http://jmscr.igmpublication.org/home/ ISSN (e)-2347-176x ISSN (p) 2455-0450 crossref DOI: https://dx.doi.org/10.18535/jmscr/v12i02.06

GM Publication

Journal Of Medical Science And Clinical Research An Official Publication Of IGM Publication

# The effects of physicien attire on consultation outcomes in primary health care, National Guard, Riyadh

Authors

## Joud Abdulshakur Basfar, Amnah mohammed Alanazi, Hadeel Mansour Almutairi, Ali Ibrahim Alfarhan

King Abdulaziz Medical City

## Introduction

A good Physician- patient relationship is the core of a successful primary health care. It is characterized by a two way interactions between the physician and the patient, where the patient is involved in the decision  $making^{(1)}$ . The relationship between the physician and the patient can interfere significantly with the treatment adherence<sup>(2)</sup>. So it is necessary for the physician to work on building and preserving a good relationship from the first moment. The first impression is important to optimize healthcare outcomes<sup>(3)</sup>. Physician appearances, gender, nationality, age, speech and posture were found to affect patient's first impression<sup>(3)</sup>. Also, it is found that once the first impression been developed, it will remain unchanged - most of the times-<sup>(3)</sup>. Gender preferences found to increase patient satisfaction in some settings<sup>(4)</sup>. For the intimate, and psychosocial issues, it is found to be preferred to have a physician of the same gender as a patient <sup>(4)</sup>. For the age preference, some studies found that patients preferred the physician to be between 30-50 years<sup>(5)</sup>. Physician appearances is also an

important factor affecting patient perception of the care provided <sup>(1)</sup>.

Patient's point of view is influenced by many factors during consultation. For instance, physician's skills in verbal and nonverbal communication<sup>(9)</sup>. Additionally, other modifiable and non- modifiable factors such as physician's demographics, image and demeanor also have an impact on patient's attitude and opinion<sup>(9)</sup>.

Physician appearances is also important to build good relationship with the patients <sup>(6)</sup>. White coat was classically been a symbol for the physicians <sup>(6)</sup>. Several studies support that white coat is significantly important in gaining higher trust and confidence from the patients<sup>(7-8)</sup>. Traditionally, physicians used to wear white coats all the times, but nowadays there are varied options to wear. In Saudi Arabia, men can wear thobe (traditional long white clothes that men wear most of the times), casual, and formal clothes. For Saudi females, they can wear hijab, or they can wear niqab (face cover), skirts, trousers, or any modest clothes.

Several studies discussed physician attire and appearances.<sup>9,10</sup> More than half of participants in a

cross-sectional study conducted in a northern region of Portugal had no preference of the family physician in regard to gender, while the remaining contributors favored female gender<sup>(10)</sup>.

Furthermore, level of education was also assessed in this study. In participants who have higher education, gender was insignificant factor in selecting physicians in contrast with partakers with lower education<sup>(10)</sup>. Although the physician's age was not a remarkable factor for the majority of contributors, a minority elected 35 to 44 or 45 to 54 years of age as their preference. Appropriate attire and identification badge were considered crucial among 69% of participants despite their background.

In 2011, a cross-sectional study was conducted in Saudi Arabia<sup>(9)</sup>. The study examined patient's inclinations regarding physicians 'apparel. For male physicians, formal attire including ties, shirts and trousers, was favored by by 62% of participants, and 85% favored the physician to be wearing a formal white coat regardless of gender.<sup>9</sup> On the other hands, only a minority (9.8%) of patients selected the Saudi national attire including thoab and shemagh as their preference in that respect. For females physicians, 73% of partakers opted for long skirts as the attire of preference. The contrast between male and female contributors 'opinion was significant (p=0.024) in regards to the male physician attire. However, no significant difference between either gender in their preference for female physicians 'apparel (p=0.238). For the participants, appropriate attire reflects the physicians respect for their patients and their profession. Nevertheless, whether or not the physician was adhering to the formal dress code, it played no role in establishing rapport and empathy between primary care physicians and patients in a 2021 study conducted in Japan.

## Methods

This is a descriptive cross-sectional study. It took place at the primary care clinics in the governmental hospital of King Abdullah Medical City (KAMC) that is under the Ministry of National Guard Health Affairs (NGHA), located in Khashm Alaan, Riyadh, Saudi Arabia. Primary care clinics are divided into:

- Health care specialty Centre (HCSC): serves a population of around 189,000
- King Abdul-Aziz City Housing (Iskan clinic) : serves a population around 68,000
- National Guard Comprehensive Specialized Clinic (NGCSC): which serves around 75,000 people

Based upon latest census from these centers. Each Centre provides primary curative and preventive health services, and has a walk-in for acute health problems and booking appointment system for chronic medical conditions and other clinics as well baby and postpartum clinic.

The study included all outpatients in the primary care facilities who are more than 18 years of age. However, we excluded patients with confusion, with psychiatric disorders, and who are severely ill or unfit to answer the survey. The sample size was calculated using Open Epi by using 95% confidence interval and 5% margin of error the sample size was calculated to be 365 adjusted to 400 to compensate for incomplete forms and nonresponse, since the estimated number of the population is 70000.

The sample was collected using convenient sampling technique, subjects were be recruited on three random days each week until sample size was completed; data collection alternated between morning and evening times to optimize randomization.

The data collection method is a self-administered questionnaire. It was built based on previous studies and Saudi culture. It involved 2 parts: First part included 5 questions about geographic informations, including age, gender, income, and educational level. Second part included 11 questions about physicians appearance, gender, and patients preferences and trusts. Before the study starts, 10 questionnaires will be administered to random patients, to ensure understanding and conduct the appropriate modifications.

After data collection, the data was entered and analyzed using SPSS version 20. P value less than or equal to 0.05 is considered statistically significant. Descriptive analysis was conducted on all variables in the study. Categorical variables were described using frequency and percentages. Continuous variables were summarized using the mean and standard deviation. Chi-square test was used to compare proportions. T- test and ANOVA used for mean comparisons.

#### Results

Total of 405 participants were included in the study. Table 1 shows the shows the sociodemographic profile of the participants. As for the age, 118 (29.1%) were between 18 - 29 years old, 91 (22.5%) were between 30 - 39 years

old, 57 (14.1%) were between 40 - 49 years old, 21 (5.2%) were 50 years and older, while 118 (29.1%) refrained from answering. As for the gender, 254 (62.7%) were males, 150 (37%) were females, and 1 (0.2%) refrained from answering. As for the income, 182 (44.9%) had an income less than 5000 SR, 98 (24.2%) had an income between 5000 - 10000 SR, 105 (25.9%) had an income more than 10000 SR, while 20 (4.9%) refrained from answering. As for the employment, 161 (39.8%) were employee, 106 (26.2%) were house wives, 82 (20.2%) were students, 54 (13.3%) were unemployed, and 2 (0.5%) refrained from answering. As for the education level, 25 (6.2%) were not educated, 150 (37%) had a high school education or less, 205 (50.6%) had a bachelor degree, 21 (5.2%) had higher education, and 4 (1%) refrained from answering.

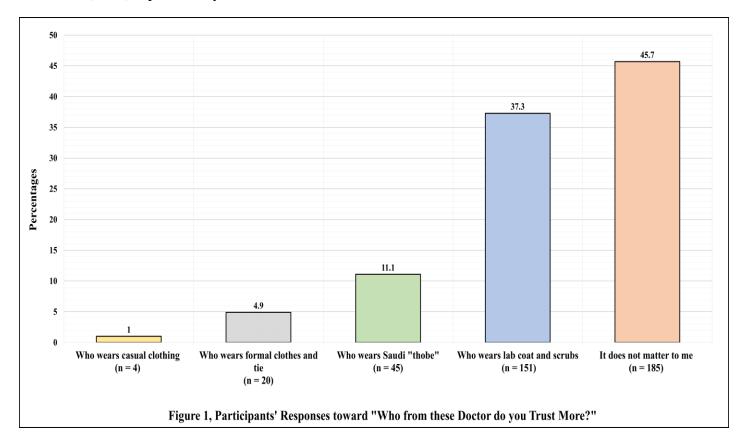
Table 1 Socio-Demographic Frome of The Farticipants (II – 403)					
Demographical Charactaristics	n	%			
Age					
18 - 29 years	118	29.10			
30 - 39 years	91	22.50			
40 - 49 years	57	14.10			
50 years and older	21	5.20			
Refrained from answering	118	29.10			
Gender					
Male	254	62.70			
Female	150	37.00			
Not mentioned	1	0.20			
Income					
Less than 5000 SR	182	44.90			
Between 5000 - 10000 SR	98	24.20			
More than 10000 SR	105	25.90			
Refrained from answering	20	4.90			

Joud Abdulshakur Basfar et al JMSCR Volume 12 Issue 02 February 2024

2024

Employment		
Employee	161	39.80
Housewife	106	26.20
Students	82	20.20
Unemployed	54	13.30
Refrained from answering	2	0.50
Education level		
Not educated	25	6.20
High school or less	150	37.00
Bachelor's degree	205	50.60
Higher educations	21	5.20
Refrained from answering	4	1.00

Figure 1 displays the participants' responses toward "who from these doctor do you trust more?". 151 (37.3%) reported they trust more the ones who wears lab coat and scrubs, 45 (11.1%) reported they trust more the ones who wear Saudi thobe, 20 (4.9%) reported they trust more the ones who wear formal clothes and tie, and 4 (1%) reported they trust more those who wear casual clothing, while 185 (45.7%) reported that clothing of physicians does not matter to them in regard of trusting.



Joud Abdulshakur Basfar et al JMSCR Volume 12 Issue 02 February 2024

Figure 2 presents the participants' responses toward "who from these doctor do you choose to discuss your personal and psychological problem?". 119 (29.4%) reported they would choose the ones who wears lab coat and scrubs, 55 (13.6%) reported they would chose the ones who wear Saudi thobe, 18 (4.4%) reported they would chose the ones who wear formal clothes and tie, and 9 (2.2%) reported they would chose those who wear casual clothing, while 201 (49.6%) reported that clothing of physicians does not matter to them in regard of choosing who to discuss their personal and psychological problems.

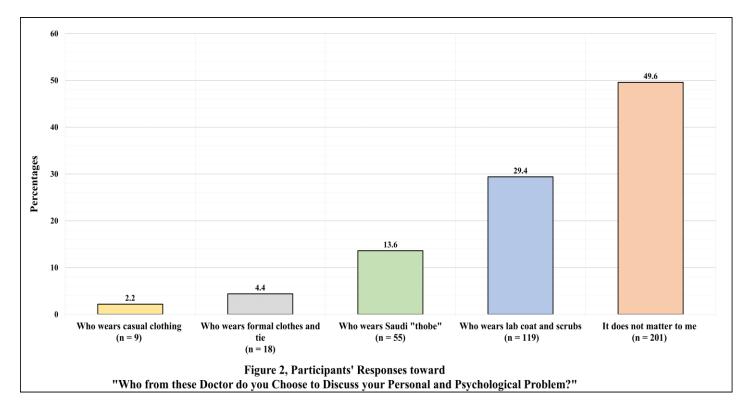


Figure 3 demonstrates the participants' responses toward "which of these doctors do you think will give you better diagnosis and treatment?". 122 (30.1%) reported they think it would be the ones who wears lab coat and scrubs, 30 (7.4%) reported they think it would be the ones who wear Saudi thobe, 23 (5.7%) reported they would chose the

ones who wear formal clothes and tie, and 8 (2%) reported they would chose those who wear casual clothing, while 220 (54.7%) reported that clothing of physicians does not matter to them in regard of thinking who would give the better diagnosis and treatment.

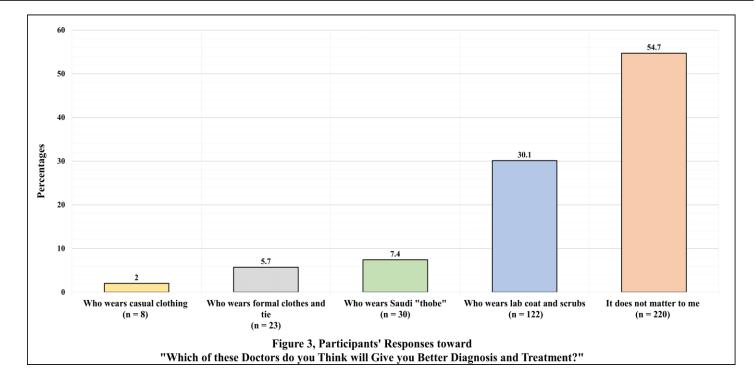
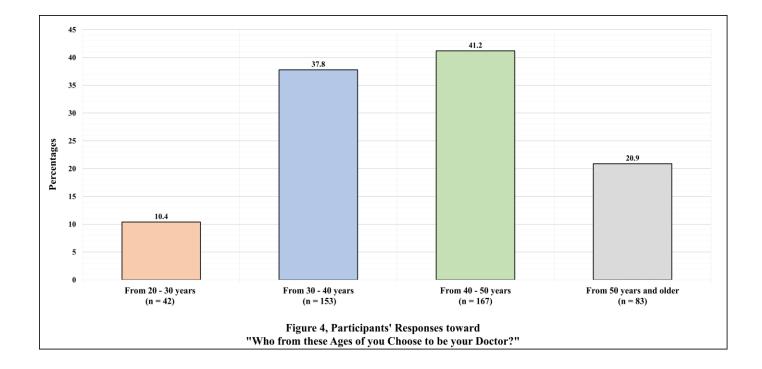


Figure 4 illustrates the participants' responses toward "who from these ages of you choose to be your doctor?". 42 (10.4%) reported they would choose those aging from 20 - 30 years old, 153 (37.8%) reported they would choose those aging

30 - 40 years, 167 (41.2%) reported they would choose those aging from 40 - 50 years, and 83 (20.9%) reported they would choose those aging from 50 years and older.



Joud Abdulshakur Basfar et al JMSCR Volume 12 Issue 02 February 2024

Figure 5 shows the participants' responses toward "which gender do you choose to treat you?". 79 (19.5%) of the participants reported they would choose females physicians, 86 (21.2%) reported they would choose male physicians, 236 (58.3%) reported it does not matter to them, while 4 (1%) refrained from answering.

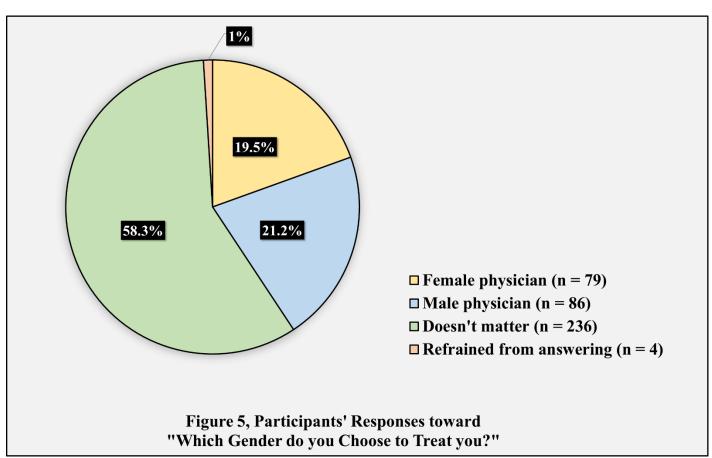


Table 2 displays the participants' preferences profile regarding their treating physician. As for which female doctor would the participants choose to treat them, 45 (11.1%) reported the ones who wear niqab and face cover, 60 (14.8%) reported the ones who wear hijab and head cover, 296 (73.1%) reported it does matter to them, while 4 (1%) refrained from answering. As for the influence of nationality of the treating physician on trust, 266 (65.7%) reported it does not matter to them. 301 (74.3%) agreed that doctors should take care of their appearance and clothes. 207 (51.1%) disagreed with the statement "doctors should wear expensive clothes". 208 (51.1%) disagreed with the statement "doctor wearing eyeglasses influence my trust". 278 (68.6%) agreed that doctors should take care of their clinic appearance.

#### **Table 2** Participants Preferences Profile Regarding their Treating Physicians (n = 405)

Question	n	%
Which female doctor do you choose to treat you?		
Who wears niqab and face cover	45	11.1
who wears hijab and headcover	60	14.8
Doesn't matter to me	296	73.1
Refrained from answering	4	1
Does the doctor nationality affect your trust on him/her?		
Increase trust	99	24.4
Decrease trust	36	8.9
It doesn't matter	266	65.7
Refrained from answering	4	1
Doctor should take care of his appearance and clothes:		
Agree	301	74.3
It doesn't matter	63	15.6
Disagree	35	8.6
Refrained from answering	6	1.5
Doctor should wear expensive clothes:		
Agree	31	7.70
It doesn't matter	164	40.50
Disagree	207	51.10
Refrained from answering	3	0.70
Doctor wearing eyeglasses influence my trust:		
Agree	21	5.20
It doesn't matter	173	42.70
Disagree	208	51.40
Refrained from answering	3	0.70
Doctor should take care of his clinic appearance:		
Agree	278	68.60
It doesn't matter	62	15.30
Disagree	62	15.30
Refrained from answering	3	0.70

Table 3 presents the factors associated with participants' preference toward the gender of the treating physician. Gender of participants were significantly associated with their preference of

their treating physician gender (p < 0.001), where it was observed that high rate of makes thought it does not matter compared to females (65.7% vs 47.3%), and it was observed that higher rate of

Joud Abdulshakur Basfar et al JMSCR Volume 12 Issue 02 February 2024

2024

females preferred female physicians (29.3% vs (13.9%). Age of participants was not significantly

associated with their preference toward their treating physician.

Fostor	Which gender do you	P-Value			
Factor	Female physician	Male physician	Doesn't matter	r - v alue	
Age of Participants					
18 - 29 years	25 (21.4%)	17 (14.5%)	75 (64.1%)		
30 - 39 years	30 (33%)	17 (18.7%)	44 (48.4%)	0.238	
40 - 49 years	13 (22.8%)	12 (21.1%)	32 (56.1%)		
50 years and older	4 (19%)	6 (28.6%)	11 (52.4%)		
Gender				<u>.</u>	
Male	35 (13.9%)	51 (20.3%)	165 (65.7%)	< 0.001*	
Female	44 (29.3%)	35 (23.3%)	71 (47.3%)		

\*Significant at level 0.05

Table 4 demonstrates the factors associated with participant's view toward caring about the physicians' appearance and clothes. Age of the participants was significantly associated with the view toward the importance of caring about the physicians' appearance and clothes (p = 0.022), where it was observed that those aging 18 - 29

years old had a lower rate of agreeing that doctors should take care of their appearance and clothes compared to the other age groups. Gender was not significantly associated with the view toward the importance of caring about the physicians' appearance and clothes.

**Table 4** Factors Associated with Participants View toward Caring about The Physicians' Appearance and Clothes

Frater	Doctor should take	Doctor should take care of his appearance and clothes		
Factor	Agree	It doesn't matter	Disagree	P-Value
Age of Participants				
18 - 29 years	100 (85.5%)	13 (11.1%)	4 (3.4%)	
30 - 39 years	82 (90.1%)	9 (9.9%)	0 (0%)	0.022*
40 - 49 years	57 (100%)	0 (0%)	0 (0%)	
50 years and older	20 (95.2%)	0 (0%)	1 (4.8%)	
Gender				
Male	187 (74.8%)	37 (14.8%)	26 (10.4%)	0.290
Female	114 (76.5%)	26 (17.4%)	9 (6%)	

\*Significant at level 0.05

Table 5 illustrates the association between the age of participants and their acceptance toward the age of the treating physician. Age of participants was significantly associated with choosing to be treated by a physician aging from 20 - 30 years (p = 0.007), where it was observed that those aging 18 - 29 years old had the highest rate of choosing to be treated by this age group. Age of participants was significantly associated with choosing to be treated by a physician aging from 30 - 40 years (p = 0.023), where it was observed that those aging 18 - 29 years old had the highest rate of choosing to be treated by this age group. Age of participants was significantly associated with choosing to be treated by a physician aging from 40 - 50 years (p = 0.001), where it was observed that those aging 50 years and older had the highest rate of choosing to be treated by this age group. Age of participants was not significantly associated with choosing to be treated by a physician aging 50 years and older.

 Table 5 Association between the Age of Participants and their Choice toward the Age of the Treating Physician

	Age of Participants				
Factor	18 - 29 years	30 - 39 years	40 - 49 years	50 years and older	P-Value
Choosing to be treated by a physician aging from 20 - 30 years					
Yes	24 (20.7%)	4 (4.4%)	7 (12.3%)	2 (10%)	0.007*
No	92 (79.3%)	86 (95.6%)	50 (87.7%)	18 (90%)	
Choosing to be treated by a physician aging from 30 - 40 years					
Yes	52 (44.8%)	37 (41.1%)	16 (28.1%)	3 (15%)	0.023*
No	64 (55.2%)	53 (58.9%)	41 (71.9%)	17 (85%)	
Choosing to be treated by a physician aging from 40 - 50 years					
Yes	41 (35.3%)	47 (52.2%)	37 (64.9%)	13 (65%)	0.001*
No	75 (64.7%)	43 (47.8%)	20 (35.1%)	7 (35%)	
Choosing to be treated by a physician aging from 50 years and older					
Yes	15 (12.9%)	15 (16.7%)	11 (19.3%)	6 (30%)	0.259
No	101 (87.1%)	75 (83.3%)	46 (80.7%)	14 (70%)	

\*Significant at level 0.05

Table 6 shows the association between the gender of participants and their acceptance toward the age of the treating physician. There was no significant association between the gender of the participants and their choice regarding being treated by any age group. **Table 6** Association between the Gender of Participants and their Choice toward the Age of the Treating Physician

Foster	Gender of Participants		
Factor	Male	Female	P-Value
Choosing to be treated by a physician aging from 20 - 30 years			
Yes	21 (8.5%)	21 (14%)	0.082
No	227 (91.5%)	129 (86%)	
Choosing to be treated by a physician aging from 30 - 40 years			
Yes	94 (37.9%)	59 (39.3%)	0.776
No	154 (62.1%)	91 (60.7%)	
Choosing to be treated by a physician aging from 40 - 50 years			-
Yes	113 (45.6%)	54 (36%)	0.061
No	135 (54.4%)	96 (64%)	
Choosing to be treated by a physician aging from 50 years and older			-
Yes	46 (18.5%)	37 (24.7%)	0.145
No	202 (81.5%)	113 (75.3%)	

\*Significant at level 0.05

#### **Statistical Analysis**

Data analysis was performed using Statistical Package for the Social Sciences, SPSS 23rd version. Frequency and percentages were used to display categorical variables. Chi-square test was used to test for the presence of association between categorical variables. Level of significance was set at 0.05.

#### Discussion

As enumerated before, previous research works demonstrated a very well-established relationship between the appearance of the physician and patient 'first impression toward the competency of the physician<sup>[1-2]</sup>. The foundation on which patients formulate their view toward physicians in workplace is determined by cultural and social norms<sup>[3]</sup>. In the past two decades, research showed that patients gave higher positive feedback and preferred formal attire that consist of white coat and identification tag<sup>[4]</sup>. However, with the

evolution of technology and medicine, and change in culture (specifically in the united states), the perception toward how the physician should look have altered<sup>[3]</sup>. Based on the link between physician attire and patients clinical experience, and the recent alteration in patients view toward how physician should look, the seed of this research idea grew.

In this work, the highest rate of patients reported that male physician attire did not matter in term of trust (45.7%), in choosing a physician to discuss personal and psychological problems (49.6%), and in perception toward giving the best diagnosis and treatment (54.7%). In addition to that, a majority of (73.1%) of the participants reported that the attire did not matter when choosing a female physician to treat them. This reflects an overall high degree of awareness among the participants of this study, as the highest proportion of participants realize that the competency of the physician is not judged by the type of attire. It also reflects that the openness of patient toward their physicians is not hindered by the type of physicians 'attire. Although the type of attire did not matter for the highest proportion of patients, a wide majority of (74.3%) agreed that physicians should take care of their appearance and clothes. This emphasize the overall importance of physicians appearance and look; however, the importance is shifted from the type of attire to an overall tidy-clean and appropriate clothing and appearance rather than specifications in dress code. The importance of appealing looking is not just confined to physicians, but it also extends to the appearance of clinics, as (68.6%) of the participants agreed that the physicians should take care of the appearance of the clinic. It is not a surprise that participants would rather be seen by an appropriately dressed physician in a wellorganized and well-looking clinic, as that would naturally give a sense of ease and a comfort. It also would give a sense of professionalism from the physician and a sense of credibility to the place. All that would subconsciously increase the trust of the patients toward the facility and the physician and ultimately will improve outcome. In contrast to the finding of this study, the study done by Al-Ghobain et al. in King Abdulaziz Medical City in Riyadh Saudi Arabia in 2012 demonstrated that the majority of participants (62%) preferred male physicians to wear formal attire and white coat, and (73%) preferred females to wear long skirts<sup>[6]</sup>. Although the two studies were conducted in the same region, there is a clear discrepancy in the results which can possible be explained by the time gap during which the perception and expectation toward attire have changed and the overall awareness improved. Likewise, multiple other studies in different regions around the globe also reported a formal attire preference for the majority of participants such as the study done in the united states by Rehman et al. where (76.3%) favored professional attire<sup>[7]</sup>, the study done by Dunn et al. in United States where (59%) of oncology patients preferred physicians wearing lab coats<sup>[2]</sup>, and the study done by Hernett et al. in the UK where (65%) of the inpatients also preferred physicians to wear lab  $coats^{[8]}$ . In addition to that, the study done by H. Chung et al. in Korea revealed that participants score of competency, gave the highest trustworthiness, and preference for doctors with white coats<sup>[9]</sup>. Numerous other studies vielded results consistent with this finding of formal dressing preference <sup>[10,12]</sup>. As mentioned before, the difference found between this study and the other studies can possibly be explained by the difference in level of awareness, time gap between studies, and possibly cultural /social the differences. On the other hand, and similar to the finding of this study, the article done by Mason et al. in the United States in 2017 revealed that only (28%) of patients preferred their vitreoretinal specialist to wear white coats, while (71%) preferred casual dress or had no preference<sup>[3]</sup>. The study done by Edwards et al. also demonstrated that surgeons 'attire did not significantly affect patients perception toward the care they receive, and the patients did not have a preference of white coats or traditional attire for surgeons<sup>[5]</sup>.

As for the overall age and gender preference among the participants, the highest rate of participants preferred the 40 -50 years age group (41.2%), followed by the 30 - 40 years age group (37.8%). The preference of these age groups over can possibly be due to the expectation that physician at this age have acquired enough experience and knowledge that make them more competence and that they are still young and not too old that they started to lose their skills. As the young age group 20 - 30 years old can be observed as less experienced, and the competency of those aging 50 years and older can be perceived affected due to age. As for the gender preference, most of the patients (58.3%) reported it did not matter to them. In agreement with the finding of this study, Al-Ghobain et al. in their study reported that participants had no gender preference<sup>[6]</sup>. Schmittdiel et al. in their work also illustrates that there was no significant difference in terms of satisfaction for patients based on the gender of the treating physician<sup>[13]</sup>. The satisfaction of the patients and the sense of contentment when seeking medical care is mainly driven by the quality of the provided care, and the competency of the treating physicians. The quality and competency that yield satisfaction are composed of set skills and policies that are not confined to a gender, but can be acquired by training, which explain the absence of gender preference for the participants.

The majority of participants (65.7%) reported that nationality did not affect trust in the physicians. Most of the patients disagreed when asked if physicians should wear expensive clothes. The greatest proportion of participants (51.4%) also denied the influence of wearing eyeglasses on trust toward physicians. This further confirms that the participants of this study have high level of awareness and that the details of external appearances and personal background (such as nationality) would not interfere with trust, preference or satisfaction toward physicians, and that patient-doctor relationship goes beyond trivial The expressed negativity matters. toward physicians wearing expensive clothing can be due to the sense of unprofessionalism that can be felt when confronting a physician wearing clearly luxurious clothing. It may also make some patients with modest economic status feel insecure and make them feel that the physicians are practicing some sort of superiority when wearing items the patients cannot afford.

Although the highest rate of males and females reported that the gender of the treating physician does not matter to them, a significant difference between males and females was found. Where it was observed that females had a notably higher rate of preferring same gender physician compared to males. Which is expected due to the religious background and cultural / social norms of the study participants. As when seen be a physician, females may need to expose some of their body parts, which although is permitted by Islam and is socially accepted to be done in front of a male physician when necessary, it is still not preferred for a considerable rate of patients if the alternative (female physician) is available.

When the testing the association between patients age group and acceptance toward the treating physicians age group, it was observed that patients from the age group 18 - 29 years had a notably higher rate of acceptance to be treated by physicians aging between 20 - 30 years. It was also observed that those aging 30 - 39 years had a notably higher rate of acceptance to be treated by physicians aging 18 - 29 years, and physicians aging 30 - 39 years. Patients aging 40 - 49 years demonstrated a higher rate of acceptance toward physicians aging 40 - 49 years, and physicians aging 50 years and older. Although statistically insignificant, the age group with the highest rate of acceptance for patients aging 50 years and older was physicians aging 50 years and older. A clear pattern of preference to be treated by a physician of a similar age is observed. This could possible be due to the sense of familiarity felt when dealing with a person of same age group, as well as the ease of communication and expression and the expectation to be easily understood due the proximity of age.

#### Strength and Limitation

The strength of this study lies in shedding the light on an important topic that affects the patientdoctor relationship in term of trust, openness, and sense of credibility, thus affecting the patients adherence to treatment and outcome. Moreover, to the best of our knowledge, limited studies were conducted on the effects of physicians attire on clinical consultation in Saudi Arabia. Meaning this study enriches the literature with more indepth view about the status of this topic in Saudi Arabia. Another strong point is that adults from all age groups were included in the study, with both males and females contributing appropriately. In addition to that participants from different income groups, education level, and occupations were enrolled. In this study, the doctor gender preference based on patient age groups, and the doctor age group preference based on patients age group was measured which was not thoroughly investigated in previous studies. This study has multiple limitations, both the study design (crosssectional), and the self-administered mean of collecting data may put the accuracy of the collected data into question due to the inherent bias of these methods. In addition to that, although the study sample was sufficient and appropriate, it is considered to be relatively small. Another limitation of this study is that it was conducted on a single center and on a single specialty.

## Recommendations

Based on the results of this study, we would recommend health care institutions to augment dress code protocols for physicians to unify the attire while keeping the type of attire to the choice of the institution. By meeting the patients preferences and expectations of having welldressed physicians regardless of the type of attire, it is expected that the trust of the patients toward the doctor will be improved and likewise the patients adherence to the treatment plan and ultimately the outcome. We also recommend nationwide studies that assess the patients preference toward physicians attire in respect to the differences in regions, cultural backgrounds, and socioeconomic status to be done to draw a full detailed picture of this topic in Saudi Arabia.

## Conclusion

The highest rate of participants reported that the attire of the male physicians does not matter and that it would not affect trust, the decision to discuss personal and psychological issues, or the perception toward the appropriateness of diagnosis and treatment provided. As for the female doctors, the massive majority reported that the attire of female doctors did not matter as well. As for gender preference, the higher proportion of

both males and females reported that the gender of the treating physician did not matter to them. However, a considerable proportion of females preferred to be treated by female physician which is explained by the social and religious barrier.

## References

- 1. Taylor PG. Does dress influence how parents First Perceive House staff of **Pediatrics** competence? Archives & Adolescent Medicine. 1987;141(4):426. doi:10.1001/archpedi.1987.044600400840 21
- Dunn JJ. Patient and house officer attitudes on physician attire and etiquette. JAMA: The Journal of the American Medical Association. 1987;257(1):65. doi:10.1001/jama.1987.03390010069031
- Mason L, Mason J. Patients' attitudes regarding characteristics of physicians in ophthalmology. BMC Research Notes. 2017;10(1). doi:10.1186/s13104-017-3056-0
- 4. Keenum AJ, Wallace LS, Stevens AR. Patients' attitudes regarding physical characteristics of family practice physicians. South Med J. 2003;96(12):1190–4.
- Edwards RD, Saladyga AT, Schriver JP, Davis KG. Patient attitudes to surgeons' attire in an outpatient clinic setting: Substance over style. The American Journal of Surgery. 2012;204(5):663–5. doi:10.1016/j.amjsurg.2009.09.001
- Al-Ghobain MO, Al-Drees TM, Alarifi MS, Al-Marzoug HM, Al-Humaid WA, Asiry AM. Patients' preferences for physicians' attire in Saudi Arabia. Saudi Med J. 2012;33(7):763-767.
- 7. Rehman SU, Nietert PJ, Cope DW, Kilpatrick AO. What to wear today? effect of doctor's attire on the trust and confidence of patients. The American

Journal of Medicine. 2005;118(11):1279– 86. doi:10.1016/j.amjmed.2005.04.026

- Harnett PR. Should doctors wear white coats? Medical Journal of Australia. 2001;174(7):343–4. doi:10.5694/j.1326-5377.2001.tb143310.x
- Chung H, Lee H, Chang D-S, Kim H-S, Lee H, Park H-J, et al. Doctor's attire influences perceived empathy in the patient–doctor relationship. Patient Education and Counseling. 2012;89(3):387–91. dai:10.1016/j.meg.2012.02.017

doi:10.1016/j.pec.2012.02.017

- Gherardi G, Cameron J, West A, Crossley M. Are we dressed to impress? A descriptive survey assessing patients' preference of doctors' attire in the hospital setting. Clinical Medicine. 2009;9(6):519– 24. doi:10.7861/clinmedicine.9-6-519 2
- 11. Budny AM, Rogers LC, Mandracchia VJ, Lascher S. The physician's attire and its influence on patient confidence. Journal of the American Podiatric Medical Association. 2006;96(2):132–8. doi:10.7547/0960132
- 12. Menahem S. Is our appearance important to our patients? Family Practice. 1998;15(5):391–7. doi:10.1093/fampra/15.5.391
- Schmittdiel J, Grumbach K, Selby JV, Quesenberry CP. Effect of physician and patient gender concordance on patient satisfaction and Preventive Care Practices. Journal of General Internal Medicine. 2000;15(11):761–9. doi:10.1046/j.1525-1497.2000.91156.x