


RESEARCH ARTICLE



Patient perceptions and preferences of physicians' attire in Saudi primary healthcare setting

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ABSTRACT

Background: Since the time of Hippocrates, dress of the care-giver has been known to influence patient's perception about the physician.

Objectives: To explore patient's preference about physician's dress in Saudi primary healthcare, and how it influences their perception, regarding professionalism, competence, and confidence in the physician.

Methods: A cross sectional study conducted in primary care clinics in Riyadh, enrolling 443 patients, who filled a self-administered Arabic questionnaire, enquiring about physician clothes such as white coat, scrubs and 'thob (white-robe) shomagh (head cover)' for males, 'veil-skirt' for females, and shoes.

Patients' preferences about physicians' dresses were explored and influence of favorable dress on professionalism and trustworthiness were explored, using Chi-sq, Mann Whitney, with $p \leq .05$ as significant. Principle component analysis was used to search themes in attire commonly used.

Results: Over 80% of patients visiting Saudi primary care, liked seeing their physician in white coat. Traditional dress 'thob and shomagh' was approved by 47% whereas 'veil and skirt' got acceptance of 62%. Dress of physician was significantly ($p < .005$) more important to patients, who were male (Chi-sq 14.95), working (Chi-sq 9.39), educated (Chi-sq 9.84), urbanites (Chi-sq 18.34) and married (Chi-sq 7.89). Patients who valued physician attire (70%) perceived it positively influencing doctor-patient relationship: Mann Whitney U score = 6879, p -value < 0.001 . Four dress-themes emerged: 'Professional modest', 'Expensive modern', 'Traditional formal' and 'Casual shoes'.

Conclusion: Patients preferred white coats for their doctors. Half of participants accepted traditional dresses. Majority valued physician's attire as a positive influence.

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KEYWORDS

Physicians; dress; traditional; primary-care; Saudi Arabia; white-coat



1. Introduction

Physician patient relationship is the foundation of care. Patients develop an impression about the physician based on verbal and nonverbal interaction during consultation, that includes physician's clothes[1]. It is well documented in medical history that behavior and appearance generate a professional image about the care giver [2,3]. Hippocrates and other physicians in history have made references to physician's dress as decorous, simple and not elaborate[4].

White coat has been the main dress code of medical profession, for over a century[5]. However, it has been argued that relationship should be equal between the patient and physician, where the white coat acts as non-verbal barrier between them[6]. In Denmark and England, it is rare to see a primary care physician wearing a white coat, while in Sweden, Finland and Norway, it is a norm[6]. A study done in the eighties showed that patients favored traditional medical clothing for physicians, while casual

attire cultivated a negative response. Traditional medical dress includes a white coat, dress shoes, shirt and tie for males, and skirt or dress for females, while casual dress items were jeans, scrub suits, sport shoes and sandals[2].

Taylor et al. published that parents of children admitted to a hospital, were twice as likely to rate physicians wearing formal dress, as competent, in comparison to those wearing scrubs[7]. In contrast, Neinstein et al argued that style of dress made no difference in adolescents' comfort levels with their physician, but rather having same gender physician mattered[8]. Rowland-Morin et al reported that during simulated surgery oral examinations, actors impersonating residents scored better if they were 'professionally' dressed than those who were not[9]. In 1987, Dunn et al reported that 65% of patients wanted to see their physician in white coats, and the majority believed that physicians should wear formal dress[10].

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Kurihara et al argued that attire of physician was the third most influential factor in gaining the confidence of patients after speech and reputation. They report white coats or formal dress is preferred over surgical scrubs[11]. Huesten et al, argued that formal attire of physician had no influence on the care preference of patients, and upon learning about possible risk of infection associated with tie and white coats, over 40%, opted for just a shirt and slacks[12]. Landry et al recently explored the bare-below-the-elbow policy to mitigate infection but revealed that nearly 70% of the patients still prefer their physicians to wear the white coats[13].

The importance of doctor attire and its psychological influences on patients has been explored thoroughly covering several disciplines of surgery and medicine, inpatient and outpatient settings, however physician dress code impact on patients in the gulf peninsula, specifically Saudi Arabia has not been adequately addressed. Traditional dresses adorned by male and female physicians in Saudi Arabia are unique, with thobe (white robe), shomagh/ghutra (red-white/white head-scarf) and sandals for males and full face and head covering veil (black, with only eyes showing) with long skirts and coat shoes for female physicians. Besides the culturally unique clothing, the male physicians also wear scrubs, white coat, shirt & tie, jeans or slacks, and sneakers/formal dress shoes, while female doctors may wear head-scarf with face exposed, white coats, skirt or slacks/jean, and high heel or sneakers etc.

The purpose of this research was to explore the preference of patients toward the dress of their physicians in Saudi primary healthcare settings, as to how much importance they give to physician's attire and to assess how do patients gauge their physicians based on the clothing, regarding professionalism, competence, confidence and trust.

2. Method

The design of the study was a cross sectional descriptive study, using a self-administered questionnaire. It was conducted in three primary healthcare clinics of Umulhamam, Khasmalaan and Iskan Al Yarmouk, of Ministry of National Guard – Health Affairs, in city of Riyadh. All adult patients visiting the clinic were in the target population of over 160,000. This practice consists of family medicine and general practice clinics providing primary care services, which serves patients with different social and economic backgrounds but mainly National Guard employees and their families who are residing in adjacent location are the recipients of care. The study sample size of 400 was calculated using the test for single proportion where estimated proportion of 50% of patients preferring formal attire, with accuracy of ± 0.05 assumed,

and confidence interval of 95% were taken into account.

The questionnaire was a self-administered Arabic language instrument derived from variables explored in studies from literature review. Information on the research purpose and consent from the patients were included, followed by demographic section of age, gender, marital status, education, occupation, dwelling and a question on how the patient valued the dress. This section was followed by patient opinions about the common dresses that doctors wear; male and female. The last section with eleven questions collected information about how the dress might influence patient's perceptions about their physician's knowledge, professionalism, credibility, trustworthiness, confidentiality, desire to follow and overall satisfaction. The content of questionnaire was validated by two family physicians. Besides the demographics the remaining questions were Likert-scaled into five from strongly disagreed to strongly agreed.

The forms were distributed to the patients randomly visiting the clinic in the period between January to April 2010. Every day 1–2 patients were invited to participate by the nurses. Patients were of Saudi origin. All patients that were eligible for medical care in Ministry of National Guard were included in the study and only pediatric patients (<15 years) were excluded. A pilot study: on a sample of 50 patients who were not included later in the study to ensure clarity of the questionnaires was carried out. The survey forms were usually distributed among the patients in waiting area.

Data was entered & analyzed by using (SPSS) version 18. Descriptive analysis was carried out on all questions in the survey form, including mean, median, mode, frequencies and percentages. Relationships were explored between the demographic variables and patients' value attached to dress code (one question) using chi-square, Mann Whitney, Kruskal-Wallis and t-test where applicable. P value of $\leq .05$ was considered significant. Impact of patient's opinions about physician care characteristics (eleven questions), were also explored. For question on importance (value) of dress, strongly agree & agree were combined, while disagree, strongly disagree and I do not care were combined. For eleven questions on impact ranging from strongly disagree to strongly agree were valued 1–5, as a measure of impact of dress on patient-doctor interaction and relationship. The total score (ranging 11–55) was treated as a continuous variable and explored with other variables.

Factor analysis was carried out on questions specifically related to dress-types of male and female doctors to ascertain which combination is preferred by the patients for their physicians to wear. Principal Component Analysis was used to extract the factors.

Oblique rotation was carried out. Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of > 0.5 was considered adequate for all factors. Correlations of < 0.4 were excluded from subsequent analyses. Components (combination of factors) with Kaiser's criteria of Eigen values of more than 1 were considered appropriate for analysis.

3. Results

The response rate was 88.6%, with 443/500 completing the questionnaire. The mean age of the participants was 32.66 ± 10 SD years (min15 – 71max). Of the participants 228 (51.5%) were females, 142 (62.2%) of them were house-wives. Of the males 103 (47.9%) were military employees. Majority of the participants were married 301(67.9%) and 332 (74.9%) had secondary school or above educational level and most of them lived in urban areas (87.4%). Over 80% of patients (361), agreed or strongly agreed that the appearance of the physician was important to them. See Table 1 for types of approved clothing.

On exploring the impact of favorable physician's dress on doctor-patient relationship, we discovered that 76.5% of the patients were respectful to them, 66.1% of patients perceived them to be more knowledgeable, 67.3% considered them more professional, 63.6% assumed their physician to be credible. In addition, 72.5% of patients thought the doctor to be trustworthy, 58.9% would dare to discuss sensitive matters with a physician in appropriate dress, 64.5% of patients would be willing to follow with physician's advice, 63.4% would have the desire to be compliant, 71.8% are likely to follow-up and 77.4% would be generally satisfied. See Table 2.

The males, married, educated, working and city dwellers attached a little more importance to physicians dress. See Table 3. Age of patients and number of visits per year were not found to be associated with importance of appearance of physician.

Table 1. Percent of patients approving (strongly agreeing & agreeing) to a particular type of physician dress.

Clothing type	% approving male physician dress	% approving female physician dress
White coat	83.3	77.7
Uniform	71.3	68
Modest	58.7	60.2
Expensive	9.3	9.7
Scrubs	59.8	57.6
Jeans	15.5	12
Suit	47.4	
Thob & shumagh	46.8	
Veil		62
Trousers		17.9
Skirt		62.5
Slippers	26.1	20.3
Sneakers	58.9	56
Sandals	28	36.4
Formal shoes	62.9	
Low heel shoes		56.2
High heel shoes		7.7

Table 2. Relationship of demographic factors to importance (value) of physician's dress.

Factor (% agreeing & strongly)	Chi Sq	p-value	OR	CI – OR
Female 74.6% vs male 88.8%	14.95	< 0.001	.37	.22-.62
Unmarried 73.9% vs married 85%	7.89	0.005	.5	.3-.81
Uneducated 71.3% vs educated 84.8%	9.84	0.002	.45	.27-.74
Non-working 76.2% vs working 87.5%	9.39	0.002	.46	.27-.76
Villager 60.7% vs City dweller 84.5%	18.34	< 0.001	.28	.15-.52

Table 3. Relationship of impact of dress to patient factors (n = 438).

#*	Factor	N	Mean Rank	Mann Whitney	p-value
Importance of appearance					
1	Agree	357	240.73	6879	< 0.001
	Disagree	81	125.93		
Place of living					
2	Urban	383	225.34	8297	0.011
	Rural	55	178.85		

Table 4. Principle component analysis of male physician dress types.

Dress type	Component			
	1 Professional Modest	2 Casual shoes	3 Modern expensive	4 Traditional formal
White coat	.791			
Isotropic uniform	.821			
Modest dress	.440			
Surgical dress	.655			
Jeans			.835	
Expensive			.656	-.424
Western Suit				-.804
Traditional dress				-.563
Formal shoes				-.476
Slippers		-.851		
Sneakers		-.554		
Sandals		-.784		
Eigen value	3.24	1.5	1.25	1.03
% Variance	27.04	12.5	10.42	8.55

Median score for impact of favorable dress on patient-doctor relationship was 45. Gender, education level, work and marital status had no relationship with impact of favorable dress on doctor-patient relationship.

For the male physicians, the extraction grouped 12 clothing item types into four themes, which can be labeled as 'Professional modest dress', 'Casual shoes' 'Modern expensive dress', and 'Traditional formal dress', as shown in Table 4. For the female physician dress codes, factor extraction using principal component method, reduced the 14 clothing types into four similar theme components. Table 5 shows preferred combination by patients for their female physicians and perhaps an expectation that these dress items are to be put on together.

4. Discussion

4.1. Summary

The interaction between physicians and their patients is a complex relationship influenced by many variables.

Table 5. Principle component analysis of female physician dress types.

Dress type	Components			
	1 Professional modest	2 Modern expensive	3 Casual shoes	4 Traditional formal
White coat	.753			
Uniform	.785			
Modest dress	.631			
Surgical dress	.637			
Expensive		.661		
High heels		.643		
Jeans		.726		
Trousers		.481		
Veil				.895
Skirt				.684
Low heels				.482
Slippers			-.831	
Sneakers			-.442	
Sandals			-.792	
Eigen value	3.18	1.68	1.52	1.1
% Variance	22.7	12.03	10.86	7.8

The appearance of the physician is one such nonverbal communication cue. This particular subject had not been explored in Saudi society and medical community which are undergoing rapid transition, dealing with modernization while holding on to centuries old traditions, and customs. We attempted to gather patient perceptions about the dress of the primary care-giver, and its value to the patient.

4.2. Limitations and strengths

Our study had several limitations; we used a self-designed questionnaire without illustrated pictures of physician-attire, study population was confined to military personnel and their families visiting primary care, our sampling method was primarily convenient and being a cross-sectional design cannot fully measure the long-term impact on doctor-patient relationship as it relates to physician appearance.

The response rate was good from patients. Ratio of gender participation in the study was reflective of primary care visitor population, and implied a degree of randomness. The study was conducted in three separate large-sized family medicine-primary health care clinics, housing over fifty physicians each. The types of the attires that involved in the study were the most common types of attires seen in the Saudi healthcare settings. The study we carried out, was unique to the region.

4.3. Comparison

In our study, four out of five visitors gave importance to the appearance of physician,

unlike the study by Ann Cha which showed that the appearance of the gynecologist was not so important for patients and did not influence their comfort (63%) and their confidence (62%) with the physician. Majority of their respondents had no preference for

white coat (60%) while in our study around 80% of patients liked white coat for their physicians[3]. Shakaib et al mentioned around 82% of respondents saying that doctor's appearance is important[1].

In our study respondent approved for male doctors, white coat, followed by isotropic uniform, surgical scrub, professional suit, customary attire (thob and shomagh), and the lowest approval rating was for jeans (15.5%). For female doctors, white coat was preferred, followed by uniform, skirt, veil, and surgical scrubs. Trousers and jeans were low on the list. For shoes, sandals, slippers were the less preferred however, wearing high heels (7.7%) had lowest rank. Shakaib et al had similar results where preferred attire was professional uniform (76.3%) followed by surgical scrubs (10.2%) business dress (8.8%) and then casual attire (4.7%)[1]. Kevin explored patients' opinion regarding surgeons and reported that patients wanted doctors wearing white coat (69%), surgical scrubs (41%), and blue jeans (22%)[5]. Ann Cha addressed that patients if preferred, wanted their gynecologist wearing surgical scrub with white coat and the casual dress was least desirable[3].

The male traditional dress of thob and shomagh, was not high on the list of Saudi patients when compared to white coat. Western suit was liked by a similar percentage preferring the traditional dress. Veil, skirt and flat coat shoes were rated below the white coat and modest professional dress. Most of patients did not want to see their doctor wearing expensive or fashionable clothes, but neither did they like casual shoes.

In our study, around 70% of patients agreed that favorable dress of their physician had a positive influence on their judgment about the physician, regarding respect, knowledge, professionalism, trust, confidence and overall satisfaction. Kevin study reported that patients thought that surgeon appearance influences their opinion of medical care (66%) [5]. Taylor et al. also found that formal dress was reflective of physician competence as perceived by parents of pediatric patients[7].

Kurihara et al mentioned that attire of physician is an influential factor in gaining the confidence of patients[11]. However, study by Richard Fischer and his colleagues revealed that the patients are satisfied with their physicians regardless of their attire[4]. Siu Fai Li also showed the appearance of the emergency physician and his professionalism was not affected by the physician attire[14]. In a study of Hennessy et al, the professionalism and approachability were not influenced by the attire of anesthesiologist[15].

4.4. Implications

In conclusion, we find that physician attire is important for a majority of adult patients visiting primary

care. Symbolic white coat is ranked high in Saudi primary care. Favorable physician's attire does positively influence the physician image towards the patient regarding professionalism, abilities and trust. We were able to classify physician dress types into fewer themes, that may help form policies and facilitate physicians in choosing the dress combinations.

Disclosure statement

No potential conflict of interest was reported by the authors.

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