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The importance of the orthopaedic doctors' appearance: A cross-regional questionnaire based study

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ABSTRACT

Objectives: Critics of the Department of Health 'bare below the elbow' guidelines have raised concerns over the impact of these dress regulations on the portrayed image and professionalism of doctors. However, the importance of the doctor's appearance in relation to other professional attributes is largely unknown. The purpose of this study was to determine the opinion of patients on the importance of appearance and the style of clothing worn by doctors.
Design: Patient questionnaire survey, administered across four Scottish regions.
Setting: Orthopaedic outpatient departments.
Participants: 427 patients and accompanying relatives.
Main outcome measures: The absolute and relative importance of the doctors' appearance, as reported using a 5-point Likert scale. The absolute and relative importance of the style of clothing worn by doctors, as reported using a 5-point Likert scale. The rank preferences for four different styles of doctors' attire as illustrated by standardised clinical photographs.
Results: The study was appropriately powered to identify a 0.5 difference in mean rank values with 0.90 power at $a = 0.05$. The majority of participants felt the doctors' appearance was important but not as important as compassion, politeness and knowledge. Only 50% felt that the *style* of doctors clothing mattered; what proved more important was an impression of cleanliness and good personal hygiene. In terms of how patients would prefer doctors to dress in clinic, the most popular choice proved to be the smart casual style of dress, which conforms with the 'bare below the elbows' dress code policy. The smart casual clothing style was the highest ranked choice irrespective of patient age, gender, regional or socioeconomic background.
Conclusions: The doctors' appearance is of importance to patients and their relatives, but they view many other attributes as more important than how we choose to dress. While not specifically addressing the role of doctors clothing in the transmission of infection, our results do support the preference of patients for 'bare below the elbows' workplace attire.

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Introduction

The traditional white coat has been worn by and symbolised the medical profession since the late 19th century. In recent years use of the white coat has declined, largely as a result of concerns over the transmission of hospital acquired infection. Many surgeons have replaced the white coat with semi-formal attire such as a business suit, although a range of different styles of dress can be seen in hospitals.

Increasing infection concerns prompted the Department of Health (DoH) to commission and fund two literature reviews carried out by Thames Valley University, known as TVU1[1] and TVU2.[2] TVU1 examined evidence surrounding the role of uniforms in the transmission of infection, as well as the efficacy of laundry practices in removing contamination. TVU2 focused on how the public perception of healthcare is altered by uniforms. The conclusions drawn from both studies led the DoH to publish guidelines in 2007 that forced doctors to remove white coats, jackets, ties and wristwatches and roll up their shirtsleeves.[3] This 'bare below the elbows' (BBE) policy has caused controversy within the medical profession, with some authors suggesting the rules were simply a "cheap sound bite" that failed to tackle the real issues of infection control in hospitals.[4] Others raised concerns over the impact of these new BBE regulations on the portrayed image and professionalism of doctors.[5]

The first impression given by a doctor to a patient or relative during the initial consultation plays an important role in the development of this relationship and the doctor's appearance is one of many influential variables that contribute to the first impression.[6] The importance of the doctor's appearance in relation to other professional attributes is largely unknown. The purpose of this study was to determine the opinion of patients and their relatives on the actual *importance* of appearance and the *importance* of the doctors' style of clothing. The setting used in this study was the orthopaedic outpatient department. The secondary aim was to establish how patients and relatives would prefer doctors in the orthopaedic clinic to be dressed.

Participants and methods

The study consisted of the administration of a short survey questionnaire to individuals (patients and their relatives) attending the orthopaedic outpatient clinic. Questionnaire content and design was carefully considered and agreed upon by all authors prior to commencing data collection. A test survey was administered to clinical staff to assess the questionnaire's clarity and ease of use. In order to obtain a representative sample of Scottish patient opinion, we surveyed four orthopaedic departments, one in each region of Scotland. The four institutions surveyed were the Southern General Hospital in Glasgow (West of Scotland), the Royal Infirmary of Edinburgh (South East Scotland), Ninewells Hospital in Dundee (East of Scotland), and the Aberdeen Royal Infirmary (North of Scotland).

Patients and visitors (aged 12 years or older) attending orthopaedic outpatient clinics at the above named institutions were invited to participate in the study. Participants were selected randomly and non-consecutively over several days during various time periods between November 2012 and January 2013. Those with cognitive or visual impairment were excluded from participation. The demographic details of survey respondents were recorded. Using the Scottish Index of Multiple Deprivation (SIMD) the deprivation status of each participant was calculated. The SIMD combines 38 indicators of deprivation across seven broad domains to give the overall deprivation index for the Scottish population.[7] Small area concentrations of deprivation are identified based on postal code datazones. Scotland contains 6505 such datazones, which can be divided into five equal groups (quintiles) and ranked from the most deprived (quintile 1) to the least deprived (quintile 5) areas. In this study, respondents were allocated to a SIMD quintile based upon their postal code.

Participants were provided with the questionnaire, a copy of which can be found at the Appendix. The pre-specified sample size minimum chosen for the study was 400 respondents, 100 in each of the four Scottish regions. The survey questionnaire consisted of five questions (Q1 to Q5), and was divided into three sections. In the first section (Q1 and Q2), respondents were asked their opinion on the *absolute importance* of the orthopaedic doctors' appearance and answered using a modified five-point Likert scale (from 1 – not at all important, to 5 – extremely important).[8] They were then asked their opinion on the *relative importance* of appearance when compared with other important attributes (politeness, compassion, and knowledge) and responded by ranking these attributes (from 1 – most important, to 4 – least important).

In the second section (Q3 and Q4), participants were asked their opinion on the *absolute importance* of the orthopaedic doctors' style of clothing and responded using the same five-point Likert scale (from 1 – not at all important, to 5 – extremely important). They were then asked their opinion on the *relative importance* of clothing style when compared with other appearance attributes (personal grooming, personal hygiene) and responded by ranking these attributes (from 1 – most important, to 3 – least important).

Finally (Q5), respondents were shown clinical photographs of a doctor dressed in four different styles of clothing (Fig. 1). They were asked to decide which style they preferred and then to rank the four styles in order of preference (from 1 – most preferred, to 4 – least preferred).

SPSS version 18.0 (SPSS, Chicago, Illinois) was used to undertake statistical analyses. Data were checked for normality by assessing the relevant histograms and Q–Q plots. Interval data (respondent age) were presented in terms of the mean and standard deviation (SD), with mean values between groups compared using the Student *t*-test or the analysis of one-way variance (ANOVA). The Bonferroni correction was added for multiple comparisons. Ordinal variables (SIMD quintile, Likert rating, preference ranking) were also presented in terms of the mean, for the purpose of improved graphical illustration and to allow for the use of *t*-tests and ANOVA. Groups of categorical variables (gender, patient/relative, region) were compared using the Chi square test, with the addition of Yates' correction for 2×2 contingency tables. Correlations between groups of interval and ordinal variables were tested for using Pearson's correlation coefficient (*r*). A two-tailed *p*-value of <0.05 determined statistical significance. A projected sample size of 400 participants was