

‘What’s in a face?’ The role of doctor ethnicity, age and gender in the formation of patients’ judgements: an experimental study

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Abstract

Background: Research has shown that doctor’s make judgements about patients on the basis of their demographic characteristics. Little is known about how patients judge their doctors.

Aim: The present study aimed to explore the impact of a doctor’s ethnicity, age and gender on patients’ judgements in the setting of a general practice consultation.

Methods: The study involved an experimental factorial design using vignettes with patients receiving one of eight photos of a doctor who varied in terms of ethnic group (Asian versus White), age (older versus younger) and gender (male versus female). Six general practices in South West London took part and 309 patients (response rate = 77%) rated the doctor in terms of the expected behaviour of the doctor, the expected behaviour of the patient and the patient ease with the doctor.

Results: The results showed that in terms of the impact of ethnic group, the Asian doctor and White doctor received comparable ratings for most questions; however, the Asian doctor was rated as being more likely to explore emotional aspects of health than the White doctor. Differences for age and gender were more profound. In particular, both the younger doctor and the female doctor were judged to have a better personal manner, better technical skills, better explanation skills, to be more likely to explore emotional aspects of health and empower the patient. Patients also stated that they were more likely to have faith in their diagnoses, advice and to comply with treatment and preferred both the younger and female doctors for a physical examination. In addition, younger doctors were deemed to be more likely to refer a patient to see a hospital specialist and female doctors were seen to be more likely to suggest complementary therapy.

Conclusion: A doctor’s age and gender have a stronger impact on a patient’s judgements than their ethnicity.

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1. Introduction

The social and psychological literature suggests that people make sense of each other in complex ways. They draw upon the strategies of impression formation, aspects of identity, stereotype and prejudice. General practice epitomises the need for such strategies as it illustrates a situation where two (or more) people meet and need to develop an understanding of each other given a minimum amount of

time and information as a means to facilitate communication. Doctor factors such as their ethnicity, age and gender all have the potential to influence the consultation process and outcome. This is particularly pertinent today, given the changing face of general practice and of society as a whole. As Rosaldo [1] said ‘Cities throughout the world today, increasingly include minorities defined by race, ethnicity, class, religion and sexual orientation. Encounters with ‘difference’ now pervade modern everyday life in urban settings’.

Some previous studies have looked at how a doctor’s profile characteristics can influence patient’s judgements.

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For example, Short [2] considered the role of first impressions within the consultation and found that they did count. He stated that there are two people ‘at work’ in the consultation. While the doctor is deliberating the diagnosis, the patient is quietly summing up the doctor, and it is often the patient who comes to a conclusion first. Cooper-Patrick et al. [3] carried out a telephone survey of 1816 adults from a range of ethnic groups who had attended a primary care practice to explore how the ethnicity and gender of patients and physicians was associated with a participatory decision-making consultation style. The results showed that overall, patients who saw women doctors rated their consultations as more participatory whilst African American patients rated their consultations as less participatory. Further, those patients who saw a doctor from the same ethnic group also rated their consultation as more participatory. Similarly, McKinstry and Yang [4] considered whether or not patients had a preferred age for their doctor and reported that whilst older doctors were seen as being more willing to listen, more thorough and offer more reassurance, younger doctors were seen as being more up to date, informal and prepared to explain things. Kite et al. [5] also suggested that older men were viewed more positively than younger men and that typification by age was stronger than by sex. However, to date most research has been descriptive in design. This is problematic given the sensitive nature of stereotyping and the potential for respondents to behave in a socially desirable way. Most research has also only focused on one aspect of stereotyping rather than the possible contribution of a range of demographic factors. In light of these problems, the present study aimed to explore the impact of doctor’s ethnicity, age and gender on patient’s judgements. Furthermore, it used a quasi-experimental design as a means to minimise social desirability, as respondents were unaware that comparisons were being made between doctors with different characteristics. In particular, it focused on the impact of these demographic characteristics on patient’s judgements about the expected behaviour of the doctor, expected behaviour of the patient and patient ease with the doctor.

2. Methodology

2.1. Participants

Following ethical committee approval, questionnaires were handed out to consecutive patients who presented to the reception desk for appointments, prescriptions, and queries at six randomly selected practices. Patients were asked if they would like to take part in a study concerning their beliefs about doctors involving a short questionnaire. They were not told that they were being shown one of eight different photographs which varied in terms of age, sex and ethnic group as it was felt that this would bias their responses and encourage a more socially desirable set of reactions.

Patients were excluded if they were under 16, did not speak adequate English to complete the questionnaire or were deemed to have serious psychiatric problems. Out of the 400 questionnaires that were handed out, 323 were returned, of these, 14 were discarded due to being incomplete (overall response rate = 77%).

2.2. Design

A factorial design was used involving photographs of a doctor who varied in terms of ethnicity (White versus Asian), age (old versus young) and gender (male versus female). This required eight separate photographs. The age groups were defined broadly with ‘young’ being doctors aged between 25 and 35 and ‘old’ being doctors aged between 50 and 65. Patients were asked to rate the photograph in terms of expected behaviour of the doctor, expected behaviour of the patient and patient ease with the doctor.

2.3. The photographs

Eight individuals were identified that fitted the required ethnicity, age and gender criteria. Background features, lighting, hairstyle, expression, make up, etc. were kept as consistent as possible. Photographs were taken using a digital camera.

2.4. The questions

Participants were presented with one of the eight photographs followed by the statement: ‘Imagine that you have been feeling tired and run down for a while; you see this doctor for the *FIRST* time’. They were then asked to rate the picture (doctor), using Likert scales ranging from ‘not at all’ [1] to ‘extremely’ [5] in terms of three broad areas: expected behaviour of the doctor, expected behaviour of the patient and expected ease of the patient. These constructs were each operationalised using three individual items which were summated to create total scores. The reliability was assessed using Cronbach’s alpha.

2.4.1. Expected behaviour of doctor

Personal manner (e.g. ‘Put you at your ease’) (alpha = 0.52); technical skills (e.g. ‘Be careful to check everything when examining you’) (alpha = 0.85); explanation skills (e.g. ‘Explain the likely cause of your symptoms’) (alpha = 0.78); emotional examination and support (e.g. ‘Give you emotional support for your problem’) (alpha = 0.79); empowerment/patient centeredness (e.g. ‘Make you feel that you were in control’) (alpha = 0.81); management (e.g. ‘Give you a prescription’).

2.4.2. Expected behaviour of patient

For example, ‘Have faith in this doctor’s diagnosis’ (alpha = 0.93).

2.4.3. Expected patient ease with doctor

Physical examination (e.g. ‘Took your blood pressure’) ($\alpha = 0.83$); health promotion (e.g. ‘Asked you about your alcohol intake’) ($\alpha = 0.89$); psychosocial history (e.g. ‘Asked you about your mood’) ($\alpha = 0.83$).

2.4.4. Profile characteristics

All participants were also asked to record their age, gender, marital status, ethnic group, educational level and health status. They were also asked background information about the doctor they usually consult with. This included their usual doctor’s age (approx.); gender; ethnic background and the length of time they had been registered with that doctor.

2.5. Data analysis

The results were analysed to describe the participants’ profile characteristics and then to assess the impact of the pictured doctor’s ethnic group (Asian versus White), age (older versus younger) and gender (male versus female) on patients’ judgements using a three way ANOVA to look for main effects and interactions.

3. Results

3.1. Profile characteristics

Participants’ profile characteristics are shown in Table 1. The results show that the majority of respondents were female, married/co-habiting, white, educated to technical college/diploma or less and reported their health status as good. Their mean age was 43.9 years and they were evenly spread across the different age bands. The female to male ratio of this sample was 2.5–1. Most of the respondents stated that their usual doctor was female, white and had a mean age of 38.2 years. The average length of time respondents had known their doctor was 10.1 years, with almost half the sample stating that this was less than 5 years. Of the non-White doctors, the majority (97%), were of Asian background.

3.2. Impact of doctor’s ethnicity, age and gender

The results showing the main effects and interactions for ethnicity, age and gender are shown in Table 2. These will now be described in detail.

3.2.1. Impact of ethnicity

The results showed no impact of the doctor’s ethnicity for all aspects of the expected behaviour of patient and patient ease with doctor and for most aspects of the expected behaviour of doctor. However, the participants rated the Asian doctor as being more likely to explore emotional aspects of health, compared with the White doctor.

Table 1
Participants’ profile characteristics

| | <i>n</i> (%) |
|------------------------------------|---------------------------|
| Participants | |
| Age (years) | |
| Overall | Mean = 43.9, S.D. = 16.15 |
| 18–30 | 65 (20.1) |
| 31–45 | 82 (25.4) |
| 46–60 | 65 (20.1) |
| 61–75 | 44 (13.6) |
| 76 and over | 52 (16.1) |
| Gender | |
| Male | 88 |
| Female | 220 (71.4) |
| Marital status | |
| Single | 69 (22.4) |
| Married/co-habiting | 198 (64.3) |
| Separated/divorce | 27 (8.8) |
| Widowed | 14 (4.5) |
| Ethnicity | |
| White | 252 (81.8) |
| Black | 22 (7.1) |
| Asian | 24 (7.8) |
| Chinese | 3 (1.0) |
| Other | 7 (2.3) |
| Education | |
| Secondary school or less | 130 (42.6) |
| Technical college/diploma | 103 (33.8) |
| University degree | 60 (19.7) |
| Postgraduate degree | 12 (3.9) |
| Health status | |
| Very poor | 5 (1.6) |
| Poor | 55 (17.9) |
| Good | 195 (63.5) |
| Very good | 52 (16.9) |
| Participants’ usual doctor | |
| Age (years) | |
| Overall | Mean = 38.25, S.D. = 6.1 |
| ≤30 | 39 (12.4) |
| 31–40 | 197 (61) |
| 41–50 | 63 (19.5) |
| 51–60 | 3 (0.9) |
| 61 and over | 19 (0.6) |
| Gender | |
| Male | 84 (27.5) |
| Female | 221 (72.5) |
| Ethnicity | |
| White | 236 (77.4) |
| Black | 1 (0.3) |
| Asian | 67 (22) |
| Chinese | 0 (0) |
| Other | 1 (0.3) |
| Length of time with doctor (years) | |
| Overall | Mean = 10.1, S.D. = 9.72 |
| ≤5 | 136 (42.1) |
| 6–10 | 67 (20.7) |
| 11–15 | 31 (9.6) |
| 16–20 | 35 (10.8) |
| 21 and over | 31 (9.6) |

Table 2
Multivariate analysis

| Variable | Picture | | | | | | | | Main effect: ethnicity | | Main effect: age | | Main effect: gender | | Interaction: ethnicity/age/gender | |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|-------|------------------|--------|---------------------|--------|-----------------------------------|-------|
| | White | | | | Asian | | | | F | p | F | p | F | p | F | p |
| | Old | | Young | | Old | | Young | | | | | | | | | |
| | M | F | M | F | M | F | M | F | | | | | | | | |
| Expected behaviour of doctor | | | | | | | | | | | | | | | | |
| Personal manner | 3.15 ± 0.79 | 3.25 ± 0.82 | 3.21 ± 0.69 | 3.66 ± 0.81 | 3.12 ± 0.74 | 3.51 ± 0.66 | 3.31 ± 0.71 | 3.94 ± 0.70 | 2.67 | 0.10 | 10.56 | 0.001 | 22.7 | 0.0001 | 0.21 | 0.65 |
| Technical skills | 3.42 ± 0.85 | 3.53 ± 0.88 | 3.29 ± 0.89 | 3.67 ± 0.92 | 3.23 ± 1.05 | 3.44 ± 0.69 | 3.69 ± 0.70 | 3.93 ± 0.85 | 0.65 | 0.42 | 5.78 | 0.02 | 6.36 | 0.012 | 0.67 | 0.41 |
| Explanation | 3.22 ± 0.89 | 3.26 ± 0.85 | 3.33 ± 0.82 | 3.65 ± 0.88 | 3.21 ± 1.04 | 3.46 ± 0.66 | 3.40 ± 0.71 | 3.94 ± 0.82 | 1.49 | 0.224 | 8.93 | 0.003 | 8.94 | 0.003 | 0.01 | 0.91 |
| Emotional | 2.81 ± 0.86 | 3.01 ± 0.82 | 2.76 ± 0.96 | 3.33 ± 0.96 | 2.85 ± 1.04 | 3.24 ± 0.76 | 3.10 ± 0.85 | 3.76 ± 0.83 | 5.43 | 0.02 | 6.90 | 0.009 | 20.37 | 0.0001 | 0.24 | 0.62 |
| Empowerment | 2.97 ± 0.80 | 3.19 ± 0.80 | 2.97 ± 0.88 | 3.50 ± 0.85 | 2.96 ± 1.00 | 3.28 ± 0.77 | 3.24 ± 0.74 | 3.70 ± 0.81 | 1.61 | 0.20 | 7.20 | 0.008 | 19.09 | 0.0001 | 0.26 | 0.61 |
| Management—prescription | 3.77 ± 1.06 | 3.24 ± 1.08 | 3.50 ± 1.11 | 3.48 ± 0.89 | 3.61 ± 1.20 | 3.31 ± 1.18 | 3.72 ± 1.03 | 3.63 ± 1.02 | 0.36 | 0.55 | 0.68 | 0.412 | 3.68 | 0.06 | 0.39 | 0.53 |
| Management—refer | 3.20 ± 1.08 | 2.87 ± 0.99 | 2.97 ± 1.03 | 3.50 ± 1.03 | 3.12 ± 1.33 | 3.00 ± 0.97 | 3.25 ± 0.84 | 3.83 ± 0.95 | 1.93 | 0.166 | 8.20 | 0.004 | 1.89 | 0.17 | 0.11 | 0.74 |
| Management—complementary | 2.52 ± 1.23 | 2.67 ± 1.10 | 2.44 ± 1.16 | 3.02 ± 1.01 | 2.55 ± 1.22 | 2.81 ± 1.12 | 2.82 ± 1.03 | 3.19 ± 1.04 | 1.03 | 0.31 | 3.15 | 0.077 | 5.41 | 0.021 | 0.77 | 0.382 |
| Expected behaviour of patient | | | | | | | | | | | | | | | | |
| Patient behaviour | 3.40 ± 0.94 | 3.51 ± 0.93 | 3.47 ± 1.10 | 3.88 ± 0.92 | 3.39 ± 0.97 | 3.39 ± 0.90 | 3.65 ± 0.77 | 4.31 ± 0.80 | 0.81 | 0.37 | 13.74 | 0.0001 | 8.39 | 0.004 | 0.35 | 0.555 |
| Expected patient ease with doctor | | | | | | | | | | | | | | | | |
| Physical examination | 3.48 ± 1.00 | 3.70 ± 0.97 | 3.63 ± 1.02 | 4.04 ± 0.79 | 3.63 ± 1.00 | 3.69 ± 1.09 | 3.90 ± 0.78 | 4.14 ± 0.93 | 1.33 | 0.25 | 7.36 | 0.007 | 5.23 | 0.023 | 0.024 | 0.876 |
| Health promotion | 4.08 ± 0.98 | 3.97 ± 0.95 | 3.95 ± 1.05 | 4.17 ± 0.88 | 4.17 ± 0.97 | 3.90 ± 1.09 | 4.22 ± 0.90 | 4.34 ± 0.83 | 1.45 | 0.23 | 1.62 | 0.20 | 0.09 | 0.766 | 0.013 | 0.909 |
| Psychosexual | 3.53 ± 1.00 | 3.64 ± 0.88 | 3.29 ± 1.11 | 3.85 ± 1.02 | 3.60 ± 1.04 | 3.57 ± 1.12 | 3.84 ± 0.98 | 4.00 ± 1.05 | 2.37 | 0.12 | 1.87 | 0.17 | 3.39 | 0.067 | 0.306 | 0.581 |

3.2.2. *Impact of age*

For the expected behaviour of doctor, there was no impact of the doctor's age on ratings for issuing a prescription or suggesting complementary therapy. However, participants rated the younger doctor as being more likely to have a better personal manner, better technical skills, better explanation skills, more likely to explore emotional aspects of health, empower the patient and more likely to refer the patient to hospital to see a specialist. For the expected behaviour of patient, the patients rated the younger doctor more positively in terms of having faith in their diagnosis, being more likely to accept their advice and being more likely to choose to see that doctor again. For the expected patient ease with doctor, there was no impact of the doctor's age on the enquiry of health promotion and psychosexual questions. However the participants felt more at ease with a younger doctor for the physical examination compared with the older doctor.

3.2.3. *Impact of gender*

For the expected behaviour of doctor, there was no impact of the doctor's gender on ratings for referral to a hospital specialist or for issuing a prescription. However participants rated female doctors as being much more likely to have a better personal manner, explore emotional aspects of health and empower the patient. In addition female doctors were seen as being more likely to have better explanation skills, better technical skills and were more likely to suggest complementary therapy. For the expected behaviour of patient, the respondents rated the female doctor more highly than the male doctor in terms of having faith in their diagnosis, being more likely to accept their advice and being more likely to choose to see that doctor again. For the expected patient ease with doctor, there was no impact of the doctor's gender on the enquiry of health promotion and psychosexual questions. However the respondents felt more at ease with a female doctor for the physical examination compared with a male doctor.

The multivariate analysis showed that although there were main effects for ethnicity, age and gender, as detailed above, there were no interactions between these variables.

4. Discussion and conclusion

4.1. *Discussion*

The aim of this study was to explore the impact of doctor's ethnicity, age and gender on patients' judgements about a hypothetical doctor. There are some problems with the study which need to be considered. First, the study used photographs rather than real encounters to explore patients' judgements. This may have influenced the ways in which patients responded as the context was artificial. Consultations involve more than simply looking at the doctor's face and it is likely that the doctors' behaviour

and style of communication would change and moderate any first impressions made by the patient. However, the design used in the present study enables such interactive factors to be controlled for and allows the role of profile characteristics to be explored in isolation. Second the study was based on a heterogeneous patient population who varied in terms of their own profile characteristics and previous experiences of health care. It is likely that patients' judgements are not universal but are influenced by such factors. Further research could explore this possibility. Finally, the study only explored ethnicity in terms of being Asian or White rather than a broad spectrum of ethnic groups. Given, these problems, however, the results do provide some useful insights into how patients judge their doctors.

In the main, although patients rated the Asian doctors as being more likely to explore emotional aspects of health than the White doctors, the doctor's ethnic group did not generally influence patients' judgements. These results contrast with previous research [3] which has suggested an impact of ethnic group on patients' ratings. There are several explanations for this. First, it may reflect the present studies focus on Asian versus White doctors rather than on a spectrum of ethnicity. Perhaps patients may have made more stereotypical judgements had the doctors been from other ethnic groups. Second, these results may reflect the specific population recruited for this study. The data was collected from a multicultural area of London where there are large numbers Asian doctors and patients. Familiarity with an ethnic group may minimise the tendency to make judgements based solely upon an individual's skin colour. Third these results may reflect the minimal impact that ethnicity now has on the way we make sense of people as society becomes increasingly multicultural and particularly as medicine recruits an increasing number of doctors from ethnic minorities.

In terms of the impact of age and gender the differences were more profound. Overall, younger and female doctors were regarded more positively than older and male doctors in terms of most aspects of the expected behaviour of the doctor, and the patients own behaviour and ease with the doctor. The results for age are also in conflict with previous research, which has either shown a preference for older doctors [5] or no role for age [4]. However, the strong effect found for gender is consistent with much research both in general practice and in other clinical and non-clinical arenas with women being consistently regarded as more expressive and nurturing [6,7] and women doctors being considered more patient centred [8,3].

4.2. *Conclusion*

This study indicates a strong impact of both the doctor's age and gender on how they are judged by their patients and only a minimal role for whether the doctor was Asian or White.

4.3. Practice implications

These results have implications for both medical education and clinical practice. Beagan [9] argues that medical students are encouraged to become ‘neutral, impartial, knowers’ and to believe that their own membership in social groups has no impact on encounters with patients. This, she argues, negates the opportunity to examine how their individuality can affect encounters, which could result in poorer communication and may ultimately contribute to increased stress, unhappiness and burnout within the practitioner. The results from the present study indicate that a doctor’s membership of social groups, particularly those of gender and age, do indeed influence encounters with patients. This presents medical education with a choice. Does medicine continue to train doctors to minimise their individuality thereby encouraging objectivity and detachment or does it move towards encouraging doctors to reflect upon their social situation. The former may be more in line with the ‘expert doctor’ whilst the latter finds reflection in a more subjective and interactive approach to the consultation. The present study suggests that patients are no longer simply interacting with the doctor as just the doctor but are accounting for the doctor’s own social position. If this is the case then maybe it is no longer possible for doctors to adopt the ‘expert doctor’ role and that in a society where exchanges are increasingly marked by difference and where the patient is increasingly being described as a whole person, it is time for the doctor to be encouraged to see themselves in this way as well.

5. Conflict of interest

None declared.

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