing showing a medical doctor front and center. This finding accords with Lusk's (2000) in

her study of Western hospital administration journals from 1930-1950 that nurses were pictured in a subordinate status relative to male physicians.

Our study suggests that in common with overseas research, nurses were predominantly being portrayed as feminine and caring but not as leaders or professionals capable of independent practice (Stanley, 2008) and that, although the representations were usually positive, the depictions were not accurate (Brien & McAllister, 2019). Our research found nurses were presented as caring and trusted yet lacking influence and autonomy consistent with that of a professional as did Godsey et al. (2020). As Fletcher stated, “problems with [nursing] image are tied to the broader problem of gender” (2007, pp. p.210), and the status of nursing is linked to the low status of women in Japan. This gendered presentation of nurses can result in men rejecting nursing as a career and having difficulty identifying themselves as professional nurses (O’Connor, 2015). It has been noted that, instead of portraying nurses as autonomous professionals with a “distinct scientific discipline,” media depictions tend to sexualize nurses; present them as subservient to other professionals in outdated, stereotypical roles (Lusk, 2000; McNally, 2009; Stanley, 2008). Our research distinctly showed nurses in outdated and stereotypical aspects of nursing care and, in many illustrations, wearing caps which are no longer used in Japan.

Unfortunately, nursing professionalism and concomitant educational preparation for practice in Japan has not developed to the extent it has in many other countries; autonomy is limited by the Japanese Nursing Law, which defines clinical scope and legally prescribes nurses’ work as under medical doctors’ orders (Tanaka, et al., 2014). Other Japanese nurse researchers agree that professionalization is limited and nurses’ work is largely “care work” (Asakura, 2015) (Takeshita, Iwawaki & Matsuoka, 2011). Unless the situation has changed since these papers were published, there should be a concerted effort to accelerate the status of nursing as a profession in Japan. Nurses have Codes of Conduct and Ethics as well as Standards for practice: this is consistent with the status of a profession (Fitzgerald, 2020). Unless nurses unpack their beliefs and appreciate their levels of responsibility and accountability around their actions, and promote education programs with outcomes consistent with those of the professions, they will seek avoidance of ‘discomfort’ and choose to remain subservient.

Attire, Masks, and caps

The majority of the photographs and illustrations showed female nurses wearing white uniforms of some description. White is symbolic of purity, and angels are typically associated with

white, but it would be a stretch of interpretation to assert that this is associated with the symbolic stereotype of “the saintly purity of the nurse as angel” (Darbyshire & Gordon, 2005). Japan has been described as the land of uniforms” (McVeigh, 2000), and uniforms are ubiquitous in Japan for many professionals, service staff, and factory workers and make a person’s role readily apparent. It is therefore not surprising that most of the photographs and illustrations depicted nurses wearing uniforms including those of advanced-level Certified Nurses and Certified Nurse Specialists who have a broader scope of practice than registered nurses. The illustrations depicted more nurses wearing caps and less of a range of clothing than did the photographs.

Our findings suggest that recently published photographs of nurses on the Internet in Japan are more representative of contemporary nursing in Japan. In contrast, in 12 of the 40 illustrations of nurses, there was at least one figure wearing a cap. It appears that the stereotype has not caught up with what contemporary Japanese nurses’ attire because the cap was phased out in 2007. Illustrators use stereotypes, such as the nurses’ uniform and cap, as a type of symbol, and they are a shorthand way to symbolize groups of people or complex ideas (History Teaching Institute, 2021). Previously a cap was an almost universally recognized symbol of being a nurse, and originally, caps or veils were styled following a nun’s habit and were designed to cover the wearer’s hair. Capping ceremonies were a solemn rite of passage and marked the end of nurse training (Sibbald, 2001). These are still held in some countries, but in most, caps have lost their symbolic meaning as a sign of accomplishment and been abolished to promote a professional image (Sibbald, 2001).

Data was collected during the ongoing COVID-19 pandemic, and undoubtedly, this influenced the photographs retrieved from the Google search in terms of nurses wearing masks in clinical settings and of nurses featured in news items. Previous researchers have noted that nurses have been largely invisible in news items about healthcare (Buresh et al., 1991), but one of the effects of the current COVID-19 pandemic has been an almost threefold increase in media coverage of nursing and the predominant imagery has been of heroic nurses, battling nurses, and nurses sacrificing themselves for their patients (Bennett, et al., 2020). Some of the most striking imagery has been of exhausted nurses, with marks on their faces after hours of mask-wearing, and the sacrifice of female Chinese nurses having long hair shorn before working on COVID-19 wards (Stevenson, 2020). In our research, this is exemplified in P33, a picture suggestive of an exhausted and overwhelmed nurse during the pandemic.

A frequent theme that emerged in our analysis and discussion

about the illustrations was that the Japanese students repeated shared in our work together that they had not thought deeply about the illustrations or what they may represent. It is likely that this is because, whereas verbal information is processed rationally and consciously, visual imagery is perceived and partially processed preconsciously (Buresh et al., 1991). Cultural factors and familiarity are also likely to play a part. Therefore, the nursing profession and nursing students need to be aware of and critically reflect on the implicit meanings of imagery in the media and ensure the public is given a realistic and accurate description or profile of them and their profession (Stanley, 2008).

The divergence in opinion between the British/Australian researcher and her Japanese colleagues about the ethnicity of the illustrated characters based on hair color, skin tone, and face shape has been previously noted by Lu (2009). Japanese anime has characteristics and stylization: the characters often have colorful hair, long eyelashes, small mouths, and noses and with large expressive eyes, with female characters often having large breasts and facial coloring is usually white with a tint of yellow, pink, or brown (Ocansey, 2018). Lu (2009) reported that, although the ethnicity of more than half of the 341 anime characters examined was designed initially to be Asian and only a tiny fraction was intended to be Caucasian, many were perceived as Caucasian by the predominantly Caucasian raters. Raters tended to perceive the characters as being of the same racial group as themselves; thus, Asian raters saw more characters as Asian and Caucasian raters saw more as Caucasian (Lu, 2009). Images may not always have a fixed or transparent meaning because understanding is derived from the context (Van Leeuwen, 2005). Similarly, the values communicated will also be dependent on shifting cultural contexts.

Limitations

The age of nurses depicted on the Internet was based on estimates. As previously mentioned, the classification of profession and age was necessarily subjective. A few photographs and illustrations were not straightforward to classify. Judging the intended profession of figures depicted with nurses ironically involved some reliance on using stereotypes. For example, in P19, a man on the far right and a woman in the middle are shown wearing white coats but we judged only the male to be a doctor. Sample size and methodology mean that the findings should be interpreted with caution. The strength of this study is that it is the first to examine nurses' image in Japan and include illustrations of nurses.

Implications

The increasing role of social media in our lives along with digi-

tal developments generate a 'world full of images' make visual methodologies increasingly relevant" (Ravn et al., 2020) and the exploration of images of nurses of continued relevance. Nurses need to be aware that the image of nursing is socially and culturally constructed (Carroll & Rosa, 2016) and that imagery can have profound emotional and attitudinal impacts (Buresh et al., 1991). Nurses should ensure they circulate accurate contemporary images of nurses and their role and to challenge stereotyped images when they are encountered (Fletcher, 2007).

Realistic and contemporary images of nurses are vital to attracting people to nursing and may also be linked to job satisfaction and workforce retention (Price & McGillis Hall, 2013; Takase et al., 2006) and self-identity (Lusk, 2000). The images selected by universities and websites help shape the public's view of the profession and create the first impression for prospective applicants as to the nature and value of the nursing profession (Escobar et al., 2007) but our study suggests that imagery is not realistic or contemporary. It is also possible that images influence expectations around the nature of education appropriate for contemporary practice ie developing the ability to collaborate with patients and peers, to question therapeutic processes and outcomes, to think critically in order to make informed judgments about evidence for optimal care processes and to contribute to innovation in systems and processes.

Working with the media to help create more realistic and contemporary portrayals of the whole range of nursing's work can help create a more balanced view of healthcare and professional education. Darbyshire and Gordon (2005) pointed out that criticism alone cannot rectify the situation and that nurses should be proactive in providing media outlets with positive and acceptable alternatives. It is not only images generated by others that may misrepresent nurses, but images used by nurses themselves may also do this (Kelly et al., 2012), and nurses need to be mindful of the images they use.

CONCLUSIONS

Visual representations or images carry a more immediate emotional impact than written and spoken words, and visual images are perhaps particularly pertinent in Japan with such a unique and visually-oriented culture. Profiles of the profession of nursing and the roles of nurses are ever evolving; examining how nurses are portrayed visually in the media will remain a topic that needs revisiting. Our research suggests that photographic representations of nurses on Google images showed a more contemporary and balanced view of nursing than did illustrations of nurses. If there is

one positive to come out of the devastating COVID-19 pandemic, it is to foreground the importance of nursing and show them as essential well-informed health professionals.

Nurses have been trained or 'groomed' to believe that they were only 'givers' in a transactional way and under the direction of others and the illustrations we sampled reflect this. If nurses value education and assume the full suite of their professional roles and functions, they will see that they do make decisions with and on behalf of patients and they do behave autonomously.

Nurses, nurse educators, and managers themselves have a responsibility to consciously select images that reflect the contemporary professional roles of nursing in their presentations, on websites and promotional material drawn from a range of nursing contexts, represent the diversity in gender and context of the current nursing workforce and promote research and education programs that prepare professionals for evidence-based practice. Adoption of curriculum designs such as practice-based philosophy and methodologies that incorporate stimulus (learning) material based on the reality of practice and the full suite of abilities and a range of contexts of practice can only enhance the likelihood of alternative imagery around the profession of contemporary nursing.

SUPPLEMENTARY MATERIALS

Further details on supplementary materials are presented online (available at 10.24313/jpbl.2022.00206).

CONFLICT OF INTEREST

The authors declared no conflict of interest.

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