



Original Article

Effect of Dental Students' Dressing on Dentist-Patient Relationship

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Abstract

Background: To establish a good and effective relationship between a doctor and his/her patient, certain non-verbal standards are as necessary as knowledge and skills. According to evidence, one of these standards may be the dentist's attire. Therefore, this study aimed to determine the effect of dental students' dressing on patients' trust and confidence.

Methods: This cross-sectional descriptive study was performed to evaluate the perception of dental school patients. After reviewing pictures of dental students in six different dress styles, the respondents were asked some questions on their preference for dental students' attire, as well as several questions targeting patients' trust and confidence. The collected data were analyzed using SPSS 16.

Results: In the present study, 169 respondents with a mean age of 27.5 years old were enrolled, including 47% men and 53% women. The included respondents significantly favored male dentists with a long white coat and surgical scrubs and preferred a long white coat with a white scarf for women ($P < 0.001$). They believed that dentists with this attire are more knowledgeable, skilled, and professionally competent, and they were more appealing to share their personal issues with this kind of dentist.

Conclusions: The respondents preferred dental students in professional attire. Wearing professional dress (a white coat) could have a favorable effect on patients' trust and confidence.

Keywords: Dentist-patient relationships, Clothing, Trust, Surgical attire, Patient preference

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Introduction

A patient-physician relationship is built on mutual trust, respect, and confidence. This fundamental relationship is formed by both verbal and nonverbal communication. Minor details such as the physician's greeting, grooming, and attire, which may be overlooked at first sight, can also have an effect on this relationship. From the patient's perspective, the physician's attire is an indicator of his character and professional competence, which can affect the patient-doctor trust (1).

The patient-physician trust is an interactive relationship, leading to union and accompaniment in the way to reach their common goals of improving and maintaining the patient's health status (2).

The physicians will be more satisfied when their patients trust in them more. Hence, one important outcome of this trust is satisfaction. The complementary satisfaction following this mutual trust will consequently result in the improved health status of the patient and society (3).

Medical and dental students are expected to dress

according to a determined style regarding the role they provide in the health service. In this respect, many great universities proposed guidelines on professional behavior, a section of which is dedicated to clothing (4).

In academic fields, medical/dental students' appearance affects patients' confidence and their perceptions of the care providers' professionalism. However, cultural, religious, and traditional beliefs will impress this effect (5).

In a recent systematic review performed by Petrilli et al, the majority of articles reported the positive effect of physician attire on patient's perception, confidence, and trust; however, the patients' age and the context of medical care could affect this relationship (6). Nonetheless, evidence indicates that attire does not affect patient's perception of the health care provider's competence (7,8).

Considering that the dentist's attire can be known as a determining factor in forming effective communication with the patient and inappropriate attire may undermine mutual trust, this survey sought to investigate the perception of patients admitted to dental school of



Hamadan University of Medical Sciences.

Materials and Methods

This descriptive cross-sectional study was conducted on 169 subjects, who were selected by convenient sampling from dental faculty visitors of Hamadan University of Medical Sciences. Those who were extremely ill, demented, and non-communicative were excluded from the study.

The subjects received a questionnaire and completed demographic information on age, gender, and educational level. In the second section, based on whether they preferred a male or female dentist, they were shown a set of male and female photographs, each comprising of a subject dressed in one of the intended six styles (Figures 1 and 2). They included a male set, namely, surgical scrub, suit, and white coat in variations (knee length, waist length, and an intermediate length), and the last image was a knee-length white coat not buttoned. The second style was a female set, namely, casual dress (black coat and a colored scarf), and 5 different white coat variations (a knee-length

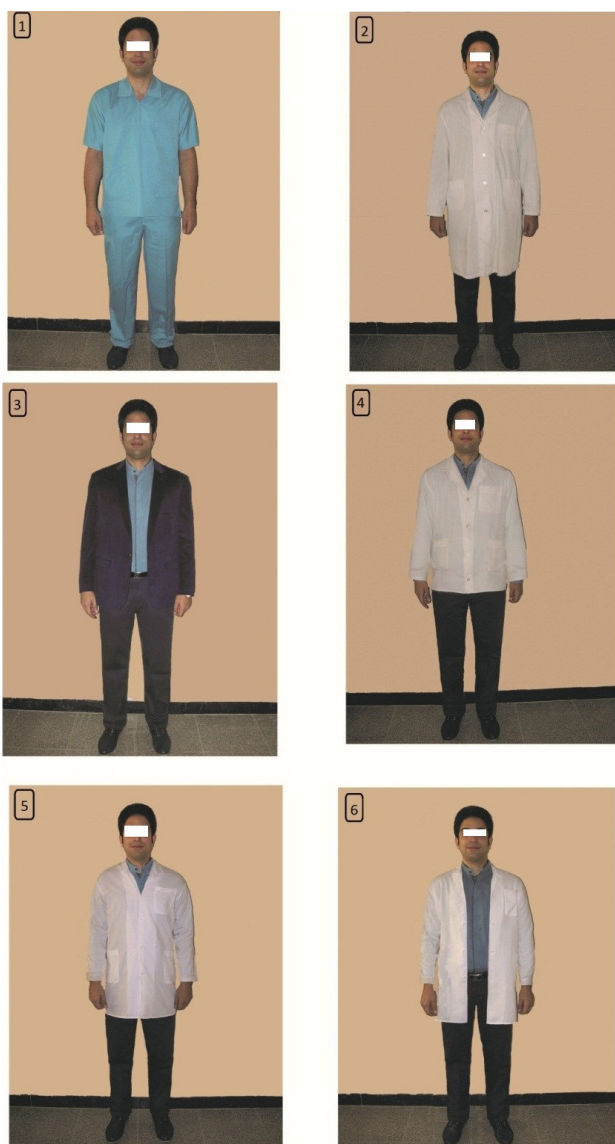


Figure 1. Male Dress Styles.

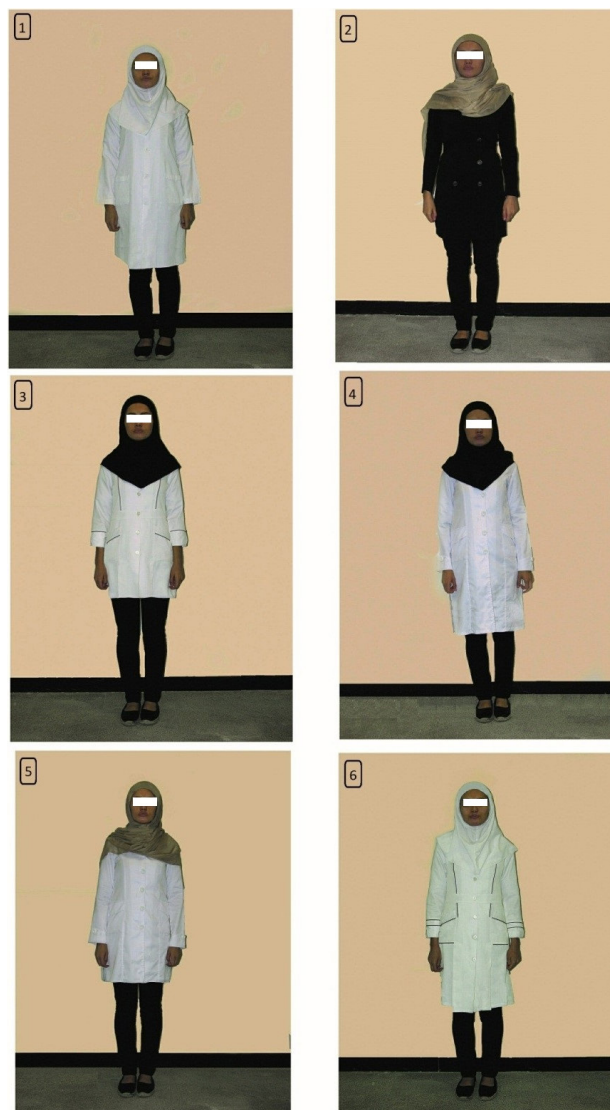


Figure 2. Female Dress Styles.

coat with either a white or black headdress, a waist length coat with either a colored scarf or a black headdress, and a knee length coat with colored strip patterns and a white headdress).

The photography models were volunteer students of the same faculty, who were not wearing accessories. The photographs were taken in the same position with identical backgrounds and then printed in a similar size (10*15 cm).

In the second part, the respondents answered the question about the dress style they preferred for their dentist, as well as the dress style which was competent with a more literate, experienced, responsible, and compassionate dentist. They also selected the physician they would prefer to examine and perform dental treatment for them and who they are more likely to share their social problems with. For each question, they were supposed to mention two priorities. One of the authors, FM, instructed people regarding filling out the questionnaires.

It was stated that the pooled data of the questionnaires would be presented anonymously. Of note, all the participants signed an informed consent form.

The validity of the questionnaire was assessed (80%) through conducting a pilot survey, completed by nursing supervisors and the academic members of the dental faculty. Further, the reliability of the responses was measured (88%) by comparing the answers of twenty volunteers, who responded to the questionnaire twice in one month.

Chi-square and Mann-Whitney U tests were employed to analyze the obtained data, and all analyses were performed with SPSS, version 16. *P* values less than 0.05 were considered statistically significant.

Results

A total of 169 subjects participated in this study. The mean age of the respondents was 27.7 ± 8.7 years old ranging from 15 to 65 years. There were 1, 2, and 8 missing data for gender, age, and education level, respectively. Table 1 summarizes demographic data.

Notably, 75.9% of male respondents and 64.57% of the female respondents preferred a male and a female dentist, respectively. Furthermore, 54.8% of younger (<25 years old) and 35.7% of older (25 years old and more) participants preferred a female dentist. There was a statistically significant ($P < 0.05$) relationship between gender and age of the respondents and their preference for the gender of the dentist. However, this relationship was not significant in terms of educational level (Table 2).

With regard to the importance of the dentist's attire, no significant relationship was found among age, gender, and educational level in the study groups (Table 3).

The respondents answering the male questionnaire believed that a dentist with a surgical scrub was more literate and skilled and preferred a physician with this

attire for examination, dental treatment, and follow-up visits. The dentist with the long white coat was selected as the second priority. However, in terms of responsibility, compassion, and willingness to share social problems, the dentist with a white coat was the first priority and the surgical scrub ranked the second (Table 4).

In the other group who preferred a female dentist, the knee-length white coat with a white headdress obtained the highest rank for the perceived literate, skilled, responsible, and compassionate dentist. The respondents in this study also preferred their treating dentist to dress in this style. In addition, they were more appealing to share social problems with such a dentist. In contrast to the male attire, there was no consistency in the second priority (Table 5).

Discussion

An effective patient-physician relationship is affected by various parameters. The patient's attitude toward his physician's attire may differ based on religious, cultural, and ethnic backgrounds, as well as personal characteristics. Given that there is limited evidence on the relationship of dentists' attire with patients' confidence and trust, the

Table 1. Demographic Distribution of Respondents

Variable	Percent	
Gender	Female	46.7%
	Male	53.3%
Age	Under 25 years old	49.7%
	25 years old or older	50.3%
Education	Primary education	3%
	High school-diploma	26%
	Academic education	71%

Table 2. Preference for Gender of Dentist Based on Demographic Data of Participants

Variable	Male Dentist (%)	Female Dentist (%)	<i>P</i> Value
Gender	Male	75.9	<0.00
	Female	36	
Age	Younger than 25 years old	45.2	0.02
	25 years old or more	64.3	
Education	Primary education	40	0.35
	High school-diploma	63.6	
	Academic education	54.1	

Table 3. Relationship of Demographic Status and Respondents' Perception Toward Dentist's Attire Importance

Variable	Importance of Dentist's Attire		<i>P</i> Value
	Does Matter (%)	Doesn't Matter (%)	
Gender	Male	52.6	0.06
	Female	66.3	
Age	Younger than 25 years old	59	0.87
	25 years old or more	60.2	
Education	Primary education	80	0.59
	High school-diploma	59.1	
	Academic education	56.8	

Table 4. Questionnaire Results for Male Dentists

Questions	Dress Style (%)						P Value
	Style 1	Style 2	Style 3	Style 4	Style 5	Style 6	
Perceiving this dentist more knowledgeable	38.5	22	15.4	7.7	13.2	3.3	<0.001
Perceiving this dentist more skilled and professionally competent	42.9	20.9	9.9	3.3	20.9	2.2	<0.001
Being more responsible	19.1	40.1	12.4	9	15.7	3.4	<0.001
Preferring this dentist for clinical examinations and treatment	36.3	24.2	5.5	9.9	22	2.2	<0.001
Preferring this dentist for follow-up visits and long-term care	26.4	24.2	9.9	11	23.1	5.5	<0.001
Showing more willingness to share social issues	14.6	42.7	9	7.9	24.7	1.1	<0.001

Table 5. Questionnaire Results for Female Dentists

Questions	Dress Style (%)						P value
	Style 1	Style 2	Style 3	Style 4	Style 5	Style 6	
Perceiving this dentist more knowledgeable	30.7	18.7	25.3	13.3	10.7	1.3	<0.001
Perceiving this dentist more skilled and professionally competent	36	9.3	17.3	17.3	17.3	2.7	<0.001
Being more responsible	45.9	6.8	4.1	16.2	14.9	12.2	<0.001
Preferring this dentist for clinical examinations and treatment	29.3	6.7	24	14.7	24	1.3	<0.001
Preferring this dentist for follow-up visits and long-term care	30.7	13.3	18.7	12	24	1.3	<0.001
Showing more willingness to share social issues	36	12	12	16	20	4	<0.001

present study attempted to evaluate patients' perception of dental students' dress.

As mentioned earlier, 75% of male and 64.57% of the female respondents preferred a male and a female dentist, respectively. One explanation for this response could be the religious and cultural beliefs of the respondents. Correspondingly, the practitioner-patient's position, close contact during treatment, and frequent visits may support this finding. In younger patients, this is even more highlighted, and the majority of young males (83.3%) and females (69.5%) preferred a practitioner of the same gender.

The participants perceived a male dentist with a surgical dress to be more knowledgeable, competent, and trustable for their examination and long-term treatment. However, they were more comfortable sharing their family issues and social problems with a dentist dressed in a white coat. They believed dentists with white coats to be more responsible and compassionate, which is in line with the findings of Rehman et al and Cha et al (4,9). Surgical scrubs mostly remind of a surgeon in the surgical setting, and this attire is recognized as the routine surgeon's dress. Considering that dentists are known as 'dental surgeons' and are frequently presented with this attire in social media and television series, this may explain the preference toward surgical scrubs, which may indicate that surgical procedures are significant components of dental practice. However, some studies demonstrated that surgical dress can elevate stress and anxiety levels in patients, and a white coat was the preferred attire in these studies.

Another finding of this study (10,11) was the superiority of a long white coat and white headscarf for female dentists.

Naturally, an individual's clothing is associated with his/her career. The white coat has long been the standard dress for medical staff, and despite cultural and religious

varieties, it remains the international dress code for medical units. This could be the reason that this attire has obtained the first rank for a literate female practitioner and the second for a male counterpart. Moreover, it is the reason that dentists with this attire were considered more responsible, compassionate, and trustable individuals for patients to share their personal issues with (12).

Another reason for this finding could be the "form concept theory", which states the more prevalent pattern observed in society is perceived as the more appropriate one (13). The common attire associated with the medical profession has always been the "white coat", thus people prefer this attire nationwide.

Regarding medical competence and performance, it is believed that most graduate doctors and specialists wear this dress in their daily practice, and this picture is extensively reflected by social media, which in our opinion, could strongly affect peoples' perception of more competent practitioners (14).

Long white coats, in comparison to short ones, are more consistent with guidelines on infection control in academic clinics as the dental context is associated with biological hazards such as saliva, blood, and microbial flora (15,16). In addition to the fact that long white coats are in accordance with religious rituals, this may also be another reason for the findings of this study.

In other studies, it was reported that fashionable attire and accessories such as excessive makeup, jewelry, nail polish, and fashionable hairstyles are usually not accepted for physicians and dentists, and patients expect their practitioners to wear ordinary white coat (17,18).

According to the findings of this study, the white coat is the preferred attire from the patient's perspective, which gains most patients trust; thus it would be recommended as the routine dress code for dental practices.

This study had some limitations. The study sample was limited to university attendants. In addition, the dentist's behavior, communication skill, age, and other factors could have affected the dentist-patient relationship, and this issue was not evaluated in this study. Therefore, they are recommended to be studied in future studies.

Conclusions

The majority of respondents in this study perceived dental students wearing white coats as more trustable and professionally compatible. To enhance the patient-practitioner interaction, this attire is recommended to dental students, which is also consistent with cultural and religious rituals in our country.

Author Contributions

Conceptualization: Sara Alijani, Zahra Khamverdi.

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Methodology: Sara Alijani.

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Supervision: Sara Alijani, Amir Farhang Miresmaeili, Zahra Khamverdi.

Validation: Sara Alijani, Amir Farhang Miresmaeili.

Visualization: Sara Alijani, Farzad Malak Khorshidi.

Writing – original draft: Sara Alijani, Maryam Salehzadeh.

Writing – review & editing: All authors.

Conflict of Interest Disclosures

The authors declare there are no conflicts of interest.

Ethical Statement

The study was approved by the Ethics Committee of Hamadan University of Medical Sciences (IR.UMSHA.REC.1394.470).

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