

# Diabetes control and management among South Asian and White men and women

Royal Holloway  
University of London

Harsimran Singh<sup>1</sup>, Rowan Hillson<sup>2</sup> and Clare Bradley<sup>1</sup>

<sup>1</sup>Dept. of Psychology, Royal Holloway, University of London, Egham, Surrey, UK  
<sup>2</sup>Diabeticare Unit, The Hillingdon Hospital, Uxbridge, Middlesex, UK



## Background

Studies of the migrant South Asian community in the UK have consistently shown higher rates of diabetes prevalence in this population compared to native Whites.<sup>[1,2]</sup> The genetic vulnerability of Asians probably manifests as diabetes when subjected to certain lifestyles.

Age of diagnosis for Type 2 diabetes in the South Asians is almost a decade earlier than the Western population<sup>[2]</sup> which means that they are likely to develop the complications of the disease in the prime of their life, thereby, increasing the risk of serious damage to their quality of life.<sup>[3]</sup>

UK research into measures of blood glucose control in South Asian people with diabetes compared to native Whites has found mixed results.<sup>[4,5]</sup>

## Aims

- ◆ To investigate empirically whether there are any differences in the HbA<sub>1c</sub> levels of samples of South Asians and White outpatients, attending a hospital diabetes clinic
- ◆ To explore key factors influencing diabetes management in these groups of people

## Methods

### HbA<sub>1c</sub> Study

The present study was based at Hillingdon Hospital (Middlesex). Patients were selected on the basis of their last names and were sent information sheets, consent forms and a general information questionnaire. Patients with South Asian names received this information in Hindi, Punjabi as well as in English

White patients contacted N = 230  
South Asian patients contacted N = 585

Three most recent HbA<sub>1c</sub> readings were accessed from the hospital lab records for all consenting patients (Table 1).

### Semi-structured interviews

Interviews were conducted in English, Hindi or Punjabi with a selected sample of White and South Asian, men and women (Table 2).

Each interview lasted for approx. 1 hour and aimed to explore barriers and perceived support systems for optimising diabetes management.

Taped interviews were transcribed and analysed using a form of Interpretative Phenomenological Analysis (IPA).

Table 1: HbA<sub>1c</sub> Study

Total N = 121
<b>South Asian patients consenting</b>
N = 56 (34 men, 22 women)
Indians, n = 45
Pakistanis, n = 8
Bangladeshis, n = 3
Type 1, n = 5; Type 2, n = 51
<b>Rest* consenting</b>
*Mixed ethnicity group including predominantly native White patients
N = 65 (44 men, 21 women)
Whites, n = 52
Other ethnicity, n = 13
Type 1, n = 2; Type 2, n = 63

Table 2: Interview Participants

Total N = 20
<b>South Asian patients</b>
N = 12 (6 men, 6 women)
Type 1, n = 4 (mean age 27.8 yrs)
Type 2, n = 8 (mean age 59.9 yrs)
<b>White patients</b>
N = 8 (4 men, 4 women)
All Type 2 (mean age 64.1 yrs)

## Results & Discussion

### HbA<sub>1c</sub> Study

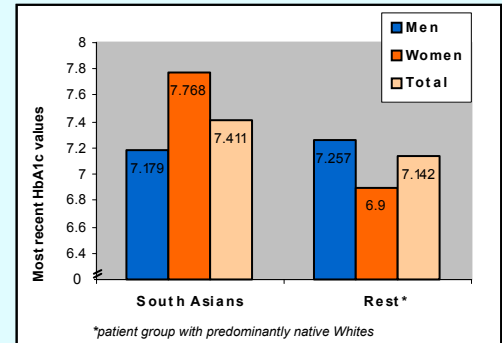
ANOVA conducted on the sample population (Table 1) revealed:

- ◆ A significant interaction between ethnicity and gender affecting the most recent HbA<sub>1c</sub> ( $F(1,117) = 4.119, p < 0.05$ ) (Figure 1)
- ◆ Overall the South Asians with Type 2 diabetes had a significantly lower age of diagnosis compared to the Whites ( $44.12 \pm 10.591$  vs.  $52.42 \pm 14.05$  years,  $p < 0.01$ )

## Conclusions & future research

- ◆ Response rates for South Asians were very low (14% versus 30% for Whites) despite efforts to provide all study material in English and 2 widely used Indian languages.
- ◆ South Asian women had the worst glycaemic control (HbA<sub>1c</sub>) compared to any other patient group. Confirmation of these findings in a more representative sample is needed.
- ◆ Qualitative analysis of the interviews highlights possible areas where diabetes management interventions might be targeted more effectively.

Figure 1: HbA<sub>1c</sub> levels



## Semi-structured interviews

Interview analysis highlighted some important differences:

### ◆ South Asian patients

**Social stigma attached to diabetes** – Many hide their condition and avoid discussing it with others

**Social pressures surrounding "food"** – Much pressure to eat whatever is served to avoid offence to the hosts

**Reliance on immediate family** – South Asians rely heavily on their families for emotional support and assistance

**Herbal medicines** – Almost all had used or were using a type of herbal medicine, particularly 'karela', for their diabetes

**Effects of stress/worries** – All noted that stress and worries had a detrimental effect on their blood glucose control

**Reliance on prayer** – Most believed in the healing power of prayer.

### ◆ White patients

**Sense of personal control** – Most expressed a greater sense of personal control and preferred to take responsibility for their condition and not rely on others

### Similarities between South Asians and Whites:

**Satisfaction with medical care** – All were satisfied with the standard of medical care they were receiving

**Managing diet** – Almost all stated that this is the most difficult part of diabetes management

**Diabetes nurse-led support groups** – Many were unaware of these groups, some felt they were too young to attend them and others felt they could manage on their own.

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## Enquiries

Corresponding author:

Harsimran Singh,  
Research Student  
Royal Holloway, University of London  
Egham, Surrey, TW20 0EX, UK.

E-mail: h.singh@rhul.ac.uk