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### RESEARCH ARTICLE

## SAUDI PATIENTS DESIRE REGARDING PHYSICIAN ATTIRE: CROSS-SECTIONAL HOSPITAL-BASED STUDY IN TABUK CITY, KINGDOM OF SAUDI ARABIA, 2016

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physician's attire, patient preference, doctor-patient relationship, quality of health care provided

#### Abstract

**Background:** Nowadays, physicians' attire is considered a meaningful in medical professionalism. It reflects a patient's impression of the doctor as an important factor in a clinical consultation.

**Objectives:** To determine the Saudi patient's preference physician's attire and confirm its influence on patient perceptions including satisfaction and confidence in their physicians.

**Subjects and methods:** A cross-sectional descriptive study was conducted in 2016 among patients in outpatient, inpatient medical clinics and waiting rooms of KSAFH, Tabuk, KSA. A self administered survey was carried out in addition to showing pictures of identical doctor wearing five different dress styles. It included questions regarding their preference of physician's attire, influence of physician's appearance on patient's confidence, if physician's appearance reflects the respect toward the patients and toward the career, and their preferences regarding their physician's gender also if they trust female physician who covers her face.

**Results:** The study results included 371 patients. Overall, (64.2%) of the patients interviewed preferred doctors to wear suit with white coat, while (26.7%) preferred scrub with white coat. A (4.9% and 4.3%) preferred suit only and Saudi national form respectively and no preference for scrub only (0%). Majority of patients (83.8%) assumed that physician attire reflects patients respect, influence patient's trust (88.1%) and reflects career respect (95.7%). Approaching (45.8%) of the patients expressed no preference regarding physician's gender and almost (31.3%) of them preferred female physician that covers her face. There was a statistically significant difference between male and female patients regarding preferred physician's gender as (54.7%) of male patients preferred male physicians compared to none preferred female physicians whereas (25.5%) of female patients preferred male physicians compared to (28%) preferred female physicians,  $p < 0.001$ .

**Conclusions:** In general, patients prefer suit with white coat because it is more professional and respectful. Half of the patients expressed no preference regarding physician's gender and almost one third of them preferred female physician that covers her face.

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**Introduction:-**

Physician–patient communication is the core of the medicine practice and is fundamental for the delivery of health care of good quality. <sup>1</sup> Physician’s attire is important in this communication and this has been documented long time ago by Hippocrates, who mentioned that the physician “must be clean in person, well dressed, and anointed with sweet-smelling unguents.”<sup>1</sup>

Physicians` attire and external appearance has a positive impact on the relationship with patients as regards mutual respect, trust as well as confidence as patients will be more likely to discuss important information such as compliance with medication, sexual histories, and end-of-life wishes as well as they became more compliant when they perceive their doctors as being competent and respectful.<sup>2,3</sup>

Physicians’ attire differs according to cultures, countries, and work environments. Patients’ expectations and preferences is an important factor for physician attire adoption. <sup>4</sup>

The importance of physician attire to the patients is conflicting in the literature. Bianchi<sup>5</sup> mentioned that “patients are more flexible about what they consider ‘professional dress’ than the professionals who are setting standards.” On the other hand, Bearman, et al reported that patients prefer formal attire and a white coat. <sup>6</sup>

Several studies have assessed patients’ perceptions or preferences regarding the physician attire in various parts of the world. Rehman and his colleagues <sup>2</sup> reported that physicians who dressed in a professional way not only gained the trust of their patients, but also obtained more patient compliance with follow-up care. In New Zealand, <sup>7</sup> a study included 249 out-patients and 202 in-patients showed that the preferred physician attire was found to be semiformal, followed by a white coat. Other studies reported that the white coat is no longer the most commonly used attire by physicians.<sup>8,9</sup>

In the Kingdom of Saudi Arabia (KSA) have not previously been addressed. It is important to explore the patients’ preferences and perceptions concerning physician’s attire in Saudi Arabia as patients’ preferences regarding physician’s attire varies broadly across the world, reflecting variation in educational and cultural and background. In Saudi Arabia, most male Saudi physicians wear Saudi national attire, whereas majority of Saudi female physicians wear a conservative dress with covered most of the face.

This study aimed to address Saudi patient’s preferences and perceptions regarding physician’s attire (male and female) as well as to assess the impact of physician’s attire on the patient’s trust and confidence in their physicians.

**Subjects and methods:-**

A cross-sectional descriptive study was conducted from November 2015 to March 2016 among patients in outpatient medical clinics, waiting rooms and inpatient medical units of King Salman Armed Forces Hospitals, Tabuk, Kingdom of Saudi Arabia. A convenient sample of 413 patients was invited to participate in the study. Of them, 371 (89.8%) completed a self administered survey after showing pictures of identical doctor wearing five different dress styles (Figure 1) and asked questions related to patients` preference for physician's attire as well as the influence of physician’s appearance on patient's confidence were asked. Additionally patients were asked if physician’s appearance reflect the respect toward the patients and toward the career, and their preferences regarding their physician’s gender also if they trust female physician that covers her face.

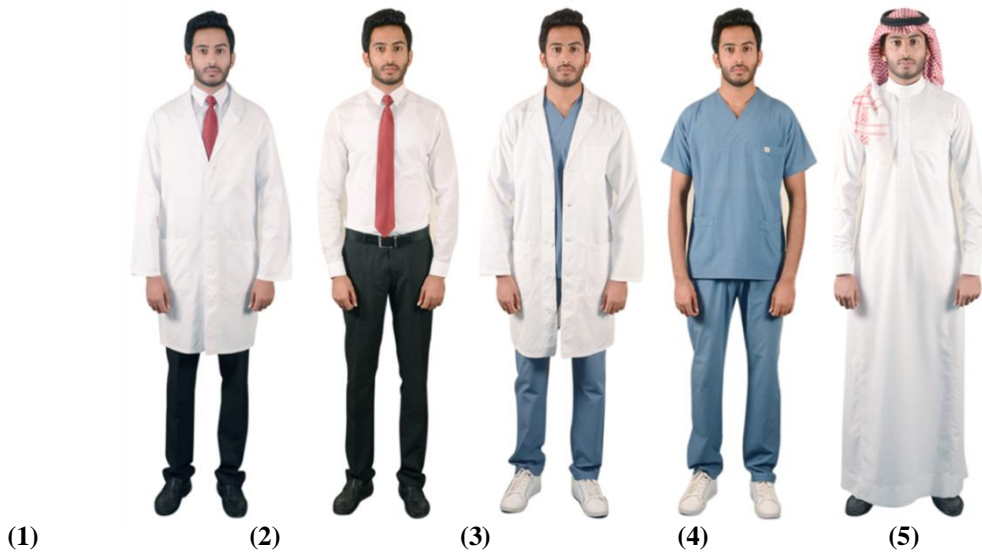


Figure 1:- Identical doctor wearing five different dress styles.

Statistical analysis was performed using statistical package for social sciences soft ware (SPSS), version 22. Chi-square test was utilized to assess the association between categorical variables. Statistical significance was determined at 0.05 level of significance.

**Results:-**

The study results included 371 Saudi patients. The age of 40.3% of them ranged between 21 and 30 years. More than half of them were males (57.7%). More than one-third of the respondents (37.2%) were unemployed. Slightly less than one-third of them (31%) were university graduated whereas 42.3% were secondary school graduated. More than half of them (55.3%) were married and their income was less than 5000 SR/month (53%). Overall, 64.2% of the patients interviewed preferred doctors to wear suit with white coat, while 26.7% preferred scrub with white coat and 4.9% and 4.3 % preferred suit only and Saudi national form respectively no preference for scrub only (0%) as illustrated in figure 2.

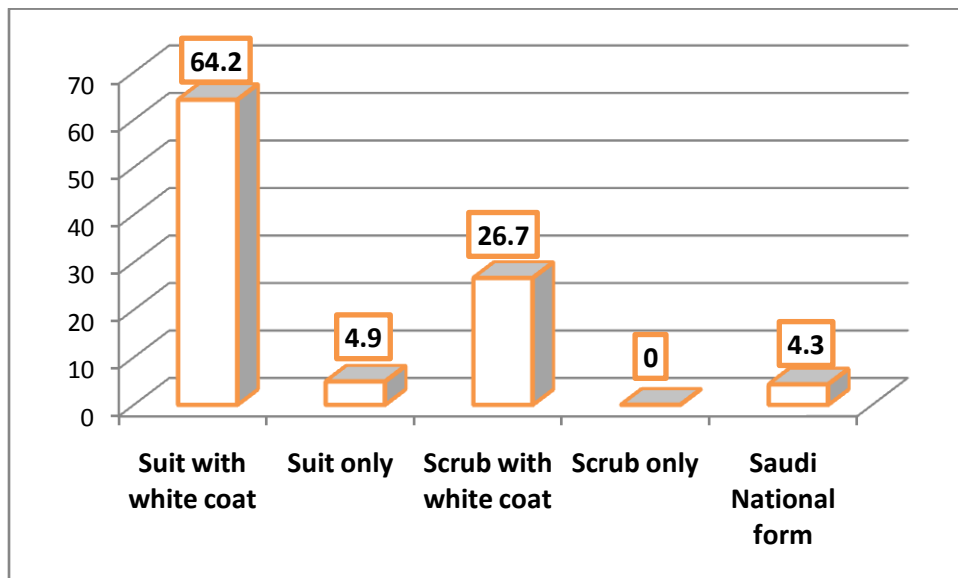


Figure 2:- Patients` preference of physician`s attire.

Majority of patients in the age group 31-40 years (80.4%) compared to none of those aged between 61 and 70 years preferred suit with white coat. On the other hand, 8.8% of patients aged 41-50 years compared to none of those aged over 50 years preferred the Saudi national form. Overall, the association between patient's age and preference of physician's attire was statistically significant,  $p < 0.001$ . Additionally, the difference between male and female patients regarding preference of physician's attire was statistically significant ( $p = 0.001$ ) and 7.5% of male compared to none of female patients preferred the Saudi national form. Almost one-quarter of militaries (22.9%) compared to none of teachers, physicians, administrative and other employees preferred Saudi national form,  $p < 0.001$ . Majority of primary educated patients (93%) compared to 64.3% of university graduated patients preferred suit with white coat,  $p < 0.001$ . Compared to singles, married patients preferred more the suit with white coat (59.8% versus 56.5%) whereas singles preferred more Saudi National form (8.4% versus 1.5%),  $p < 0.001$ . Patient's income was significantly associated with preference of physician's attire as 87.5% of those whose income exceeded 15000 SR/month preferred suit with white coat compared to 33.3% of those whose income ranged between 5000 and 10000 SR/month,  $p < 0.001$ .

Table 3 demonstrates that majority of patients (83.8%) assumed that physician attire reflects patients respect, influence patient's trust (88.1%) and reflects professionalism respect (95.7%) whereas almost two thirds of them (65.3%) assumed that it is related to physician's education and experience.

Approaching half of the patients (45.8%) expressed no preference regarding the gender of their physicians and almost one third of them (31.3%) preferred female physician that covers her face.

It is evident from table 4 that there was a statistically significant difference between male and female patients regarding preferred physician's gender as 54.7% of male patients preferred male physicians compared to none preferred female physicians whereas 25.5% of female patients preferred male physicians compared to 28% preferred female physicians,  $p < 0.001$ . Almost half of male patients (48.6%) compared to only 7.6% of female patients preferred female physicians with covered face,  $p < 0.001$ . Table 4

**Table 1:-** Demographic characteristics of the participants.

	Categories	Frequency	Percentage
Age (years)	10-20	44	11.9
	21-30	150	40.3
	31-40	102	27.5
	41-50	34	9.2
	51-60	37	10.0
	61-70	4	1.1
Gender	Male	214	57.7
	Female	157	42.3
Occupation	Teacher	37	10.0
	Administrative	30	8.1
	Physician	8	2.2
	Military	48	12.9
	Others	110	29.6
	Unemployed	138	37.2
Educational level	Primary	43	11.6
	Intermediate	56	15.1
	Secondary	157	42.3
	University	115	31.0
Marital status	Single	154	41.5
	Married	205	55.3
	Divorced	12	3.2
Income (SR/month)	<5000	198	53.4
	5000-10000	45	12.1
	10001-15000	104	28.0
	>15000	24	6.5

**Table 2:-** Socio-demographic factors associated with patients' preference of physicians' attire.

	Preferred physician's attire				p-value
	Suit with white coat N=238 N (%)	Suit only N=18 N (%)	Scrub with white coat N=99 N (%)	Saudi National form N=16 N (%)	
<b>Age (years)</b>					
10-20 (n=44)	21 (47.7)	3 (6.8)	17 (38.6)	3 (6.8)	
21-30 (n=150)	89 (59.3)	15 (10.0)	38 (25.3)	8 (5.3)	
31-40 (n=102)	82 (80.4)	0 (0.0)	18 (17.6)	2 (2.0)	
41-50 (n=34)	17 (50.0)	0 (0.0)	14 (41.2)	3 (8.8)	
51-60 (n=37)	29 (78.4)	0 (0.0)	8 (21.6)	0 (0.0)	
61-70 (n=4)	0 (0.0)	0 (0.0)	4 (100)	0 (0.0)	<0.001
<b>Gender</b>					
Male (n=214)	129 (60.3)	14 (6.5)	55 (25.7)	16 (7.5)	
Female (n=157)	109 (69.4)	4 (2.5)	44 (28.0)	0 (0.0)	0.001
<b>Occupation</b>					
Teacher (n=37)	33 (89.2)	4 (10.8)	0 (0.0)	0 (0.0)	
Administrative (n=30)	8 (26.7)	0 (0.0)	22 (73.3)	0 (0.0)	
Physician (n=8)	8 (100)	0 (0.0)	0 (0.0)	0 (0.0)	
Military (n=48)	14 (29.2)	3 (6.3)	20 (41.7)	11 (22.9)	
Others (n=110)	91 (82.7)	7 (6.4)	12 (10.9)	0 (0.0)	
Unemployed (n=138)	84 (60.9)	4 (2.9)	45 (32.6)	5 (3.6)	<0.001
<b>Educational level</b>					
Primary (n=43)	40 (93.0)	3 (7.0)	0 (0.0)	0 (0.0)	
Intermediate (n=56)	37 (66.1)	0 (0.0)	17 (30.4)	2 (3.6)	
Secondary (n=157)	87 (55.4)	11 (7.0)	48 (30.6)	11 (7.0)	
University N=115	74 (64.3)	4 (3.5)	34 (29.6)	3 (2.6)	<0.001
<b>Marital status</b>					
Single (n=154)	87 (56.5)	7 (4.5)	47 (30.5)	13 (8.4)	
Married (n=205)	143 (69.8)	7 (3.4)	52 (25.4)	3 (1.5)	
Divorced (n=12)	8 (66.7)	4 (33.3)	0 (0.0)	0 (0.0)	<0.001
<b>Income (SR/month)</b>					
<5000 (n=198)	130 (65.7)	14 (7.1)	49 (24.7)	5 (2.5)	
5000-10000 (n=45)	15 (33.3)	0 (0.0)	22 (48.9)	8 (17.8)	
10001-15000 (n=104)	72 (69.2)	4 (3.8)	28 (26.9)	0 (0.0)	
>15000 (n=24)	21 (87.5)	0 (0.0)	0 (0.0)	3 (12.5)	<0.001

**Table 3:-** Attitude of the patients towards physician's attire.

		Frequency	Percentage
Physician's attire is related to his/her education and experience (n=363)	Agree	237	65.3
	Disagree	126	34.7
Physician's attire reflects patients' respect (n=371)	Agree	311	83.8
	Disagree	60	16.2
Physician attire reflects professionalism respect (n=371)	Agree	355	95.7
	Disagree	16	4.3
Physician attire influence patient's trust	Agree	327	88.1
	Disagree	44	11.9
Which physician's gender you prefer	Male	157	42.3
	Female	44	11.9
	No difference	170	45.8
Which you prefer in	Uncovered face	111	29.9

female physician	Covered face	116	31.3
	No difference	114	38.8

**Table 4:-** Physician`s preferred by patients according to their gender.

Patient`s gender	Physician`s gender preferred by patients			$\chi^2$ (p-value)
	Male N=157	Female N=44	No difference N=170	
Male (n=214)	117 (54.7)	0 (0.0)	97 (45.3)	78.24 (<0.001)
Female (n=157)	40 (25.5)	44 (28.0)	73 (46.5)	
	Uncovered face N=111	Covered face N=116	No difference N=114	
Male (n=214)	22 (10.3)	104 (48.6)	88 (41.1)	114.46 (<0.001)
Female (n=157)	89 (56.7)	12 (7.6)	56 (35.7)	

**Discussion:-**

The current study assumed that patients in Saudi Arabia preferred a physician who wear suit with white coat, followed by those who wear scrub with white coat and only minority of them (4.3 %) preferred physicians who wear the Saudi national formal though it is common among Saudi physicians. Moreover, none of female patients preferred Saudi national attire in the present study. The same has been reported in another Saudi study carried out in Riyadh.<sup>4</sup> However in another study carried out by Batais in Riyadh also,<sup>10</sup> patients preferred a physician in the Saudi national dress, followed by a physician wearing Western dress.

Numerous studies conducted worldwide revealed that patients preferred physicians wearing a formal uniform with white coat and tie.<sup>2, 4, 11, 12</sup> Additionally, McKinstry et al<sup>13</sup> carried out a study in a family medicine setting, found that a majority of patients favored a male doctor wearing a formal suit and tie. Also, Keenum et al<sup>14</sup> carried out a study in a family practice setting, and observed that the majority of them favored a formal over a casual appearance for a family physician. Rehman et al reported that 76.3% of patients in USA favored the use of professional attire, including a white coat.<sup>2</sup> Dunn et al<sup>15</sup> observed that 59% of oncology patients preferred white coat as a physicians attire also Harnett<sup>16</sup> found that 65% of inpatients preferred their physicians to wear white coats. Gooden et al<sup>17</sup> observed that 48% and 36% of patients and inpatients, respectively preferred their physicians to wear white coats.

Interestingly, although Saudi Arabia culture is a conservative one, particularly regarding women, almost one-quarter of female patients preferred male physicians whereas none of male patients preferred female physicians. However, almost half of male patients proffered female physicians with covered face.

Saudi patients expressed a positive attitude towards physician`s attire as majority of them assumed that physician attire reflects patients respect, influence patient`s trust, reflects professionalism respect and it is related to physician`s education and experience. It has been documented that physician`s attire has an important influence on the patients` trust of physicians, follow their advices, comply with recommendations raised by them, and more likely to return for follow-up care.<sup>10</sup> Another Saudi study reported the same with the exception that patients` confidence in the physician`s ability and the his or her degree of medical knowledge and expertise were not associated with their attire.<sup>4</sup>

In agreement with Batais,<sup>10</sup> older patients were more likely to prefer Western uniform more than the Saudi national form. Contrary to what has been reported by others in Saudi Arabia,<sup>4</sup> the present study observed a significant association between the level of education and suit with white-coat preference as lower educated patients were more likely to prefer it than higher educated.

This study has some limitations. First of all, it was carried out in a single institution in Tabuk whose results cannot be generalized to other institutions as it is possible that patients were accustomed with this attire and therefore found it preferable. Therefore, further studies in different institutions and different areas are recommended. Additionally, the age of the doctor whose photographs were included in the questionnaire might be a confounding as it was young. Photographs of female physicians were not due to cultural issues. Future studies are warranted to document the effect of other factors in doctor-patient relationships, and whether a patient`s preference regarding physician`s attire would change if such factors were included.

**Conclusions:-**

In general, Saudi patients prefer doctor to wear suit with white coat because they believe that physicians who wearing this attire are more professional and respectful so they can trust them and by supporting doctor–patient relationship we can increase the quality of health care provided.

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