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## Original article

# Perceptions of patients, physicians, and medical students on physicians' appearance<sup>☆</sup>

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### A B S T R A C T

**Objective:** To investigate the impressions made by different styles of dress and appearance adopted by physicians on patients, medical students, and other physicians in Brazil.

**Methods:** Two hundred fifty nine patients, 119 students, and 99 physicians answered questions related to a panel of male and female physicians' pictures covering the following styles: white clothing; white coat; formal coat; formal, informal, and casual garments; and surgical scrubs. They also reported their level of discomfort with a list of 20 items for professional appearance of both genders.

**Results:** Most of the answers of the volunteers involved using white clothes or white coat, and in many situations the percentages of preference referred for these styles were close. Physicians and students preferred physicians wearing surgical scrubs for emergency visits, and doctors with informal style for discussing psychological problems with male professionals. Patients most often chose white clothing in response to questions. Regarding male professionals, all three groups reported a high degree of discomfort for the use of shorts and bermuda shorts, multiple rings, facial piercings, sandals, extravagant hair color, long hair, and earrings. For females, high levels of discomfort were reported for shorts, blouses exposing the belly, facial piercings, multiple rings, extravagant hair color, and heavy makeup.

**Conclusion:** Brazilian patients, physicians, and medical students form a better initial impression of physicians using clothing traditionally associated with the profession and exhibiting a more conventional appearance. The use of entirely white garments appears to be a satisfactory option in this country.

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## Impressões de pacientes, médicos e estudantes de Medicina quanto a aparência dos médicos

R E S U M O

Palavras-chave:

Vestuário

Prática profissional

Medicina geral

**Objetivo:** Investigar as impressões causadas em pacientes, estudantes de Medicina e médicos brasileiros por diferentes estilos de vestimenta e aparência adotados pelos médicos.

**Métodos:** Participaram da pesquisa 259 pacientes, 119 estudantes e 99 médicos, respondendo questões relativas a um painel de fotos de médico e médica vestidos nos seguintes estilos: roupa branca, avental branco, avental social, formal, informal, casual e centro cirúrgico. Eles ainda registraram seu grau de desconforto frente uma lista de 20 itens de aparência para profissionais de ambos os sexos.

**Resultados:** A maioria das respostas dos voluntários envolveu o uso de roupa branca ou avental branco, e em muitas questões os percentuais de preferência referidos para esses estilos foram muito próximos. Médicos e estudantes preferiram profissionais em traje de centro cirúrgico para consultas de urgência, e o estilo informal para discutir problemas psicológicos com profissional masculino. Os pacientes escolheram mais frequentemente a roupa branca em resposta às questões. No tocante aos profissionais masculinos, os três grupos referiram elevado grau de incômodo para o uso de shorts e bermudas, muitos anéis, piercing facial, sandálias, cabelos de cor extravagante, cabelos compridos e brincos. Para o sexo feminino, níveis elevados de desconforto foram assinalados para shorts, blusas mostrando a barriga, piercing facial, bermudas, muitos anéis, cabelos de cor extravagante e maquiagem carregada.

**Conclusão:** Pacientes, médicos e estudantes de Medicina brasileiros desenvolvem melhor impressão inicial de médicos que utilizam trajes tradicionalmente associados com a profissão e de aparência mais convencional. O uso da vestimenta inteiramente branca parece ser opção satisfatória no Brasil.

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## Introduction

Despite the technological advances and changes that medical practice has undergone in the last decades, questions related to the appearance and clothing of physicians have not yet been fully clarified. The type of clothing and accessories used by physicians has a potential to influence how the physician-patient relationship is established.

Several studies have focused on this topic in several countries, using varied methodological approaches in different clinical care scenarios.<sup>1-12</sup> In general, the results indicated that patients prefer male and female doctors with more conservative styles, especially wearing white coats.<sup>13</sup> Studies have demonstrated that a significant portion of patients associate the white coat to the image of physicians with a professional attitude, who are better prepared, more concerned with patients, and more hygienic.<sup>13,14</sup> However, for at least one author, the critical analysis of the results available does not support these conclusions in a definitive way.<sup>15</sup>

The use of white coats by physicians dates back to the beginning of the 20<sup>th</sup> century, in Northern Hemisphere countries.<sup>13</sup> Tradition eventually associated the white coat with the use of ties by doctors in English-speaking countries. The reasons for doctors to use a white coat are varied, but the most commonly mentioned are easier identification by patients and colleagues, protection of their own clothes against liquids and secretions, and the ability to carry instruments in the pockets.<sup>16</sup>

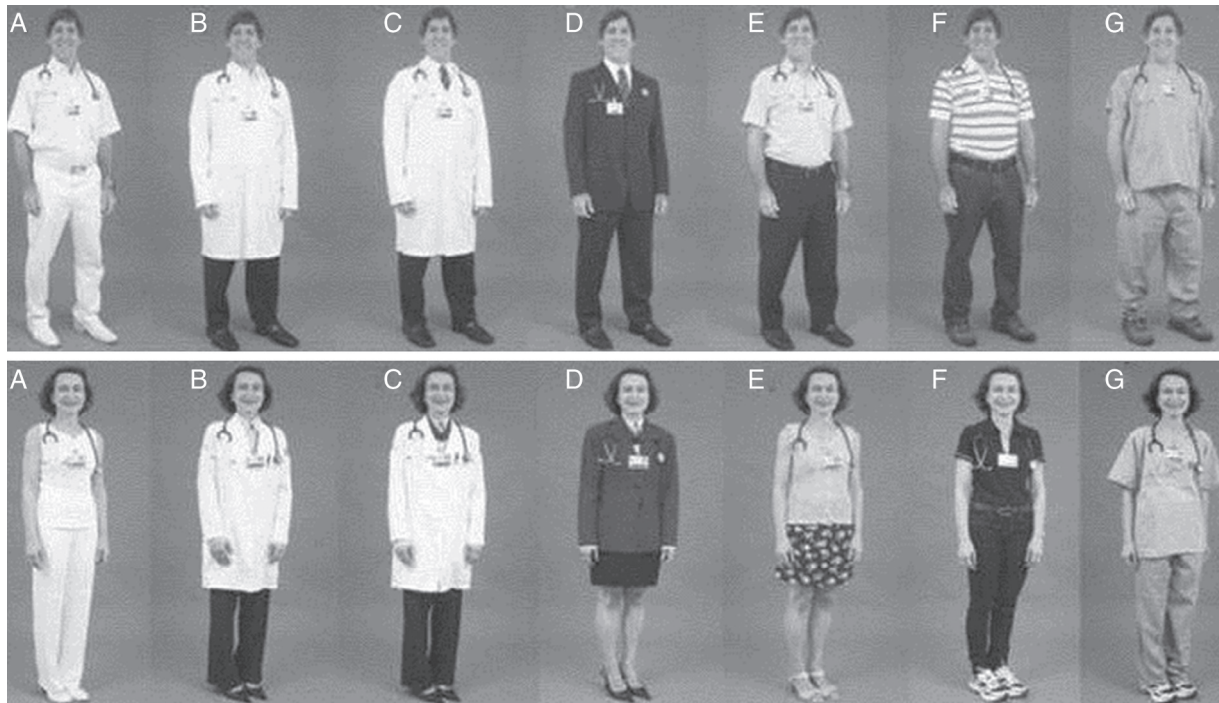
A great number of Brazilian physicians prefer to use an entirely white garment when conducting their clinical activities. The reasons for this choices are not clear, and no reference was found in the literature to this habit in any other country.

Despite the intense professional interest raised by this topic, there are no studies published in the literature assessing the opinions of Brazilian patients on the manner of dress and appearance of their physicians. Additionally, there are few articles in the international literature that have directly interviewed physicians on this matter, and no investigation has interviewed medical students.

This study aimed at investigating opinions of Brazilian patients, physicians, and medical students, all involved in activities within the same university teaching hospital, on the impressions made by several clothing styles that can be adopted by male and female physicians. Accordingly, the potential level of discomfort in each volunteer caused by the use of different ornaments and clothing accessories by male and female doctors was also assessed.

## Methods

The study involved a convenience sample obtained from Hospital das Clínicas da Faculdade de Medicina de Ribeirão Preto at Universidade de São Paulo (HCFMRP-USP). Medical students of both genders from the third year of medical



**Fig. 1 – Styles of clothing evaluated by the study volunteers. A) White clothes; (B) White coat; (C) Formal coat; (D) Formal; (E) Informal; (F) Casual; and (G) Surgical Scrubs.**

school (Group S), as well as male and female doctors working in the hospital with any date of graduation (Group D), were included. The group of patients (Group P) was comprised of individuals aged 18 years or older, approached while waiting for routine outpatient consultation or during hospitalization in the HCFMRP-USP. Psychiatric, pediatric, and obstetric patients, people with hearing or visual impairments, people hospitalized in intensive care hospital beds, and patients in isolation or showing a generally poor condition were not approached for interviews. Illiterate patients were also excluded from the study.

Two volunteer doctors, a male and a female, were photographed wearing different types of clothing to develop the object of the research (Fig. 1). It was attempted to maintain the same characteristics in all pictures, except for the garments used. Seven styles of clothing were used by both models: (A) white clothing, (B) white coat, (C) formal coat, (D) formal garments, (E) informal garments, (F) casual garments, and (G) surgical scrubs. The printed pictures were assembled in panels and presented, always in the same order, to all volunteers of each group. Researchers asked the volunteers to choose among the pictures of each gender:

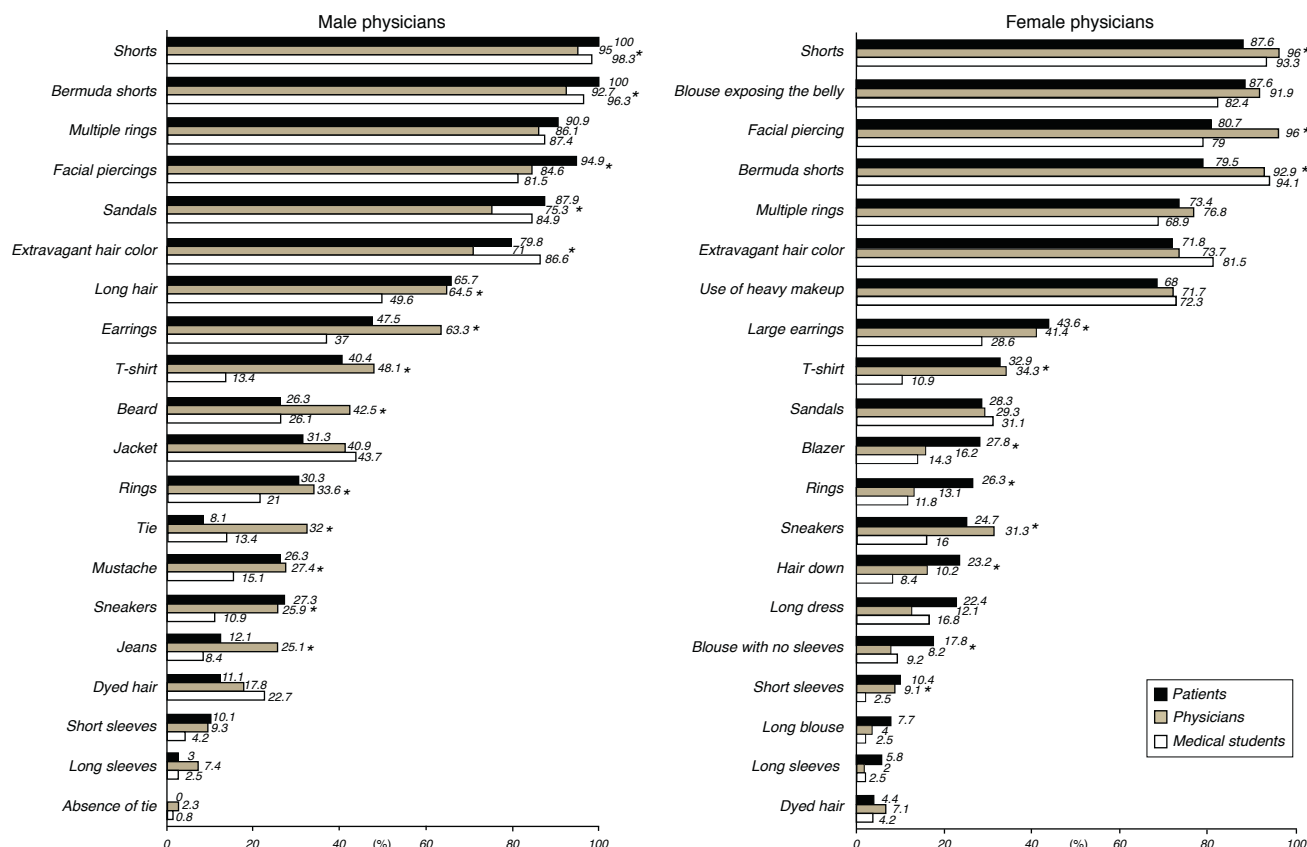
- 1) Which of these male (female) physicians do you expect to be:
  - a. More knowledgeable and competent
  - b. More responsible
  - c. More concerned about patients
  - d. More hygienic
- 2) Which of these male (female) physicians would you trust the most regarding the proposed diagnosis and treatment?

- 3) With which of these male (female) physicians would you prefer to:
  - a. Have a routine medical appointment
  - b. Have an emergency medical consultation
  - c. Talk about psychological problems
  - d. Talk about sexual problems

Once this stage of the interview was concluded, the volunteers were asked to reply to the question “How would you feel if the male or female physician seeing you wore?” one of 20 items related to the appearance. The items evaluated in both genders were: shorts; bermuda shorts; facial piercings; rings; multiple rings; dyed hair; extravagant hair color, such as green or red; sneakers; sandals; T-shirt; short sleeves; and long sleeves. The items exclusively evaluated for male physicians were: earrings; beard; mustache; long hair; jacket; tie; jeans; and absence of tie. Items evaluated only for female physicians: use of heavy makeup; large earrings; blazer; hair down; long dress; blouse with no sleeves; long blouse; and blouse exposing the belly. The options for the answers were (i) uncomfortable, (ii) does not matter, and (iii) comfortable.

The results related to the preference of clothing styles were shown as frequencies and percentages. To compare the preferences shown by the three groups regarding the 20 items of clothing, the answers “does not matter” and “comfortable” were combined in the same category, “not uncomfortable”, and compared to the category “uncomfortable” through the chi-squared test. Statistical significance was established at a p-value < 0.05.

All interviews were performed by the same group of researchers. All researchers collected data from volunteers



**Fig. 2 – Percentage of volunteers that reported discomfort regarding different items of appearance potentially used by male and female physicians. \* p < 0.05 in the comparison among groups for the same item through the Chi-squared test.**

belonging to the three groups. This study was approved by the research ethics committee of the institution (Proceeding No. 11/4975), and all volunteers were asked to sign an informed consent.

## Results

Over a 12-month period, a total of 509 interviews were performed with individuals belonging to one of the three groups. After analysis of the forms obtained, 32 were discarded due to errors in completion or excessive number of unanswered questions. The final analysis considered 259 patients (57.1% females; 52.9% hospitalized), 119 students (64.7% males), and 99 physicians (62.6% males). The average age of the patients was  $47.8 \pm 17.4$  years, of the students was  $23.1 \pm 2.9$  years, and of the physicians was  $37.4 \pm 12.4$  years.

The frequencies of the choices of the groups of volunteers by styles of dress selected in answers to the nine questions are listed in Table 1. Most of the volunteers' preferences, both for male and female physicians, involved wearing white clothing (style A) or white coat (styles B and C); in several questions, the percentages of preference related to these three styles were close. The answers from Groups S and D were exceptions to the rule, regarding the preference with respect to the physicians

for emergency consultation; surgical scrubs (style G) were the most common option for both gender.

Among the patients, the style more frequently chosen in response to the questions was the wearing of white clothing (style A), a predominant option in 17 of the 18 possible answers; on a single occasion it was associated in equal percentage to the white coat (style B) (Table 1). Conversely, among the physicians, the style formal coat (C) was more frequently preferred for the questions related to the male physician (6 of 9), while the white coat (style B) was the most common preference for the questions related to the female physician (8 of 9). The preferences of medical students were very similar to those of the physicians.

The formal (D) and casual (F) styles were not the preferred option for any of the groups in any of the proposed scenarios. However, the informal style (E) was the option preferred by most members of Group D for conversations with male physicians about psychological problems.

Fig. 2 shows the percentage of volunteers that would feel uncomfortable if his/her male or female physician wore certain item related to the appearance. The items causing discomfort with a frequency higher than 50% in at least one of the three groups for male doctors were: wearing of shorts and bermuda shorts, multiple rings, facial piercing, extravagant hair color, long hair, and earrings. For female physicians, such items

**Table 1 – Preferences reported by patients, physicians, and medical students related to the impression made by different styles of clothing adopted by male and female physicians.**

Questions	Gender	Groups	Style of clothing						
			A	B	C	D	E	F	G
More knowledgeable and competent	Male	P	92 (35.5%)	57 (22%)	73 (28.2%)	12 (4.6%)	3 (1.2%)	0	19 (7.3%)
		D	4 (4%)	30 (30.3%)	55 (55.6%)	8 (8.1%)	2 (2%)	0	0
		S	8 (6.7%)	25 (21%)	79 (66.4%)	5 (4.2%)	1 (0.8%)	1 (0.8%)	0
	Female	P	93 (35.9%)	75 (29%)	62 (23.9%)	12 (4.6%)	1 (0.4%)	2 (0.8%)	13 (5%)
		D	6 (6.1%)	68 (68.7%)	24 (24.2%)	1 (1%)	0	0	0
		S	12 (10.1%)	70 (58.8%)	32 (26.9%)	4 (3.4%)	0	1 (0.8%)	0
More responsible	Male	P	64 (24.7%)	52 (20.1%)	75 (29%)	45 (17.4%)	2 (0.8%)	1 (0.4%)	19 (7.3%)
		D	10 (10.1%)	24 (24.2%)	59 (59.6%)	3 (3%)	2 (2%)	1 (1%)	0
		S	16 (13.4%)	27 (22.7%)	63 (52.9%)	11 (9.2%)	1 (0.8%)	0	1 (0.8%)
	Female	P	82 (31.7%)	82 (31.7%)	54 (20.8%)	24 (9.6%)	0	1 (0.4%)	15 (5.8%)
		D	12 (12.1%)	58 (58.6%)	28 (28.3%)	1 (1%)	0	0	0
		S	21 (17.6%)	62 (52.1%)	30 (25.2%)	4 (3.4%)	0	0	2 (1.7%)
More concerned about patients	Male	P	91 (35.1%)	56 (21.6%)	58 (22.4%)	11 (4.2%)	0	2 (0.8%)	41 (15.8%)
		D	25 (25.3%)	34 (34.3%)	31 (31.3%)	1 (1%)	5 (5.1%)	0	1 (1%)
		S	44 (37%)	29 (24.4%)	35 (29.4%)	1 (0.8%)	5 (4.2%)	1 (0.8)	4 (3.4%)
	Female	P	94 (36.3%)	66 (25.5%)	49 (18.9%)	14 (5.4%)	0	4 (1.5%)	32 (12.4%)
		D	25 (25.3%)	50 (50.5%)	18 (18.2%)	0	3 (3%)	3 (3)	0
		S	48 (40.3%)	59 (49.6%)	8 (6.7%)	1 (0.8%)	0	2 (1.7%)	1 (0.8%)
More hygienic	Male	P	110 (42.5%)	43 (16.6%)	59 (22.8%)	16 (6.2%)	3 (1.2%)	6 (2.3%)	22 (8.5%)
		D	23 (23.2%)	29 (29.3%)	39 (39.4%)	1 (1%)	1 (1%)	0	6 (6.1%)
		S	36 (30.3%)	26 (21.8%)	41 (34.5%)	1 (0.8%)	0	14 (11.8%)	0
	Female	P	140 (54.1%)	50 (19.3%)	38 (14.7%)	10 (3.9%)	3 (1.2%)	2 (0.8%)	16 (6.2%)
		D	23 (23.2%)	47 (47.5%)	24 (24.2%)	0	0	0	5 (5.1%)
		S	42 (35.3%)	44 (37%)	10 (8.4%)	0	0	0	22 (18.5%)
Higher trust in the diagnosis and treatment	Male	P	84 (32.4%)	62 (23.9%)	78 (30.1%)	14 (5.4%)	2 (0.8%)	4 (1.5%)	15 (5.8%)
		D	18 (18.2%)	31 (31.3%)	47 (47.5%)	1 (1%)	1 (1%)	0	0
		S	8 (6.7%)	29 (24.4%)	70 (58.8%)	4 (3.4%)	3 (2.5%)	1 (0.8%)	3 (2.5%)
	Female	P	84 (32.4%)	77 (29.3%)	66 (25.5%)	9 (3.5%)	0	5 (1.9%)	18 (6.9%)
		D	11 (11.1%)	56 (56.6%)	31 (31.3%)	0	0	0	0
		S	18 (15.1%)	62 (52.1%)	35 (29.4%)	0	0	0	0
Routine appointment	Male	P	116 (44.8%)	68 (26.3%)	59 (22.8%)	3 (1.2%)	4 (1.5%)	4 (1.5%)	5 (1.9%)
		D	14 (14.1%)	38 (38.4%)	43 (43.4%)	1 (1%)	1 (1%)	2 (2%)	0
		S	21 (17.6%)	48 (40.3%)	34 (28.6%)	3 (2.5%)	8 (6.7%)	4 (3.4%)	1 (0.8%)
	Female	P	119 (45.9%)	79 (30.5%)	40 (15.4%)	5 (1.9%)	4 (1.5%)	2 (0.8%)	10 (3.9%)
		D	13 (13.1%)	60 (60.6%)	25 (25.3%)	0	0	1 (1%)	0
		S	32 (26.9%)	68 (57.1%)	13 (10.9%)	1 (0.8%)	3 (2.5%)	0	2 (1.7%)
Emergency consultation	Male	P	84 (32.4%)	65 (25.1%)	53 (20.5%)	6 (2.3%)	4 (1.5%)	1 (0.4%)	46 (17.8%)
		D	14 (14.1%)	23 (23.2%)	28 (28.3%)	0	1 (1%)	1 (1%)	32 (32.3%)
		S	18 (15.1%)	11 (9.2%)	11 (9.2%)	0	4 (3.4%)	0	75 (63%)
	Female	P	83 (32%)	65 (25.1%)	53 (20.5%)	0	4 (1.5%)	5 (1.9%)	49 (18.9%)
		D	14 (14.1%)	34 (34.3%)	5 (5.1%)	0	0	1 (1)	45 (45.5%)
		S	18 (15.1%)	24 (20.2%)	5 (4.2%)	0	0	1 (0.8%)	71 (59.7%)
Talk about psychological problems	Male	P	79 (30.5%)	55 (21.5%)	48 (18.5%)	25 (9.7%)	22 (8.5%)	24 (9.3%)	6 (2.3%)
		D	12 (12.1%)	22 (22.2%)	26 (26.3%)	5 (5.1%)	30 (30.3%)	4 (4%)	0
		S	15 (12.6%)	25 (21%)	26 (21.8%)	3 (2.5%)	34 (28.6%)	16 (13.4%)	0
	Female	P	74 (28.8%)	60 (23.3%)	52 (20.2%)	27 (10.5%)	21 (8.2%)	17 (6.6%)	6 (2.3%)
		D	8 (8.1%)	44 (44.4%)	22 (22.2%)	4 (4%)	17 (17.2%)	4 (4%)	0
		S	20 (16.8%)	50 (42%)	10 (8.4%)	3 (2.5%)	18 (15.1%)	18 (15.1%)	0
Talk about sexual problems	Male	P	85 (32.8%)	56 (31.6%)	62 (23.9%)	12 (4.6%)	16 (6.2%)	19 (7.3%)	8 (3.1%)
		D	13 (13.1%)	23 (23.2%)	38 (38.4%)	5 (5.1%)	15 (15.2%)	5 (5.1%)	0
		S	22 (18.5%)	24 (20.2%)	34 (28.6%)	5 (4.2%)	15 (12.6%)	8 (6.7%)	0
	Female	P	87 (33.7%)	63 (24.4%)	46 (17.8%)	17 (6.6%)	20 (7.8%)	20 (7.8%)	5 (1.9%)
		D	17 (17.2%)	53 (53.5%)	20 (20.2%)	1 (1.1%)	6 (6.6%)	2 (2.2%)	0
		S	31 (26.1%)	50 (42%)	16 (13.4%)	4 (3.4%)	10 (8.4%)	8 (6.7%)	0

D, doctors; P, patients; S, medical students.

were shorts, blouses exposing the belly, facial piercings, bermuda shorts, multiple rings, extravagant hair color, and heavy makeup.

The proportion of discomfort reported by the three groups showed significant differences in the comparisons made for most of the appearance items for the male physician, except for the wearing of jacket, dyed hair, short sleeves, long sleeves, and absence of tie. Significant differences in the proportions of discomfort reported among the groups were also observed with the questions regarding the female physicians, except for blouses exposing the belly, multiple rings, extravagant hair color, heavy makeup, long blouse, long sleeves, and dyed hair.

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## Discussion

This was the first study conducted in Brazil to address aspects related to value judgments on the manner of dress and the physical appearance of physicians. Additionally, this is the first study in the world to also address the opinions of medical students on the topic. The results obtained demonstrated that all groups interviewed preferred physicians who adopt styles of dressing traditionally related to the practice of medicine. All groups reported a high level of discomfort with physicians presenting excessively liberal appearance elements.

The analysis of the profile of the styles of dress selected by the patients demonstrated that most of the answers focused on appearances typically identified with the medical profession in the Brazilian environment (styles A, B, and C), both for male and female physicians. This was true even for questions related to care in emergency situations or to discussion of intimate and psychological topics. These results strongly suggest that, as already described in other countries, the adoption of professional uniforms by doctors also generates greater trust and identification by Brazilian patients.

Among the individual styles selected by patients, the entirely white garment was more frequently chosen, both for male and female physicians. This was particularly true for the appearance of hygiene and as an option for routine appointments. This finding indicates that such style of dress is a good option to be adopted by Brazilian physicians, as in addition to pleasing a substantial number of patients, it brings greater comfort in a country with high temperatures most of the year.

When the percentages of answers involving white coat and formal coat styles are compared, it is observed that Brazilian patients do not show a clear preference for physicians wearing ties. Conversely, among women, wearing only the white coat appears to be even more accepted than the formal coat. It is also necessary to recognize that, if the white coat and formal coat styles were combined into a single category, the preference most commonly expressed by patients would be the white coat (16/18). However, even in this scenario, the wearing of white clothing would still be associated with the appearance of a more hygienic physician in both genders.

The answers given by physicians and medical students related to the styles investigated tended to be very similar. It should be noted that physicians more frequently opted for the formal coat (C), while students preferred the white coat

(B), for routine appointments with male physicians. Another relevant finding concerned the preference of dress for male physicians when talking about psychological problems. In this situation, both physicians and students opted more frequently for the adoption of an informal attire (E). This suggests that both physicians and students would feel more comfortable discussing personal problems with someone perceived as being on the same level, a person seen as a colleague and friend. However, this principle does not appear to apply to female physicians, whose competence still seems to need to be reinforced by the presence of the coat.

The views of physicians and students regarding styles of dress were substantially different from those expressed by patients. A large percentage of physicians and students chose the formal coat for male physicians and the white coat for female physicians, given the different scenarios. Conversely, patients showed greater preference for the white garment than other groups regarding the same questions. An element that may have contributed to such results would be the influence of stereotypes transmitted by the media, particularly TV series produced in North America. In this context, especially the physicians wish to adopt, even if unconsciously, the visual style of very competent and successful physicians, even if they are only fictional characters from foreign countries. A fact in favor of this hypothesis is the clear preference of physicians and students for professionals wearing scrubs for emergency care, while the preferred style for patients in this item was, once again, the white clothing.

Regarding the prevalence of discomfort with respect to appearance items shown by male and female physicians, all groups tended to exhibit a very conservative behavior. Similar results have already been obtained from studies conducted with patients in other countries.<sup>6,17,18</sup> The items with greater level of disapproval were shorts, bermuda shorts, multiple rings, facial piercings, extravagant hair color, and, for male physicians, wearing of sandals and long hair. For female physicians, blouses exposing the belly and heavy makeup were also reasons for great disapproval.

It is interesting to note that comparisons among the three groups for each of the 20 items analyzed showed several differences in the degree of discomfort among the different types of volunteers. Physicians showed more discomfort than the patients themselves in many aspects, such as the wearing of earrings, beard, and mustache by male physicians, and of shorts, blouses exposing the belly, facial piercings, and multiple rings by female physicians. Students showed a lower degree of disapproval compared to patients and physicians regarding many items of the appearance, both for male physicians, such as facial piercings, long hair, beard, and earrings, and female physicians (e.g., blouses exposing the belly, large earrings, facial piercings, and hair down). A previous study had already found that physicians are frequently much more conservative than patients with respect to several aspects of clothing, and that this is a behavior acquired from medical school.<sup>19</sup> The lower degree of discomfort experienced by students regarding many items is probably a reflex of the younger age of this group. Possibly, as the students get older, their points of view will become closer to those of physicians that have been active in the profession for a longer time.<sup>20</sup>

This study investigated only the impression made by different styles of clothing and the degree of discomfort caused by different elements of the appearance of physicians. Nevertheless, an aspect that must be taken into consideration when it comes to medical clothing is the risk of transmitting infections. Studies show that when continuously used, white coats become contaminated by different types of microorganisms, especially in the pockets and cuffs of long sleeves.<sup>21,22</sup> The same is true for neckties, except for bow ties.<sup>23</sup> The contamination would be explained by the fact that long sleeves and neckties frequently come into contact with areas of the body of patients. Accordingly, the contact with contaminated clothing items could be a cause of transmission of infections among patients, especially in the hospital environment. Due to such possibility and the existing public opinion fears, the Health Department of the United Kingdom published clothing and uniform recommendations for employees working in the health field.<sup>24-26</sup> The guidelines include short sleeves, no ties, short and clean nails, and no rings and wristwatches, except for wedding rings or, exceptionally, watches that may be washed with water and soap. It is important to emphasize that this is a polemic issue, and, currently, there is no conclusive evidence of the actual contamination of patients by these means.<sup>27,28</sup>

It is interesting to note that the preference for white clothes expressed by a significant percentage of the patients of this study considers the recommendations made by the British agency as well. The white garment style appears then to include a series of advantages: it is more comfortable in hot weather, it may be used without long sleeves, it conveys an air of professionalism and hygiene to the patients, and, when changed and washed every day, it reduces the risk of infection transmission.

Most studies indicating that the appearance of physicians is an important element for a satisfactory physician-patient relationship have used a methodology similar to that of the present investigation, answering questions related to a panel of pictures. When prospective studies were conducted with physicians using different clothes such as surgical scrubs or white coats in an emergency unit, the type of clothing did not influence the degree of satisfaction expressed by the patients after the appointment.<sup>29-31</sup> This data strongly suggests that although the appearance may be important immediately before and in the initial moments of contact, the attitude and behavior demonstrated by the physician during the appointment are the actual determining factors of the final assessment of the care provided.<sup>13,15</sup>

It is also worth mentioning that the physicians were using a badge with name and photo in all pictures used in this study. The proper identification of the physician within the workplace, both for patients and other healthcare professionals, is critical and does not depend on the clothing style in use.<sup>17</sup>

This investigation presented a series of limitations, among which is the collection of data from a single medical center in the countryside of the state of São Paulo. Accordingly, the opinions expressed do not necessarily reflect other regional realities of the country. Additionally, it is fully based on responses to pictures and the presentation of a hypothetical list of appearance options. It is possible that the volunteers

would have different opinions in actual situations. Finally, the inclusion of two styles involving coats (B and C) hampered the identification of clear preferences regarding completely white clothing (style A).

Despite the limitations, data obtained in this investigation allow for the conclusion that Brazilian patients, physicians, and medical students have a better first impression of physicians using garments traditionally associated with the profession and with a more conventional appearance. The use of entirely white garments appears to be a very satisfactory option in Brazil.

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## Conflicts of interest

All the authors declare to have no conflicts of interest.

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