



## ISSUES IN MEDICINE

# The white coat in clinical practice – the debate rages on!

## Final year medical students' views

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Over the past two decades there has been a declining use of the white coat, even in the hospital setting.<sup>1-3</sup> For Harnett,<sup>1</sup> this decline has been so marked that the 'white-coated' doctor is now an 'endangered species'. This demise warrants concern, as some have cited erosion of public opinion of scientific medicine and a perceived negative effect of the white coat on the doctor-patient relationship as responsible for its declining use.<sup>2,3</sup> However, in the study by Douse and colleagues<sup>3</sup> the declining use of the white coat in the hospital environment was attributed to the perception of a large proportion of doctors (70% of doctors v. 1% of patients) that white coats transmit hospital-acquired infections. Although those authors did not find any studies demonstrating increased risk in this regard, several reports<sup>3</sup> of bacterial contamination of white coats (25% in one study) and nurses' uniforms suggest a potential risk. When worn in non-clinical settings such as the cafeteria and patient examining areas, the possibility that the coat may lead to cross-contamination should not be ruled out.

Most research on the importance and symbolism of the white coat has focused on the opinions of patients and health care professionals. The results of such studies, conducted largely in the UK and the USA, suggest that while today's doctors are attaching less importance to the white coat in their profession,<sup>1-3</sup> a considerable proportion of patients, particularly older ones, still prefer doctors to be dressed in white coats, largely for purposes of identification, and to a lesser extent because of traditional symbolism.<sup>1-9</sup> To the best of our knowledge, student opinion has generally been overlooked in this debate. In this age of increasing patient awareness and rights and of practitioner accountability, we thought it prudent to ascertain how senior South African medical students perceived use of the white coat in the medical profession.

### What we asked our final-year students

During one of their family medicine rotations late in their final year, the 6th-year students, junior interns as they call

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themselves, were canvassed using a largely open-ended questionnaire investigating their perception of the white coat in the medical profession. We report on their responses to the following queries: (i) why should doctors wear white coats? (ii) should general practitioners (GPs) wear white coats? and (iii) should students wear white coats?

### What students told us

#### Why should doctors wear white coats?

When provided with the opportunity to identify up to three reasons for doctors to wear white coats, students cited two main reasons (Table I). First, to identify members of the medical profession (88.2% of students), and secondly for protection against contamination, mainly by body fluids (81.7%). Other less frequently cited reasons for wearing a white coat were a neat appearance, regulation and practicality (e.g. to carry a stethoscope).

We collectively categorised the third group of most frequently offered reasons as relating to the doctor-patient

**Table I. Reasons offered by final-year students when asked why doctors should wear white coats (students (N = 93) could identify a maximum of three reasons)**

Reason	% of students
Identification as a member of the medical profession (N = 82)	88.2
Protection (from body fluids, etc.) (N = 76)	81.7
Relating to the doctor-patient relationship (N = 64)	68.8
Positive perceptions (N = 48)	51.6
Negative perceptions (N = 16)	17.2
Superiority/authority (N = 6)	6.4
Status (N = 5)	5.4
Earn respect (N = 3)	3.2
Create an impression (N = 2)	2.2
Neat appearance (N = 14)	15.1
Regulation (in hospital or clinic) (N = 8)	8.6
Practical (for stethoscope, etc.) (N = 5)	5.4
Keeps the cold out (N = 2)	2.2
Habit (N = 1)	1.1
None (N = 1)	1.1



relationship (68.8%). While the majority (75%) of responses in this category were considered to be positive and humanistic in that students took cognisance of patients' feelings and rights, the remaining one-quarter of comments were less altruistic. Sadly, for some students the white coat conferred authority, superiority and status on the wearer. In this view, donning a white coat entitled one to be treated with respect (without necessarily having earned it).

### Should a GP wear a white coat?

The majority of students (74.2%) perceived no need for a GP to wear a white coat, largely (31.9%) because he (the gender intimated by most students) was known to patients. Students felt that because patients visited him in his consulting rooms the GP did not need to wear a particular garment to be

recognised or distinguished from other health care staff (Table II). That almost all students assumed the GP to be a male is interesting and certainly warrants further investigation. A female colleague who had recently left private practice to take up an academic post, and who had worn a white coat in her practice, had often been confused with the receptionist or a laboratory assistant as new patients generally did not expect a female GP.

Some students (10.8%) felt that the consulting room environment did not require the same level of protective clothing as the hospital. Almost 9% commented that they trusted their GP (so he didn't need a white coat to confer professional status). Interestingly, for 7.2% of students, their GP was more approachable without a white coat. For a range of reasons, however, just over one-quarter of students

**Table II. Student (N = 93) comments in response to whether their GPs needed to wear a white coat and whether students should wear white coats**

Do you expect your GP to wear a white coat?	% of students	Should students wear a white coat?	% of students
No (N = 69)	74.2	Yes (N = 79)	84.9
Already known to patient as a doctor (N = 22)	31.9	Identification by patients (N = 43)	54.4
Same protection as hospital is not necessary (N = 10)	14.5	Protection (N = 19)	24.1
I already trust him/her as a doctor (N = 6)	8.7	Reasons relating to the profession (N = 16)	20.3
Competency/patient management is what is important (N = 6)	8.7	Appearance (N = 8)	10.1
It is not necessary (N = 6)	8.7	Learning respect for the profession (N = 7)	8.9
S/he should always be neat so coat is not necessary (N = 5)	7.2	Uniformity (N = 5)	6.3
S/he is more approachable without the coat (N = 5)	7.2	Tradition associated with the profession (N = 5)	6.3
It depends on the personal preference of the doctor (N = 4)	5.8	Regulation purposes (N = 1)	1.3
One doesn't need a white coat to be a doctor (N = 2)	2.9	Being proper (N = 1)	1.3
I don't expect it (N = 1)	1.4	No (N = 10)	10.8
S/he isn't a student (N = 1)	1.4	Patients may think students are doctors (N = 2)	20
S/he can be recognised by his black bag and stethoscope (N = 1)	1.4	We are not yet doctors (N = 1)	10
No reason given (N = 6)	6.4	It gives one a false sense of prestige (N = 1)	10
Yes (N = 24)	25.8	We should wear ID cards and dress neatly (N = 1)	10
It is professional (N = 7)	29.2	It is too hot in this city (N = 1)	10
(includes reference to doctor-patient relationship)		No reason given (N = 4)	40
Identification/recognition as a doctor is necessary (N = 4)	16.7	Not sure (N = 3)	3.2
It shows respect for patients (N = 3)	12.5	No response (N = 1)	1.1
It makes me feel secure (N = 3)	12.5		
It looks neat/presentable (N = 3)	12.5		
It is for protection (N = 2)	8.3		
It is part of the uniform (N = 1)	4.2		
No particular reason offered (N = 1)	4.2		
No response (N = 3)	3.2		

\* N = 36 regarding identification as member of medical profession; N = 7 to allow patients to distinguish student from qualified doctor.



felt it appropriate for a GP to wear a white coat, as it was professional, traditional, made patients feel that they were in safe hands and the GP could be recognised as a medical practitioner. The latter reason contradicts the view of those who believed that a GP should not wear a coat.

### Should students wear white coats?

Some interesting results were obtained from the query relating to whether students should wear a white coat or some other form of identification. There was consensus (84.9%) that students should wear a white coat, largely because it was a tradition associated with the profession and because it protected them and their clothing in the busy hospital environment. For more than 54% of students who answered this question affirmatively, the white coat also allowed patients to identify them. For most, this identification was as a member of the medical profession (presumably as opposed to a nurse or other health care worker), but for some students, the white coat allowed patients to distinguish students from qualified doctors. Is this indirect evidence that in the hospital or clinic setting in which students spend much of their time, there is the perception that doctors generally do not wear white coats? A few students, however, took the contrary view – white coat use by students was considered to be inappropriate as patients were not able to distinguish between a student and a qualified doctor. If these responses are considered in conjunction with those relating to the query on the need for another colour coat or another form of identification for students (data not presented), then approximately one-quarter of students felt that patients had the right to know if they were being attended to by a student or a qualified practitioner. Of concern to this discussion (in response to the query relating to another coat colour) is that at least 6 students (6.5%) claimed that the white coat was necessary for students in order to ensure patient co-operation. Other reasons cited for white coat usage by students related to not breaking tradition and confusing patients by wearing another colour coat. Several constructive suggestions were offered in terms of additional distinguishing accessories if white coats were to be worn by students. These included a name badge, coloured badges or a ribbon to indicate the year of study.

### What can we say about student perceptions of the white coat?

Although only just over half of the final-year class (53.4%,  $N = 93$ ) returned their questionnaires, those who responded provided another perspective on use of the white coat in different medical contexts. Like the patients in the study by Douse and colleagues,<sup>3</sup> there was consensus regarding the use of the white coat, but this depended on the clinical setting. Since, according to these students, the white coat served primarily practical purposes (identification and protection),

it needed to be worn in the hospital, but it was generally felt that in the more informal surroundings of the general practice there was no need to do so. In the South African context, where under-resourced public hospitals are extremely busy with large numbers of chronically and terminally ill patients in the wake of the HIV/AIDS pandemic, it is not surprising that students saw the need for doctors to be distinguished from the many other hospital staff and for clothing to be protected during busy clinical schedules. However, Douse and co-workers<sup>3</sup> pointed out a discrepancy between the number of doctors who indicated that they did not wear a white coat every day and patients who reported that their doctors wore coats. Those authors attributed this to patients mistakenly identifying others who wear white coats (e.g. phlebotomists, laboratory staff, electricians and porters) as members of the medical profession. Approximately 11% of the medical students in the present study indicated that patients did not restrict their association of an individual in a white coat to a clinician. The white coat may also indicate a nurse, an educated person or another professional, which downplays to some extent the value students attributed to the white coat for identification purposes.

Use of the white coat for reasons of professional appearance was only the third most cited reason for its use as part of a doctor's attire. Only 51.6% of students indicated that the white coat should be worn because it was professional and because it was respectful in terms of the doctor-patient relationship. As indicated earlier, these sentiments were context-specific. Having stated that the white coat was professional when dealing with patients (presumably in the hospital setting where students spend most of their time), many did not expect their GP to don a white coat. For many, general practice did not present the same risks to the GP as did the hospital environment. In addition, they felt that the GP was generally known to patients and so did not need to be identified by his attire. Students' views of the white coat as being professional in the hospital environment (where the doctor may be confused with a nurse or a laboratory technician) was difficult to reconcile with their response that the same did not hold true for the GP in private practice. Indeed, for some students, the GP was more approachable without a white coat! Almost 30% of students recognised that, for some patients, the white coat may be intimidating, eliciting feelings of fear and anxiety, as has been documented elsewhere.<sup>3,7</sup> 'White coat hypertension' is one such example, although Brandt<sup>2</sup> believes that rather than attire being responsible, raised blood pressure may be an anxiety response to the mere act of visiting the physician. Some medical specialties have responded to these perceptions, with psychiatrists and paediatricians reported to be the least likely to wear white coats because they believed that patients found it threatening and that it interfered with their relationship with their patients.<sup>3,10</sup> However, the literature is not conclusive in this regard. While the study by Zwart and Kimpen<sup>7</sup> found the



white coat to be intimidating, particularly among children with a previous medical history, McCarthy and co-workers<sup>8</sup> were not able to confirm that children were afraid of physicians in white coats.

The white coat debate therefore continues, with final-year South African medical students soon entering their internship adding a different perspective to that of some of the published literature. Like many of the patients in other studies, particularly older ones, students generally still recognised the humanistic symbolism and functionality associated with the white coat. Sadly, as Wear<sup>11</sup> has warned, some expressed more selfish and less altruistic perceptions, viewing the white coat as a status symbol, representing power and deserving respect (perhaps without earning it, which students still need to do). For the time being then, despite its reported dwindling usage, the white coat is likely to remain a trademark of the medical profession, even if only for practical purposes. Russell<sup>12</sup> is correct in pointing out that as patients are now seeking other sources of information (e.g. the Internet) and other therapies (e.g. alternative and complementary medicine), the traditional title-based doctor-patient relationship is being re-negotiated. Clinicians must now share the unchallenged authority that they possessed for many decades. The symbolism associated with the white coat, the cloak that historically conferred

scientific validity and praiseworthy attributes on a healer, is likely to remain a subject of debate in the medical literature as we grapple with the issues of professionalism in the 21st century.

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