

Beyond appearance: patient perspectives on the role of physician attire in trust

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Abstract

This study examines the role of physician attire in building patient trust compared to other professional behaviors, identifying key attire-related factors that influence this trust. The study consisted of two parts. In the first part, patients and their companions participated in in-depth interviews to identify factors affecting their trust in doctors, including appearance. The findings from these interviews were used to create a survey questionnaire. In the second part of the study, 120 patients and their companions from two teaching hospitals were surveyed about the importance of doctors' attire and professional behaviors identified earlier. Qualitative interviews revealed three trust-building themes: general behavior (honesty and kindness), providing information (about diseases and necessary measures), and appearance (white coat and cleanliness). Quantitatively, 120 participants rated providing information (81%) and honesty (74.2%) as the most important factors in building trust, with appearance rated as very important (40%) but less critical ($P < 0.001$). White coats were prioritized over hygiene and clothing cleanliness ($P < 0.0001$), while 37.5% noted that tattoos or bright clothing reduced trust.

The findings show that several factors are more important than the type of a doctor's attire in maintaining the patient's trust, and the dress code should prioritize safety and infection prevention.

Keywords: Professionalism; Professional behavior; Dress code; Trust.

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Introduction

Professional behavior is very important in building trust in the doctor-patient relationship, and dress codes are part of the professional behavior guidelines for physicians. Various studies have investigated the relationship between professional attire and trust in medical practitioners (1 - 3). In their 2017 study on the professional attire of dentists from the perspective of patients, Bahrami et al. found that dentists who wear formal clothes appear more trustworthy and competent (4). Another study performed by Rehman et al. showed that wearing professional attire, i.e., a white coat and formal clothing, creates a better relationship and more trust between the doctor and the patient (5). However, some studies do not support these findings. A study by Carreira et al. showed that wearing a white coat has no effect on patient satisfaction, perceived empathy, perceived knowledge, or trust in the doctor (6). Varnado-Sullivan et al. also found that physicians without white coats were perceived as kinder and warmer (7). The effect of professional clothing on trust is not based on moral reasoning but on the culture and customary norms of the society. In other words, social norms and geographical region play an

important role in the acceptability of the type of doctors' attire and patients' perceptions (5). For example, in a study in the US, patients found tattoos on the doctor's hand and arm acceptable and stated that it does not affect their trust in the doctor (8). A study conducted on more than 9000 patients from different hospitals in Italy, Japan, America and Switzerland showed that patients' preferences vary in different countries and settings (9).

Professional behavior is crucial for building trust in the doctor-patient relationship, with dress codes forming a key component of medical professionalism. While some studies have explored the link between professional attire and patient trust (1 - 3), few have evaluated the importance of attire in comparison with other professional behaviors, such as communication and empathy, from the patient's perspective (10). In Iran, dress codes are emphasized, yet only one study in the dental context has examined attire (4). Given that attire policies restrict personal freedom, understanding their relative value in fostering trust is essential. This mixed-methods study addresses this gap by comparing the role of physician attire to other professional behaviors in building patient trust and

identifying specific attire-related factors that influence trust in the Iranian context.

Methods

Study Design and Setting

This mixed-methods study employed a sequential exploratory design, comprising a qualitative phase followed by a quantitative phase. The qualitative phase used in-depth, semistructured interviews to explore patient perspectives on factors, including attire, that influence trust in physicians. Findings from this phase informed the development of a survey questionnaire used in the quantitative phase to assess the relative importance of these factors. The study was conducted in public hospitals affiliated with Tehran University of Medical Sciences, targeting patients and their companions in three care settings: wards, clinics, and emergency departments. Thematic analysis was used to analyze qualitative data, with themes and subthemes derived inductively from interview transcripts.

Data Collection

The Qualitative Phase: This study followed a pragmatist paradigm, combining qualitative (interpretivist) and quantitative (postpositivist) approaches. In the first phase, in-depth and

semistructured individual interviews were conducted with hospital patients and their companions in public hospitals affiliated with Tehran University of Medical Sciences. To maximize the variety of opinions, the interviewees were selected by taking into account a wide range of factors that could affect the purpose of the study. These factors included gender, geographic location of the hospital, and care setting (i.e., wards, clinics, and emergency departments), and were predicted based on previous studies. A trained researcher with qualitative research experience conducted the interviews, each of which lasted for about 20 - 30 minutes, using a standardized interview guide to ensure consistency. The inclusion criteria were speaking Persian and having time for the interview. In the interview, patients or their companions were asked open and undirected questions about factors related to professional behavior and attire that they thought were effective in building trust in doctors. The questions were as follows: “What factors can affect your trust in a doctor when you encounter them (in the emergency room, in the ward, or when you go to a clinic)?” “In your opinion, what is the most important factor for building trust?” and “What is the role of a doctor's attire in building trust?” A minimum of 12 participants was determined based on the principle of maximum

variation sampling, which aimed to ensure heterogeneity across key variables including gender, clinical setting (ward, clinic, and emergency department), and hospital type. Data collection was focused on geographical and socioeconomic diversity and continued until data saturation (14 people). The interviews were recorded, all the patients' points of concern were noted, and the content was analyzed. Qualitative data were analyzed using thematic analysis following Braun and Clarke's six-step framework. Interview transcripts were manually coded by two researchers independently to develop an inductive coding framework. Initial codes were generated based on factors influencing trust and then grouped into themes and subthemes (e.g., general behavior, providing information, appearance). Discrepancies in coding were resolved through discussion to ensure consensus. No qualitative analysis software was used in this study, and coding was performed manually to maintain close engagement with the data. Based on these factors, the questionnaire for the second part of the study was designed.

The Quantitative Phase: The second phase of the study was a survey. The questionnaire was prepared based on the findings and results of the first phase. The items of the questionnaire were derived directly from the themes and subthemes

identified in the qualitative phase. Content validity was assessed by two medical ethics researchers who reviewed the questionnaire for relevance and clarity. Minor revisions were made based on their feedback.

The questionnaire consisted of four parts: 1) items that covered demographic variables, including age, sex, education, state of residence, previous history of hospitalization, and relation to the patient; 2) questions on seven aspects of professional behavior (achieved in the qualitative phase of the study), which were surveyed based on a 5-point Likert scale in terms of importance in building trust (very high, high, moderate, low, and very low); 3) one question about the order of importance of different aspects of doctors' clothing (cleanliness of clothes, personal hygiene, and wearing a white coat), which were obtained in the qualitative phase of the study; and 4) one open-ended question on whether there was a special dress or appearance that made the individual distrust the doctor.

The sampling method in this part of the study was convenience and quota. The study population was selected from patients and their companions in three care settings (inpatient, outpatient, and emergency departments) in two academic general hospitals with different socioeconomic statuses (located in two different socioeconomic parts of the

city). All patients or their companions who could speak Persian and had time to take part in the survey were considered eligible. The sample size ($n = 120$) was determined to estimate the proportion of participants rating physician attire as highly important with a 10% margin of error ($d = 0.1$), using the formula $n = (z^2 p q) / d^2$, where $P = 0.45$ (estimated proportion from prior studies), $q = 0.55$, and $z = 1.96$ (95% confidence level). This yielded a minimum sample size of approximately 100. To ensure sufficient precision, 120 participants were recruited, and they all participated in the study (RR = 100%).

Data Analysis

Descriptive statistics, such as mean and prevalence, were calculated for continuous and categorical variables. Due to the dependent variables' non-normal distribution, we utilized non-parametric tests. Friedman's test was used to analyze the data and examine the difference in the importance of the 7 factors of professional behavior related to trust. The details of the differences between these factors were then analyzed with Wilcoxon post hoc tests. To examine the difference between the importance of attire and general variables such as age, gender and education level, Mann-Whitney U and Kruskal-Wallis tests were used depending on the type of data. Finally, the Spearman correlation test

was used to check the correlation between the level of education and the importance of attire ($\alpha = 0.05$ was considered the significance threshold).

Ethical Considerations

All methods were carried out in accordance with national guidelines and the Declaration of Helsinki. The participants entered the study voluntarily after submitting informed consent. As the research method exposed participants to minimal risk, the research ethics committee of the School of Medicine at Tehran University of Medical Sciences approved the protocol for obtaining verbal informed consent (ethics code IR.TUMS.MEDICINE.REC.1397.364). All participants were over 18, and those who were incompetent to give informed consent were not enrolled in the study.

Results

Considering that this study was conducted in two phases, that is, qualitative and quantitative, the findings are presented in two parts.

1) *The Qualitative Phase*: The most important factors affecting trust in the doctor were coded into three general themes: the way that the doctor behaves toward patients, providing information, and the doctor's appearance. The themes and subthemes are listed in Table 1 below.

Table 1. Effective factors in trusting the doctor

Main Factors	Subthemes
General behavior	<ul style="list-style-type: none"> • Respectful behavior • Proper introduction • Kindness • Honesty • Compassion and empathy
Providing information	<ul style="list-style-type: none"> • Explanation about the disease and necessary measures • Answering questions
Appearance	<ul style="list-style-type: none"> • Cleanliness of clothes • Personal hygiene • White coat

General Behavior: Most of the factors affecting trust in the doctor were related to this theme and its subthemes. All participants in the interview mentioned at least one of the items in this area as an important factor in building trust between the patient and the doctor. One patient mentioned the importance of good manners in building trust: *"The doctor should be well-mannered, for example by smiling; that way you can trust him more"*. Another participant explained the role of honesty in trust and said, *"Honesty is the foundation of trust. without it, nothing else matters."*

Providing Information: Among doctors' behaviors, the one that was mentioned the most often was answering questions. As one participant stated, *"During the visit, they take our companions out and do not let us ask questions. Also after the rounds, they say that they have to go to clinic. When can we ask our questions?"*

Appearance: In the interviews conducted, only one participant mentioned the doctor's appearance as an effective factor in building trust in the doctor. One interviewee stated, *"Who cares who wears what? It*

does not matter to me. Everyone chooses their type of clothing according to their culture."

All participants were asked a direct question about what aspect of attire they thought would be effective in building trust. Except for two cases, none of the participants mentioned a specific type of attire affecting trust. These two cases both referred to the white coat as a doctor's uniform. One

said, "There is a dress code of sorts for every job; just like an employee who must wear a special uniform, a doctor must wear a white coat."

Regarding the importance of clean clothes and personal hygiene one participant stated , "The type of a doctor's clothes is not very important, as long as they are clean and smell fresh."

Table 2. Demographic characteristics of the participants in the quantitative part of the study

Variable		Number	Percent
Gender	Female	58	48.3
	Male	62	51.7
Education	Illiterate	18	15
	Elementary	14	11.7
	High school	18	15
	Diploma	28	23.3
	Bachelor's degree	30	25
	Master's degree and higher	12	10
Place of residence	Tehran	68	56
	Other cities	52	44
Type of residence	Owner-occupied	61	50.8
	Rental	59	49.2
Type of participant	Patient	57	47.5
	Patient's companion	63	52.5
Referral history	With history	78	65
	No record	42	35

Among the various factors affecting trust in the doctor, providing information about the disease and necessary measures were the most important in the participants' opinion (Table 3).

Table 3. The importance of the doctor's behavior in building trust in the patient

Factors of Doctor's Behavior	Importance	Very High	High	Moderate	Low	Very Low
		N (%)	N (%)	N (%)	N (%)	N (%)
Honesty		89 (74.2%)	24 (20%)	7 (5.8%)	0	0
Respectful behavior		29(24.25%)	40 (33.3%)	45 (37.5%)	6 (5%)	0
Providing information about the disease and necessary measures		98 (81%)	16 (13%)	6 (5%)	0	0
Compassion and empathy		54 (45%)	49 (40.8%)	17 (14.2%)	0	0
Introducing oneself		19 (15.8%)	39 (32.5%)	44 (36.7%)	18 (15%)	0
Kindness		62 (51%)	52 (43.3%)	6 (5%)	0	0
Appearance		48 (40%)	48 (40%)	24 (20%)	0	0

There was a significant difference in the importance of professional behavior in patients' trust ($P < 0.001$). In this regard, appearance was significantly less important for patients compared to all other behaviors except empathy and compassion ($P < 0.001$).

There was no significant relationship between gender, type of hospital, being a companion or a patient, owning a private house or renting, being

from Tehran or not, and history of previous visits, and the participant's answers to the question about the importance of appearance in trust.

There was a slight positive and significant correlation between the participants' level of education and the importance they attached to appearance ($P = 0.002$, $r^2 = 0.282$) in such a way that people with higher education gave more importance to appearance (Table 4).

The participants believed there was a significant difference among the three subthemes of appearance in building trust, and considered wearing a white coat to be the most important one.

The mean rank orders for white coat, personal hygiene, and cleanliness of clothes were 1.32, 2.00, and 2.68, respectively ($P < 0.0001$).

Table 4. The relationship between participants' level of education and their opinion about the importance of appearance in building trust in the patient

Effect of Appearance on Trust	Very High	High	Moderate	Low	Very Low	Total	P-Value
	N (%)	N (%)	N (%)	N (%)	N (%)		
Education Level							
Illiterate	5 (27%)	7 (38%)	6 (35%)	0	0	18	0.002
Elementary	2 (14%)	4 (29%)	8 (57%)	0	0	14	
High school	8 (44%)	8 (44%)	2 (18%)	0	0	18	
Diploma	13 (46%)	8 (29%)	6 (21%)	1 (4%)	0	28	
Bachelor's degree	12 (40%)	17 (57%)	1 (3%)	0	0	30	
Master's degree and higher	8 (67%)	3 (25%)	1 (8%)	0	0	12	
Total	48 (40%)	47 (39.2%)	24 (20%)	1 (0.8%)	0	120	

Only 37.5% of the participants (45 people) answered the open-ended question about aspects of appearance that may cause distrust in doctors. The cases mentioned included tattoos (19 people), too much makeup for women (15 people), brightly-colored clothing (6 people), and wearing sports clothes or slack suits (5 people).

Discussion

Based on the findings of the present study, the participants believed professional attire to be of

less importance in creating and maintaining patient trust compared to providing information, compassion, honesty and kindness. Additionally, among the various aspects of professional attire, the most important ones are wearing a white coat, personal hygiene, and cleanliness of the clothing. Our findings do not deny the value of proper attire; rather, they contextualize it among multiple trust-building factors. While attire contributes to patient perception, it should not

overshadow behaviors such as honesty, communication and empathy, which our participants prioritized over clothing. The present study showed that providing information and honesty are much more important to patients in building trust. Matsuhisa et al. found that the type of doctors' attire has no effect on patients' understanding of their empathy (11). Another study showed that the communication skills of service providers can predict their degree of empathy with patients (12). Alosaimi et al. also found that people's choice of surgeons is influenced primarily by the doctors' attitude (the amount of time a doctor spends with the patient, providing information and proper communication, etc.) rather than their reputation and professional appearance (13).

Aitken et al.'s study in 2014 on 427 patients or their companions also showed that most of the participants considered attire to be of less importance compared to empathy, politeness and erudition (10). The findings of our study also confirmed the results of Aitken's study and showed that to have a favorable effect on patient trust, it is more worthwhile to focus on other factors affecting trust. In addition, Aitken's study confirmed that for patients, safety and hygiene were the most important components of attire.

Only 50% of people considered the type of clothing to be important, and for them, the key factors in clothing were clean clothes and proper personal hygiene.

A study by Bond et al. in 2010 investigated the acceptance status of bare below the elbow attire in England and showed that patients preferred the white coat and considered it more professional (14). However, in a study conducted the following year, Hueston and Carek observed that participants did not have a clear dominant preference for the type of clothing doctors wore, and their preference shifted to no ties and white coats after providing information about the risk of microbial transmission (15). Several studies show that people do not know much about the relationship between attire and the risk of infection (16, 17). The findings of our study show that white coats are the most important factor for patients, but the significant importance they have given to cleanliness raises the possibility that if they have enough information about the risk of infection transmission through white coats, they may prioritize safety and health over wearing white coats. In Iran, it is not customary for health service providers to introduce themselves to the patient, and the badge is not legible and understandable for some patients; therefore,

doctors are distinguished from other personnel mostly by wearing a white coat. This recognizability highlights the importance of wearing a white coat from the point of view of the patients in our study. The present study found a positive relationship between the education level of the participants and the importance they attached to appearance and attire. It seems that people with higher education – who generally have a higher socioeconomic status – care about their appearance and wear different clothes for different environments, and therefore expect the same from their doctor. In contrast, people with lower education are more likely to wear informal attire in various environments due to lower economic status, and may attach less importance to appearance.

Another noteworthy point of this study is the very low number of participants who, even when asked a direct question about a specific type of attire that can cause distrust, expressed a case. This finding can confirm the acceptance of the current practice of doctors' attire and the small proportion of doctors who have been seen in nonconservative attire. Moreover, wearing tattoos and unconventional colors are typically considered nonconservative not only in health-

care settings, but also in public (nontherapeutic) environments in Iranian culture.

Most of the studies conducted on professional attire have only evaluated appearance and made recommendations regarding clothing. The present study examined patients' opinions regarding other aspects of doctors' professional behavior and showed that attire is not as important to patients as it has been emphasized to medical professionals as a part of etiquette.

Patient trust is not the only principle governing the rules of professional attire, and safety, hygiene and comfort also factor into the matter (18). However, since most experimental articles have discussed the effect of physician attire on patient trust, we made an evaluation of the issue in our study. The results of this study showed that to maintain patient trust, interventions in doctor-patient communication are much more relevant than doctors' attire, and regulating professional attire should mainly focus on technical aspects related to safety and transmission of infection.

This study had limitations, for instance it examined the opinions of patients and their companions in two general teaching hospitals in one city, which limits the generalizability of the study findings to some extent. Another limitation is that patients in private hospitals may have

different expectations. However, since more than 70% of inpatient services in Iran are provided in public hospitals (19) and the hospitals selected in this study are referral hospitals (Table 2), the findings are noteworthy and can be generalized to the opinion of a large number of inpatients. Nevertheless, people in other regions of the country may have different views on the subject, and therefore caution should be kept in mind in interpreting the findings.

Conclusion

The results of this study showed that although doctors' appearance is moderately important in building trust among patients, it does not play a prominent role in the matter, and attire interventions aimed at improving patient trust should be considered after factors such as honesty,

pleasantness, and providing information on the disease and treatment process. In addition, cleanliness and adherence to patient safety are very important from the perspective of patients, and it is necessary for research in the field of professional clothing to focus on evaluating the impact of different aspects of clothing on safety and transmission of infection.

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Conflict of interests

The authors declare they have no possible conflicts of interest to disclose.

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