

common reason for referral [2,3]. In a study from Brazil [4], out of 23 clinically suspected cases, 15 were confirmed to have Williams syndrome. In addition to characteristic facial phenotype, joint laxity, cardiac malformation and overfriendly personality help in clinical diagnosis. Rauch, *et al.* [5] reported the prevalence of William syndrome to be 1.3% in cases with intellectual disability.

There was no infant that had hypercalcemia in our case series. The photographs in this series are expected to give visual impression of the facial features that can help in diagnosis by gestalt.

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## Accuracy of Mothers' Perceptions of Their Child's Weight Status

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The study examined the accuracy of maternal-perceived child weight. Urban affluent mothers of 111 children aged 2-5 years were recruited. Nearly a quarter of mothers overestimated their underweight child as 'normal weight' and all overweight/obese children were perceived as 'normal weight'. Mothers, therefore, were unable to recognize their child's true weight status.

**Keywords:** *Obesity, Preschool children, Underweight.*

For a comparable Body mass index (BMI), Indian children have higher body fat (2-8%) and greater risk of disease (e.g. higher insulin resistance) than Caucasian children [1]. Mothers play a role in shaping the early (0-5 years) eating and activity behaviors related to childhood obesity [2]. Poor maternal recognition of their child's true weight status could therefore be a potential risk factor for obesity. In a systematic review, 6-73% of predominantly Caucasian parents under-estimated the weight status of children aged 2-12 years [3]. The accuracy of maternal perceived child weight has been examined in populations (e.g. Caucasians and Hispanics in US) where obesity is a public health

concern [3], but not in populations of urban affluent Indian children, for whom obesity is an increasing concern [4]. The present study examined the accuracy of mothers' perception of their preschool (2-5 years) children's weight, in Mumbai.

In total, 111 mothers with children aged 2-5 years (mean±SD, 44.1±9.7 mo) attending private medical clinics (*n*=5) in the affluent areas of Mumbai were recruited after receiving approval from the QUT Human Research Ethics Committee, Australia. Child's height and weight were measured by the researcher using standard equipments/protocols. Maternal perception of the child's weight status was measured using a single item from the NOURISH questionnaire [5]: Do you think your child is...(i) underweight, (ii) healthyweight, (iii) somewhat overweight, (iv) very overweight, or (v) don't know.

According to the BMI z-score categories [6], 51.4% of children were healthyweight. The prevalence of

underweight (26.6% vs 43.0%) was lower than the national data on children aged 1-5 years [7], whereas overweight (11% vs 6%) and obesity (11% vs 8%) were higher in the present study compared to a multi-centric study with urban-affluent Indian children aged 2-5 years [4].

Nearly a quarter of mothers overestimated their underweight child as healthyweight (**Table I**). This is of concern as 17% of child-deaths in 1-5 year olds are attributable to underweight in developing countries [8]. In contrast, all mothers underestimated their overweight/obese child's weight status (**Table I**). Similarly, a systematic review found that 86% of predominantly Caucasian parents did not recognise the overweight status of their young child aged 2-6 years [3]. Mothers may underestimate their child's weight status because they may be skeptical towards objective measurements (e.g. growth charts) [9] and may rely on visual assessments - such as comparison with other children [9]. Indian mothers' perception of a chubby baby as healthy – an indicator of good child rearing and of social opulence [10] – may also prevent mothers from accurately perceiving their child's weight status.

In conclusion, the study highlights the prevalence of the double burden of malnutrition and the mothers' poor recognition of their child's true weight status. However, the small sample size limits the findings to the urban-affluent sampled population with preschool children (2-5 years) in Mumbai. The implications of the study are that health professionals need to assist mothers to correctly perceive their child's weight status. Strategies such as the

use of growth charts and sensitively addressing cultural beliefs around children's weight should be considered.

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**TABLE I** ACCURACY OF MATERNAL PERCEPTION OF CHILD'S WEIGHT STATUS AGAINST MEASURED BMI Z-SCORES

Maternal perception	n	Actual BMI Z-scores		
		Under weight (below – 2.00)	Healthy weight (≥ –2 to ≤ 2)	Over weight/ Obese (above 2)
Underweight	12	3	9	–
Healthy weight	99	26	48	25