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Escalating prevalence of comorbid obesity and binge eating: 20-Year cross sectional data from South Australia, 1995 to 2015

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Obesity and binge eating are conditions that are often studied and treated separately. However, examination of the comorbid occurrence of these two public health concerns is important, because binge eating is known to contribute to the onset and maintenance of obesity and vice-versa.

Method: Data from large cross-sectional representative community samples of people from South Australia in the years of 1995 ($n=2768$), 2005 ($n=2813$) and 2015 ($n=2746$) were analyzed. Data collection was performed by Harrison Research using the Health Omnibus Survey. This structured, self-report interview comprises demographic and health-related questions, including height, weight and binge eating. Questions regarding binge eating were derived from the "gold standard" instrument for assessment of eating disorders, namely the Eating Disorders Examination, and assessed the frequency of participants' binge eating episodes (overeating accompanied by a sense of loss of control over eating). Comparisons were conducted regarding the prevalence of obesity, recurrent binge eating (one or more episodes per week during the last three months) and their co-occurrence.

Results: The prevalence of obesity increased from 1995 to 2005 (from 12.8% to 19.2%) and from 2005 to 2015 (from 19.2% to 25.2%). The prevalence of recurrent binge eating also increased from 1995 to 2005 (from 3.1% to 7.2%), and from 2005 to 2015 (from 7.2% to 13%). The prevalence of people with comorbid obesity and recurrent binge eating



increased from 1995 to 2005 (from 0.8% to 2.7%), and from 2005 to 2015 (from 2.7% to 5%).

Conclusion: There was an increase in South Australia during the 20 years from 1995 to 2015 in the independent prevalence of obesity and recurrent binge eating. However, the highest increase (6.2-fold) was in the prevalence of comorbid obesity with recurrent binge eating. More attention to factors triggering obesity and binge eating — as well as their simultaneous treatment — is indicated.

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Hypertension and diabetes risks among adults with moderately increased BMI (23.0–24.9 kg/m²): Findings from a nationwide survey in Bangladesh



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Body-mass index (BMI) is a proxy for fat accumulation in the body. Asian populations experience increased diabetes and cardiovascular diseases risks at lower BMI than the WHO recommended cut-off for overweight (25–29.9 kg/m²) and obesity (>30 kg/m²). Bangladesh guideline follows BMI 18.5–24.9 kg/m² for normal weight. This study aims at quantifying hypertension and type 2 diabetes risk in Bangladeshi adults with moderately increased BMI (23.0–24.9 kg/m²) i.e. those who are "at risk of overweight".

Data from the most recent Bangladesh Demographic and Health Survey (BDHS 2011) were analysed. BMI, blood pressure, blood sugar and related information were collected from a nationally representative sample of 7,433 adults, aged ≥ 35 years. Modified Poisson regression models with robust error variance were used to calculate adjusted relative risk (ARR) for HTN or T2DM by BMI categories, with BMI 18.5–22.9 as the reference.

About 45% of Bangladeshi adults in this nationally representative population had BMI within 18.5–22.9 kg/m². About one-in-four (25%) had BMI ≥ 23 including 2% with BMI > 30.0 (obese). About 12% of Bangladeshi adults, both male and female, had BMI within 23.0–24.9 kg/m² (moderately increased), and showed increased hypertension (ARR 1.55–1.77) and diabetes risk (ARR 1.54–1.93), compared to the reference group (18.5–22.9 kg/m²). Apart from BMI, increased age