Patients’ Preferences for Doctors’ Attire in Japan

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Abstract

Objective Physicians’ attire is one important factor to enhance the physician-patient relationship. However, there are few studies that examine patients’ preferences for physicians’ attire in Japan. We sought to assess patients’ preference regarding doctors’ attire and to assess the influence of doctors’ attire on patients’ confidence in their physician. Furthermore, we examined whether patients’ preferences would change among various clinical situations.

Methods Employing a cross-sectional design, Japanese outpatients chosen over one week in October 2008 from waiting rooms in various outpatient departments at St. Luke’s International Hospital, Tokyo, were given a 10-item questionnaire. A 5-point Likert scale was used to estimate patient preference for four types of attire in both male and female physicians, including semi-formal attire, white coat, surgical scrubs, and casual wear. In addition, a 4-point Likert Scale was used to measure the influence of doctors’ attire on patient confidence.


Results Of 2,272 outpatients enrolled, 1483 (67.1%) of respondents were women. Mean age of subjects was 53.8 years (SD 16.2 years). Respondents most preferred the white coat (mean rank: 4.18, SD: 0.75) and preferred casual attire the least (mean rank: 2.32, SD: 0.81). For female physicians, 1.4% of respondents ranked the white coat little/least preferred while 64.7% of respondents ranked casual wear little/least preferred. Among respondents who most preferred the white coat for physician attire, perceived hygiene (62.7%) and inspiring confidence (59.3%) were important factors for doctor’s attire. Around 70% of all respondents reported that physicians’ attire has an influence on their confidence in their physician.

Conclusion This study confirms that Japanese outpatients prefer a white coat. Furthermore, this study strongly suggests that wearing a white coat could favorably influence patients’ confidence in the relationship with their physician in all types of practice.

Key words: clothing, white coat, physician attire, physician-patient relations, communication, patient satisfaction, Japan

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Introduction

Despite dramatic changes in medicine, the white coat remains a powerful symbol of the physician. Wearing a white coat during the medical practice began in the late 1880s when surgeons began wearing white coats in their quest for new “aseptic” methods, while their non-surgical counterparts were typically dressed in business suits with frock coats. By the beginning of the 20th century, the use of the white coat had spread to most physicians and the white coat was firmly established as the “doctor’s uniform” (1).

The importance of this enduring symbol of medicine is reflected in the “white coat ceremony,” first held by the Ar-
nold P. Gold Foundation of Columbia University College of Physicians and Surgeons in 1993, in which many medical schools initiate their students into the study and practice of medicine. Despite being a relatively new ceremony, it has been adopted by a majority of US medical schools. In 1997, 83 of the 142 accredited medical and osteopathic schools in the United States conducted this rite of passage (2).

More recently, however, the situation regarding the white coat has changed with a growing number of healthcare professionals choosing to limit its use in the clinical setting. One argument for limiting the use of the white coat is reduction of healthcare-associated infection. In 2007, the British government issued a statement supporting a “bare below the elbows” dress code as a measure to prevent the spread of pathogens, and prohibited the long-sleeved white coat (3). However, there is no strong evidence to support that these types of measures improve compliance with established infection-control protocols or a clinically significant decrease infection rates (4, 5).

A second argument for limiting the use of the white coat is to facilitate closer provider-patient relationships by bridging the gap between the physician and patient. This is seen by proponents as a move away from medical paternalism and towards a more robust model of patient-centered medicine. For example, studies from New Zealand and Hawaii found that patients preferred physicians in less formal attire rather than a white coat (6). A study in Japan in 1999 also found that physician’s white coats, while preferred, did not influence patients’ satisfaction with care (7).

On the other hand, several recent studies from a variety of countries reported that many patients still expect a doctor to wear a white coat (8-10) although the preferred style of physician attire may depend on the several factors such as a setting of practice, race and perception of healthcare-associated infection, and work culture of the institution (6). In addition, beyond success of the physician-patient relationship, physicians’ attire may be important in determining the success of the therapeutic relationship (11). A study in the US suggested that physicians who dressed professionally not only favorably influenced trust and engendered confidence in the medical encounter, but were also positively associated with increased patient compliance with prescribed therapy and follow-up care (8). However, there are few studies exploring this dynamic in the outpatient setting in Japan. Thus, the purpose of this study was to assess patients’ preference regarding doctors’ attire in several types of clinical encounters and to estimate the influence of doctors’ attire on the clinical confidence of patients in Japan.

Methods

Population

This study used a cross-sectional design utilizing 10-item questionnaires. Over a one-week period in October 2008, we recruited outpatients from a variety of clinical departments at St. Luke’s International Hospital in Tokyo, Japan. All patients were ≥15 years old at the time of the study. Patients who were thought to be unable to answer the survey due to acute illness were excluded from participation. The Institutional Review Board of St. Luke’s International Hospital approved all aspects of this study.

Questionnaires

We developed survey questions regarding patients’ preferences for physicians’ attire based on previous surveys. The survey was modified following an iterative process with two researchers familiar with instrument development and clinical research for content validity. After appropriate modification, the questionnaire was administered to ten volunteers to assess clarity and ease of use. The 10-item questionnaire was organized into the following three topics: 1) baseline characteristics, such as gender and age; 2) preferences for doctors’ appearance, choosing from a variety of styles (Fig. 1) and within the context of several scenarios; and 3) the effect of physician attire on outpatients’ level of trust.

Outpatients were presented with two sets of color photographs containing four different dress styles’, one set depicting a young male doctor and the other, a young female doctor. These styles were defined as semi-formal, white coat, surgical scrubs, and casual wear. For all photographs, stance, position of the stethoscope, hairstyle, and backgrounds were kept constant.

Patients were asked to rank their preference for each different type of attire using a 5-point Likert scale from 1 (least preferred) to 5 (most preferred). Patients were also asked to choose the doctors’ attire they most preferred not only in the setting of our hospital’s outpatient clinics but also in three other hypothetical settings, including a primary care physician’s office, a pediatrics clinic, and at a psychiatric office visit. Moreover, we asked patients whether their preferred physician attire would change if white coats, as indicated by the British government, were associated with healthcare-associated infections. Finally, we asked patients why they chose their most preferred attire and a 4-point Likert scale was used to measure the influence of physicians’ attire on patients’ confidence in their physicians.

Statistical analysis

All analyses were conducted using SPSS statistical software 18.0 J (SPSS Japan, Tokyo, Japan). Responses were analyzed using descriptive statistics, including mean, variance, standard deviation (SD), and percents. Chi-square or Fisher’s exact tests were used for cross-tabulated data and analysis of variance (ANOVA) was used to compare means of continuous data among dress type groups. The 95% confidence interval (CI) was calculated using normal approximation methods.

Results

We distributed 3,705 questionnaires, and received 2,272
back (response rate, 61.3%). Out of the returned surveys, 1,483 (67.1%) were women. Not all respondents answered the entire questionnaire completely, and some questions were left unanswered. We included all returned surveys in the study. The mean age of subjects was 53.8 years (SD 16.2 years). In total, 719 people were less than 45 years old (31.6%), 792 people were 45-65 years old (34.9%), and 631 people were more than 65 years old (27.8%).

Figure 2 shows the distributions of mean ranks for each style of attire. Respondents ranked the white coat highest (mean rank: 4.18, SD: 0.75), followed by surgical scrubs (mean rank: 3.66, SD: 0.82), semiformal attire (mean rank: 2.4, SD: 0.78), and casual attire (mean rank: 2.32, SD: 0.81). For female physicians, 1.4% of respondents ranked the white coat little/least preferred, compared to 64.7% for casual wear.

Table 1 demonstrates that preference for male physicians’ attire was significantly different between male and female respondents (p<0.001), while preferences for female physicians’ attire did not differ significantly by respondents’ gender (p=0.07). For male physicians, respondents who ranked casual attire highest were relatively young (mean age: 46.6 years, SD: 15.6 years), and their mean age was significantly different from the mean age of respondents who most preferred surgical scrubs (mean age: 55.3 years, SD: 15.5 years, p=0.01) and white coats (mean age: 52.5 years, SD: 15.5, p=0.02). For female physicians, respondents who most preferred surgical scrubs were older (mean age: 55.1 years, SD: 15.7), and their mean age was significantly different from those who preferred both a white coat (mean age: 52.0 years, SD: 15.9, p=0.01) and casual wear (mean age 43.3, SD 14.3, p=0.009).

For male primary care physicians, pediatricians, and psychiatrists, the white coat was most preferred. Respondents preferring casual wear and semiformal attire tended to be increased for male pediatricians and psychiatrists.

Respondents who most preferred white coats for the attire of physicians regarded hygiene (62.7%) and confidence in their physician (59.3%) as primary reasons. Those who considered casual wear the best attire for physicians felt that this attire engendered a feeling of friendliness and approachability (88.7%). If patients considered that the white coat could be a vehicle for the transmission of pathogens, then surgical attire was most preferred (58.4%), though this was followed by continued preference for the use of a white coat (25.6%). Around 70% of all respondents reported that physicians’ attire had an influence on their confidence in their physician (Fig. 3). There was no significant difference be-
Table 1. Results of Physicians’ Attire Questionnaire

<table>
<thead>
<tr>
<th>Which attire would you prefer</th>
<th>Semiformal</th>
<th>White coat</th>
<th>Surgical</th>
<th>Casual</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>For male physicians?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All, N (%) (n=1752)</td>
<td>45(2.6)</td>
<td>1393(79.5)</td>
<td>249(14.2)</td>
<td>65(3.7)</td>
<td></td>
</tr>
<tr>
<td>Gender of patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male patients, N (%) (n=562)</td>
<td>12(2.1)</td>
<td>432(76.7)</td>
<td>107(19.0)</td>
<td>12(2.1)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Female patients, N (%) (n=1144)</td>
<td>33(2.9)</td>
<td>925(80.9)</td>
<td>133(11.6)</td>
<td>53(4.6)</td>
<td></td>
</tr>
<tr>
<td>Age mean, (SD),y</td>
<td>53.3(14.1)</td>
<td>52.5(16.1)</td>
<td>55.3(15.5)</td>
<td>46.6(15.6)</td>
<td>0.001</td>
</tr>
<tr>
<td>Primary care physician?, N.%(n=1562)</td>
<td>72(4.6)</td>
<td>1202(77)</td>
<td>180(11.5)</td>
<td>108(6.9)</td>
<td></td>
</tr>
<tr>
<td>Pediatrics?, N.(%)(n=1453)</td>
<td>81(5.6)</td>
<td>718(49.4)</td>
<td>212(14.6)</td>
<td>442(30.4)</td>
<td></td>
</tr>
<tr>
<td>Psychiatrists?, N.(%)(n=1456)</td>
<td>205(13.5)</td>
<td>786(51.8)</td>
<td>126(8.3)</td>
<td>339(26.3)</td>
<td></td>
</tr>
<tr>
<td>For female physicians?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All, N.(%) (n=1490)</td>
<td>20(1.3)</td>
<td>1096(73.6)</td>
<td>355(23.8)</td>
<td>19(1.3)</td>
<td></td>
</tr>
<tr>
<td>Gender of patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.071</td>
</tr>
<tr>
<td>Male patients, N (%) (n=466)</td>
<td>6(1.3)</td>
<td>328(69.3)</td>
<td>132(27.9)</td>
<td>7(1.5)</td>
<td></td>
</tr>
<tr>
<td>Female patients, N (%) (n=980)</td>
<td>14(1.4)</td>
<td>741(75.6)</td>
<td>213(21.7)</td>
<td>12(1.2)</td>
<td></td>
</tr>
<tr>
<td>Age mean,(SD),y</td>
<td>53.6(18.2)</td>
<td>52.0(15.9)</td>
<td>55.1(15.7)</td>
<td>43.3(14.3)</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Why did you select the attire (multiple selections permitted)

| More hygienic?, N.(%)(n= 1050) | 15(38.5) | 873(62.7) | 149(64.8) | 13(21) |
| More professional?, N.%(n= 941) | 14(35.9) | 826(59.3) | 91(39.6)  | 10(16.1) |
| More approachable?, N.(%)(n=232) | 23(59.0) | 107(83.3) | 47(20.4)  | 55(88.7) |
| More knowledgeable?, N.(%)(n=283) | 5(12.8) | 227(17.6) | 44(19.1)  | 7(11.3) |

If you consider that long sleeve white coats might be a vehicle for the transmission of pathogens, which attire would you prefer?

| N.%(n=1676) | 153(9.1) | 429(25.6) | 979(58.4) | 115(6.9) |

Japanese outpatients in our study overall favored the use of white coats for both male and female physicians. Perceived hygiene and inspiring confidence in physicians’ were stated as important reasons for this choice. Aside from hospital-based outpatient clinics, the white coat was also the most preferred attire for individuals in all other tested types of practices, including in the outpatient primary care setting, pediatrics clinic, and psychiatry office visit. Finally, most patients thought that physicians’ attire had an influence on their confidence in their physician’s ability to provide trusted, quality care.

The present study results are similar to many other studies conducted in a variety of settings in that the white coat remains the most preferred type of physician attire (8-10, 12, 13). For example, a study in America reported that professional attire is most preferred for family physicians, as well as for physicians during psychological counseling (8). Contrary to arguments of “white coat anxiety,” a pediatric study in India reported that a majority of children preferred a white coat on the pediatrician. The majority of pediatricians studied, however, disagreed with this preference, suggesting a possible discrepancy of value between men and women (p=0.1)

Discussion
Both a perception of hygiene and an ability to engender confidence ranked highly as reasons for preferring a physician to wear the white coat. No previous study has examined the reasons behind patient preferences for physicians’ attire. Though surgical attire was most preferred if a white coat was considered a vehicle for the transmission of pathogens, this was followed by the white coat despite the supplied information on infection spread. This suggests that patients may demand that physicians attire themselves in clothes that fit an image of hygiene and professionalism, aside from actual clinical phenomena.

In contrast to the current study, in New Zealand, a semiformal style was the most favored (6) while it ranked third in our study. In Hawaii, patients were found to prefer non-use of white coats by a small majority (15). One reason might be that preferences change depending on a location’s accepted social norms, expectations and definitions of professionalism and work culture (10). The Hawaii study serves as a good example of how, even within one nation, definitions of professional attire can vary enormously between culturally disparate locations. Moreover, in the New Zealand study, the use of a smiling option in relation only to semiformal attire might have biased the results and serves as a potent reminder that physician appearance, and its influence on patient perception, extends well beyond attire.

The present study is subject to several limitations. First, this study was performed at a single community hospital, in an urban area of Japan. Consequently, respondents’ preferences may not be representative of all Japanese outpatients and further studies in a variety of healthcare environments.
and among various socioeconomic strata are needed. Second, both doctors shown in the sample pictures were relatively young. The age or perceived seniority of the doctor may affect patients’ preferences. Results may differ if photographs of doctors of different ages are employed. Third, outpatients’ preferences regarding hypothetical settings might differ from real ones, as not all respondents actually had a primary care physician or psychiatrist (16). Finally, because of the cross-sectional study design, it is unknown whether wearing a white coat can proactively increase outpatients’ confidence in their physicians.

In conclusion, we confirmed that outpatients in Japan prefer physicians to wear a white coat, regardless of physicians’ gender or medical setting. This study demonstrates that physician attire can influence patient perception of physicians and strongly suggests that the use of a clean white coat during a patient encounter may favorably influence patients’ confidence in the relationship with their physicians in many practice settings.

Acknowledgement

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References