

EXERCISE AND MEDICATION

Plenty of exercise from early childhood—including competitive rowing as a schoolboy—gradually declining over the years, but never regarded as a duty with any intrinsic value. Going for a walk without another purpose has never appealed, still less a daily dozen or jogging.

For many years laxatives, which are essential to prevent impaction.

Allopurinol for 15 years.

Aspirin as a participant in the Oxford prevention programme of coronary artery disease (age 45 to 55), but discontinued because of tinnitus. Paediatric doses resumed at age 78.

Regular nitrazepam in homoeopathic doses for many years.

SMOKING

For 60 years a heavy smoker of cigarettes—for 50

years always with a holder. The amount of tar on the cleaner has shown what my lungs have been spared. I imagine the tobacco firms have refrained from promoting holders because of the implication that normal smoking is seriously hazardous, but perhaps the holder is the equivalent of a seat belt.

Conclusion

This is an anecdotal report intended to encourage all those who are worried by their lifestyle not to despair. "To be or not to be"—that is the question which needs to be answered.

I rest my case as a pantaloon, not lean, not slipped, and not yet scuppered, but fully aware that if I am lucky enough not to crash on the M25 or be mugged I will die from a smoking related disease, or some other pollutant, or from a life long indulgence in suspect foods. That really would spoil the statistics.

Sartorial eloquence: does it exist in the paediatrician-patient relationship?

T G Barrett, I W Booth

Abstract

Objective—To evaluate children's and parents' perceptions of hospital doctors' attire.

Design—Questionnaire study asking children and parents to assign positive and negative attributes to five photographs of a male or female doctor dressed formally and informally.

Setting—Outpatient department, Children's Hospital, Birmingham.

Subjects—203 consecutive child-parent pairs attending outpatient clinics over three months.

Main outcome measures—Children's and parents' preferences, assessed by comparing proportions.

Results—70% (286/406) of children and parents rated doctors' dress as important; more children rated it "very important" (27% (54/203) v 14% (29/203), $P < 0.01$, 95% confidence interval for difference 5% to 21%). Of the 99 children responding, 44 regarded the man in white coat as most competent (44% v 20% expected by chance, $P < 0.01$, 34% to 54%) and most concerned (32% v 20%, $P < 0.01$, 23% to 41%). Children also regarded the woman in white coat as most competent; however, male and female doctors in white coats rated lower for friendliness. Asians and regular surgical attenders preferred doctors in white coats. The man in polo shirt and trousers was rated as most friendly (40% v 20% expected by chance, $P < 0.01$, 30% to 50%) and most gentle (37% v 20%, $P < 0.01$, 27% to 46%). The woman in tee shirt and slacks also rated most friendly and gentle; however, both casually dressed doctors rated lower for competence. Parents preferred more casual dress but expressed preferences less strongly, and they poorly predicted which outfits their children preferred.

Conclusions—Children regard formally dressed doctors as competent but not friendly; they regard casual dress as friendly but not competent.

Introduction

Doctors attempt to develop a trusting relationship with parents and children: people with widely differing ages, tastes, and values. Although first impressions are

formed from other sources such as manner, attire has been shown to significantly affect the patients' perception of a doctor.¹ The same study concluded that house officers had dressed less formally than their patients preferred. A British study in an outpatient setting found patients wanted staff to be formally dressed.² Paediatricians have generally dressed more informally,³ and since 1990 the NHS has not been required to provide them with white coats. A recent American survey in a paediatric setting found that parents had a strong preference for women to be formally dressed (short white coat and skirt), and for the man to be formally dressed (short white coat and tie), but children did not have a significant preference.⁴ As British doctors and children dress differently to Americans, we assessed parents' and children's perceptions of doctors' attire in the United Kingdom.

Methods

A questionnaire survey was used in the outpatient department of the Children's Hospital, Birmingham. The subjects were paediatric patients and their parents. The main outcome measures were positive and negative attributes assigned to photographs of doctors in different attires.

The survey was performed by one person (TGB). A total of 203 parents and their children were consecutively enrolled as they registered at the outpatient reception desk. Children below the age of 5 years were excluded because of their presumed inability to express their preference.

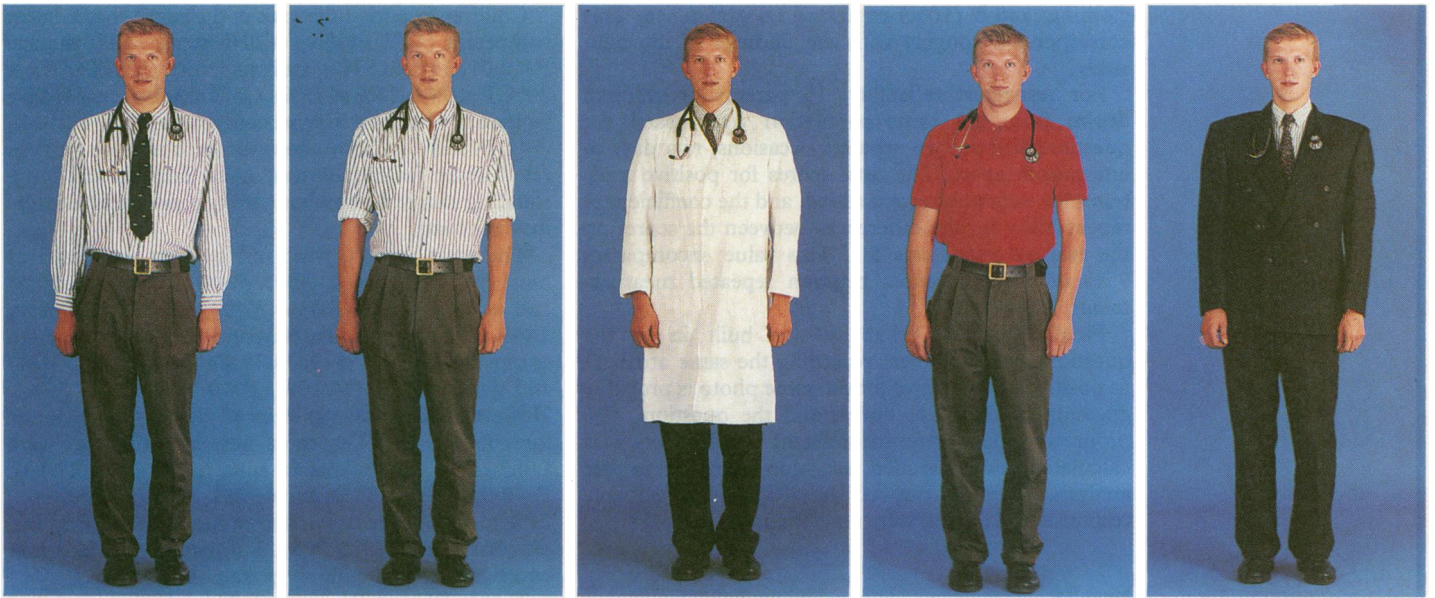
The survey instrument required children and parents to independently review a series of five photographs of either a male or female doctor in various attire (figure). All photographs were colour, full figure shots of the same male or female doctor dressed in five different attires. The male and female doctors were of the same racial group. Dress for the male doctor consisted of (1) a long sleeved shirt, tie, and trousers; (2) a long sleeved shirt without tie; (3) a shirt and tie with white coat; (4) an open necked polo shirt with trousers; (5) a two piece suit, shirt, and tie. Attire for the female doctor consisted of (1) a blouse and skirt, no coat; (2) a blouse and trousers, no coat; (3) a blouse and

Department of Clinical Genetics, Birmingham Maternity Hospital, Birmingham B15 2TG
T G Barrett, clinical research fellow

Institute of Child Health, Edgbaston, Birmingham
I W Booth, director

Correspondence to:
Dr Barrett.

BMJ 1994;309:1710-2



Clothes make the man (or woman) seem to be competent . . . friendly . . .

skirt and white coat; (4) a tee shirt and slacks, no coat; or (5) a two piece suit of matching jacket and skirt, court shoes, no coat.

Half the sets of parents and children (99) were shown the photos of the man and others (104 sets) were shown the photos of the woman. With the photos continuously present, each subject was asked to assign five positive and five negative attributes (most competent/friendly/concerned/gentle/you prefer most; least competent/friendly/concerned/gentle/you prefer least). Parents were also asked which photo they thought their child would prefer most and least. All subjects were asked how important they rated doctors' clothing. Parents were allowed to help their children record their answers, but not to influence their choices. A supervisor (TGB) was always present. Answers were recorded on a questionnaire provided. An interpreter was available in situations of language difficulty.

For each photo, the positive and negative responses were added. The data were analysed by comparing proportions.

PILOT STUDY

The questionnaire was first used on 50 sets of parents and children in the outpatient setting. As all children

aged 5-15 years could be seen in one clinic, we could vary the survey sessions to obtain a mix of patients from different medical and surgical clinics. It was found to be important for the researcher to show nothing that would identify him as a doctor, and that the questionnaire should be administered before the child went to see the doctor, so as not to be influenced by the consultation. The initial order of photographs, from formal to informal, was found to be giving clues as to what responses were expected, so the order was made random. Finally, the doctors were smiling in only some of the initial photos, so they were retaken with neutral expressions in each picture. An estimate of sample size was made; we assumed that each of the five photographs would be assigned one fifth of the attributes by chance.

VALIDATION OF QUESTIONNAIRE

To validate the questionnaire,⁹ it was first compared to a "gold standard." Patients were asked directly what they regarded as the most important clothing for a male or female doctor to wear in a children's hospital. Fifty parents or children were asked separately: 19 (38%) preferred a white coat; 15 (30%) preferred a shirt and tie or tidy skirt and blouse; 11 (22%) preferred casual



. . . concerned . . . gentle . . .

clothing; and 5 (10%) expressed no preference. This corresponded roughly with the findings of the pilot study.

For test-retest reliability, 15 parents or children drawn from the same population were asked the questionnaire on two separate occasions, two days to one month apart. The total scores for positive attributes for each photo were added, and the coefficient of repeatability for the differences between the scores on the two occasions was 5.1. This value encompasses 95% of the differences between repeated measurements.⁶

Finally, internal reliability was built in to the questionnaire. A subject recording the same attribute as positive and negative for the same photo is probably guessing or does not understand the question. The proportion that were inconsistent in this way was calculated and included as "don't know" in the analysis. Overall, out of the 4060 total possible responses, 58 (1.4%) were not consistent.

Results

When asked how important they rated doctors' dress, 70% (286/406) of parents and children rated it as important, more children rating it "very important" than parents (27% (54/203) v 14% (29/203), $P < 0.01$, 95% confidence interval for difference 5% to 21%). Other results are shown in Tables I and II. It was assumed that each of the five photographs would be assigned one fifth (20%) of the attributes by chance. P values and confidence intervals describe results that differ significantly from what would be expected by chance.

TABLE I—Positive attributes assigned to photographs of male doctor

	Photo No					Don't know	Total
	1	2	3	4	5		
No (%) of children	91 (18)	74 (15)	139 (28)	124 (25)	41 (8)	26 (5)	495 (100)
Most competent	24 (24)	6 (6)	44 (44)	11 (11)	13 (13)	1 (1)	99 (100)
Most friendly	17 (17)	16 (16)	9 (9)	40 (40)	13 (13)	4 (4)	99 (100)
Most concerned	21 (21)	14 (14)	32 (32)	13 (13)	6 (6)	13 (13)	99 (100)
Most gentle	10 (10)	20 (20)	20 (20)	37 (37)	4 (4)	8 (8)	99 (100)
You prefer most	16 (16)	17 (17)	24 (24)	27 (27)	6 (6)	9 (9)	99 (100)
No (%) of parents	105 (21)	82 (17)	110 (22)	123 (25)	28 (6)	47 (9)	495 (100)

TABLE II—Positive attributes assigned to photographs of female doctor

	Photo No					Don't know	Total
	1	2	3	4	5		
No (%) of children	76 (15)	67 (13)	135 (26)	99 (19)	90 (17)	53 (10)	520 (100)
Most competent	11 (10)	6 (6)	48 (46)	10 (10)	23 (22)	6 (6)	104 (100)
Most friendly	21 (20)	21 (20)	10 (10)	28 (27)	15 (14)	9 (9)	104 (100)
Most concerned	13 (12)	10 (10)	39 (38)	13 (12)	16 (15)	13 (12)	104 (100)
Most gentle	14 (14)	16 (15)	12 (12)	30 (29)	18 (17)	14 (14)	104 (100)
You prefer most	17 (16)	14 (13)	25 (24)	20 (19)	19 (18)	9 (9)	104 (100)
No (%) of parents	91 (18)	48 (9)	103 (20)	140 (27)	67 (13)	71 (14)	520 (100)

TABLE III—Male attire: children's preferences by age

	Photo No					Don't know	Total
	1	2	3	4	5		
No (%) of children < 10 years (n=43)	30 (14)	38 (18)	68 (32)	50 (23)	19 (9)	10 (5)	215 (100)
No (%) of children ≥ 10 years (n=56)	61 (22)	36 (13)	71 (25)	74 (26)	22 (8)	16 (6)	280 (100)

TABLE IV—Female attire: children's preferences by age

	Photo No					Don't know	Total
	1	2	3	4	5		
No (%) of children < 10 years (n=36)	14 (8)	27 (15)	48 (27)	44 (24)	34 (19)	13 (7)	180 (100)
No (%) of children ≥ 10 years (n=68)	61 (18)	37 (11)	85 (25)	59 (17)	56 (16)	42 (12)	340 (100)

Children regarded the man in the white coat as most competent (44% (44/99) v 20% expected by chance, $P < 0.01$, 34% to 54%), and concerned (32% (32/99) v 20%, $P < 0.01$, 23% to 41%). Children also regarded the woman in white coat as most competent (46% (48/104), $P < 0.01$, 38% to 58%); however, each of these pictures rated lower for friendliness. Asian families and long-standing surgical attenders strongly preferred doctors in white coats.

The male in polo shirt and trousers was rated as most friendly (40% (40/99), $P < 0.01$, 30% to 50%) and as most gentle (37% (37/99), $P < 0.01$, 27% to 46%). The woman in tee shirt and slacks was also rated as most friendly (27% (28/104), $P < 0.05$, 19% to 36%) and gentle (29% (30/104), $P < 0.05$, 21% to 39%). However, both casually dressed doctors rated lower for competence. The most negative attributes were assigned to the doctors in suits (male 41% (41/99), $P < 0.01$, 31% to 50%; female 28% (29/104), $P < 0.01$, 21% to 28%). Parents preferred more casual dress but expressed this less strongly, and they poorly predicted which outfits their children preferred.

Tables III and IV compare how children assigned positive attributes for doctors' dress by age of the child. Children under 10 years assigned significantly fewer positive attributes to the male doctor in shirt and tie than did those 10 years or over (14% (30/215) v 22% (61/280), $P < 0.05$, 1% to 14%). Also, younger children assigned fewer positive attributes to the woman in a dress than did older children (8% (14/180) v 18% (61/340), $P < 0.01$, 4% to 16%). There were no other significant differences.

Discussion

Few studies have evaluated how children feel about their doctors' attire. It is a popular misconception that children dislike white coats. This study shows that children have definite preferences about doctors' clothes and do not dislike white coats. Children are more conservative in their preferences than their parents. Children associate competence and concern with a white coat; perhaps they have incorporated a stereotyped concept of the competent, caring doctor from media influences. Friendliness and gentleness, but not competence, are associated with casually dressed male and female doctors. The negative attributes associated with the formally dressed men and women in suits may not carry through to the (usually older) consultants who tend to wear them.

Asian children most preferred the white coat for doctors; this presumably reflects cultural attitudes and expectations. Longstanding surgical attenders also preferred white coats; these are worn by many surgeons at this hospital.

Advice to junior doctors might be that, if they are lacking self confidence, a white coat may give an air of competence and concern; casual clothes make them appear friendly but not competent. These findings may be helpful to doctors in deciding what to wear in everyday hospital practice.

We are grateful for the assistance of Tim Hornung and Cathy Rands and the medical illustration department of the Children's Hospital, Birmingham, in the preparation of the photographs.

- Dunn J, Lee T, Percelay J, Goldman L. Patient and house officer attitudes on physician attire and etiquette. *JAMA* 1987;257:65-8.
- Bishop F, Matthews F, Probert C, Bilet J, Battcock T, Frisby S, et al. Patients' views on how to run hospital outpatient clinics. *J R Soc Med* 1991;84:522-3.
- Bannerjee A. Does a doctor's dress style matter? *Med J Aus* 1988;149:168.
- Marino R, Rosenfeld W, Narula P, Karakurum M. Impact of paediatrician's attire on children and parents. *Developmental and Behavioural Paediatrics* 1991;12:98-101.
- Stone DH. How to design a questionnaire. *BMJ* 1993;307:1264-6.
- Bland JM, Altman DG. Statistical methods for assessing agreement between two methods of clinical measurement. *Lancet* 1986;i:307-10.