

266

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

Felipe Quinto da Luz^{1,3,2,*}, Amanda Salis^{1,3}, Haider Mannan⁴, Stephen Touyz³, Phillipa Hay⁴

¹ *The Boden Institute of Obesity, Nutrition, Exercise & Eating Disorders, The University of Sydney, Sydney, NSW, Australia*

² *CAPES Foundation, Ministry of Education of Brazil, Brasilia, DF, Brazil*

³ *School of Psychology, The University of Sydney, Sydney, NSW, Australia*

⁴ *School of Medicine and Centre for Health Research, Western Sydney University, Sydney, NSW, Australia*

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.

<https://doi.org/10.1016/j.orcp.2016.10.267>

267

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

Muntasirur Rahman*, Gail Williams, Abdullah Al A. Mamun

School of Public Health, University of Queensland, Herston, QLD, Australia

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



(≥ 56 years), higher wealth and education were associated with increased hypertension and diabetes risks.

Our findings support the recommendation that calls for setting optimum BMI for Asian populations to 18.5–23.0 kg/m² for health promotion and public health interventions such as leisure time physical activity. WHO cut-offs for overweight (BMI 25.0–29.9 kg/m²) should be used to facilitate international comparisons. Future studies may explore BMI cut-offs when risk of malnutrition-related illnesses converts to risk of chronic disease for Asian populations.

<https://doi.org/10.1016/j.orcp.2016.10.268>

268

Food literacy as a strategy to tackle unhealthy dietary behaviours among adolescents



Rimante Ronto^{2,1,*}, Lauren Ball²,
Donna Pendergast³, Neil Harris¹

¹ School of Medicine (Public Health),
Griffith University, Gold Coast,
Queensland, Australia

² School of Allied Health Sciences,
Griffith University, Gold Coast,
Queensland, Australia

³ School of Education and
Professional Studies, Griffith
University, Gold Coast, Queensland,
Australia

Background: High school setting has been identified as an ideal setting to teach adolescents about healthy dietary behaviours. This study explored home economics teachers' views on the role of high schools in enhancing adolescents' food literacy and promoting healthy dietary behaviours.

Methods: Semi-structured interviews with 22 home economics teachers were conducted. The interview questions focused on the perceived strengths, opportunities, limitations and barriers in enhancing adolescents' food literacy and healthy dietary behaviours in high schools in Australia. Thematic data analysis was used to analyse the data. Five key themes have been identified from the interview transcripts: (1) standing of food-related life skills; (2) food literacy in the Australian school curriculum; (3) emphasis on resources; (4) building school to home nexus; and (5) learning through school canteens.

Results: Overall, home economics teachers stated that food literacy education was regarded by parents and other school staff to be a less

important subject than Maths or English for adolescents to learn in high schools in Australia. Teachers indicated that most high schools offered one year compulsory food literacy education through home economics classes. However, teachers stated that the time was insufficient to develop sustainable food-related life skills and introduce broader concepts of food literacy such as environmental sustainability. The lack of financial resources and a largely non-supportive school food environment including school canteens were major factors that influenced food literacy education and improved dietary behaviours of adolescents.

Conclusion: Increased status of food literacy education in high schools would support adolescents to develop food-related life skills and mobilise them as agents of dietary behaviour change in the home setting.

<https://doi.org/10.1016/j.orcp.2016.10.269>

269

Anti-obesity health warnings promote healthier dietary decision making



Daniel H. Rosenblatt^{1,2,*}, Stefan
Bode¹, Helen Dixon², Carsten
Murawski³, Melanie Wakefield²

¹ Melbourne School of Psychological
Sciences, The University of
Melbourne, Melbourne, Victoria,
Australia

² Centre for Behavioural Research in
Cancer, Cancer Council Victoria,
Melbourne, Victoria, Australia

³ Department of Finance, The
University of Melbourne, Melbourne,
Victoria, Australia

Background: Following successful use in tobacco control, health warnings on energy-dense, nutrient-poor foods and beverages have been proposed as a potential anti-obesity intervention.

Aim: To investigate the efficacy of health warnings in promoting healthy dietary choices, and examine how health warning design factors (positive versus negative message framing, text-only versus text-and-graphic warnings) influence their efficacy.

Methods: A mixed-effects experimental design was used, whereby 96 participants completed a novel dietary self-control priming task. Participants were randomly assigned to one of five health warning groups featuring the following health warnings formats: text-based with negatively