

The Importance of White Coat and Appearance on Emergency Patients

Beyaz Önlük ve Dış Görünümün Acil Hastaları Üzerindeki Önemi

Ramazan GÜVEN¹, Eylem KUDAY KAYKISIZ², Hatice ÖNTÜRK³, Muhammed İkbâl ŞAŞMAZ⁴, Asım ARI⁵,
Gökhan EYÜPOĞLU⁶, Ayşe GÜROL⁷

ABSTRACT

The aim of this study was to investigate the opinions of patients about the white coats and other factors contributing to the appearance of emergency physician in the Emergency Department. This descriptive and cross-sectional study was carried out between March and June 2017 at the Emergency Departments of four state hospitals. This study was completed with 1014 patients admitted to the Emergency Departments, who had no communication problems and accepted to participate in the study. Data were collected by using a questionnaire form prepared by researchers. Patients' preferences were investigated with open-ended questions about white coats, civilian clothing, and uniform, the color of the uniform and doctor's age. Statistical evaluation of the data was done with SPSS 20.0. Of the total patients, 35.8% (n=363) stated that they preferred doctors to wear a uniform or white coat, and 26.3% stated that wearing white coat, uniform or civilian clothes made no difference. Four hundred twenty-seven patients (42.1%) stated that their trust against the physicians was affected whether they were wearing a white coat or not, and 53.1% stated that this would have any positive or negative effect. 57.7% of the total patients (n=585) stated that appearance did not affect their trusts in the treatment suggested by a doctor. The external appearance significantly affects the patient's trust in the treatment of the emergency physician who examined him.

Keywords: Emergency Department, Patient, Physician, White Coat

ÖZ

Bu çalışmanın amacı, acil servise başvuran hastaların, acil servis doktorlarının beyaz önlük giymeleri ve diğer dış görünüm unsurları hakkındaki görüşlerini araştırmaktır. Bu tanımlayıcı ve kesitsel çalışma Mart-Haziran 2017 tarihleri arasında dört tane devlet hastanesinin acil servisinde yürütüldü. Çalışma, acil servise başvuran, herhangi bir iletişim problemi olmayan ve çalışmaya katılmayı kabul eden 1014 hasta ile tamamlandı. Veriler araştırmacılar tarafından hazırlanan bir anket formu kullanılarak toplandı. Beyaz önlük, sivil giyim, forma ve formanın rengi ile doktorun yaşı yönünden hastaların tercihleri açık uçlu sorularla araştırıldı. Verilerin istatistiksel değerlendirmesinde SPSS 20.0 paket programı kullanıldı. Hastaların %35,8'i (n=363) beyaz önlük veya formalı doktorları tercih ettiklerini, %26,3'ü ise beyaz önlük, forma veya sivil giyimin kendileri açısından fark etmediğini belirttiler. Dört yüz yirmi yedi hasta (%42,1) doktorlara olan güvenlerinin beyaz önlük giymediklerinde etkilendiğini, %53,1'i bunun olumlu ya da olumsuz bir etkisi olmayacağını belirtti. Toplam hastaların %57,7'si (n=585), görünümün doktor tarafından önerilen tedaviye olan güvenini etkilemediğini belirtti. Dış görünüm, hastanın kendisini muayene eden acil doktorun tedavisine olan güvenini önemli düzeyde etkilemektedir.

Anahtar kelimeler: Acil servis, Hasta, Doktor, Beyaz önlük

¹ Dr. Öğr. Üyesi Acil Servis Doktoru, Sağlık Bilimleri Üniversitesi Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi, Acil Servis, dramazanguven@gmail.com, ORCID: 0000-0003-4129-8985

² Dr. Acil Servis Doktoru, Bitlis Devlet Hastanesi, Acil Servis, eylemkuday@hotmail.com, ORCID: 0000-0002-4699-4691

³ Öğr. Gör. Hemşire, Bitlis Eren Üniversitesi Sağlık Yüksekokulu, Hemşirelik Esasları ABD, onturk65@hotmail.com, ORCID: 0000-0002-6206-2616

⁴ Dr. Öğr. Üyesi Acil Servis Doktoru, Yüzüncü Yıl Üniversitesi Tıp Fakültesi, Acil Servis, ikbalsasmaz84@gmail.com, ORCID: 0000-0002-3267-3184

⁵ Dr. Öğr. Üyesi Acil Servis Doktoru, Dr. Ersin Arslan Eğitim ve Araştırma Hastanesi, Acil Servis, drasimari@gmail.com, ORCID: 0000-0001-7710-5191

⁶ Dr. Acil Servis Doktoru, Tuzla Devlet Hastanesi, Acil Servis, hokogoko17@hotmail.com, ORCID: 0000-0001-8583-3690

⁷ Doç. Dr. Hemşire, Atatürk Üniversitesi Sağlık Hizmetleri Meslek Yüksekokulu, gurola@atauni.edu.tr, ORCID: 0000-0002-7408-5428

İletişim / Corresponding Author: Ayşe GÜROL
e-posta/e-mail: gurola@atauni.edu.tr

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INTRODUCTION

One of the important factors affecting the confidence of the patient in the treatment is the appearance of the physician. Hippocrates stated that a physician should be healthy and clean, and even smell good.¹ Although the views of patients about the external appearance of a physician have been investigated in studies with different methodologies, the most common conclusion has been that the physician should choose a white coat when examining the patient.^{2,3}

The white coat became a very powerful symbol towards the end of the twentieth century. The White Coat Ceremony was held by The Columbia University of Physicians and Surgeons in New York in 1993. The White Coat Ceremony became a common tradition in many universities in the following years, including for medical students.⁴ However, the white coat used by physicians for aseptic purposes and for establishing a more formal relationship between the patient and the physician since the 1880s is a subject of controversy today.^{5,6} Opinions that the white coat, which has become a symbol of paternalistic association, should no longer be used by physicians have increased in recent years.⁷

In addition to these discussions about the white coat, studies have also been conducted where other factors affecting the appearance such as long hair, earrings, beard, facial piercing etc. were questioned, to evaluate whether these affected the patients' confidence in a physician or not and how these affected the patient-physician relationship.⁸ In addition, the physician wearing a tie, a white coat, and surgical scrubs are other subjects which have been questioned for patient preferences.³

In a questionnaire study by Douse et al., it was seen that 56% of the patients thought that doctors should wear white uniforms. In particular, most of the patients over 70 years of age wanted to see the doctors in a white coat to recognize them.⁹ The external appearance of the physician also affects the patient's compliance with treatment. In a study conducted in the United States, it was concluded that the patient's compliance to treatment was greater when implemented by physicians that gave confidence in terms of their appearance.¹⁰ Palazzo and Hocken found in their study that patients did not expect the doctor's clothes to be important but they did not expect tie and white coat.¹¹ Despite the importance of this issue, there has been a limited number of studies performed on the appearance of physicians in Turkey.¹²

For physician attire to positively influence patients, an understanding of when, why and how attire may influence such perceptions is necessary. While several studies have examined the influence of physician attire on patients, few have considered whether or how physician specialty, context of care and geographic locale and patient factors such as age, education or gender may influence findings. This knowledge gap is important because such elements are likely to impact patient perceptions of physicians.¹³

The compliance of patients in treatment is of vital importance in Turkey, where patient density is very high, due to factors that affect the confidence of patients to treatment applied by the physician. The aim of this study was to determine the opinions of patients admitted to the Emergency Department about white coats and other appearance factors and how these factors affected the physician-patient relationship.

MATERIALS AND METHODS

Ethical Aspect of Research

This descriptive and cross-sectional study was carried out between March and June 2017 at the Emergency Departments (ED) of four state hospitals. The study was approved by the Ethics Committee of a University, Ethical Principles and Board, with approval number 2017/02-VI and was conducted in accordance with the principles of the Declaration of Helsinki.

The population of the study was composed of the patients who applied to ED for emergency status. The inclusion criteria of the study were as follows; patients at all ED, patients who were above 18 years age, being voluntary to participate in the study, being able to establish verbal communication, not having any psychiatric disease in the past/at the moment.

Exclusion criteria were as follows: patient/patient's relatives <18 years of age, patients with impaired consciousness, illness preventing communication, acute illness, psychiatric patients, alcohol or drug abuse, and patients who required urgent intervention.

The study was conducted with 1014 patients, who met the inclusion criteria and applied to the ED of the four state hospitals between March and June 2017. The data were collected using the Questionnaire Form. A questionnaire form was used, which included the study form in two parts. The first part included items for sociodemographic data, while the second part included items for the opinions of patients about the appearance of physicians. In the second section, the patients' preferences were questioned under two sub-headings. The first sub-heading was the question "which doctor do you want to be

examined by?" and the patient preferences were analyzed in terms of gender (being examined by a female or male doctor), white coat, civil clothing and uniforms, the color of the uniform and the age of the doctor (which age group of doctor they preferred to be examined by). The second sub-heading covered the 3-point Likert questions (positive, ineffective, negative) where the patient confidence was investigated in respect of doctors with the following characteristics: wearing glasses, working without a white coat, having tattoos, using accessories, being obese, having a long beard or a goatee beard, and being a foreign national. A further question was asked of, "Does your doctor's appearance affect your confidence in treatment?".

In the first stage of data collection, the patients, who comply with the criteria of the study conducted by the researcher, were informed about the nature of the study and written informed consent was obtained. The forms were filled with face-to-face interview technique in an emergency room after the emergency examinations and treatments of the patients. For participants who were illiterate, the study materials were read aloud to them by ED healthcare staff and the patient's response was recorded. The other participants filled in the study form themselves.

Statistical analysis was performed using the Statistical Package for Social Science (SPSS) 22.0 software (IBM Corp., Armonk, NY, USA). Descriptive data were expressed as median (min-max) values, while categorical data were expressed as number (n) and frequency (%).

RESULTS AND DISCUSSION

Of a total of 1014 patients included in the study, 41.8% (n=524) were females and

58.2% (n=590) were males. The median age was 29 years (range, 24 to 38 years). When the participants were examined according to their

educational status, 30.2% (n=306) were high school graduates, 29.0% (n=293) were university graduates, 14.8% (n=150) were middle school graduates and 12.9% were primary school graduates, 8.4% (n=85) were literate and 4.8% (n=49) were illiterate.

Responses to the question “which doctor would you like to examine you?”, showed that it made no difference whether the doctor was male or female for the majority of patients at a rate of 68.2% (n=692).

Table 1. Preferences of the patients about the physicians who are to examine them

Characteristics	n (%)
Gender	
Female	161 (15.9%)
Male	161 (15.9%)
Does not matter	692 (68.2%)
Age of the physician	
25-35	328 (32.3%)
36-45	500 (49.3%)
46-55	89 (8.8%)
>55	90 (8.9%)
Clothing style	
White coat	231 (22.8%)
Uniform	90 (8.9%)
White coat with scrubs	363 (35.8%)
Civilian clothing	63 (6.2%)
Does not matter	267 (26.3%)
Color of the uniform	
White	374 (36.9%)
Blue	250 (24.7%)
Green	75 (7.4%)
Black	86 (8.5%)
Does not matter	229 (22.6%)

In terms of age, 49.3% (n=500) of the patients wanted to be examined by doctors between the ages of 36 and 45 years. In terms of white coat, uniform, and civilian clothing, the patients wanted to be examined by doctors wearing a white coat or uniform at the rate of 35.8% (n=363) and by doctors in civilian clothing at a rate of 6.2% (n=63). However, 26.3% of the patients (n=267) stated that wearing a white coat or civilian clothing made no difference. The preferences of the patients in terms of color of the uniforms worn by doctors were white at the rate of 36.9% (n=374) and blue at the rate of 24.7% (n=250) (Table 1).

Table 2. The effect of some appearance features on patients' confidence in a physician

How do the appearance characteristics below affect your confidence in your physician?	Negative	Ineffective	Positive
	n (%)	n (%)	n (%)
Wearing white coat	427 (42.1%)	538 (53.1%)	49 (4.8%)
Wearing glasses	77 (7.6%)	876 (86.4%)	61 (5.9%)
Having tattoos	392 (38.7%)	582 (57.4%)	40 (3.9%)
Using accessories	133 (13.0%)	847 (83.4%)	34 (3.4%)
Having a long beard	325 (32.1%)	660 (65.1%)	29 (2.9%)
Having a goatee beard	294 (29.0%)	682 (67.3%)	38 (3.7%)
Being obese	228 (22.5%)	760 (75.0%)	26 (2.6%)
Being a foreign national	371 (36.6%)	589 (58.1%)	54 (5.3%)

Of the total patients, 42.1% stated that they would be affected negatively if the doctor were not wearing a white coat, and 53.1% stated that they would not be affected positively or negatively. In response to the question of ‘How does it affect your confidence in your doctor to have the appearance below?’, 38.7% of the patients stated that they would be affected negatively by a doctor with tattoos and 57.4% stated that they would not be affected positively or negatively. Similar results were obtained for the other factors of appearance that were questioned. Thus, more than half of the patients stated that they would not be affected positively or negatively (Table 2).

In response to the final question of ‘Does the appearance of your doctor affect your confidence in treatment?’, 42.3% (n=429) stated that they would be affected and 57.7% (n=585) stated that the appearance of the doctor would not affect their confidence in treatment.

What a physician should wear when examining a patient began to be discussed more than a hundred years ago and is still a subject of intense current discussion. Doctors changed their preferences towards the white coat after wearing black garb up to the 19th century.¹⁴ There were two reasons for the preference of physicians to change towards the white coat. First, the thought that there should be a formal relationship between a physician and a patient was a predominantly defended idea among physicians and the white coat was a factor that ensured the establishment of such a relationship.¹⁵ The second point was that doctors who were in constant contact with patients used the white coat as a barrier against infectious diseases and other microbial organisms.¹⁰ Recently, it has become increasingly accepted that the physician-patient relationship should shift to a mutual participation model in which the physician is less dominant than the previous paternalistic model.¹⁶

It has also been shown by many studies that white coats are not protective against microbial infections and the coat pockets in particular are areas of contamination for serious infectious diseases.^{17,18} Under these circumstances, the presence of white coats and other appearance items became questionable with studies made between patients and doctors. In a study conducted on 153 patients in the UK, 69.9% of the patients stated that they preferred physicians to wear white coats, and 74.3% stated that the white coat did not positively affect their confidence in the physician.¹⁹ Similarly, in a study conducted on 2272 outpatients in Japan, 79.5% of the patients stated that they preferred male physicians to wear white coats and 73.6% stated that they preferred female physicians to wear white coats.³

However, recent studies have shown that these higher rates in patients' white coat preferences have decreased or vice versa. In a three-centered study conducted on 432 patients in 2010, the preferences of participants about the clothing of physicians were questioned with a two-phase study before and after the participants were

informed that the white coat could be a source of microbial contamination. After being informed that white coat might be a source of microbial contamination, the patients' preferences for white coats decreased from 20% to 11%, while preferences for casual dress (shirts and trousers) rose from 16% to 41%. From that study, it was understood that as the patients' access to healthcare increases, the popularity of the white coat that the patients would like to see on physicians decreases. In the present study, although patients were not informed that a white coat was a possible source of microbial infections, 53.1% of the participants expressed the opinion that if the physician were not wearing a white coat, it would not affect their confidence in them.²⁰

In a cross-sectional survey conducted on 1,637 patients in Switzerland, it was concluded that the white coat was important for only 34% of the patients included in the study, while it was not at all important for 44.4%.²¹ The majority of participants who stated that the white coat was important in that study were elderly patients (> 65 years). A similar result was obtained in the present study and it was seen that both the white coat and other appearance factors were not the things that affected the confidence in a physician for most of the patients. In a study by Menahem and Shvartzman of 168 patients, it was concluded that attire of the physician was not effective on the preference of 75% of the participants in selecting their own family doctor.²²

There has been a limited number of studies in Turkey related to the white coat and other appearance factors. In a 2010 study by Sönmez et al. of 443 patients, 65.4% stated that they preferred physicians with a white coat.²³ In a study by psychiatrists performed on 153 patients, the participants were divided into 3 age groups of 15-30 years of age, 30-50 years of age and 50 years of age and above.¹² Accordingly, it was seen that the white coat was preferred more by patients aged 50 years and older and casual wear was preferred by patients between the ages of 15-30 years. In addition, there was a significant difference

between these two groups in terms of the preference of white coat and casual wear ($p=0.004$; $p=0.003$, respectively).

In most studies, it has been seen that the white coat is important for elderly patients as a conventional symbol, but not so important for young patients.^{7,12,21} The number of

elderly patients (>65 years) in the current study was not sufficient for statistical analysis to be made. Nevertheless, it was seen that the appearance of the physician did not affect the confidence of the patient in the recommended treatment for 57.7% of the patients in the current study, the vast majority of whom were in the younger age range.

CONCLUSION VE RECOMMENDATIONS

In conclusion, it was seen that the importance of the white coat for patients admitted to Emergency Departments in Turkey was lower than expected and was consistent with the trend in most developed countries. It can be suggested that the white coat, which has been a symbol for more than

a century, was not popular among young patients and will probably not be used much in the future. Nevertheless, this result should be supported by studies to be conducted in different hospitals, different departments and with more patients.

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