

PERINEAL LENGTH: RELATIONSHIP BETWEEN THE LENGTH OF THE PERINEUM AND ETHNIC ORIGIN

Hypothesis / aims of study

The purpose of this study was to generate normative data for perineal length for caucasian and asian women.

Study design, materials and methods

The distance from the posterior fourchette to the centre of the anal orifice was measured in 1000 women in the first stage of labour. All measurements were performed using a standard tape measure with the woman in the dorsal position. Data on ethnicity, body mass index, delivery mode and perineal trauma were collected prospectively in addition to information about urinary and faecal incontinence.

Results

734 women (73.4%) were identified as white and 250 (25%) as Asian or Asian British. The remaining 16 women (1.6%) were either black- Caribbean, black-African or Chinese.

There was no significant difference in the mean perineal length of the two groups white vs Asian, 3.7 +/- 0.9 cm vs 3.6 +/- 0.9 cm (p=0.06, 95% CI-.01 to 0.26). The frequency distribution of perineal length for the two groups is shown in Figures 1 and 2. The perineal length of asian women had an approximately normal frequency distribution but the histogram for Caucasian women suggested that there were a higher number of women with a long perineum than would be expected (although this sample was approximately three times larger than that for the asian women). This was confirmed using Q-Q and box plots. No significant correlation was found between perineal length and height, weight or BMI for either group of women (all values less than 0.1 in magnitude).

Interpretation of results

Perineal trauma can be associated with significant long-term morbidity. Whilst a number of studies have looked at perineal length with regards to risk of perineal trauma none have produced normative data for perineal length in a cohort of women of childbearing age. This is the first study to present normative data on perineal length for Caucasian and Asian women of childbearing age

Concluding message

The perineal body is an important anatomical structure in women providing distal support to the pelvic viscera. However the norms for perineal length in obstetric population have not been defined before. This study provides normative data which can be used as a benchmark in future research for correlation of perineal length with outcomes of vaginal delivery.

Figure 1. Frequency distribution of length of the perineum in cm for Caucasian women (n=734)

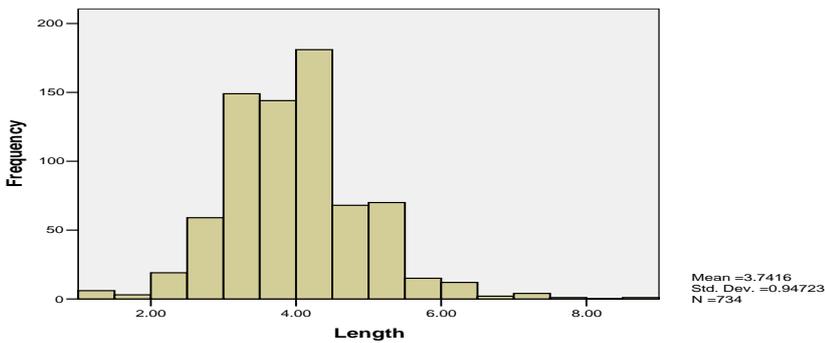
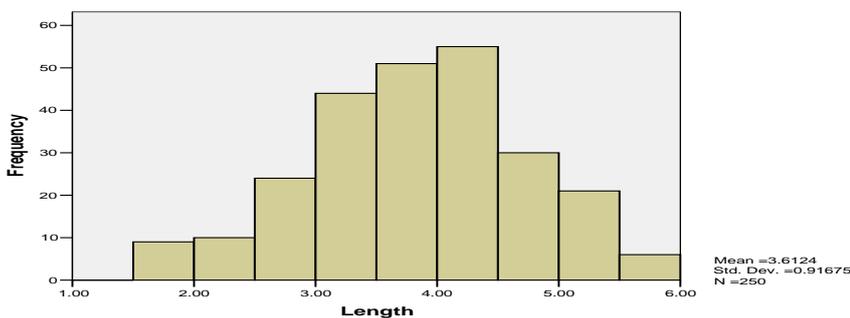


Figure 2. Frequency distribution of length of the perineum in cm for Asian women (n=250)



<i>Specify source of funding or grant</i>	A prospective, observational study was conducted at Queen's Park Hospital, Blackburn, UK from September 2005- March 2007. The study protocol was approved by the East Lancashire NHS Research and Ethics Committee. The study required no funding.
<i>Is this a clinical trial?</i>	Yes
<i>Is this study registered in a public clinical trials registry?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	East Lancashire NHS Research and Ethics Committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes