Should dentist wear white coat? A cross-sectional study

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Abstract

**Aim:** To assess the views of dentists and patients on whether dentist should wear white coat and to determine what shapes their views.

**Methods:** Patients attending a dental teaching hospital for a consultation appointment and the dentists were asked to assess their view related to their preference for white coat using a questionnaire. The surveyed population consisted of a total of 400 patients and 124 dentists. **Results:** It was observed that 67% of the patients preferred their dentist to wear white coat. Significantly more of those aged over 40 years thought their dentist should wear white coat in comparison with those under 40. Among the patients who said dentist should wear white coat, 62.7% believed that white coat would aid in ease of identification and this view was most prevalent in oldest age group. Chi square analysis revealed significant differences between the genders for patient’s views on white coat. Younger dentists belonging to the age group 18 – 30 years were least likely (33%) to wear white coat. More of the dentists think that wearing white coat keep their clothes clean. **Conclusions:** More patients than dentists and especially those older than 60 years, felt that dentist should wear white coat for easy identification. However, most of the dentists viewed infection risk as a hurdle in wearing white coat.

**Key words:** Dental attire; White coat; Infection control.

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Should dentist wear white coat?

Introduction

Doctors when asked to nominate the symbols of their profession, many will select the Hippocratic Oath, whereas the same question when asked to a person in the street; the stethoscope or the doctor's black bag are common responses. However, the most recognizable symbol of the profession is the white coat (1).

Doctors first wore white coats in the late 19th century when science began to make significant inroads into medicine and physicians adopted the laboratory coat as their own (1). Its initial purpose was to protect the patient and physician from cross-contamination, but as the partnership between science and medicine (2) transformed hospitals from institutions for the dying to centers for curing the sick, the white coat became a potent symbol of the authority of science and the art of healing. Superimposed on this metamorphosis, western cultural connotations of whiteness —"life, purity, innocence, superhuman power and goodness", thus it is easy to see how the white coat became the favored garment for physicians (1, 3).

However, as the 20th century advanced, and sociologists turned their attention to medicine (4, 5) and the dynamics of the patient-doctor relationship, the white coat was seen increasingly as a barrier to an effective communication. Furthermore, the changes in society and healthcare that turned doctors into "healthcare providers" and patients into "clients, consumers or customers" also witnessed the extinction of the white-coat doctor.

There is now substantive information that adult patients prefer doctors in clinics and hospitals to be traditionally, or at least smartly, dressed; to wear a necktie; to have short hair; and to wear white coats with a name tag (6-11).

Very limited literature could be traced on patient's preference of dentist attire and that whether the dentist should wear white coat. So, this study investigated the views of patients attending and dentists working at a private dental teaching hospital on whether dentists should wear white coats.

Material and methods

The study was undertaken at Darshan Dental College and Hospital, Udaipur located in the southernmost part of Rajasthan State, India and was initiated during the third week of February 2010. Consent was obtained from all participating patients and doctors and approval for the study was obtained from the hospital ethics committee of Darshan Dental College and Hospital, Udaipur. Patients who were 18 years of age or older were allowed to participate. Exclusion criterion includes patients who were illiterate or decline consent.

The questionnaire framed in the local language (Hindi) was dispensed by a non-clinical member of staff and was completed in the waiting hall prior to the participant’s appointments. A total of 417 questionnaires were distributed over a period 8 weeks, of which 8 were damaged and 9 were excluded due to incomplete information. With regard to dentists, 125 questionnaires were distributed of which only 1 was not returned. Thus, the final surveyed population consisted of a total of 400 patients and 124 dentists.

The questionnaire consisted of questions related to demographic information on age, gender and data on their preferences towards dentist wearing white coat along with their attitudes about white coat.

Completed questionnaires of the surveyed population were passed blind to statistician where they were analyzed for response frequency and the results were tabulated. Chi-square analyses were performed using the statistical package for social sciences (SPSS; Apache, version 2.0)
Should dentist wear white coat?

Results

The mean age of the patients was 45 (range 18–70) while the mean age of doctors was 31 (range 24–50). The percentage of females among the surveyed patients and dentists was 58% and 45% respectively.

Table 1: Should dentist wear white coat?
Views according to patient’s age

<table>
<thead>
<tr>
<th>Patient Age</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30</td>
<td>40 (55.6)</td>
<td>32 (44.4)</td>
</tr>
<tr>
<td>31-40</td>
<td>44 (50)</td>
<td>44 (50)</td>
</tr>
<tr>
<td>41-50</td>
<td>44 (73.3)</td>
<td>16 (26.7)</td>
</tr>
<tr>
<td>51-60</td>
<td>60 (78.9)</td>
<td>16 (21.1)</td>
</tr>
<tr>
<td>60 above</td>
<td>80 (76.9)</td>
<td>24 (23.1)</td>
</tr>
<tr>
<td>Total</td>
<td>268 (67)</td>
<td>132 (33)</td>
</tr>
</tbody>
</table>

Chi-square test, p < 0.001

Table 1 shows that 67% of the patients preferred their dentist to wear white coat. Significantly more of those aged over 40 years thought their dentist should wear white coat in comparison with those under 40 years of age. Patients aged 18–30 were least likely to want their dentist to wear a white coat.

Table 2: Why dentist should wear white coat? Views according to patient’s age

<table>
<thead>
<tr>
<th>Patient’s age</th>
<th>Tradition (%)</th>
<th>Identification Ease (%)</th>
<th>Infection Control (%)</th>
<th>Professional Look (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-30</td>
<td>4 (10)</td>
<td>20 (50)</td>
<td>8 (20)</td>
<td>8 (20)</td>
</tr>
<tr>
<td>31-40</td>
<td>0</td>
<td>28 (63.6)</td>
<td>8 (18.2)</td>
<td>8 (18.2)</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
<td>24 (54.5)</td>
<td>12 (27.3)</td>
<td>8 (18.2)</td>
</tr>
<tr>
<td>51-60</td>
<td>8 (13.3)</td>
<td>36 (60)</td>
<td>4 (6.7)</td>
<td>12 (20)</td>
</tr>
<tr>
<td>60 above</td>
<td>4 (5)</td>
<td>60 (75)</td>
<td>4 (5)</td>
<td>12 (15)</td>
</tr>
<tr>
<td>Total</td>
<td>16 (6)</td>
<td>168 (62.7)</td>
<td>36 (13.4)</td>
<td>48 (17.9)</td>
</tr>
</tbody>
</table>

Chi-square test, p < 0.01

Table 3: Why dentist should wear white coat? Views according to patient’s gender

<table>
<thead>
<tr>
<th>Patient’s Gender</th>
<th>Tradition (%)</th>
<th>Identification Ease (%)</th>
<th>Infection Control (%)</th>
<th>Professional Look (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>12 (10.7)</td>
<td>88 (78.6)</td>
<td>0</td>
<td>12 (10.7)</td>
</tr>
<tr>
<td>Female</td>
<td>4 (2.6)</td>
<td>80 (51.3)</td>
<td>36 (23.1)</td>
<td>36 (23.1)</td>
</tr>
<tr>
<td>Total</td>
<td>16 (6)</td>
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Chi-square test, p < 0.001

Table 2 illustrates that of the 268 patients who said dentist should wear white coats, 62.7% believed that white coat would aid in ease of identification and this view was most prevalent in the oldest age group (60 years and above). There was a significant difference between the patients belonging to various age groups for their views regarding dentists wearing white coat.

It was interesting to note that none of the male patients viewed white coat as a part the infection control protocol which is evident from table 3. Chi square analysis revealed significant differences between the genders for their views on white coat.

Table 4 demonstrates that approximately more than half (51.6%) of the dentists agreed that a dentist should wear white coat. However, younger dentists belonging to the age group 18–30 years were least likely (33%) to wear white coat.

The reasons justifying dentist’s decisions on whether or not to wear white coats are shown in figures 1 and 2.
Should dentist wear white coat?

Figure 1 illustrates that more of the dentists think that wearing white coat keep their clothes clean followed by ease of identification in a hospital among people. However, only 4 (3.2%) dentists admitted that peer pressure was one of the reasons for wearing white coat in hospital.

Table 4. Should dentist wear white coat? Views according to dentist’s age

<table>
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Chi-square test, p < 0.01

It is clear from figure 2 that that maximum number of dentists avoided wearing white coat because of greater chances of infection risk while difficulty in obtaining white coats and peer pressure were among the least rated reasons for not wearing white coat.

Discussion

The present study showed that 67% of the patients (n=400) favoured dentist wearing white coats. These findings when related to studies done in medical specialties, it was observed that Harnett (14), Tiwari et al (15) and Dunn et al (6) had found 59% of oncology patients (n=180), 62% of inpatients at Harlow hospital (n=160), and 65% of patients at teaching hospitals in Boston and San Francisco (n=200) respectively, favoured white coats. This differs from the more recent findings of Dover (12) and Gooden et al (3) who found that 48% of patients (n=300) and 36% of inpatients (n=154) respectively, favoured white coats. The variation in these results reflects the differing opinions of patients in different countries and time periods.

In this study, it was found that ease of identification was the foremost view of the patients regarding dentists wearing white coat in the oldest age group (75%). This finding is in accordance with a previous study by Harnett. (14)

Figure 1. Reason for dentists to wear white coats in Hospital

where, on Y axis:1-peer pressure, 2-tradition, 3-the pockets for books/equipment, 4-identification as doctor, 5-they look professional, 6-they prevent infection and 7-they keep clothes clean.

Although medical opinion in different parts of the world is changing away from the white coat, others feel they still have a positive role. However, it has been suggested that in a hospital where other health care workers wear white coats, a name badge would be a better form of identification.

Figure 2. Reason for dentists not to wear white coats in Hospital

where, on Y-axis:1-infection risk, 2-hot/uncomfortable, 3-difficult to obtain, 4-
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interferences in doctor-patient relationship and 5-Peer pressure.

Almost 51% of the dentists said that they thought white coats transmit hospital acquired infections. In contrast less than 1% of patients expressed the view that white coats could be a health hazard, while 6.5% said they help prevent infections. These differences may be related to difference in awareness levels about the risk factors for transmitting hospital acquired infections. However, several studies have documented bacterial contamination of both white coats and nurses’ uniforms, suggesting a potential risk (18-21). One survey of 100 doctors at the East Birmingham Hospital isolated Staphylococcus aureus from 25% of coats (21). Further studies are required to determine if suits, shirts, or ties worn by doctors are similarly colonized and to examine if not wearing white coats reduces hospital acquired infections.

The paucity of older dentist means that the mean age of the dentists is much lower than that of the patients. However it is the younger dentists who are more visible on a daily basis to patients. Thus, the behavior of younger dentists is more relevant to patients and this study. It was found that nearly 51% of the dentists thought that dentists should wear white coat. Whereas when comparing the results to medical specialists like psychiatrists and pediatrics, it has been observed that they do not wear white coats because their patients find them threatening and thus interfere in their relationship with the patients. The views of pediatricians may reflect the findings of a study by Barrett and Booth who found children regard formally dressed doctors as competent but not friendly, and those casually dressed as friendly but not competent (13).

Dentists and patients have considerably different views on whether dentist should wear white coat. Patients want to be able to identify their dentists and see the white coat as a means of achieving this. It can be suggested that further studies are needed to assess whether this affects patients’ perceived quality of care, and whether patient education about infection risk and the fact that other health care workers also wear white coats will alter their view.

Conclusions

More patients than dentists and especially those older than 60 years, feel that dentist should wear white coats for easy identification. However, most of the dentists viewed infection risk as a hurdle in wearing white coat.

Acknowledgements

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References