

ORIGINAL RESEARCH ARTICLE

Evaluation of Patients Preferences for Dentists' Clinic Attire: A Cross-Sectional Study

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Abstract

Purpose: To evaluate the preferences of pediatric, adolescent, and young adult patients regarding dentists' clothing.

Materials and Methods: Five hundred and forty patients admitted to the Orthodontics and Pediatric Dentistry Departments of Firat University Faculty of Dentistry who wanted to participate in the study were randomly selected. The patients were grouped as children (7–11 years; n=180; Group 1), adolescents (12–17 years; n=180; Group 2), and young adults (18–25 years; n=180; Group 3). Patients were shown a template consisting of eight different types of clothing, and their preferences were recorded. Uniforms with different colors between uniform no. 3–8 were classified as a single preference under the name of 'colored uniform' to determine general preferences and were evaluated separately under the title of general preferences.

Results: The white coat was the most preferred clothing among eight preferences by the participants (23.5%). Uniform number 5, and white coat were the most preferred clothing in Group 1 (26.1%), Group 2 (22.8%), and Group 3 (55%), respectively. The general preference among the 3 groups was statistically significant ($p < 0.001$). In general preferences, colored uniforms were preferred the most (68.1%), and civilian clothing was preferred the least (8.3%). Colored uniforms were preferred mostly in Groups 1 and 2 (92.2% and 79.4%, respectively), and a white coat was the most common preference in Group 3 (55%).

Conclusions: Dentists' wearing the attire most preferred by patients of different ages can significantly increase patient satisfaction and patients' perceptions of the care they receive.

Keywords: Clinic clothing; Dentist; Patient preference

Introduction

The high number of dentists in the current medical field has led professionals to seek ways to attract more patients under these competitive conditions. Some professionals try to distinguish themselves in this competitive area by increasing their investment in professional appearance.¹ A good-looking appearance of a doctor in the first appointment creates a favorable first impression in the patient, while developing a more successful and better relationship between the doctor and patient.² In addition, it has been claimed that patients' first impressions also affect their expectations of care and thoughts about the competence level of doctors.³ Therefore, the clothing of a doctor can be evaluated by patients while preferring the doctor.^{4–6}

The physical appearance and clothing of doctors have long been considered important issues. Hippocrates stated that a doctor should dress well, be well-groomed, and clean so that people can trust more easily.⁷ Some studies have claimed that doctors' cloth-

ing is an important pre-indicator of trust and satisfaction for patients.^{8,9} For instance, a nicely and neatly dressed doctor gives a professional, knowledgeable, and precise impression, whereas a doctor dressed in improper and untidy clothes may create a negligent and careless impression.⁵ However, it has been claimed that the appearance of a doctor also increases patients' willingness to describe their symptoms.¹⁰

Since the 19th century, the white coat has become a strong symbol of authority and healing. The decrease in the popularity of white coats over time has led many medical specialists to wear more formal clothes, such as suits.¹¹ They prefer wearing jackets, suits, and ties in the pediatric setting, and colored coats in less formal places. Therefore, the physical appearance and clothing of dentists are of great importance.

There are limited studies in the literature regarding patients' preference for dentists' clothing during the first dental examination. This study aimed to evaluate the preferences of pediatric, adolescent, and young adult patients regarding the clothing of dentists.



Figure 1. Photos of clothing shown to patients (no.1-8)

The H_0 hypothesis of our research stated that patients preferences for dentists' clinical attire are similar.

Material and Methods

The ethical principles of medical research on human subjects in the World Medical Association (WMA) Declaration of Helsinki were followed. The study was approved on 17/10/2019, meeting no. 15, and decision no. 06 by the Non-Interventional Studies Ethics Committee of Firat University.

Patients admitted to the Orthodontics and Pediatric Dentistry Departments of Firat University Dentistry Faculty who wanted to participate in the study were selected randomly. An informed consent form was obtained from the patients and parents before the study. The sample consisted of 540 participants. Group 1 included 180 children between ages 7 and 11, Group 2 included 180 adolescents between ages 12 and 17, and Group 3 included 180 young adults between ages 18 and 25. Individuals with systemic diseases such as psychiatric diseases, cognitive disorders, color blindness, or visual impairment were excluded from the study.

Photographs shown to the patients were taken by the same photographer, on the same date and time, from the same angle, and with the same exposure for standardization purposes. Accessories, hairstyles, and facial expressions were the same in each photograph. Clinical clothing was the only variant in all the photographs. A template was then created to be shown to the patients by numbering the photographs (Figure 1). The template included a shirt, tie, and white coat in photograph 1; civilian clothing with shirts, ties, and jackets in photograph 2; and uniforms with different colors in photographs 3-8. Consisting of eight different photographs of a dentist, this template was shown to the participating patients, and their opinions were recorded. The photographs on this template were shown to the patients. The patients were asked the question, 'What clothing would you prefer your dentist to wear during your first dental examination?' The responses were recorded according to the group, age, and gender of the individuals. Patients' clinical clothing preferences were evaluated based on eight photographs. Afterward, five different colored clinical clothing were combined into a single parameter as 'colored uniform' and examined under the general preferences heading of white coat, civilian clothes, and colored clinical clothing.

Statistical Analysis

IBM SPSS for Windows (Statistical Package for Social Sciences, version 24.0, Illinois, USA) was used for statistical analysis. The

Table 1. Distribution of groups by gender

Gender	Group 1	Group 2	Group 3	Total	p value
Man	n 83	99	86	268	0.200*
	% 46.1	55.0	47.8	49.6	
Woman	n 97	81	94	272	
	% 53.9	45.0	52.2	50.4	
Total	n 180	180	180	540	
	% 100.0	100.0	100.0	100.0	

*Chi-square test; n: number of participants who selected the relevant photo; $p < 0.05$ was considered statistically significant.

Table 2. Distribution of preferences by groups

Preferences	Group 1	Group 2	Group 3	Total	p value
1	n 6 ^a	22 ^b	99 ^c	127	0.001*
	% 3.3	12.2	55.0	23.5	
2	n 8 ^a	15 ^b	22 ^c	45	
	% 4.4	8.3	12.2	8.3	
3	n 47 ^a	23 ^b	7 ^c	77	
	% 26.1	12.8	3.9	14.3	
4	n 19 ^a	19 ^a	12 ^a	50	
	% 10.6	10.6	6.7	9.3	
5	n 17 ^a	41 ^b	29 ^b	87	
	% 9.4	22.8	16.1	16.1	
6	n 21 ^a	15 ^a	6 ^b	42	
	% 11.7	8.3	3.3	7.8	
7	n 23 ^a	18 ^a	3 ^b	44	
	% 12.8	10.0	1.7	8.1	
8	n 39 ^a	27 ^a	2 ^b	68	
	% 21.7	15.0	1.1	12.6	
Total	n 180	180	180	540	
	% 100.0	100.0	100.0	100.0	

*Chi-square test; n: number of participants who selected the relevant photo; $p < 0.05$ was considered statistically significant. Among the numbers in the left column of the table, 1 indicates 'white coat,' 2 indicates 'civilian clothes,' and no. 3 to 8 indicate 'colored uniform' preference. ^{a-c}: There is no difference between groups with similar superscripts on the same row.

Shapiro-Wilk test was used to check the conformance of the digital variants to a normal distribution. Pearson's chi-square test was used to analyze categorical data. The descriptive statistics of the data are presented as mean $\pm$ standard deviation for variants with a continuous measurement value. The frequency for categorical variants was expressed as a percentage [n (%)]. The results were considered statistically significant at a 95% confidence interval ($p < 0.05$).

Results

Of the five hundred and forty patients included in the study, 272 (50.4%) were female and 268 (49.6%) were male. There was no statistically significant difference between the groups according to gender ($p > 0.05$) (Table 1).

The most preferred clothing was a white coat (23.5%), and the least was civilian clothing (8.3%), uniform no. 7 (8.1%), and uniform no. 6 (7.8%). The uniform number 3, number 5, and white coat were preferred mostly in Group 1 (26.1%), Group 2 (22.8%), and Group 3 (55%), respectively. There was a statistical difference in clothing preferences between the groups ($p < 0.001$) (Table 2).

According to the general preference, the most preferred clothing was colored uniform no. 3 (68.1%), and the least was civilian clothing (8.3%). Colored uniforms were preferred in Groups 1 and 2 (92.2% and 79.4%, respectively), and a white coat was the most common preference in Group 3 (55%). The general preference of the groups was statistically significant ($p < 0.001$) (Table 3).

Table 3. Distribution of general preferences by groups

General Preferences		Group 1	Group 2	Group 3	Total	p value
1	n	6 ^a	22 ^b	99 ^c	127	0.001*
	%	3.3	12.2	55.0	23.5	
2	n	8 ^a	15 ^b	22 ^b	45	
	%	4.4	8.3	12.2	8.3	
3	n	166 ^a	143 ^a	59 ^b	368	
	%	92.2	79.4	32.8	68.1	
Total	n	180	180	180	540	
	%	100.0	100.0	100.0	100.0	

*Chi-square test; n: number of participants who selected the relevant photo; p<0.05 was considered statistically significant. Among the numbers in the left column of the table, 1 indicates 'white coat,' 2 indicates 'civilian clothes,' and 3 indicates 'colored uniform' preference. ^{a-c}: There is no difference between groups with similar superscripts on the same row.

Discussion

Various factors are involved in the search for dentists by both patients and parents. A dentist who wants to reach new patients and maintain a positive relationship should be aware of the patient's opinions. This study employed a scientific approach to determine the preferences of pediatric, adolescent, and young adult patients related to dentists' clothing.

Nonverbal communication, likewise clothing and the appearance of a dentist, can have an important effect on patients. A favourable first impression created by a dentist's physical appearance may significantly affect the relationship between the dentist and the patient. The positive attitude of patients can increase information exchange between doctors and patients, which is consistent with the data reported by Gjerdingen et al.¹⁰

While relatives of pediatric patients prefer a doctor based on criteria such as age and gender, the doctor should also take into account the opinions of their patients regarding the clinical attire. Patients tend to prefer conventionally dressed doctors over a comfortable look.¹² In many studies, a white coat was preferred as dentists' clinical clothing.¹³⁻¹⁷ de Souza-Constantino et al.¹, Budny et al.⁵, Alsarheed et al.⁴, and McKenna et al.¹⁷ reported similar results. In our study, all patients, especially the young adult group, preferred white coats (23.5% and 55%, respectively) in general preferences. Therefore, the H₀ hypothesis of our study, "Patients' preferences regarding the dentists' clinical attire will be similar," was rejected. Different clothing preferences are consistent with studies in the literature. In a study conducted by Aitken et al.¹¹, the most preferred option was casual clothing, followed by a white coat. Similarly, Kelly et al.⁶ reported that patients preferred dentists who wore more formal attire or surgeons' uniforms. The fact that different clothing preferences were chosen by patients in the studies may be related to the differences in preferences of patients in different age groups.

While doctors with white coats are considered more reliable, experienced, and competent, younger patients prefer doctors who wear less formal clothing.¹⁷ Likewise, in this study, patients in children and adolescent groups mainly preferred colored uniforms (92.2% and 79.4%, respectively). The most preferred clothing was colored uniform no. 3 (68.1%), and the least was civilian clothing (8.3%) overall preference. Our H₁ hypothesis, "Pediatric patients will prefer colored uniforms more," was accepted because the dentist uniforms preferred by pediatric (92.2%) and adolescent (79.4%) patients were colored. These results align with the study results of McKenna et al.¹⁷, Ahmad et al.¹⁸, Kastelic et al.¹⁹, Arslan et al.²⁰, Mohebbi et al.²¹, and Sujatha et al.²². However, Alsarheed et al.⁴ stated in their study that young participants mostly (90.2%) preferred a white coat, and colored clothing preference was at a low level (9.8%). Furthermore, Kuscü et al.¹⁴ reported that 45.6% of the children preferred white coats in their study. A study con-

ducted by de Souza-Constantino et al.¹ reported that adolescents mostly prefer the white coat. In addition, Oliveira et al.²³ reported in their study that the preferences for white coats and colored uniforms were similar. The differences in results may have been due to study designs for different dental procedures (initial examination, restorative procedures, surgical procedures, etc.).

Age is an important factor in personal development. In the literature, patient perspectives varied depending on age. While pediatric patients generally prefer colored uniforms, as age progresses, individuals prefer white uniforms, which look clean and hygienic and make one feel knowledgeable and confident due to increased cognitive capacity. In the current study, white uniforms were the most preferred among the eight groups, and in line with the literature, patients in the older age group preferred white uniforms more.^{24,25}

This study has some limitations. Patients from different age groups stated their preferences regarding the clinic attire of the dentist during the first dental examination. Patients' preferences for different treatment procedures, such as restorative treatments or surgical treatments, were not investigated in our study. Additionally, the effects of socioeconomic status differences, different mustache and beard styles of males on patient preference, the hairstyle of both male and female dentists, and parents' education level must be investigated in further studies.

Conclusion

According to our study, young adult patients preferred a white coat, whereas pediatric and adolescent patients preferred colored uniforms. This information may encourage dentists to adopt their preferred clothing styles. Dentists wearing clothing most preferred by patients of different age groups can substantially increase patient satisfaction and perception of care received by patients.

Ethical Approval

This study was reviewed and approved by the Ethics Committee of the Firat University (Decision No: 06-15/2019). Informed consent was obtained from all participants.

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Author Contributions

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Design : Y.A.
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Data Collection and/or Processing : Y.A.
Analysis and/or Interpretation : Y.A.
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Conflict of Interest

The authors declare that they have no conflict of interest.

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