

COMMUNITY PHARMACIST ATTIRE AND ITS IMPACT ON PATIENT PREFERENCE IN MALAYSIA

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ABSTRACT

Different attires may bring different perceptions, level of trust, status and transmits social signals towards pharmacist in a community pharmacy setting. The objectives of the study were to explore the public perception of community pharmacist attire and the association of respondents' sociodemographics with their preferences for community pharmacist attire. This was a cross-sectional, convenience sampling study among 200 general public adults (> 18 years old) in community pharmacies setting in Malaysia. A face validated Likert-type questionnaire was administered to assess the public perceptions and their preferences on community pharmacist attire. Four sets of model photographs with variation in gender, ethnicity and attire formality (i.e., formal wear with lab coat to casual attire) were used to assess respondents' preferences. The most preferred attire of pharmacists was formal wear with a lab coat compared to other styles of attire (74% versus 36%). The older the respondents were, the more likely they prefer pharmacists in the formal wear with lab coat attire compared to formal (OR: 0.943; 95% CI: 0.899, 0.989; $p < 0.05$) and semi-formal wear (OR: 0.912; 95% CI: 0.840, 0.989; $p < 0.05$). Male respondents prefer pharmacists in formal wear without the lab coat (OR: 3.893; 95% CI: 1.449, 10.491; $p < 0.01$) compared to female. A neat and proper attired pharmacist will gain a positive impression from patients. Respondents favour pharmacists in formal attire with a lab coat. Pharmacists in formal wear with a lab coat able to display professionalism and instil feelings of trust, confidence and comfort among the public in a community pharmacy setting.

Keywords: Pharmacist, Attire, Perception, Lab coat, Formal wear, Public preference

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INTRODUCTION

How should a pharmacist dress? As a society that values appearance, first impression matters. Human perception of a person takes mere seconds to form and influences their perceived knowledge, trustworthiness, approachability and credibility. Perhaps it might be even more important for the healthcare professional. This is why many medical and pharmacy schools require their students to dress formally as a mechanism of professionalisation since undergraduate study (Brown and Ferrill 2009). But is appearance still relevant and important in this new era full of technology advancement?

The significance of the attire in the healthcare profession has been widely studied among the medical professional especially physician. Most of the studies found that patients prefer their physician to be dressed in professional, formal attire with the lab coat. They have found that patient satisfaction level is higher with the care if the physician is dressed in formal attire with lab coat (Rehman *et al.* 2005; Batais 2014). Besides, public preference of attire has also been reported in dentistry, nurses as well as psychiatrist (Brosky *et al.* 2003, Nihalani *et al.* 2006; Porr *et al.* 2014) However, less is known regarding the public or patient preference for community pharmacist attire. Cretton-Scott, Johnson and King (2011) found that with the exception of approachability, patients indicated preference for a pharmacist with a white coat in community pharmacies setting in the United States. In another study conducted at a community chain pharmacy in southern Florida also reported a similar finding that majority of the respondents preferred pharmacist with a white coat (Khanfar *et al.* 2012). However, there are huge differences in terms of culture, education and perception between the Western and the East Asian countries. Thus, this study aimed to investigate the public perception of pharmacist attire and the association of respondents' socio-demographic with their preferences for community pharmacist attire in Malaysia.

METHODS

Study Design

This was a cross-sectional survey study using convenient sampling method among patients and visitors in community pharmacies in various locations in Malaysia between October and December 2016. All Malaysian patrons of the pharmacies above 18 years old were approached to participate in this study during the study period while they were waiting for their medicine. Written informed consent was obtained from the study respondents prior to answering the questionnaires. Clearance was obtained from the School of Pharmaceutical Science, Universiti Sains Malaysia's ethical committee prior to the start of the study.

A self-administered questionnaire based on previously published studies and face validated by an expert panels consisted of academicians experienced in the field of health services research and pharmacy practice was used for the data collection (Rehman *et al.* 2005; Cretton-Scott, Johnson and King 2011; Khanfar *et al.* 2012). The questionnaire was available in both English and Malay language. The Malay version of the questionnaire was translated according to international guidelines with forward and backward translation to ensure accuracy (Beaton *et al.* 2000). Pilot testing of the survey was conducted with 10 individuals in each language. All the participants in the pilot test completed the questionnaire unassisted without any problem. Hence, the final questionnaire

was used in the subsequent study without any further revisions. This questionnaire consists of two parts. In Part 1, respondents' sociodemographic data such as age, gender, ethnic, level of education and occupation were collected. While in Part 2, respondents' perceptions of pharmacist attire on public trust were assessed. Part 2 was subdivided into Part 2(a): The first impression on a pharmacist (10 items); Part 2(b): Self-presentation of a pharmacist (7 items) and Part 2(c): The attire of a pharmacist and preference for a pharmacist attire (5 items). In Part 2(c), respondents were asked to choose one of the four photos that demonstrated a pharmacist model wearing different attire. The attire is divided into four categories: i) Formalwear (man: long sleeve collar shirt, black pant with belt and necktie; woman: cultural outfit or long sleeve, bottom-up collar shirt with black pant) with lab coat, ii) Formalwear, iii) Semi-formal wear (man: roll up sleeve collar shirt, jeans with belt; woman: long sleeve shirt with long skirt or roll up sleeve collar shirt with jeans and iv) Casual wear (man: long sleeve t-shirt with jeans; woman: blouse with pant or denim shirt with jeans). Respondents were asked to choose the attire that they are more familiar, trustworthy, knowledgeable, preferred and more likely to return for follow up visit. In order to avoid gender and ethnic bias, four sets of photos were prepared with different model's gender (male/female) and ethnic (Malay/Chinese). Respondents were randomly given one of the four sets (Appendix).

Data Analysis

Data analysis were performed using the Statistical Package for Social Sciences software, version 15 (IBM, SPSS, Armonk, New York). Scores of negatively worded items were reversed so that higher score indicate attitudes that are more professional. Five points Likert scale was used in this study whereby strongly agree was given 5 points and strongly disagree was 1 point. The maximum score of 50 and the minimum score of 10 was given for Part 2(a) on the first impression of a pharmacist. Where else, a maximum score of 35 and a minimum of 7 was given in Part 2(b) on the self-presentation of a pharmacist. The total score of each part was then expressed in percentage. Multinomial logistic regression analysis model was fitted to estimate the odds ratios (ORs) and 95% confidence intervals (CIs) were used to examine the effect of the socio-demographic variables and the perception factors of the respondents toward pharmacists attire. The p -values of < 0.05 were considered to be statistically significant.

RESULTS

Demographic Characteristics of the Respondents

Table 1 summarised the demographic characteristics of the respondents. The questionnaire was completed by a total of 200 Malaysian respondents, of which 123 (61.5%) were females. The median age of the respondents was 27.00 years old (interquartile range [IQR]: 19.25 to 45.75). Half of the respondents ($n = 103$; 51.5%) were Malay, followed by Chinese ($n = 79$; 39.5%), Indian ($n = 14$; 7.0%) and other ethnicities ($n = 4$; 2.0%). In term of highest academic level, only one respondent reported no formal education, and the majority ($n = 151$; 75.5%) of the respondents achieved upper secondary school education and above.

Table 1: Demographic background of respondents ($N = 200$).

Variables	<i>n</i> (%)
Age (years old), median (IQR)	27 (19.25–45.75)
Gender	
Male	77 (38.5)
Female	123 (61.5)
Ethnicity	
Malay	103 (51.5)
Chinese	79 (39.5)
Indian	14 (7.0)
Others	4 (2.0)
Highest academic level	
No formal education	1 (0.5)
Primary school	9 (4.5)
Secondary school	39 (19.5)
Foundation/STPM or equivalent	96 (48.0)
Bachelor degree	46 (23.0)
Postgraduate degree	9 (4.5)
Occupation	
No response	12 (6.0)
Unemployed	92 (46.0)
Employed	96 (48.0)

Perceptions of Pharmacist Attire on Public Trust

The first impression of a pharmacist

More than half of the respondents ($n = 159$; 79.5%) agreed that attire will reflect one's personality and attitude (Table 2). At the same time, 150 (75%) of the respondents supported that appearance and dress may influence the relationship between patient and pharmacist. Besides, majority of the respondents ($n = 128$; 64%) have the thought that formal attire is the only attire to build up confidence and trust towards an individual, while 98 (49%) of respondents agreed that casually dressed healthcare provider is less professional to them. Approximately half of the respondents ($n = 97$; 48.5%) disagreed that attire did not affect patient's perception of the pharmacist competence or professionalism. Majority of the respondents ($n = 123$; 61.5%) preferred the pharmacists follow the traditional attire by wearing a lab coat regardless of the practice setting. On the other hand, 62% ($n = 124$) disagreed with the statement that formally dressed pharmacists wearing a lab coat are less approachable. Moreover, 65% ($n = 130$) of the respondents disagree on 'it doesn't matter how a pharmacist dresses'. Lastly, the majority of the respondents ($n = 155$; 77.5%) preferred a pharmacist to wear a name tag.

Table 2: Perception on pharmacist's attire on public trust to community pharmacist in Malaysia.

Questionnaire statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	n (%)				
First impression of a pharmacist					
Attire reflects one's personality and attitude	2 (1.0)	7 (3.5)	32 (16.0)	102 (51.0)	57 (28.5)
Appearance and dress may influence the relationship between patient and pharmacist	1 (0.5)	13 (6.5)	36 (18.0)	109 (54.5)	41 (20.5)
Formal attire is the only attire to build up confidence and trust towards an individual	3 (1.5)	27 (13.5)	42 (21.0)	95 (47.5)	33 (16.5)
Casually dressed healthcare provider is less professional	2 (1.0)	40 (20.0)	60 (30.0)	73 (36.5)	25 (12.5)
Attire did not affect patient's perception of the pharmacist's competence or professionalism	29 (14.5)	68 (34.0)	48 (24.0)	49 (24.5)	6 (3.0)
A patient's perception of and preference for a pharmacist will be influenced by attire alone in the absence of a personal interaction with the pharmacist	8 (4.0)	54 (27.0)	51 (25.5)	69 (34.5)	18 (9.0)
Pharmacists should follow the traditional attire by wearing a lab coat regardless of the practice setting	5 (2.5)	28 (14.0)	44 (22.0)	87 (43.5)	36 (18.0)
Formally dressed pharmacists wearing a lab coat are less approachable	39 (19.5)	85 (42.5)	41 (20.5)	31 (15.5)	4 (2.0)
It doesn't matter how a pharmacist dresses	55 (27.5)	75 (37.5)	44 (22.0)	20 (10.0)	6 (3.0)
A pharmacist should always wear a name tag	1 (0.5)	5 (2.5)	39 (19.5)	78 (39.0)	77 (38.5)
Self-presentation of a pharmacist					
We can judge individuals with respect to credibility, approachability, knowledge and trustworthiness based on appearance	14 (7.0)	35 (17.5)	49 (24.5)	70 (35.0)	32 (16.0)
A properly attired, well-mannered and sweet smiling pharmacist creates a positive impression that can garner respects and confidence	0 (0.0)	2 (1.0)	14 (7.0)	76 (38.0)	108 (54.0)
Communication is more important than what the pharmacists were wearing	2 (1.0)	10 (5.0)	31 (15.5)	84 (42.0)	73 (36.5)

(continued on next page)

Table 2: (continued)

Questionnaire statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	n (%)				
Professional attire may play a role in improving communications and interactions	0 (0.0)	9 (4.5)	46 (23.0)	105 (52.5)	40 (20.0)
When pharmacists wear a lab coat, they are perceived as being their most professional, competent, or knowledgeable	1 (0.5)	9 (4.5)	38 (19.0)	92 (46.0)	60 (30.0)
Pharmacists look more knowledgeable and competent with their work in formal attire	0 (0.0)	7 (3.5)	45 (22.5)	98 (49.0)	50 (25.0)
Appropriate attire is important in creating an image that is consistent with the public's expectation of a health professional	0 (0.0)	3 (1.5)	25 (12.5)	111 (55.5)	61 (30.5)

Table 3: The attire of pharmacist.

Questionnaire statement	Formalwear and lab coat	Formalwear	Semi-formal	Casual wear
	n (%)			
Which of the attire above do you often see a pharmacist wearing?	120 (60.0)	28 (14.0)	43 (21.5)	9 (4.5)
Which one above will you trust more in dispensing medicine?	183 (91.5)	9 (4.5)	6 (3.0)	2 (1.0)
A pharmacist in which attire do you feel that is more knowledgeable and competent	168 (84.0)	24 (12.0)	6 (3.0)	2 (1.0)
A pharmacist in which attire will you return for follow-up care?	160 (80.0)	21 (10.5)	16 (8.0)	3(1.5)
Which of the attire above do you prefer?	148 (74.0)	24 (12.0)	22 (11.0)	6(3.0)

Self-presentation of a pharmacist

Half of the respondents ($n = 102$; 51.0%) agreed that the credibility, approachability, knowledge and trustworthiness of individuals can be judged based on their appearance. Besides, 54% of the respondents ($n = 108$) strongly supported that a properly attired, well-mannered and sweet smiling pharmacist creates a positive impression that can garner respects and confidence. Most of the respondents ($n = 157$; 78.5%) admitted that communication is more important than what the pharmacists are wearing.

More than half of the respondents ($n = 145$; 72.5%) agreed that professional attire may play a role in improving communications and interactions. Furthermore, most of the respondents ($n = 148$; 74.0%) agreed that pharmacists look more knowledgeable and competent with their work in formal attire. On top of that, 86% of respondents ($n = 172$) agreed that appropriate attire is important in creating an image that is consistent with the public's expectation of a healthcare professional.

The total mean score on the first impression on a pharmacist was 70.63 (SD 9.54) with the minimum score of 40.0 and the maximum score of 96.00. Half of the respondents scored below 72.00. On the other hand, the total mean score for the self-presentation of a pharmacist was 73.47 (SD 9.13) with the minimum and maximum score of 44.71 and 97.14, respectively. Half of the respondents have the self-presentation of a pharmacist score below 74.29.

Preference for pharmacist attire

Respondents were asked to answer the questions based on pictures given. Most of the respondents ($n = 120$; 60.0%) agreed that they usually met a pharmacist with formalwear and lab coat (Table 3). Besides, the majority of respondents ($n = 183$; 91.5%) agreed that a pharmacist in formalwear with lab coat is more trustable in dispensing medicines. According to most of the respondents ($n = 168$; 84.0%), a pharmacist in formalwear with lab coat appeared to be more knowledgeable and competent. Besides, more than three-quarters of them ($n = 160$; 80.0%) agreed that they would return for follow-up care if the pharmacist is in formalwear with a lab coat. A higher number of respondents ($n = 148$; 74.0%) preferred a pharmacist wearing formalwear with a lab coat.

Association between the perceptions of pharmacist attire and sociodemographic factors

Table 4 presents the Spearman correlation and multiple linear regression of perceptions of pharmacist attire and sociodemographic factors. Age was positively correlated ($r_s = 0.148$; $p < 0.05$) with the 'important determinant of a pharmacist' whereas employment status was negatively correlated ($r_s = -0.159$; $p < 0.05$) with the factor. Ethnicity was negatively correlated ($r_s = -0.169$; $p < 0.05$) with the 'attire reflect the professionalism of pharmacists'. On the other hand, 'attire reflect the social interaction' was positively associated ($r_s = 0.148$; $p < 0.05$) with respondents' employment status. Respondents' socio-demographic factors were not significantly correlated with the 'importance of attire' factor.

Regression analysis showed that Malay ethnicity was more concern about pharmacists' attire compared to the non-Malay. Non-Malay ethnicity has negative effects on the 'important determinant of a pharmacist' and 'attire reflect the professionalism of pharmacists' factors with -1.218 and -0.93 , respectively.

Table 4: Association between the perception on pharmacist's attire and respondents' demographic factor.

	Spearman correlation coefficient		
	Important determinant of a pharmacist	Attire reflect professionalism of pharmacists	Attire reflect the social interaction
Age	0.148 ^a	0.019	0.026
Gender	0.079	-0.043	-0.026
Ethnicity	-0.089	-0.169 ^a	-0.063
Education level	0.006	0.002	-0.108
Employed status	-0.159 ^a	0.045	-0.059

	Multiple linear regression		
	Adjusted R ² = 0.046 Unstandardised β (SE)	Adjusted R ² = 0.042 Unstandardised β (SE)	Adjusted R ² = 0.031 Unstandardised β (SE)
Age	0.040 (0.028)	0.023 (0.017)	0.016 (0.012)
Male ^b	0.117 (0.655)	-0.236 (0.410)	-0.320 (0.274)
Non-Malay ^b	-1.218 (0.615) ^a	-0.931 (0.385) ^a	-0.230 (0.258)
< Secondary education ^b	-0.660 (0.812)	-0.213 (0.508)	-0.622 (0.340)
Unemployed ^b	-0.817 (0.701)	0.362 (0.439)	-0.086 (0.294)

Notes: ^aSignificant at $p < 0.05$; ^bFemale, Malay ethnicity, > Secondary education and employed respondent as reference category.

Table 5: Multinomial logistic regression between preference of pharmacists' attire and respondents demographic factor.

	Pharmacist usual attire OR (95% CI)			Trust in dispensing medicine OR (95% CI)			Knowledge and competent OR (95% CI)			Follow-up care OR (95% CI)			Preferable attire OR (95% CI)			
	Formalwear	Semi-formal	Casual wear	Formalwear	Semi-formal	Casual wear	Formalwear	Semi-formal	Casual wear	Formalwear	Semi-formal	Casual wear	Formalwear	Semi-formal	Casual wear	
Age	0.989 (0.949, 1.031)	0.986 (0.954, 1.019)	0.986 (0.930, 1.046)	0.969 (0.906, 1.036)	0.959 (0.858, 1.073)	0.940 (0.818, 1.080)	0.989 (0.948-1.032)	0.981 (0.905, 1.063)	0.874 (0.605, 1.263)	0.998 (0.957, 1.041)	0.923 (0.857, 0.994)*	0.875 (0.719, 1.063)	0.943 (0.899, 0.989)*	0.912 (0.840, 0.989)*	1.021 (0.954, 1.093)	
Gender																
Male	0.512 (0.193, 1.356)	0.604 (0.276, 1.322)	0.669 (0.134, 3.332)	0.991 (0.219, 4.481)	1.972 (0.352, 11.047)	1.435 (0.072, 28.594)	1.599 (0.640-3.996)	1.478 (0.267, 8.191)	0.00	1.082 (0.399, 2.939)	0.769 (0.240, 2.463)	0.628 (0.047, 8.308)	3.898 (1.449, 10.491)**	0.537 (0.162, 1.777)	2.554 (0.422, 15.455)	1.0
Female	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Ethnicity																
Malay	0.606 (0.257, 1.429)	0.500 (0.241, 1.038)	0.088 (0.010, 0.751)*	1.118 (0.278, 4.493)	1.617 (0.279, 9.365)	1.136 (0.059, 21.699)	1.529 (0.621-3.767)	1.031 (0.195, 5.455)	0.702 (0.039, 12.658)	1.233 (0.482, 3.153)	0.829 (0.283, 2.425)	0.550 (0.042, 7.227)	1.090 (0.423, 2.806)	1.067 (0.406, 2.809)	0.820 (0.153, 4.401)	1.0
Non-Malay	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Academic																
< secondary education	1.149 (0.335, 3.940)	1.906 (0.749, 4.850)	4.720 (0.897-24.831)	2.473 (0.446, 13.701)	0.00	5.956 (0.271, 130.873)	0.692 (0.195-2.453)	0.701 (0.068, 7.184)	0.00	1.255 (0.372, 4.227)	0.972 (0.187, 5.067)	3.384 (0.232, 49.449)	2.928 (0.947, 9.052)	0.424 (0.049, 3.692)	0.380 (0.029, 4.933)	1.0
> secondary education	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Occupation																
Employed	0.566 (0.209, 1.532)	1.029 (0.454, 2.332)	0.614 (0.128, 2.952)	0.627 (0.124, 3.165)	1.372 (0.168, 11.230)	1.349 (0.053, 34.210)	0.835 (0.295-2.362)	2.097 (0.280, 15.679)	4.144 (0.118, 146.004)	0.715 (0.242, 2.110)	2.155 (0.613, 7.570)	5.333 (0.315, 90.320)	0.636 (0.211, 1.921)	1.306 (0.398, 4.289)	0.208 (0.026, 1.638)	1.0
Unemployed	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Nagelkerke R ²	0.125															
	0.082															
	0.064															
	0.086															
	0.223															

Notes: The reference category is the Formalwear with lab coat; *Significant at p < 0.05.

Multinomial logistic regressions between the preference of pharmacist attire and respondents' sociodemographic factors

This study found that for pharmacist usual attire, Malay respondents were less likely seeing a pharmacist in casual wear than the formalwear with lab coat (OR = 0.088; 95% CI: 0.010, 0.751; $p < 0.05$) as compared to non-Malay (Table 5). The older the respondents were, they were less likely to go back for follow-up care if pharmacists were in the semi-formal attire compared to the formalwear with lab coat (OR = 0.923; 95% CI: 0.857, 0.994; $p < 0.05$). In addition, an increase in age increases the likelihood that they prefer pharmacists in the formalwear with lab coat attire compared to formal and semi-formal wear with the OR = 0.943 (95% CI: 0.899, 0.989; $p < 0.05$) and OR = 0.912 (95% CI: 0.840, 0.989; $p < 0.05$), respectively. However, male respondents preferred their pharmacists in formalwear than formalwear with lab coat attire (OR = 3.893; 95% CI: 1.449, 10.491; $p < 0.01$).

DISCUSSION

Community pharmacist's attire do impact on the patients' impression of a community pharmacist's the professionalism and trustworthiness in Malaysia. This is supported by the findings in this study where the majority of the respondents agreed that a community pharmacist who is formally dressed in a lab coat is the most common and preferred pharmacist attire. Apparently, a pharmacist in formalwear with a lab coat gives a good impression among the general public, which enables them to attain public trust.

Hippocrates once stated that physician should be 'clean in person, well-dressed, anointed with sweet-smelling unguents' (Brase and Richmond 2004). This can also be applied to pharmacists where a clean, carefully dressed pharmacist would give a good impression that every patient contact is very important as time is set aside to prepare for it, whereas an unkempt pharmacist can be perceived as unprofessional, unskilled and uncaring (Brase and Richmond 2004). This is supported by the findings in this study where the majority of the patients agreed that the formal attire with lab coat symbolises pharmacist's professionalism, credibility, approachability, knowledge, trustworthiness and fostering the pharmacist-patient relationship. Similar results were shown in studies conducted in the United States where patients preferred their pharmacists to be professionally dressed in lab coat (Cretton-Scott, Johnson and King 2011; Khanfar *et al.* 2012)

Besides, the results in this study showed that through a simple act of wearing formal attire with a lab coat, a pharmacist can create a positive impression that can garner patients' respect and confidence towards them, as well as improve their communication and interactions with patients. This is aligned with a study conducted by Rehman *et al.* (2005), that patients' trust, confidence and willingness to share information e.g. social, sexual and psychological problems were significantly associated with their preference for professional dress. Thus, pharmacists should follow the 100 years' traditional attire by wearing a lab coat regardless of the practice setting and it is expected by patients to see their healthcare provider in this professional attire (Khanfar *et al.* 2012).

On top of this, respondents in this study agreed that pharmacists should always wear their name tag when they are on duties. Wearing a professional attire with a name tag could be a way that pharmacists differentiate themselves from other staff members and it may improve the communication process from the aspects of professionalism and expertise (Cretton-Scott, Johnson and King 2011). This might indirectly build up the confidence and trust towards pharmacists.

This study found that the older the respondents were the more likely they prefer pharmacists in the formal wear with lab coat attire compared to formal and semi-formal attire. This finding is aligned with a recent study conducted by Petrilli *et al.* (2018) in the United States where they found that elderly patients aged 65 years old and above preferred their physician to be in formal attire with lab coats than younger patients (44% versus 36%; $p < 0.001$). On the other hand, the younger patients are more likely preferred surgical scrubs and lab coat than formal attire (28% versus 21%; $p < 0.001$). This result was expected as the age-dependent preference has been previously observed with physician attire in Britain, Belgium, Italian and Japan (Douse *et al.* 2004; Sotgiu *et al.* 2012; Hartmans *et al.* 2014; Kurihara, Maeno and Maeno 2014) where this might be explained by a more traditional view on society and role patterns (Hartmans *et al.* 2014). Although lab coat with formalwear is preferred, there is increasing evidence of disease transmission through lab coat and lab coats have been shown to harbour microorganisms (Zahrina *et al.* 2018). Patients perception need to be balanced with the risk of contamination especially in a hospital setting.

Limitations and Recommendations

The findings in this study must be considered within the context of the study limitations. First of all, this study showed respondents the pictures of pharmacists and elicited preferences via a paper survey. It might not be able to translate unconditionally into the daily practice. Besides, the respondents were required to report their preferences via Likert scales and predefined categories. This might allow for a range of answer from strongly disagree to strongly agree, but such categorisation might force respondents to answer the survey in a way that did not reflect their true feelings. Next, this study recruited the respondents through convenient sampling method with the majority of the respondents being Malay females from the state of Perak, therefore findings might not be generalisable as the perception for the entire population in Malaysia. Thus, larger studies are recommended which involve more respondents from the entire nation to better understand the significance of pharmacist attire to the general public population.

CONCLUSION

Formally attired pharmacist with a lab coat creates a positive impression that can garner patients' respects and confidence towards the pharmacist. Formal attire with lab coat symbolises a pharmacist's professionalism, credibility, approachability, knowledge, trustworthiness and may foster the pharmacist-patient relationship in Malaysia.

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APPENDIX

SET 1: Malay Male



I (Formal wear + Lab coat)



II (Formal wear)



III (Semi-formal)



IV (Casual wear)

SET2: Malay Female



I (Formal wear + Lab coat)



II (Formal wear)



III (Semi-formal)



IV (Casual wear)

SET3: Chinese Male



I (Formal wear + Lab coat)



II (Formal wear)



III (Semi-formal)



IV (Casual wear)

SET 4: Chinese Female



I (Formal wear + Lab coat)



II (Formal wear)



III (Semi-formal)



IV (Casual wear)