

# **Original Research Article**

## **The preferences of dentists' attire among a selected population of parents**

**Running title:** Preferences of dentists' attire among parents

### **Abstract**

**Aim:** to evaluate the preferences of the dentists' attire among parents.

**Study design:** Descriptive cross-sectional study

**Methodology:** A questionnaire was used to obtain socio-demographic information and their preferences from Parents that accompanied their children to the Paediatric dental clinic. Information was also elicited from photographs showing male and female dentists' with different attires and protective wears. The data was analyzed using SPSS version 22 and the level of significance was set at  $\leq 0.05$ .

**Results:** One hundred and fifty parents, comprising of 105(70%) females and 45(30%) males were assessed. The 40-49 year age-group were the majority [73(48.7%)], the female dentist was the preferred gender and there were statistically significant differences between the male and female subjects ( $p=0.047$ ). One hundred and forty-six (97.3%) wanted the dentists to wear name tags mostly for ease of identification 103(68.8%) and communication 20(13.3%). All parents wanted the dentist to don protective coat and gloves, while 123(82%) and 80(53.3%) parents preferred dentists' wearing facemasks and protective glasses, respectively. One hundred and twenty-eight (85.3%) preferred the white coats because it depicts purity/cleanliness (51.4%) and professionalism (45.7%). Dentists attire was important to 82% and there were statistical significant differences ( $p=0.01$ ) between those with previous dental exposure and first-timers.

There were statistically significant differences ( $p=0.03$ ) between procedures [orthodontics and other procedures] done in the present visit and their perception of dentist attire.

**Conclusion:** The preferences of the parents on protective wears, use of name tags and gender of the dentist show that identification, safety, empathy and rapport were desired from the dentist by the parents. Previous exposure of their children to the dental setting had an influence on the parents' preferences.

**Keywords:** Non-verbal communication; Parents; Dentist attire; Name tags; Protective wears

## **Introduction**

Parents play an important role in promoting the wellbeing of their children, this they do by providing support, protection and care. They, by their knowledge, attitudes, practices and preferences, influence their wards and therefore impact on the health of their children by providing access to healthcare services.[1,2] Parents accompany their children to dental clinics to provide comfort, support (emotional and financial), dental/medical histories and give informed consent before procedures are carried out, thereby fulfilling their legal and psychosocial roles.[3-7] Parents would want to identify and establish rapport with the doctors as part of their protective role and would not entrust their children to strangers. However, when there is a need to do that in a health facility, would want competent, credible and empathic doctors. [3,5,8-11] This is fostered by the doctors' work attire [jackets, coat and name tag] that enhance identity and communication. [12-14]

The doctors' work attire is worn with safety, comfort and trust of patients as focus, thereby reducing and preventing cross infection. The safety measures in the dental clinic include the use

of primary personal protective equipment (PPE) laboratory (ward) coat/ scrubs, surgical gloves, face masks and protective glasses.[5,15] The symbol of the medical profession, the doctor's white coat, has been reported to project professionalism, dignity, cleanliness and healing.[10,15,16] However, it has been reported that through the white coat ought to protect, coat sleeves and pockets can act as reservoirs of pathogens and may become vectors from patient to patient transmission.[13,17] Furthermore, several reports have shown that the white coat may provoke anxiety in children.[10,18,19] Therefore, alternatives to the traditional white coat have been introduced to the medical profession, due to the supposed 'white coat fear' amongst children and the aforementioned reason; infection control. [13,15,17]

Reports show that parents have preferences towards dentists' attires.[14,16,20-25] However, there is a dearth of such information among Nigerians. The objectives of this study therefore were (i) to assess the preferences of the dentists' attire among a selected population of parents in a tertiary health institution in Nigeria (ii) to assess if the dental history (i.e. previous exposure to dental setting) of their children has an influence in their preferences.

## **Methodology**

This descriptive observational study was carried out among parents who accompanied their children to a paediatric dental clinic in a tertiary health institution in Southern Nigeria. Questionnaires (Appendix I) were administered to the subjects and the following information was obtained:

Socio-demographic information such as age range, sex, occupation and level of education were elicited. The age of the subjects was categorized into 20-29, 30-39, 40-49, 50-59, and greater than 60 year age groups. The occupation was categorized into stable or unstable income earners where, stable earners were those who earned a regular income, while the unstable earners were those who had no regular income. The level of education was categorized as no education/primary education, secondary and tertiary education.

The preferred gender of the dentist and the use of name tags were elicited using the questionnaire. Also, their impression of their dentists' dressing and the effect of the dressing on the behaviour of their children was obtained.

Information concerning **Personal Protective Equipment (PPE)** was obtained by showing photographs (Appendix II) of male and female persons putting on; A- Protective Glasses with coat and gloves, B- mask gloves and coat, C- gloves, coat, mask and protective glasses and D- No mask Or glasses.

The preference of dentist attire was done using photographs of male and female persons wearing the white coat and coloured scrubs (Appendix III), [whether white coat with long sleeves or coloured scrubs bares below the elbows (BBE)]. Data obtained were entered into a spreadsheet

and subsequently into software IBM Statistical Package of Social Sciences SPSS version 22 Illinois Chicago. Frequency distribution was generated, a proportion was reported in percentages and Pearson's Chi-square was used to test for association and level of significance was set at  $\leq 0.05$ .

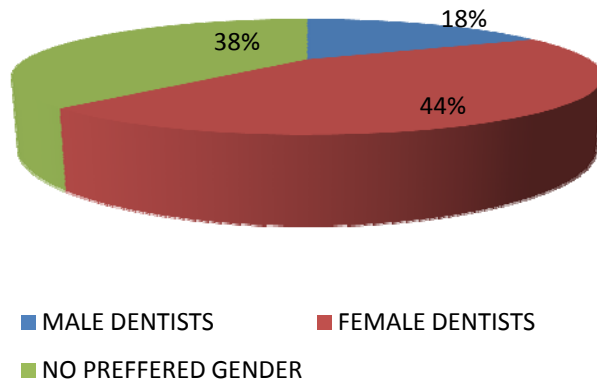
## Results

One hundred and fifty parents were assessed, and 105 (70%) were females. The 40- 49 year age group were the majority [73 (48.7%)], 90 (60%) were stable income earners and 130 (86.7%) had tertiary education. One hundred and one (67.3%) parents brought their children to the clinic previously; of which 18 (17.8%) had a routine check-up. (Table 1)

Table 1: Socio-demographic characteristics of the subjects

	n (%)
Gender	
Males	45 (30.0)
Females	105 (70.0)
Age group (years)	
20-29	10 (6.7)
30-39	47 (31.2)
40-49	73 (48.7)
50-59	19 (12.7)
>60	1(0.7)
Income earners	
Stable	90 (60)
Unstable	60 (40)
Level of Education	
Primary	4 (2.7)
Secondary	16 (10.7)
Tertiary	130 (86.7)
Dental history	
Previous dental visit(s)	101 (67.3)
First Dental visit	49 (32.7)
Type of visit	
Routine checkup	18 (17.8)
Symptomatic visit	83 (82.2)

Forty-four per cent of the subjects preferred the female dentists (see Figure 1);

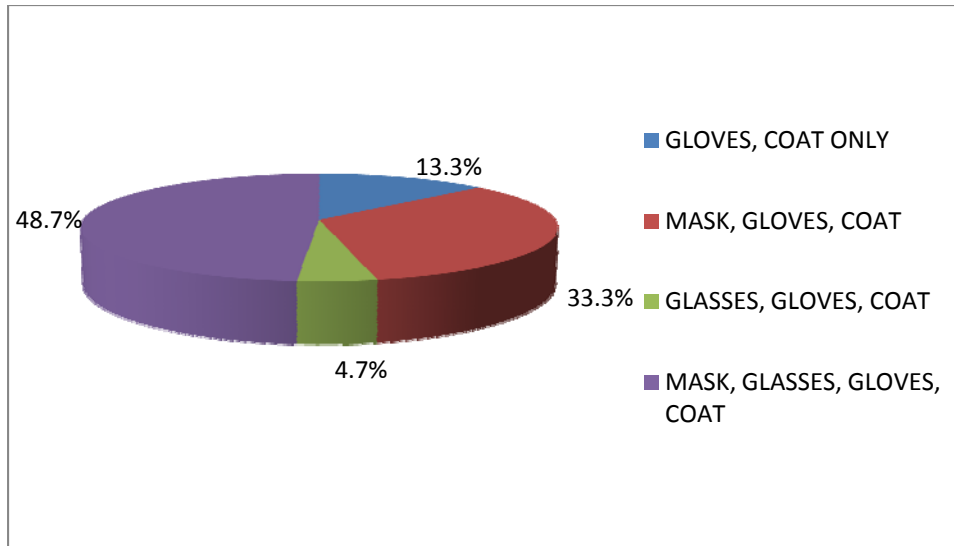


**Figure 1: The preferred gender of the dentists' among the subjects**

when the gender preference was assessed according to the gender of the subject, 53.5% of the male subjects had no preferences and there were statistically significant differences between the male and female subjects ( $\chi^2$  6.107;  $p=0.047$ ). One hundred and forty six (97.3%) wanted the dentists to use name tags; [44 (97.8%) males and 102 (97.1%) females ( $\chi^2$  0.448;  $p=0.80$ )] because of identification 103 (68.8%), communication 20 (13.3%), identification & communication 7 (4.7%) and 20 (15.3%) did not have reasons for their choice. (depicted in Table 2)

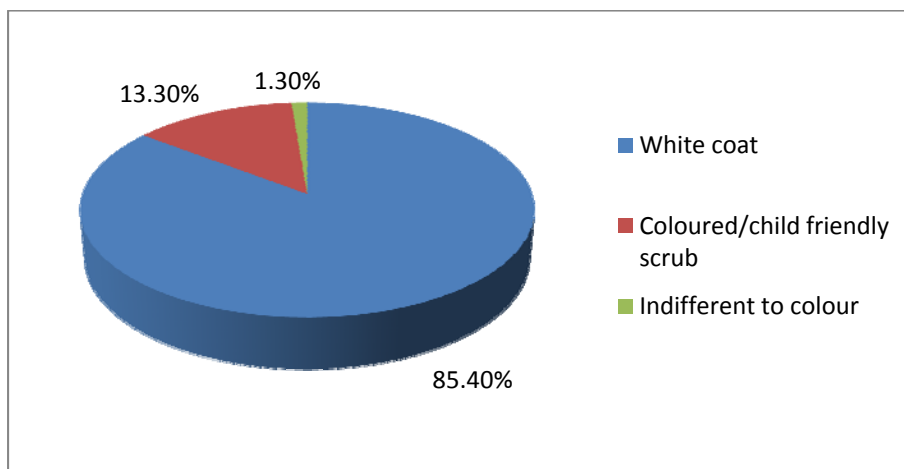
### **The use of personal protective equipment (PPE)**

All subjects wanted the dentist to don gloves and protective coat, 123 (82%) preferred the use of surgical mask and 80 (53.3%) protective glasses. Their preference according to donning of these PPE as depicted in Appendix II showed that 48.7% preferred a dentist with the full complement; protective coat, gloves, mask and protective glasses (details in Figure 2).



**Figure 2: The preference of parents concerning dentists' personal protective wears**

The gender differences in their choice of PPE are depicted in Table 2. One hundred and twenty eight (85.3%) [39 (86.7%) males and 89 (84.8%) females] preferred their children's dentist to wear white coats (Figure 3) and the reasons for the choice were professionalism 32 (25%), cleanliness 36 (28.1%), protection 2 (1.6%), while 58 (45.3%) had no reasons for their choice (i.e. Purity and Cleanliness 51.4%, professionalism 45.7%, and protection 2.9% among those that gave reasons).



**Figure 3: The distribution on the choice of dentists' attire among the parents**

Twenty (13.3%) preferred coloured scrubs/coats [6 (13.3%) males and 14 (13.1%) females] and the reasons for their choice was that it was less fear-provoking and these were parents of children aged 6-12 years (66.7%) and (33.3%) >12 years. There were no statistically significant differences in their choice of coats ( $\chi^2$  0.871; p=0.65). See Table 2.

**Table 2: The preferences according to the gender of the subjects**

	Males n (%)	Females n (%)	Total n (%)	
Preferred dentist gender				
Males	4 (8.9)	23 (21.9)	27 (18.0)	
Females	18 (40.0)	48 (45.7)	66 (44.0)	
No preferences	23 (51.1)	34 (32.4)	57 (38.0)	
Name tag				$\chi^2$ 6.107; p=0.047*
Yes	44 (97.8)	102 (98.1)	146 (97.3)	
No	1 (2.2)	2 (1.9)	3 (2.0)	
Indifference	0	1 (1.0)	1 (0.7)	
Protective coat				$\chi^2$ 0.448; p=0.80
White	39 (86.7)	89 (84.8)	128 (85.3)	
Coloured	6 (13.3)	14 (13.3)	20 (13.3)	
No preferences	0	2 (1.9)	2 (1.3)	
Personal Protective Equipment				$\chi^2$ 0.871; p=0.65
Coat, gloves	6 (13.3)	14 (13.3)	20 (13.3)	
Coat, gloves, glasses	3 (6.7)	4 (3.8)	7 (4.7)	
Coat, gloves, masks	18 (40.0)	32 (30.5)	50 (33.3)	
Coat, gloves, glasses, masks	18 (40.0)	55 (52.4)	73 (48.7)	
				$\chi^2$ 2.40; p=0.49

\*p $\leq$  0.05 is statistically significant

The attire of the dentist matters to 114 (76%) subjects; [36 (80%) males and 78 (74.3%) females ( $\chi^2$  0.509; p=0.48)] and when they were asked whether it would affect their children's



cooperation; 85 (56.7%) subjects perceived that the dressing would not affect the cooperation of the children.

When their perceptions were related to the past dental history, purpose of previous and present visit the following were observed (Table 3)

- i) Past dental history: dressing would matter to 82% and there was a statistically significant difference ( $p=0.01$ ) between those with previous exposure to the dental setting and those coming for the first time.  
However, there was no statistically significant difference ( $p=0.39$ ) when the cooperation of the child was considered.
- ii) Purpose of past dental visit i.e. routine checkup /symptomatic visit (treatment): dentist dressing would matter to 77.8% and 83.1% of parents that accompanied children for routine and symptomatic visits, respectively and the dressing may affect child's cooperation 33.3% and 49.4% of those for routine and symptomatic visits, respectively. However, there were no statistically significant differences.
- iii) The procedure [orthodontics (fixed or removable appliances) and other procedures (restorative, preventive and minor surgeries)] done in present visit: There were statistically significant differences ( $p=0.03$ ) in both their perception of dentist dressing and cooperation of the child. The parents were of the opinion that the cooperation of those with orthodontics would be affected by the dentists' appearance.

**Table 3: The perception of parents and guardian of the dentists' attire and their child**

	Does the dentists' attire matter?		Would the dressing affect your child's cooperation?	
	Yes	No	Yes	No
<b>Past Dental visit</b>				
Yes	82 (82)	18 (18)	45 (45.9)	53 (54.1)
No	30 (62.5)	18 (37.5)	18 (38.3)	29 (61.7)
		$\chi^2$ 6.700; p=0.01*		$\chi^2$ 0.751; p=0.39
Purpose of the last visit				
Routine checkup	14 (77.8)	4 (22.2)	6 (33.3)	12 (67.3)
Treatment	69 (83.1)	14 (16.9)	40 (49.4)	41 (50.6)
		$\chi^2$ 0.290; p=0.59		$\chi^2$ 1.525; p=0.22
<b>The procedure is done in the present visit</b>				
Orthodontics	26 (96.3)	1 (3.7)	17 (65.4)	9 (34.6)
Others	53 (79.1)	14 (20.9)	27(40.9)	39 (59.1)
		$\chi^2$ 4.241; p=0.03*		$\chi^2$ 4.478; p=0.03*

\*p<0.05 is statistically significant

## **Discussion**

Communication, whether verbal or non-verbal, is essential for a good patient-doctor relationship.[13,26] The dressing is seen to be a form of communication and has a non-verbal influence on the interaction between the professionals and those who need their services.[8,16] The attire and disposition of the dentist should be a symbol of professionalism, competence, confidence, safety and empathy.[12,21]

In this study the subjects' preferred female dentists to attend to their children, this could be because females are generally expected to have more empathy traits, in a speciality where children need to be calmed, a female may be more patient and understanding.[9,11,14,27] Reports have shown the choice of parents from other studies [7,14,27,28] to corroborate this finding. Although male dentists' were preferred generally among Saudis', the preferred gender among the dental specialities was the female paediatric dentist.[27] However, it was reported that there was no preference in a study done in India [24] and in this present study, majority of the male subjects had no preferred gender, this could be that they were more for competence than gender bias.

In this study, it was observed that the majority wanted their dentist to wear a name tag. This finding was corroborated by other reports.[14,20,21,29,30] Their reason was for ease of identification majorly, followed by communication/rapport. In a dental centre where there are

multiple dentists, name tags will be desired for ease of identification and to differentiate the dentists from other staff.

PPE is necessary to prevent cross infection and in this present study, it was observed that the parents desired that the dentist use protective wear. Protective coats and gloves were desired by all of them and a good majority wanted the dentist to use a facemask and a lesser proportion desired the use of protective glasses. This may be because the protective glasses could be frightening to children, moreover, the parents may not have seen the need for it because they are unaware of transmission of microorganisms through the mucosa of the eyes. The use of face mask was also favoured in several reports [16,20,21,30] In the report by Almutairi et al,[16] almost all the children and parents preferred a dentist with the full complement of the protective wear, although in their study they had just two photographs; one without protective gear and the other with the full protective gear. There has to be an increased awareness on the importance of the protective wears, especially of the glasses.

The subjects preferred the conventional white coat majorly for cleanliness/purity and professionalism. This corroborates what has been reported in previous studies [7,13,16,18,21,23] that the white coat has been adopted as being a symbol of the medical profession. However, a few could not give reasons for the choice of a white coat, there is a probability that they expect a doctor to put on white since it is an accepted symbol.[14] Concerns have been raised as per the cleanliness of the white coat since microorganisms have been cultured from coats, but individuals in a previous report, even with the knowledge, still preferred the white coat.[13] Also, the speculation of increased infection rates has not been verified. Scrubs impregnated with antiseptics and bare below the elbow (BBE) has been advocated.[15] Moreover, the symbol that

has passed on from generation to generation is that of the long sleeved white coat. However, those that chose the coloured protective coats/scrubs felt that it was less fear or anxiety provoking, not because of infection control and this was preferred by parents of children in the 6-12 years age group. Nonetheless, the report of Ellore et al [23] was contrary, where parents' preference was the non-white coat.

When the dental visits were related to their viewpoints on whether the dentists' dressing mattered, there were statistically significant differences between their children being the first timer and having a previous dental exposure, also between the types of procedures carried out. Those that came for orthodontics were significantly more affected by dentists' attire than those who came for other procedures. This could be that since orthodontic procedures were not emergencies or painful/symptomatic visits parents were more relaxed to pay attention to the dentists' attire.

## **Conclusion**

The preferences of parents on protective wear, use of name tags and gender of the dentist show that identification, safety, empathy and communication were desired from the dentist by the parents. All these would foster a good doctor-patient relationship.

The majority preferred the use of PPE by their children's dentist. The traditional white coat and use of name tags were preferred by most of the parents. The female gender was preferred, though the males had no preference over the gender of their children dentists.

The attire of the dentist was important to the parents and this was statistically significant when the dental visits were considered. **Previous exposure of their children to the dental setting had an influence on the parents' preferences.**

## **Ethical consideration**

Ethical approval was sought and obtained from the ethics committee of the tertiary health institution to carry out this cross-sectional observational study. Informed consent was also obtained from the subjects.

## **Consent:**

All authors declare that 'written informed consent was obtained from the persons whose photographs were used for publication of this article and accompanying images.

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## APPENDIX I

### QUESTIONNAIRE

#### **The preferences of the dentists' attire among a selected population of parents**

1. Age (range in years) 20-29.....30-39 .....40-49.....50-59.....>60.....
  2. Gender: Male..... Female.....
  3. Educational Level: Father's Primary....., Secondary....., Tertiary.....
  4. Occupation .....
  5. Which do you prefer, male or female dentist to treat your child? Male..... Female.....
  6. Has your child visited a dentist Before? Yes ..... No.....
  7. What Was The Reason For The Dental Visit? Routine Check up .... Treatment.....
  8. If yes, what Treatment? A Filling... B Extraction... C Pulp Therapy... D Removable Appliance ..... E Fixed Appliance..... F. Cleaning.....
  9. Which Colour of coat Do You Prefer? White..... Coloured.....
- The Pictures Are Shown..**
10. Why do you prefer the colour you chose?  
.....





## **APPENDIX III**

A. WHITE COAT

B .COLOURED



