PERSPECTIVE

Images in Health-related Communications from Sri Lanka: Is there a Racial Bias?

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Abstract

Racial bias and language discrimination are recognized in the health sector in countries such as Sri Lanka. This may extend to images used in health communication and educational literature. We analyzed the racial and ethnic representation in a sample of newspapers and websites related to health obtained over a period. Most of the human figures in health-related messages in newspapers had an overrepresentation of Caucasians. This trend was absent in websites where 73% of the images of Sri Lankans. The reasons for this pattern could be due to the availability of image-quality photographs and exposure to a norm that is racially biased. For example, a majority of images in medical textbooks and prestigious journals are of white Caucasians. A predominance of such images could have two impacts. At an individual level, it would affect acquiring skills of visual diagnoses. At a societal level, it may reinforce a view that most forms of health-related knowledge are created in the West and could add to existing discrimination based on skin color (i.e., colorism). The latter is a known psychosocial stressor that contributes to psychological distress among socially disadvantaged populations and promotes behaviors adverse to health and residential segregation. These may contribute to poorer physical, mental, and infant health outcomes in dark-skinned individuals compared to lighter-skinned in the USA and Canada. Such discrimination within the health system would compromise basic human dignity, disempower patients, and violate the principle of autonomy. Sri Lankan media, the healthcare profession, and educationists need to recognize the relevance and importance of using images that appropriately reflect the realities of their own environment, its people, and patients.

Keywords Race · Bias · Health communication

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Introduction

Racial bias and language discrimination (i.e., linguicism) are recognized phenomena in health system of many post-colonial countries (Jayasinghe 2021). This has been linked to inter-generational transfer and transmission of white supremacist racist ideology of the colonial era (Jayasinghe 2021). It is hypothesized that similar transmissions could take place with other forms of health communications, such as images used in health communications or educational resources.

There is a keen interest among researchers in the diversity of images used and their implicit impacts on stereotyping or reinforcing cultural biases and racism (Louie and Wilkes 2018; Curry 2001; Massie et al. 2019, 2021). The images of humans used in health communications reflect population demographics, free availability of images, and implicit biases of the authors, editors, and publishers. We have observed a bias in the images used for health communications in the Sri Lankan print and social media but found no reports of studies in the literature. We conducted a desk review of print and web-based media to gather evidence to confirm or refute this observation.

Methodology

Evidence on images used for health communications were obtained from selected newspapers and websites. Newspapers and tabloids were representatives of well-known and highest circulating newspaper publishers in the country. A total of 71 newspapers published for 2 weeks (17 to 31 August 2020) were collected. These included 36 Sinhala, 14 Tamil, and 21 English newspapers and tabloids. Health-related images were identified and initially classified as news articles, supplementary articles, and advertisements. Supplementary articles were those related to health but not related to news or events. Advertisements included health-related products, services, and training.

We also identified 10 large tertiary care hospitals from the website of the Private Health Services Regulatory Council (n.d.) and other sources (Krieger 2000). Their websites were perused for images that were uploaded by the institution. Images having at least one representation of a human figure, as a whole or part of the body and accompanying content related to health were selected. Foreign news articles were excluded. Each image was scanned and uploaded into individual google forms. A distinct number was allocated to each image. Three investigators independently reviewed each image, and they were requested to categorize according to their opinion, initially as "Sri Lankan," "foreigner," or "difficult to identify." The "foreigner" category was further subdivided as South Asian, Caucasian (non-South Asian), Mongoloid/Asian, and Negroid/Black African.

Evidence from Print Media The images from the newspapers as shown in Table 1. The majority of the images in newspaper articles appeared as foreigners 123

Table 1 Nationality of persons included in newspaper articles

Type of newspaper article	Category of images			Total
	Foreign	Sri Lankan	Difficult to categorize	
News items	5 (38.46%)	6 (46.15%)	2 (15.38%)	13 (100%)
Supplements	93 (86.11%)	9 (8.33%)	6 (5.55%)	108 (100%)
Advertisements	25 (65.78%)	10 (26.31%)	3 (7.89%)	38 (100%)
Total	123 (77.35%)	25 (15.72%)	11 (6.91%)	159 (100%)

(77.35%) while 25 (15.72%) showed Sri Lankans. We observed a relative scarcity of health-related news articles (13 articles) appearing through a total of 71 newspapers. However, in contrast, there were 108 health-related supplementary articles that were rich in health-related content as there were 108 articles which are on average 1.52 articles per newspaper.

The images containing photographs of foreigners were further analyzed and 82 (72.7%) majority were of Caucasians. We also analyzed the newspaper articles according to the language of the newspaper (Table 2) which showed a predominant use of images of foreigners in those using native languages.

Evidence from Websites We were able to collect a total of 157 images published on websites of both government and private sector health care facilities. Majority included photographs of Sri Lankans (114, 72.61%) while only 21 (13.38%) had the appearance of foreign nationals (Caucasians 64% and South Asians (non-Sri Lankan) 35.29%).

Discussion

This study demonstrated that most of the human figures in health-related messages in newspapers were of non-native persons with an overrepresentation of Caucasian origin. However, this trend was not present in websites where 73% of the images were suggestive of native Sri Lankans.

The images of humans used in news items of newspapers often tend to reflect population demographics. Other factors may be influencing images used in health

Table 2 Categorization of images in newspapers according to the language of publication

Language of publication	Foreign	Sri Lankan	Difficult to categorize	Total
Sinhala	94 (78.33%)	17 (14.16%)	9 (7.50%)	120
Tamil	6 (100%)	-	-	6
English	23 (69.69%)	8 (24.24%)	2 (6.06%)	33

communications such as free availability of high-quality Caucasian images. Implicit biases of the authors, editors, and publishers are also well known (Louie and Wilkes 2018; Curry 2001; Massie et al. 2019, 2021).

The latter could also mean a subconscious racial bias among newspaper editors, authors, and marketers, originating in white supremacist thinking, analogous to tracing linguicism, and the predominant use of English in the health sector to colonial racism (Jayasinghe 2021).

The racial bias of images extends to medical textbooks and prestigious journals that are commonly recommended in Sri Lanka (Louie and Wilkes 2018). An analysis of 4,146 images from four well-known textbooks related to Medicine found them approximating the racial distribution of the US population but over-representing light skin. These would therefore be completely non-representative of a Sri Lankan. Textbooks used in nursing too have images of nurses and patients under-representing racial minorities (Curry 2001). A recent study using photogrammetric analysis of published images in the *New England Journal of Medicine* found only 18% using non-white skin tone (Massie et al. 2019). Similar under-representation of images from non-white persons has been reported in journals that commonly use illustrations such as plastic and reconstructive surgery, indicating a bias towards the fairer skin images (Massie et al. 2021).

There are three adverse impacts of a norm that enables racially biased imagery. At an individual micro-level, the lack of appropriately representative images of skin changes in colored persons will impair acquisition of visual diagnostic skills of medical trainees. It may give an impression that most forms of health-related knowledge are created in the Western cultures thus reinforcing a Eurocentric view of knowledge creation. This could lead to a form of intellectual inferiority complex among health professionals of color.

Predominant use of Caucasian images could also reinforce hidden discriminations against local social groups in the context of a health system already steeped in remnants of racist ideology and linguicism (Jayasinghe 2021). Such biased imagery and dominant use of English would reinforce each other and synergize to augment the powerful social status of Western-oriented elite and thereby make native persons feel relatively inferior due to their darker skin color, even within his or her own country. This is a form of discrimination as it promotes the development of prejudice based on a skin color and offering an advantage to favored groups while limiting opportunities for another, i.e., known as colorism (Krieger 2000).

Colorism is well recognized in countries such as the USA and South America (Klonoff and Landrine 2000; Canache et al. 2014). Journalists and human rights activists too have begun to recognize its undercurrents in Sri Lanka (Ubeyratne 2020). US reports suggest it acting as a powerful psychosocial stressor that contributes to psychological distress among socially disadvantaged populations, promotes certain behaviors (e.g., alcohol and tobacco use) and residential segregation (and therefore exposures) (Krieger 1999). Research has also shown that darker-skinned individuals report poorer physical, mental, and infant health outcomes than lighter-skinned individuals (Montalvo and Codina 2001; Abdulrahim et al. 2012; Veenstra 2011; Villarreal 2010). Analogous to the negative impacts of colorism, we hypothesize that racially biased medical images promote discrimination of native and

indigenous people in Sri Lankan society. Such discriminatory actions in the health sector carry negative biases against an individual, devaluing that person's dignity. Prejudicial views aimed at those having dark skin color demonstrate disrespect of a person's dignity and unjust (Glasgow 2009). Another ethical issue would be that such actions fundamentally violate justice and equality (Elias and Paradies 2021). An example would be to favor the allocation of a scarce resource such as hemodialysis facilities to a fairer-skinned patient over a darker one.

Conclusion

Sri Lankan media, the healthcare profession, and educationists should recognize that images used in health communications reflect hidden biases. Their roots may lie in our colonial past that need to be further explored, analyzed for their ethical implications further, and reduced or extinguished. The use of these could reinforce discriminations such as colorism that have potential negative impacts on health with associated ethical issues. Using images to reflect current realities of our own environment, its people, and patients could lead to transmission of more relevant health information that is realistic, and therefore reinforce or promote positive behaviors in the audience.

Declarations

Ethics Approval and Informed Consent Not applicable.

Conflict of Interest The authors declare no competing interests.

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