# **Debate & Analysis Childhood obesity:**

a challenge for primary care teams

### INTRODUCTION

The prevalence of overweight and obesity has substantially increased globally during the past few decades, in both children and adults. It has been estimated that in 2014 worldwide approximately 41 million children under the age of 5 years were either overweight or obese, and obesity in children is now a major public health issue due to its rising prevalence and because of its strong association with chronic diseases, such as diabetes, hypertension, and renal failure, and increased cardiovascular risk in adulthood. It has been reported that, for children aged 6 years, who were found to be obese at the age of 4 years, there was >50% risk of being bullied at school.1 Further, it is known that obesity during childhood can lead to social isolation and depression. Child obesity is also a social issue and inversely associated with the degree of socioeconomic deprivation, as confirmed by the findings of the UK Millennium Cohort Study.<sup>2</sup> If current trends prevail, it is estimated that by 2025 as many as 91 million children might be obese globally.

# **ECONOMIC COSTS AND PREVALENCE OF CHILDHOOD OBESITY**

In the UK, obesity related costs to society, the NHS, and the economy are significant, and increase the risks and burdens of chronic disease. In Europe, it has been estimated by the European Commission that up to 7% of national health budgets within the European Union are spent on costs due to obesity. It is known that in 2015, within the UK alone, there were £4.2 billion of expenses directly attributable to obesity and £15.8 billion of costs to the wider economy. In Scotland, for example, in 2015 approximately 15% of children between the ages of 2 and 16 years were overweight and therefore at risk of obesity, and 13% of children were found to be at risk of becoming overweight. Further, 29% of the adult population were found to be obese and 36% of the adult population were overweight, meaning that 65% of the population in Scotland were either overweight or obese.3

#### **CHANGING PERCEPTIONS OF OBESITY**

This is important as it is known that, when a substantial part of a society is obese, the perception within a population

"... it is known that obesity during childhood can lead to social isolation and depression."

of what is normal weight and what is not shifts. Subsequently, this can lead to the phenomenon of a distortion of view on body perception, and includes adolescents.4 Obesity can become the new 'normal weight' and is not recognised any more as such. There is evidence that weight perception of parents about their child's weight does not change, despite a significant weight increase of their offspring.<sup>5</sup> As adults act as role models for children, they greatly influence their children's diets.

# **RISK OF CHRONIC DISEASES AND COMPLEXITY OF CHILDHOOD OBESITY**

The association between the prevalence of child obesity and socioeconomic disadvantage leads to an increased risk for the socioeconomically deprived for certain chronic diseases, such as asthma, and chronic liver disease later in life,6 and in particular the well-known risks of type 2 diabetes and cardiovascular disease. Child obesity and the resulting chronic conditions have negative consequences on mobility and general wellbeing. Obesity is likely to reduce the amount of quality of life years, which is in contrast to the aims of a life course approach and healthy ageing. Education and environment also contribute to the risk of obesity during childhood, and poor diet, lack of physical exercise, impact of health inequalities due to socioeconomic deprivation, and negatively impacting family dynamics are overall complex. Therefore, it can be challenging and time consuming to explore and address child-obesity-related agenda in primary care settings. Overall, the condition raises sensitive issues, such as parenting and responsibilities of parents and healthcare providers. Parental responsibilities and responsibilities of

members of multidisciplinary primary healthcare teams, including GPs, are often not clear and not strictly defined, making it difficult to address weight and weightrelated issues of children.

## **GPs AND PRIMARY CARE TEAMS**

GPs in the UK have the opportunity to address childhood obesity, but are currently under tremendous workload pressures, and adding more work for them is neither helpful nor reasonable. Further, discussions about children's weight can be uncomfortable for not only parents, as they might feel criticised, but also health professionals, who are often uncertain how to embrace the topic without upsetting parents. In a survey of GPs from Australia, although 73% of GPs were interested in childhood obesity, 61% of them found it difficult to raise the subject.7 It seems likely that there is a lack of evidence in this area due to avoidance of this sensitive health issue, partly due to parental resistance to discuss the topic, as suggested by findings of another Australian GP survey.8

# **EARLY RISKS FOR CHILD OBESITY** AND STRATEGIES TO ADDRESS THE CONDITION

Research suggests that the strongest risk factor for obesogenesis in infants is the weight status of the mothers, and a statistically significant association with obesogenic growth of the infants was found.9 Various studies have confirmed positive associations with maternal overweight or obesity and weight gain in children. 10-12 Therefore, midwives and health visitors could check the weights and heights of expectant and new mothers and their babies during visits or appointments. Practice

"Obesity is likely to reduce the amount of quality of life vears ...

"New, innovative approaches, such as health apps on mobile phones are easily accessible and might also play a role in assessing physical activity levels of children'

nurses, when immunising children, might also be able to check height and weight at the time of immunisations. Overweight and obese babies, toddlers, and children could then be flagged by nurses within existing IT systems, in order to alert GPs. When time and opportunity in a consultation would allow, GPs would then be in a position to inform parents about the weight issues of their child, which would be a good neutral starting point: stating the facts to parents, without being seen as confrontational or critical. Parents could then return for discussions. Alternatively, specially trained nurses might be able to discuss weight issues with parents. GPs could act as a back-up, if referral to paediatric services or further discussions are needed. Primary care teams and GPs play an essential role in identifying the issue of excessive weight in children and are ideally situated, as they are often the first contact for children and parents. New, innovative approaches, such as health apps on mobile phones are easily accessible and might also play a role in assessing physical activity levels of children.

#### CONCLUSION

Children have the right to grow up healthily and with good nutrition, so that they can achieve their full potential. From an ethical viewpoint, it is the responsibility of all members of society to identify and address obesity in children. Health visitors, practice nurses, and GPs can and should play an integral part in this, and their professional opinions should be both valued and recognised. A practical approach, which does not increase the workload of GPs, is needed to tackle obesity in children.

#### Heinz Tilenius,

GP, Graduate MPH (2017), University of Glasgow, Institute of Health and Wellbeing, Glasgow.

Freely submitted; externally peer reviewed.

### **Competing interests**

The author has declared no competing interests.

DOI: https://doi.org/10.3399/bjgp18X694769

#### ADDRESS FOR CORRESPONDENCE

#### **Heinz Tilenius**

University of Glasgow, Institute of Health and Wellbeing, 2 Lilybank Gardens, Glasgow G12 8RZ,

E-mail: 2287235T@student.gla.ac.uk

#### **REFERENCES**

- 1. Sutin AR, Robinson E, Daly M, Terracciano A. Parent-reported bullying and child weight gain between ages 6 and 15. Child Obes 2016; 12(6): 482-487
- 2. Massion S, Wickham S, Pearce A, et al. Exploring the impact of early life factors on inequalities in risk of overweight in UK children: findings from the UK Millennium Cohort Study. Arch Dis Child 2016; 101(8): 724-730. DOI: 10.1136/archdischild-2015-309465.
- 3. Scottish Government. Trend healthy weight. http://www.gov.scot/Topics/Statistics/Browse/ Health/TrendObesity (accessed 28 Dec 2017).
- Jackson SE, Johnson F, Croker H, Wardle J. Weight perceptions in a population sample of English adolescents: cause for celebration or concern? Int J Obes (Lond) 2015; 39(10): 1488-1493. DOI: 10.1038/ijo.2015.126.
- 5. Sugiyama T, Horino M, Inoue K, et al. Trends of child's weight perception by children, parents, and healthcare professionals during the time of terminology change in childhood obesity in the United States, 2005-2014. Child Obes 2016; 12(6): 463-473. DOI: 10.1089/chi.2016.0128.
- 6. Marietti M, Bugianesi E. Childhood obesity: time bomb for future burden of chronic liver disease. Nat Rev Gastroenterol Hepatol 2016; 13(9): 506-507. DOI: 10.1038/ nrgastro.2016.120.
- Dettori H, Elliott H, Horn J, Leong G. Barriers to the management of obesity in children — a cross sectional survey of GPs. Aust Fam Physician 2009; 38(6): 460-464.
- 8. McMeniman E, Moore R, Yelland M, McClure R. Childhood obesity: how do Australian general practitioners feel about managing this growing health problem? Aust J Prim Health 2011; 17(1): 60-65. DOI: 10.1071/py10041.
- 9. Doi L, Williams AJ, Frank J. How has child growth around adiposity rebound altered in Scotland since 1990 and what are the risk factors for weight gain using the Growing Up in Scotland birth cohort 1? BMC Public Health 2016; 16(1): 1081. DOI: 10.1186/s12889-016-3752-z.
- 10. Li C, Goran MI, Kaur H, et al. Developmental trajectories of overweight during childhood: role of early life factors. Obesity (Silver Spring) 2007; 15(3): 760-771. DOI: 10.1038/oby.2007.585.
- 11. Giles LC, Whitrow MJ, Rumbold AR, et al. Growth in early life and the development of obesity by age 9 years: are there critical periods and a role for an early life stressor? Int J Obes (London) 2013; 37(4): 513-519. DOI: 10.1038/ijo.2012.219.
- 12. Griffiths LJ, Hawkins SS, Cole TJ, et al. Millennium Cohort Study Child Health Group. Risk factors for rapid weight gain in preschool children: findings from a UK-wide prospective study. Int J Obes (London) 2010; 34(4): 624-632. DOI: 10.1038/ijo.2010.10.