2014/09: Should the parents of obese children be charged with neglect?

What they said...

'State intervention may serve the best interests of many children with life-threatening obesity, comprising the only realistic way to control harmful behaviours'

Harvard paediatrics professor David Ludwig and Lindsey Murtagh, a Harvard public-health researcher

'[B]laming a mother for making her child fat does not begin to acknowledge the multiple, oppressive forces that restrict the choices a parent can make'

Darren Powell, a doctoral candidate in Health and Physical Education at Charles Sturt University

The issue at a glance

On June 7, 2014, it was reported that two British parents had been arrested over the extreme obesity of their 11-year-old son. The news created a significant response on Australia and around the world, especially on parenting forums.

2012 news reports in Victoria noted that obesity had been a significant factor in influencing child protection authorities to remove children from two different families. While in 2009 an Australian academic study recommended that doctors and other clinicians working with children should view certain types of childhood obesity as child neglect and report the parents to childcare authorities.

These actions and positions have been rejected by others as simplistic, misplaced and likely in themselves to cause harm

Background

(The following overview is an edited version of the Wikipedia entry under 'Childhood obesity'. The full text of this entry can be accessed at http://en.wikipedia.org/wiki/Childhood obesity)

Childhood obesity

Childhood obesity is a condition where excess body fat negatively affects a child's health or wellbeing. As methods to determine body fat directly are difficult, the diagnosis of obesity is often based on body mass index (BMI). Due to the rising prevalence of obesity in children and its many adverse health effects it is being recognized as a serious public health concern. The term overweight rather than obese is often used in children as it is less stigmatizing. Body mass index (BMI) can be used to determine obesity for children two years of age and older. The normal range

for BMI in children varies with age and sex. Obesity is generally defined as a BMI greater than or equal to the 95th percentile.

The United States Preventive Service Task Force reported that not all children with a high BMI need to lose weight. High BMI can identify a possible weight problem, but does not differentiate between fat or lean tissue.

Causes

Childhood obesity can be brought on by a range of factors which often act in combination. 'Obesogenic environment' is the medical term set aside for this mixture of elements. The greatest risk factor for child obesity is the obesity of both parents. This may be reflected by the family's environment and genetics. Other reasons may also be due to psychological factors and the child's body type.

A 2010 review stated that childhood obesity likely is the result of the interaction of natural selection and today's consumerist society with easy access to energy dense cheap foods and fewer energy-demanding activities in daily life.

Legal measures

Some jurisdictions attempt to use laws and regulations to steer kids and parents towards making healthier food choices. Two examples are calorie count laws and banning soft drinks from sale at vending machines in schools. Calorie count laws are a type of law that require restaurant chains of fifteen or more to publish detailed food energy and nutritional information on the food served, in a font equal to or larger than the size of the name of the item. The law was first enacted in 2009, in the state of New York. Others have since been enacted in California

Physical activity

Physical inactivity of children has also been shown to be a serious cause of childhood obesity. Technology use has a large impact on children's level of physical activity. Researchers provided a technology questionnaire to 4,561 children, ages 14, 16, and 18. They discovered children were 21.5% more likely to be overweight when watching 4+ hours of TV per day, 4.5% more likely to be overweight when using a computer one or more hours per day, and unaffected by potential weight gain from playing video games. A randomized trial showed that reducing TV viewing and computer use can decrease age-adjusted BMI; however, reduced calorie intake was thought to be the greatest contributor to the BMI decrease.

Australia

Throughout the 21st Century, Australia has found that its childhood obesity growth has followed trend with the United States. Research studies have lead to the conclusion that the greatest increase has occurred in the lower socioeconomic areas where poor nutritional education has been seen as a key factor.

Internet information

On June 12, 2014, news.com.au published a report titled 'Single parents are more likely to have obese kids, Australian Institute of Health and Welfare finds'

The report details the findings of a study conducted by the Australian Institute of Health and Welfare of those preconditions which seem to predispose children to obesity.

The full text of this report can be accessed at http://www.news.com.au/lifestyle/health/single-parents-are-more-likely-to-have-obese-kids-australian-institute-of-health-and-welfare-finds/story-fneuzlbd-1226951040863

On June 7, 2014, The Brisbane Times ran a report titled, 'British parents arrested on cruelty charges over son's weight' The full text of this report can be accessed at http://www.brisbanetimes.com.au/world/british-parents-arrested-on-cruelty-charges-over-sons-weight-20140607-zs0hp.html

On June 7, 2014, essentialbaby.com.au posted a large number of reader responses to the British news report of parents being arrested because of their 11-year-old son's obesity.

These responses can be read at http://www.essentialbaby.com.au/forums/index.php?/topic/1130554-parents-arrested-for-neglect-overweight-child/

On October 22, 2013, The Sydney Morning Herald ran a report titled 'Act on obesity crisis now: professor' The report details the recommendations of Melbourne University's Professor of Public health, Rob Moodie. The professor argues that more is needed than an emphasis on individual responsibility. Instead what are needed are restrictions on the advertising and marketing of junk food to children and taxation changes to encourage healthier eating.

The full text of this report can be found at $\underline{\text{http://www.smh.com.au/federal-politics/political-news/act-on-obesity-crisis-now-professor-20131021-2vx3h.html}$

On October 15, 2013, essentialkids.com.au published a comment and analysis titled 'Parents to blame for childhood obesity?' The analysis presents a range of views on parents' role in their children's obesity.

The full text of this analysis can be found at http://www.essentialkids.com.au/younger-kids/kids-nutrition-and-fitness/parents-to-blame-for-childhood-obesity-20131015-2vkhu.html

On October 2, 2012, essentialkids.com.au published a report titled, 'Parents blind to early obesity in children' The report details the findings of a university of Sydney study indicating that most parents are unable to recognise obesity in their children.

The full text of this report can be accessed at http://www.essentialkids.com.au/preschoolers/preschooler-nutrition-and-fitness/parents-blind-to-early-obesity-in-children-20121002-26wtg.html

On July 20, 2012, The Conversation published an opinion piece titled 'Childhood obesity: are parents really to blame?' by Darren Powell, a doctoral candidate in Health and Physical Education at Charles Sturt University. Powell argues that parents are generally unjustly blamed for their children's obesity that is largely caused by socio-economic forces outside their control.

The full text of this comment can be accessed at http://theconversation.com/childhood-obesity-are-parents-really-to-blame-8325

On July 12, 2012, The Age ran a news report titled 'Is this child abuse? The courts think so'

The report deals with two instances in which Victorian child protection authorities removed children from their parents, in part because the children were obese.

The full text of this report can be accessed at http://www.theage.com.au/victoria/is-this-child-abuse-the-courts-think-so-20120711-21wdb.html

On April 3, 2012, The Herald Sun published a comment by Susie Burrell titled 'Parents to blame for overweight kids'. Burrell offers parents advice on how to help control their children's weight.

The full text of the comment can be accessed at http://www.heraldsun.com.au/ipad/parents-to-blame-for-overweight-kids/story-fn6bn80a-1226316871466#content

On July 13, 2011, The Times ran a report titled 'Should Parents Lose Custody of Their Extremely Obese Kids?' The report details the recommendation of Harvard paediatrics professor and obesity expert, David Ludwig, that in extreme cases the parents of obese children should lose custody of their children.

The full text of this report can be accessed at http://healthland.time.com/2011/07/13/should-parents-lose-custody-of-their-very-obese-kids/

On June 28, 2007, the British Medical Journal (BMJ) published a report on the recommendation made by the British Medical Association (BMA) that parents of obese children not be charged with neglect.

The full text of this report can be accessed at http://www.bmj.com/content/334/7608/1343.8?tab=citation

On February 13, 2005, The Sydney Morning Herald published a report titled 'Parents to blame for obese children' The report published Sydney University findings that parental behaviour and modelling were major factors in precipitating childhood obesity.

The full text of this report can be accessed at http://www.smh.com.au/news/Health/Parents-to-blame-for-obese-children/2005/02/12/1108061922855.html?oneclick=true

Arguments in favour of charging the parents of obese children with neglect

1. Obesity is a major health risk for children

The Australian Bureau of Statistics has noted that in 2007-08, one-quarter of all Australian children, or around 600,000 children aged 5-17, were overweight or obese, up four percentage points from 1995. The obesity rate for children increased from 5% in 1995 to 8% in 2007-08

The federal Australian Department of Health has indicated that the most important long term consequence of childhood obesity is its persistence into adulthood.

Once a child is overweight or obese it is unlikely that they will spontaneously revert to a healthy weight, predisposing them to the health concerns that afflict obese adults. These include musculo-skeletal problems, cardiovascular disease, some cancers, sleep apnoea, type 2 diabetes, and hypertension.

Other problems associated with excess weight, in children and adolescents, include heat intolerance, breathlessness on exertion, tiredness and flat feet. Some research suggests that obese children (particularly older girls) also tend to exhibit decreased self-esteem and depression, while a significant proportion of overweight or obese children use unhealthy dietary practices for weight control.

A recent joint study from Australian and United Kingdom researchers has found excess weight and obesity in children may also be fuelling the asthma epidemic facing many countries. This has prompted peak asthma groups to re-emphasise the importance of a healthy lifestyle and healthy weight in childhood.

Further, a recent study in Perth confirmed that overweight or obese children are more likely to be bullied than normal or underweight children, such that, being overweight is now considered a risk factor for becoming a target of bullying.

2. Children are unable to manage their weight without parental support

It has been observed that children are unable to control their weight without the active assistance of their parents. Dr Melinda Sothern, an exercise physiologist with Louisiana State University and lead author of the popular childhood weight loss book 'Trim Kids', has claimed that parents generally have more control over a child's weight than anyone else, including doctors, nutritionists, and school friends.

Dr Sothern has stated, 'No matter how deeply children may yearn for a slimmer body, they will not be able to achieve this without the support of the people who buy the groceries, make the dinners, and set the rules'.

A landmark study published in the Journal of the American Medical Association dramatically illustrated the value of family-centred treatments. Leonard Epstein and colleagues from the University of Pittsburgh put 76 overweight children and their parents through one of three different educational programs. The basic content of each program was the same, but the approach was very different. One program strongly encouraged both children and parents to make healthy lifestyle changes, one encouraged change in children only, and one emphasized the importance of a healthy lifestyle but gave few practical tips for putting that ideal into action. Ten years later, the rate of obesity in the first group - the group that took a family approach to the problem - had dropped about 8 percent. In contrast, the rates significantly climbed in the other groups.

Studies such as this have demonstrated the central role that parental support plays in allowing children to control their weight. Proponents of penalties for parents whose children become obese stress the importance of informed and active parents in enabling children to achieve and maintain a healthy body weight.

3. Severe childhood obesity fits the criteria for parental neglect

Definitions of 'neglect' and 'medical neglect' (parental neglect of a child's medical needs) are not universally consistent. However, there are generalised concepts and standards that are expected of parents in their treatment of their child. Failure to meet these standards may legitimately be considered neglect. Many of the parental behaviours associated with families in which children become obese match the criteria generally applied to determine neglect.

Though not all obese children are neglected as parents of obese children may be very devoted to their child, obesity often develops within families where there are concerns about parenting skills, such as lack of parental limit-setting or parental supervision.

In 1989, an Australian case series report of 12 children with severe obesity in early childhood observed that, in all cases, parental limit-setting, including around eating, was impaired. Such findings have lead to recommendations that obese children should be regarded as potentially at risk and that physicians and other clinicians should be prepared to report the parents of such children to the relevant authorities.

In an article published in the Australian Medical Journal in 2009, Shirley M Alexander, Louise A Baur, Roger Magnusson and Bernadette Tobin conducted a study of the role of parents in childhood obesity in which they stated that in situations where parents of severely obese children seem unwilling or unable to adhere to weight-loss programs formal

intervention may be necessary.

Alexander, Baur, Magnusson and Tobin concluded, 'Both the duty of care that a physician owes to a child who is a patient and statutory duties support the physician's duty to report severe cases of inadequately managed paediatric obesity to child protection agencies'.

4. Removing severely obese children from their parents can be a life-saving intervention

Harvard paediatrics professor David Ludwig and Lindsey Murtagh, a Harvard public-health researcher, have stated, 'When children become ...obese, with a BMI at or above the 99th percentile, it signals a fundamentally different situation than mere poor parenting. State intervention may serve the best interests of many children with life-threatening obesity, comprising the only realistic way to control harmful behaviours.'

Professor Ludwig has indicated that he starting thinking about the idea of state intervention after a 3-year-old girl came to his obesity clinic weighing 41 kilos. By last year (2010), at age 12, she had reached 180 kilos and had developed diabetes, cholesterol problems, high blood pressure and sleep apnoea.

Her parents had physical disabilities, little money and difficulty controlling her weight. Professor Ludwig stated, 'Out of medical concern, the state placed this girl in foster care, where she simply received three balanced meals a day and a snack or two and moderate physical activity. After a year, she lost 130 pounds. Though she is still obese, her diabetes and apnoea disappeared; she remains in foster care.'

Similarly, it was reported in June, 2014, that the parents of an 11-year-old boy were arrested in Britain on suspicion of neglect and child cruelty after authorities grew alarmed about the child's weight. The boy weighed about 95 kg (210 pounds), is 155 cm (5 feet 1 inch) and had a body mass index of 41.8, higher than is classified as obese for an average adult male

While in Australia, it was reported in July, 2012, that on at least two recent occasions Victorian welfare authorities have used extreme obesity as a partial justification for having children removed from the custody of their parents. One case involved a pre-teenage boy who weighed 110 kilograms and the other a teenage girl whose waist circumference of 169 centimetres was greater than her height. The girl had gained 30 kilograms in 18 months and was described by a Children's Court magistrate as 'incredibly unhealthy ... To hear that her waist measurement is greater than her height is so concerning.'

In all these cases the children's weight was judged life-threatening.

5. Such interventions in relation to childhood obesity are case appropriate

It has been claimed that government intervention in the lives of families with obese children only occurs in extreme cases, in which each situation was carefully and individually assessed.

In Britain, child protection authorities note that they adopt a 'proportionate and necessary' response. Police, who took an obese child from his parents in June, 2014, stated, 'Intervention at this level is very rare and will only occur where other attempts to protect the child have been unsuccessful.'

Victorian child protection authorities have stated that obesity is not of itself grounds for child protection workers to become involved with a family. However, they have noted that 'obesity may be a symptom of other issues that could place a child at risk or harm that would warrant child-protection involvement'. Thus, obesity is sometimes one of a complex of issues that indicate that a child is in danger of suffering serious harm.

Arguments against the parents of obese children being charged with neglect

1. Blaming the parents of obese children discriminates against the poor

Most obesity is caused by excessive daily caloric intake relative to daily caloric expenditure; however, it has been claimed that socio-economic status influences a child's weight.

The Australian Bureau of Statistics data has demonstrated that children living in the areas of greatest relative economic disadvantage had more than double the rate of obesity (28%) of children living in areas with the lowest relative disadvantage (13%).

'Aside from socio-economic differences between areas in terms of education, income and employment, some areas may also offer greater opportunities for physical activity and greater access to healthy food options.' This data suggests that relative poverty seems to have particularly adverse consequences in terms of a child's weight gain. Other recent Australian studies have also suggested that having a sole parent, a low income family and living outside a major city are risk factors for childhood obesity.

The National Council of Single Mothers and their Children (NCSMC) has claimed that one of the key factors driving obesity in these families is that the children do not take part in organised sport because their parent cannot afford for them to do so.

NCSMC spokesperson, Terese Edwards, has stated, 'Annual sporting fees are several hundred dollars and then you need footwear and shin guards and petrol to get the kids to training and games.'

Ms Edwards has further claimed, 'Food is also a big issue.' Ms Edwards went on to explain that many single parent families simply could not afford to follow the healthy eating guidelines.

Professor Sharon Friel, author of a 2014 study of the cost of healthy eating, found that such eating habits cost up to 30 per cent more than a diet high in carbohydrate, sugar and fat.

In an opinion piece published in The Conversation on July 20, 2012, Darren Powell, a doctoral candidate in Health and Physical Education at Charles Sturt University has stated, '[B]laming a mother for making her child fat does not begin to acknowledge the multiple, oppressive forces that restrict the choices a parent can make.'

2. Parents do not knowingly promote obesity in their children

It has been claimed that the parents of obese children do not knowingly promote obesity in their children. It has been argued that many parents of obese children do not even recognise that their children have weight problems. In an article published on October 15, 2013, on essentialkids.com.au it was reported that an Australian study of more than 500 children aged up to five conducted by the University of Sydney in 2012 found that 70 per cent of parents of overweight kindergarten children thought their children were the right weight, along with 30 per cent of parents of obese children who also thought their children were a healthy weight.

It has also been noted that parents are unaware of the impact of their own role modelling and equally unaware of what behaviours to demonstrate to their children.

Tim Gill, an associate professor at Sydney University's Boden Institute of Obesity, Nutrition, Exercise and Eating Disorders, has stated, 'Parents are under a lot of pressure and they are time-poor, but they don't quite understand the impact little things like sitting down and having a family meal and seeing it being cooked and going outside to kick soccer ball even for five minutes can have.'

3. A punitive approach to childhood obesity is likely to be counter-productive

It has been claimed that condemning the parents of obese children as neglectful is likely to cause shame and unease among parents and lead them to deny their children's health issues.

In an article published on October 15, 2013, on essentialkids.com.au, clinical psychologist Dr Kathryn Berry stated, 'Obesity is...such a sensitive issue, not only for the child, but also the parents who may feel blamed or responsible for their child being in the unhealthy weight range, which I think acts as a barrier to help-seeking for parents.'

Concern has also been expressed that pushing parents to control their children's weigh could have a series of negative consequences.

A number of experts have warned that adopting a punitive approach toward parents can result in them treating their children in insensitive ways likely to cause additional harm.

Dr Kathryn Berry has stated, 'If you are going to make comments about their weight, chances are they are already feeling bad about themselves so it just exacerbates their negative feelings.'

A similar point has been made by Dr Joanna McMillan, a nutritionist and dietician, who has noted, 'It's crucial that good body image is enforced with all children, including those who are overweight. We must ensure that they are not judged by their weight, and that the focus remains firmly on what is healthy from the inside out.'

Susie Burrell, in an opinion piece published in The Herald Sun on April 3, 2012, stated, 'Anyone...who grew up with a mother or grandmother who was obsessed with diets and weight loss will clearly recall how damaging this was in terms of feeling inadequate, feeling constantly restricted with food and basically more likely to overeat than ever before.'

It has also been suggested that heavy-handed approaches from child protection authorities can damage the fabric of the family, causing greater harm to the children.

An article published in the Medicine, Health Care and Philosophy Journal in May, 2014, and written by MS Merry and K Voigt argues that intervention over obesity can damage relationships within families and lead to unintended stigmatising effects.

4. There are community-based means of reducing childhood obesity than punishing parents

A wide range of measures have been proposed to alter Australian eating and exercise habits and thus reduce childhood obesity. Such initiatives include government-funded advertising campaigns and school-based education campaigns to increase awareness of healthy eating behaviours and increase exercise; further regulation of the food offered for sale in school canteens; improved labelling of food stuffs; government subsidising of sport participation for children from low-income families and greater sponsorship of local sporting bodies.

It has also been suggested that a tax be imposed on soft drinks and fast foods to discourage their consumption and provide additional funds to be used to provide greater opportunities for exercise within the community. Nutritionists have also urged that the GST not be extended to include fresh food as this would make healthy eating even more expensive for those living in relative poverty.

The above proposals are all seen as ways of altering the social environment which leads to obesity.

5. Childhood obesity is a societal problem with causes that extend beyond the individual parent

It has been claimed that the child's total social environment contributes to obesity, with factors that are outside parental control contributing to the child's unhealthy eating habits and weight gain.

In an article published on October 15, 2013, on essentialkids.com.au, nutritionist and dietician Dr Joanna McMillan stated, 'The reality is that we live in an environment that encourages obesity... Where families see it as normal to eat energy-dense takeaway food, snack on lollies and drink soft drink, or simply to overeat, it's very difficult to change things... The whole family needs...support from government, from local community and from extended family and friends around them.'

In an article published in The Age on June 12, 2012, Associate Professor John Dixon, of the Baker IDI Heart and Diabetes Institute, was cited as stating, 'I would not want parents out there with overweight or obese children to in any way feel that it's through their negligence that we have a growing obesity issue in children today.

That would be very wrong indeed ... This is a community problem, an Australia-wide, a global problem that we're not

addressing very well at the moment.

We shouldn't be blaming the parents for our environment. The parents and the children who are obese are really victims of this environment.'

In an opinion piece published in The Conversation on July 20, 2012, Darren Powell, a doctoral candidate in Health and Physical Education at Charles Sturt University has stated, 'Parents and children who are obese are...victims. It is well established that economic, environmental, social, cultural, historical and political forces act as determinants on children's health and bodies. These factors also affect the ability to parent well.'

Further implications

There is a fundamental difference of perspective between governments which rely on the individual to combat social problems and those that believe that a systemic response is required.

Any approach to childhood obesity which focuses on parental responsibility is likely to minimise the power and scope of the preconditions which are fuelling childhood obesity. Weight-related conditions among Australian children are no longer a minority problem.

Australia is today ranked as one of the fattest nations in the developed world. The prevalence of obesity in Australia has more than doubled in the past 20 years. Monash University's School of Medicine, Nursing and Health Sciences has noted that fourteen million Australians are overweight or obese. More than five million Australians are obese. If weight gain continues at current levels, by 2025, close to 80% of all Australian adults and a third of all children will be overweight or obese.

These statistics have enormous public health implications. Obesity has overtaken smoking as the leading cause of premature death and illness in Australia. On the basis of present trends it is predicted that by the time they reach the age of 20 our children will have a shorter life expectancy than earlier generations simply because of obesity. Such a widespread problem is the result of major shifts in whole population behaviour. Technological advances have produced communities which are less active. The growth of sedentary forms of work and recreation, centring on computers, has meant that a majority of Australians no longer readily or regularly achieve the optimum amount of physical activity per day. Longer working hours and double income households has seen a growth in consumption of pre-prepared and take-away food, often with higher fat, sugar and salt contents than are recommended for good health. Large commercial conglomerates aggressively market fast food, confectionary and soft drinks to adults and children.

Certain subgroups within Australian society are particularly vulnerable to these influences. Those with less dietary knowledge and less income are particularly at risk. High fat, high sugar fast food is a cheaper source of energy than fruit, vegetables and more expensive cuts of meat.

Public health experts generally recommend that more than an individual response is required to address such a complex of influences contributing to overweight, obesity and ill-health. Professor Rob Moodie, who chaired the national preventive health taskforce from 2008 to 2011, has argued that the type of holistic approach that has been used to combat cigarette smoking is called for to combat obesity.

Professor Moodie has noted that some progress had been made, such as the development of a five-star, front-of-pack labelling system for processed foods. However, he is concerned that governments and the food industry have shied away from other measures more likely to make a difference, such as restrictions on advertising and marketing of junk food to children and pricing and taxation changes to encourage healthier eating.

Removing obese children from their parents or otherwise penalising the parents of obese children is a measure that should be used only in the most extreme of circumstances. There is little to be gained in demonising parents for a problem as general and systemic as Australia's obesity issues.

Newspaper items used in the compilation of this issue outline

The Australian: September 5, 2013, page 3, news item by Rachael Baxendale, `Exercise is a great idea but women just run out of time'.

 $\underline{\text{http://www.theaustralian.com.au/news/nation/exercise-is-a-great-idea-but-women-just-run-out-of-time/story-e6frg6nf-1226710925963}$

The Age: October 17, 2013, page 15, news item (with statistics) by Dan Harrison, `More Australians classed obese'. http://www.smh.com.au/national/health/more-australians-classed-obese-20131016-2vmwj.html

The Age: October 22, 2013, page 10, news item by Dan Harrison, `Act on obesity crisis now: professor'. http://www.smh.com.au/federal-politics/political-news/act-on-obesity-crisis-now-professor-20131021-2vx3h.html

The Australian: November 20, 2013, page 4, news item by Tom Whipple, `Research shows kids running out of puff'. http://www.theaustralian.com.au/news/world/research-shows-kids-running-out-of-puff/story-fnb64oi6-1226764796693

The Age: November 30, 2013, page 8, news item by Tessa van der Riet, 'Obesity becoming "norm" as diabetes apathy grows'.

http://www.theage.com.au/national/obesity-becoming-the-norm-as-apathy-towards-diabetes-grows-in-australia-20131129-2yh2v.html

The Australian: January 18, 2014, page 14, comment by Christopher Bantick, `I'd rather have a plump child who wants to eat'.

http://www.theaustralian.com.au/news/features/id-rather-have-a-plump-child-who-wants-to-eat/story-e6frg6z6-1226804291191

The Herald-Sun: February 3, 2014, page 22, comment by Alice Clarke, `Extreme diet cuts will only set yourself up for failure'.

 $\underline{\text{http://www.heraldsun.com.au/news/opinion/extreme-diet-cuts-will-only-set-yourself-up-for-failure/story-fni0ffsx-1226816101990?nk=dff51978d61cc0303d1846c1232a2675}$

The Age: March 30, 2014, page 3, news item by Jill Stark, `Heavy and healthy: the latest take on obesity'. http://www.smh.com.au/national/heavy-and-healthy-the-latest-take-on-obesity-20140329-35qtf.html

The Australian: March 29, 2014, page 3, news item by John Ross, `Skinniest are racing obese to early death'. http://www.theaustralian.com.au/higher-education/skinniest-are-racing-obese-to-early-death/story-e6frgcjx-1226868042778

The Age: May 21, page 13, news item by L Carroll, `Academics alarmed by nation's child "couch potatoes". http://www.smh.com.au/national/health/academics-alarmed-by-nations-child-couch-potatoes-20140520-38mkh.html

The Age: June 9, 2014, page 2, news item by Lucy Carroll, `Junk food advertising rife in children's sport'. http://newsstore.fairfax.com.au/apps/viewDocument.ac;jsessionid=4F069856EF5B0535E9D4B36477C694A9?sy=afr&pb=all_ffx&dt=selectRange&dr=1month&so=relevance&sf=text&sf=headline&rc=10&rm=200&sp=brs&cls=14&clsPage=1&docID=AGE140609CK61V5DJRJC