Science Article

# PATIENTS' PREFERENCE FOR COMMUNITY PHARMACISTS' ATTIRE: A CROSS-SECTIONAL STUDY IN ENUGU STATE, NIGERIA

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## Abstract

**Background:** Clothing protects, decorates, identifies, unites and displays status. What a pharmacist wears could set the stage for further interaction with a patient and project a professional image. This study evaluated patients' preference for community pharmacists' attire.

**Method:** It was a cross-sectional survey conducted in community pharmacies in University of Nigeria, Nsukka (UNN) campus and Enugu urban, Enugu State, Nigeria (June to July, 2018). Volunteer participants viewed six sets of photographs of the same male and female pharmacist pair in different attires. Data were analyzed using the IBM SPSS Version 21.0. Descriptive statistics summarized data. Inferential statistics utilized the Pearson Chi-Square test, with statistical significance set at $P < 0.05$.

**Results:** Three hundred and sixty-six respondents were conveniently sampled from UNN and Enugu urban. More UNN respondents (59.6%) were between 20-29 years old compared to Enugu urban (37.1%). Most of the respondents were female (60.6%), students (55.5%), and had secondary/university education as their highest qualification (83.9%). Generally, respondents preferred formal business attire pharmacists dressed in a white coat. More than half of the UNN respondents felt that the pharmacist-pair in formal business attire with a white coat was most professional (78.2% vs. 66.3%; $\chi^2 = 16.224$, $P = 0.006$) and knowledgeable (63.8% vs. 42.1%; $\chi^2 = 19.734$, $P = 0.001$), compared to Enugu urban.

**Conclusion:** Generally, the respondents felt the pharmacist-pair in formal business attire with white coat was the most professional, knowledgeable, competent to handle the prescription needs, approachable and preferred. More of the respondents in the University of Nigeria Nsukka campus felt that the pharmacist-pair in formal business attire with a white coat was most professional and knowledgeable compared to those in Enugu urban.

**Keywords:** attire, community pharmacists, patients, preference, Nigeria

## INTRODUCTION

Clothing protects, decorates, identifies, unites, displays status and transmits other social signals such that people make judgements on credibility, likeability, education level and trustworthiness based on clothing. [1] The carefully dressed physician might convey the message that patient contact is an important event and that it takes time to prepare for it, whereas the unkempt physician might be perceived as uncaring and aloof. [2] Patients are affected by both the attire and conduct of health professionals during consultations. [3] It makes sense, therefore, to assume that style of dress might influence patient-pharmacist relationships. Much debate has taken place over what constitutes a profession, a professional and the concept of professionalism. Appearance has long been held as a key component of professionalism and in some practice sites, policies and evaluation criteria include dress and appearance. [4]

What a pharmacist wears could set the stage for further interaction and project a professional image. The goal of professionalization is to develop the characteristics identified as being a professional such as technical knowledge, accountability and covenantal relationships. [5] Within the field of pharmacy, professionalization occurs both during school and in practice. Professionalism is best learned from clinical faculty role models who manifest values and beliefs that put the patient first. [5] Students, pharmacy practitioners, and faculty have a responsibility to each other, to society as a whole, and to individual patients whom they serve to ensure that their words and actions uphold the highest standards of professional behaviour. The results of a national survey in the US suggested a need for a consensus-based definition of professionalism and the development of standardized instruments by which professionalism can be assessed. [6]

The value placed on attire is also reflected in pharmacy schools. In the University of Nigeria Nsukka, pharmacy students are mandated to wear the Pharmacy Student Outfit (PSO) which is a white shirt and a tie on ash trousers for males and a white blouse or shirt on an ash skirt for females. The PSO was introduced to reflect professionalism as they are to be worn to classes from the first professional year in pharmacy school. Even in pharmacy schools that do not wear uniforms, pharmacy students are expected to be formally dressed. In some schools of pharmacy, pharmacy students are handed guidelines for professional attire on admission. [7, 8] If students are dressed professionally, it may improve self-perception, lead others to think more positively about them, and even have a positive effect on academics. [9] The cons in requiring professional attire include the difficulty in enforcement and financial burdens. [9]

There are variations in patient preferences for attire as while some studies report no preference for physician dress, others report preference for formal attire for specific professions and specialties. [4, 10] It has also been demonstrated that patients are more accepting of casually dressed psychiatrists and emergency room physicians.

The significance of attire in the healthcare profession has been investigated largely in the medical profession. However, the results have been conflicting. In the United Kingdom, a ban on white coats, ties, and long-sleeved shirts in government-run hospitals was instituted to combat the spread of hospital-acquired infections such as the Methicillin-Resistant Staphylococcus aureus (MRSA) and Clostridium difficile. [11, 12] The reaction to the ban has been mixed. While governing authorities have stood firm on public health grounds, public and professional organizations have voiced concerns about the loss of credibility and identifiability. [13] Public health concerns as well as clinical and psychological consequences - such as patients having high blood pressure in clinics (attributable to the white coat) but normal blood pressure at home- have led some to question the need for clinicians to wear formal attire and a white coat. However, a consensus about what the appropriate attire for physicians and health care workers should be has not yet emerged.

Community pharmacists are readily accessible to patients and strategically located to fill the drug and health-related needs of the public. [14] However, few studies have examined patients' opinions about pharmacists' attire. Studies were majorly conducted for the physician's attire in Western countries and not in African countries, Nigeria inclusive. Hence, the general objective of this study was to evaluate patients' preference for community pharmacists' attire in Enugu State, Nigeria.

## METHODS

## Study design

This study was a cross-sectional survey carried out in two community pharmacies in University of Nigeria, Nsukka (UNN) campus, Nigeria and two community pharmacies in Enugu urban Enugu State, South-East, Nigeria, over one month (June to July, 2018), to evaluate patients' preference for community pharmacists' attire in Enugu State, Nigeria.

## Study setting

The University of Nigeria Nsukka (UNN) is a federal university located in Nsukka, Enugu State. The university was founded in 1960. The Nsukka campus houses the Faculties of Agriculture, Arts, Biological Sciences, Education, Engineering and Pharmaceutical Sciences. There are two registered community pharmacy outlets in the Nsukka campus. One is managed by the Faculty of Pharmaceutical Sciences and the other is privately-owned.

The second setting is Enugu urban, Enugu State, Nigeria. Enugu was popularized by the discovery of coal in 1917 by the European explorers. Enugu urban, the present capital city of Enugu state is bounded in the north by Igbo- Etiti and Isi-Uzo Local Government Areas, in the west by Udi Local Government Area, in the south by Awgu and part of Nkanu East Local Government Areas and in the east by Nkanu -East Local Government Area. Two pharmacies were utilized in Enugu Urban. The first was close to the old University Teaching Hospital environment by the Central Police Station, Enugu. The second pharmacy was located at New Haven Upper Chime, directly opposite the Federal Neuropsychiatric Hospital, Enugu.

## Ethical committee approval

The study was conducted after obtaining ethical approval from the Health Ethics and Research Board of the University of Nigeria Teaching Hospital (UNTH), Ituku-Ozalla, Enugu State. The Superintendent Pharmacists of the community pharmacies were informed before commencing the study.

## Eligibility criteria

All patients visiting any of the two community pharmacies on campus and in Enugu urban within the 1-month period that were 16 years old and above were eligible to participate in the study. The following were excluded: patients that did not visit the community pharmacies within the specified time frame, patients who did not give their consent to participate, patients who had issues with their sight and could not view the pictures.

## Sample size and selection

Selection was facilitated by the patients seeking service at the pharmacy counter such as waiting for a prescription to be filled; seeking advice regarding over-the-counter products or having any interaction with the pharmacist. These patients were asked if they would like to participate in a 5-minute survey concerning their opinions on how a pharmacist should dress. Those who fell within the eligibility criteria and gave their consent to participate were given the six sets of photographs to view and questionnaire to fill. Three hundred and sixty-six respondents were conveniently sampled from UNN and Enugu urban.

## Data collection

Patients who volunteered to participate in the study viewed six sets of photographs, labelled A to F, of the same male and female pharmacist pair. Neither of the pharmacists displayed in the photographs were employees at the community pharmacies utilized for the study.

In the photographs, the pharmacist pair were dressed in various attires, including the pharmacist pair wearing: a formal business attire with a white coat (Figure 1); a formal business attire without a white coat (Figure 2); casual attire without a white coat (Figure 3); casual attire with a white coat (Figure 4); traditional attire without a white coat (Figure 5); traditional attire with a white coat (Figure 6).
Casual attire for the male pharmacist consisted of jean trousers and a polo type shirt. Casual attire for the female pharmacist consisted of jean trousers and a casual top. Formal business attire for the male pharmacist consisted of corporate trousers, long-sleeve shirt and tie. Formal business attire for the female pharmacist consisted of corporate skirt and corporate long-sleeve shirt. Traditional attire for the male and female pharmacists consisted of traditional Nigerian fabrics.
After viewing the photographs, the patients were asked to identify which pharmacist pair was most professional (which pharmacist pair do you feel is most professional?),

most knowledgeable (which pharmacist pair do you feel is most knowledgeable?), most competent (which pharmacist pair do you feel is most competent to handle your prescription needs?), most approachable (which pharmacist pair do you feel you can ask questions?); most preferred overall (which pharmacist pair would you prefer?)

Respondent demographic information such as gender, age, occupation, department and year of study (for students) and education level were obtained. To maintain confidentiality, the names of the respondents were not included in the study.

**Figure 1: The pharmacist pair in business attire with a white coat**

**Figure 2: The pharmacist pair in business attire without a white coat**

**Figure 3: The pharmacist pair in casual attire without a white coat**

**Figure 4: The pharmacist pair in casual attire with a white coat**

**Figure 5: The pharmacist pair in traditional attire without a white coat**

**Figure 6: The pharmacist pair in traditional attire with a white coat**

## Data analysis

Data were analyzed using the IBM SPSS Version 21.0. Descriptive statistics was used to summarize data. Inferential statistics utilized the Pearson Chi-Square test, with statistical significance set at $P < 0.05$.

## RESULTS

A total of three hundred and sixty six (366) questionnaires were completed and returned.

More of the respondents in UNN (59.6%) were between 20-29 years old compared to Enugu urban (37.1%). Most of the respondents were female (60.6%), students (55.5%), and had secondary/university education as their highest qualification (83.9%).

More of the respondents in UNN (78.2%) felt that the pharmacist-pair in formal business attire with a white coat was most professional compared to Enugu urban (66.3%). Also, more of the respondents in UNN (63.8%) felt that the pharmacist-pair in formal business attire with a white coat was most knowledgeable compared to Enugu urban (42.1%). About half of the respondents (52.7%) felt that the pharmacist- pair with formal business attire with white coat was most approachable. About three-fifth of the respondents (60.4%) felt that the pharmacist-pair with formal business with white coat were most preferred, Tables 2a and 2b.

**Table 1: Demographic details of the respondents**

| Variables | UNN (n = 188) | Enugu Urban (n = 178) | Total Respondents (n = 366) | $\chi^2$ |
|---|---|---|---|---|
| **Age (in years)** | | | | 116.871** |
| 16 - 20 | 65 (34.6) | 14 (7.9) | 79 (21.6) | |
| 20 - 29 | 112 (59.6) | 66 (37.1) | 178 (48.6) | |
| 30 - 39 | 10 (5.3) | 46 (25.8) | 56 (15.3) | |
| 40 - 49 | 1 (0.5) | 38 (21.3) | 39 (10.7) | |
| 50 - 59 | 0 (0.0) | 11 (6.2) | 11 (3.0) | |
| > 60 | 0 (0.0) | 3 (1.7) | 3 (0.8) | |
| **Gender** | | | | 0.001 |
| **Male** | 74 (39.4) | 70 (39.3) | 144 (39.3) | |
| **Female** | 114 (60.6) | 108 (60.7) | 222 (60.6) | |
| **Occupation** | | | | 0.011** |
| Student | 152 (80.9) | 51 (28.7) | 203 (55.5) | |
| Self-employed /private | 24 (12.8) | 64 (36.0) | 88 (24.0) | |
| Unemployed | 7 (3.7) | 9 (5.1) | 16 (4.4) | |
| Civil servant | 2 (1.1) | 22 (12.4) | 24 (6.6) | |
| Health professional | 3 (1.6) | 9 (5.1) | 12 (3.3) | |
| Others | 0 (0) | 23 (12.9) | 23 (6.3) | |
| **Highest education received** | | | | 11.745* |
| Primary | 9 (4.8) | 22 (!2.4) | 31 (8.5) | |
| Secondary | 80 (42.8) | 83 (46.6) | 163 (44.7) | |
| University /Polytechnic | 86 (46.0) | 57 (32.0) | 143 (39.2) | |
| Postgraduate | 12 (6.4) | 16 (9.0) | 28 (7.7) | |

*P < 0.05; ** P < 0.001

**Table 2a: Respondents' opinion on community pharmacists' attire**

| Variables | UNN (n = 188) | Enugu Urban (n =178) | Total Respondents | $\chi^2$ |
|---|---|---|---|---|
| **1. Which pharmacist pair do you feel is most professional?** | | | | 16.224* |
| **A** | 147 (78.2) | 118 (66.3) | 265 (72.4) | |
| **B** | 29 (15.4) | 27 (15.2) | 56 (15.3) | |
| **C** | 1 (0.5) | 4 (2.2) | 5 (1.4) | |
| **D** | 7 (3.7) | 18 (10.1) | 25 (6.8) | |
| **E** | 1 (0.5) | 9 (5.1) | 10 (2.7) | |
| **F** | 3 (1.6) | 2 (1.1) | 5 (1.4) | |
| **2. Which pharmacist pair do you feel is most knowledgeable?** | | | | 19.734* |
| **A** | 120 (63.8) | 75 (42.1) | 195 (53.3) | |
| **B** | 41 (21.8) | 54 (30.3) | 95 (26.0) | |
| **C** | 3 (1.6) | 10 (5.6) | 13 (3.6) | |
| **D** | 14 (7.4) | 24 (13.5) | 38 (10.4) | |
| **E** | 1 (0.5) | 3 (1.7) | 4 (1.1) | |
| **F** | 9 (4.8) | 12 (6.7) | 21 (5.7) | |
| **3. Which pharmacist pair do you feel is most competent to handle your prescription needs?** | | | | 10.052 |
| **A** | 135 (71.8) | 109 (61.2) | 244 (66.7) | |
| **B** | 22 (11.7) | 18 (10.1) | 40 (10.9) | |
| **C** | 5 (2.7) | 10 (5.6) | 15 (4.1) | |
| **D** | 16 (8.5) | 27 (15.2) | 43 (11.7) | |
| **E** | 1 (0.5) | 5 (2.8) | 6 (1.6) | |
| **F** | 9 (4.8) | 9 (5.1) | 18 (4.9) | |

A = The pharmacist pair wearing formal business attire with a white coat; B = The pharmacist pair wearing the formal business attire without white coat; C = The pharmacist pair wearing casual attire without a white coat; D = The pharmacist pair wearing casual attire with a white coat; E = The pharmacist pair wearing a traditional attire without a white coat; F = The pharmacist pair wearing traditional attire with a white coat

**Table 2b: Respondents' opinion on community pharmacists' attire**

| Variables | UNN (n = 188) | Enugu Urban (n =178) | Total Respondents | $\chi^2$ |
|---|---|---|---|---|
| **4. Which pharmacist pair do you feel you can ask questions?** | | | | 3.329 |
| **A** | 102 (54.3) | 91 (51.1) | 193 (52.7) | |
| **B** | 21 (11.2) | 24 (13.5) | 45 (12.3) | |
| **C** | 20 (10.6) | 12 (6.7) | 32 (8.7) | |
| **D** | 25 (13.3) | 29 (16.3) | 54 (14.8) | |
| **E** | 9 (4.8) | 12 (6.7) | 21 (5.7) | |
| **F** | 11 (5.9) | 10 (5.6) | 21 (5.7) | |
| **5.Which pharmacist pair would you prefer** | | | | 3.346 |
| **A** | 117 (62.2) | 104 (58.4) | 221 (60.4) | |
| **B** | 26 (13.8) | 31 (17.4) | 57 (15.6) | |
| **C** | 9 (4.8) | 7 (3.9) | 16 (4.4) | |
| **D** | 21 (11.2) | 15 (8.4) | 36 (9.8) | |
| **E** | 6 (3.2) | 7 (3.9) | 13 (3.6) | |
| **F** | 9 (4.8) | 14 (7.9) | 23 (6.3) | |

***P < 0.05; ** P < 0.001**

A = The pharmacist pair wearing formal business attire with a white coat; B = The pharmacist pair wearing the formal business attire without white coat; C = The pharmacist pair wearing casual attire without a white coat; D = The pharmacist pair wearing casual attire with a white coat; E = The pharmacist pair wearing a traditional attire without a white coat; F = The pharmacist pair wearing traditional attire with a white coat

## DISCUSSION

From the results obtained, most of the respondents were between 16-29 years old, with about half of the total respondents between 20- 29 years old. Based on gender, males and female were in a 2:3 ratio. About two-fifth of the respondents had post-secondary degrees and a similar proportion had their secondary school certificate. Overall, most of the respondents felt the pharmacist-pair wearing formal business attire with a white coat were most preferred.

More than half of the total respondents were less than 29 years old and mostly students. This might be because the pharmacies in the University of Nigeria Nsukka (UNN) campus are in a university environment. Also, the pharmacies in Enugu urban are close to the University of Nigeria Teaching Hospital (UNTH), with a preponderance of health professional students. The South-East has the highest literacy level in English.[15] Age group could influence patients' preference for specific pharmacists' attire. Older patients prefer a conservatively dressed

consider the inclusion of these variables to test whether they influence patients' preferences.

## CONCLUSION

Generally, the respondents felt the pharmacist-pair in formal business attire with white coat was the most professional, knowledgeable, competent to handle the prescription needs, approachable and preferred. More of the respondents in the University of Nigeria Nsukka campus felt that the pharmacist-pair in formal business attire with a white coat was most professional and knowledgeable compared to those in Enugu urban. We recommend that community pharmacists are educated on the need to dress formally at work because it exudes professionalism and inspires trust. The impression the public has about pharmacists is greatly influenced by their mode of dressing, appearance and conduct. The younger generation of pharmacists should be groomed early, right from the university, to understand the need for dressing professionally. Pharmacists should also dress well when they attend seminars and conferences as they represent their profession. In practice sites, policies and evaluation criteria should include mode of dressing, appearance and conduct.

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physician, as it has been reported that patients aged more than 40 years perceived casual attires more negatively than younger patients.[16] In a study conducted in Florida, patients demonstrated strong preferences for pharmacists to wear a shirt and tie, white coat, name tag, and dress shoes. Specifically, the older patients were less accepting of their pharmacist wearing T-shirt and jeans or casual shoes.[17]

Majority of the respondents felt that the pharmacist-pair in formal business attire with white coat looked most professional. This might be because pharmacy is a professional course and the public might expect their health professionals to be formally dressed. These findings corroborate with the results obtained in a study by Khanfar and colleagues where pharmacists who were professionally dressed with a white coat were perceived by patients to be most trustworthy (86.5%), confident (87.6%), professional (87.6%) and approachable (88.5%).[17] The respondents in our study generally preferred the different attires with a white coat compared to without one. In another study that interviewed 200 patients on the general medical services of teaching hospitals in Boston and San Francisco, 65% of these patients believed physicians should wear a white coat.[18] Contrary to some countries, there is a widespread use of white coats in Nigerian hospitals as there is no ban on white coats, ties and long-sleeved shirts.

When pharmacists wear a white coat, they are perceived as being their most professional.[1] Similarly, in a study conducted in Tennessee, patients preferred a traditionally dressed physician as opposed to one who is dressed more casually.[19] Another study conducted in the island of Hawaii revealed that patient-determined "appropriate" dress for physicians was more of a by-product of local norms rather than from a set of universal expectations. For patients in that study, white coats were not preferred and trust and confidence were not adversely affected by the casual dress of the practitioners on the island.[20] Our respondents did not consider the traditional attire as most preferred. Our study was conducted in Enugu State which is a civil service town with an appreciable literacy level. These factors may have affected the nature of patient preferences on the community pharmacist attire and its impact on the provider-patient relationship.

The setting or location can also influence preferences for the health professional's attire. More of the respondents in UNN felt that the pharmacist-pair in formal business attire with a white coat were most professional and most knowledgeable compared to the respondents from Enugu urban. Location can influence preference. The respondents in UNN were probably used to seeing pharmacy students neatly dressed in the white on ash student outfit with a white coat and assumed that it is a reflection of pharmacists in practice.

Our study reveals that the respondents dislike community pharmacists wearing traditional attire, although less so if they were wearing a white coat. Although, patients might tolerate a casual Friday or weekend, they might not expect the community pharmacist to be casually dressed on every day of the week.

Several large studies have shown that improving the patient experience is associated with higher reported patient satisfaction, increased adherence to treatment and clinical outcomes. A study conducted with 4062 patients conveniently sampled from 10 academic hospitals in the US revealed that physician attire influenced satisfaction with care.[21]

## LIMITATIONS OF THE STUDY

This study had some limitations. Some of the patients were impatient to fill the questionnaires, especially at Enugu urban. The respondents were patients/customers who walked into the community pharmacy for various reasons. Some of the respondents were not used to filling a questionnaire that had pictures and the researcher had to constantly explain what it entailed. Some were unwilling to participate as they felt that they did not know the pharmacist-pair displayed in the pictures.

The study was conducted in few community pharmacies in a state in Nigeria and the results may differ in other practice settings. Being that Nigeria is a country with diverse ethnicity, religion and income earnings, future studies might

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