# Obesity and the nurse's role: reducing health inequalities through health promotion

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### Abstract

The obesity epidemic currently costs the National Health Service £6.1bn each year.

This, combined with the co-morbidities associated with obesity means that the epidemic

needs to be addressed. Nurses play a key role in health promotion. However, as health

inequalities may relate to obesity nurses must be aware of the wider determinants of

health. The present training nurses receive should be reviewed to include this.

#### Keywords

Obesity, health promotion, determinants of health, socio-economic status, inequalities.

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#### Introduction

This article will focus on obesity. It will consider the nurse's role as a health promoter and the determinants of health that may contribute to this growing problem. It will aim to explore what barriers exist to promoting health, the ethical principles which need to be considered and what Government policies exist to help reduce obesity. The World Health Organization (2016) classes individuals with a body mass index (BMI) of 30 or more as obese. Currently, 27% of adults are obese in the UK (NHS Digital 2016), an increase of 12% from 1993 (Health and Social Care Information Centre 2016). The World Health Organization (2015 cited in Datta 2016) predict that by 2030, one-third of adults will be obese. The cost of obesity is two-fold; the economic impact and the direct impact on the individual (Lobstein 2015). According to Public Health England (PHE 2015), obesity costs the National Health Service £6.1bn each year.

Interestingly, NHS Digital (2016) reports that Orlistat (a medication used in the treatment of obesity (BNF 2017)) is prescribed more frequently in Merseyside than in any other area in the UK. Orlistat acts by reducing the amount of fat that is reabsorbed in the gastrointestinal system, from food that is consumed (Padwal and Majumdar 2007). This is achieved by the drug inhibiting the hydrolysis of triglycerides, thereby limiting the absorption of fat (Halpern et al. 2010). Hruby et al. (2016) stress that being obese can increase the risk of morbidity (including; cardiovascular disease, cancer, hypertension and diabetes) and mortality.

This health issue is relevant to the role of the nurse. Nault (2015) explains how obese patients can require more nursing care in relation to wound healing and reduced mobility. Finer (2015) highlights that stereotyping often exists towards this patient group. The Nursing and Midwifery Council code of conduct (NMC 2015) reminds nurses they should avoid bias and treat everyone with compassion and respect. Finally, Nguyen et al. (2016) found that obese patients experience longer hospital stays and have greater economic impact associated with their treatment; significant at a time when the National Health Service has a £1.85bn deficit (Dunn, McKenna and Murray 2016).

There are wider determinants of health which could contribute to obesity (Public Health England 2014a). 30.7% of men and 34.2% of women, with no qualifications are classed as obese, compared with 19.9% of men and 18.2% of women educated at degree level. There is a direct link between socio-economic status and obesity. Booth, Charlton and Gulliford (2017) found a link in the UK, between obesity and income.. This differed from the US, where the prevalence of obesity was only lower in those with the highest income, suggesting that other determinants maybe contributing to obesity. Drewnowski (2009) highlighted that food with a high fat and sugar content often cost less than healthier, fresh food. Therefore, those with a lower socio-economic status may opt for the cheaper, more calorific alternatives. Davis and Chapa (2015) discuss how those with a poor education may be unemployed or in a low paid job, which may lead to them living in a deprived area, with limited access to opportunities for physical activity and/or shops to purchase healthy food. Thus, education may be the only escape from the obesity 'trap'.

Environmental factors also contribute. Burgoine et al. (2016) concluded that participants who had higher exposure to fast-food outlets had a higher BMI in contrast to those with lesser exposure. Additionally, Jilcott et al. (2011) found obesity was less prevalent in populations with greater access to fresh fruit and vegetables through green-grocers or supermarkets. Nonetheless, Wang et al. (2007) found that participants who lived closer to a supermarket had a higher BMI than those who did not. They concluded that the results could be due to limited nutritional knowledge which needed broadening to enable them to make healthy choices. In this way both environmental factors and education can be linked.

Finally, ethnicity as a determinant of obesity has been considered. El-Sayed, Scarborough and Galea (2011) conducted a systematic review and found that Black Africans and Black Caribbeans were more likely to be obese, compared to Caucasians, with adults of Chinese ethnicity having the lowest prevalence. This was consistent with Public Health England (PHE 2017) whose recent data found that 67.2% of Black adults, 65.8% of Caucasians and 40.9% of Chinese adults were classed as being overweight. El-Sayed, Scarborough and Galea (2011) add that the main reason for this difference could be due to the fact that ethnic minorities, living in the United Kingdom, generally have a lower socio-economic status than Caucasians. This was consistent with Drewnowski (2009) who suggested that those from a lower socio-economic status would opt for convenient, high calorific food due to it being cheaper.

Trigwell et al. (2014) looked at parental attitudes towards overweight children, in Liverpool. They found that Black Somali parents considered a much larger body size as healthy and that they did not recognise being overweight as a health issue. Watkins and Jones (2015) note that children who are overweight are more likely to become overweight adults. Therefore, ethnic attitudinal differences need to be addressed. Additionally, more black adults are unemployed compared to any other ethnic group (Brown 2016). Therefore, low socio-economic status could be contributing to the high prevalence of obesity.

In England, the effect of the environment on obesity has been recognised by briefings produced by Public Health England (PHE 2013; 2014b) which advise local authorities on how to create environments to reduce obesity. Their focus is on ensuring new housing developments are close to local amenities so that people are encouraged to walk rather than taking a car. Public Health England (PHE 2016) provides advice on the correct portions of the food groups to be consumed through the Eatwell Guide, a revised version of the Eatwell Plate in which pictures and words promote accessibly to all, regardless of education. Locally, Liverpool launched a Living Well programme, which will see £3m being invested to encourage participation in physical activity. The aim is to do this through encouraging active travel, having a GP referral scheme for exercise and rewarding those who do participate (NHS Liverpool Clinical Commissioning Group 2015).

Nurses can play a major role in reducing obesity. This is emphasised in the NMC (2015) Code of Conduct which states that nurses should promote health and prevent illness. Models of health promotion exist to help practitioners develop new ways of thinking, such as Beattie's (1991 cited in Naidoo and Wills 2016) model. It comprises of four components. It can be used top down which is authoritative in nature or bottom up which is negotiated in nature, ranging from being individual to population focused (Naidoo and Wills 2016). A personal counselling approach is also recommended. It enables nurses to empower the individual by working in partnership and considers the wider determinants of health. Lazarou and Kouta (2010) support a tailored, individualised health promotion programme. Kable et al. (2015) points out, that nurses are at the forefront of patient care, have more patient contact than other healthcare professionals and make up more of the healthcare workforce.

The Royal College of Nursing (2012) suggested nurses should take an upstream approach by preventing illness/disease. Nurses see patients throughout their life, so their awareness of current guidance, collaboration with health providers and delivery of health promotion techniques such as motivational interviewing can have a powerful effect. Low et al. (2013) reported some individuals experienced significant weight loss with motivational interviewing when compared to nutrition counselling. This approach empowered the individuals as they determine the costs/benefits for themselves (Naidoo and Wills 2016). Interestingly, Barnes and Ivezaj's (2014) literature review found that motivational interviewing only contributed to weight loss in 50% of cases. They related

this to the intervention alone whereas in some cases this intervention would have been provided alongside an individualised treatment plan.

Reutter and Kushner (2010) stated that nurses can reduce inequalities by acting as advocates for patients. They can also lobby Government to make policy changes and provide input to health strategies. Reutter and Kushner (2010) cited the importance of an increase in the minimum wage, which can also impact positively on equality. However, Cohen and Marshall (2017) argued that barriers such as thinking the problem is individual rather than population focused need to be overcome, and that nurses need education and confidence to act as effective advocates.

Brown et al. (2007) highlighted a lack of health professional training as a further barrier in successful health promotion and the management of obesity. This was supported by the work of Kable et al. (2015) who reported that the majority of nurses they interviewed had not awareness of weight management best practice guidelines. Additionally they found that nurses did not feel confident and experienced significant time restraints. Consistent with these conclusions, Nolan et al. (2012) found that practice nurses were unaware of current guidelines and had poor cultural awareness in the management of obesity with ethnic minority patients. Zhu et al. (2015) agreed that not having enough time and training prevented effective tackling of obesity issues for patients. These barriers were recurrent themes in the literature.

Nevertheless, there are ethical principles which nurses must consider when promoting health, without which Azevedo and Vartanian (2015) warn, health promotion may have negative consequences. They argued that the principle of autonomy was key to promoting health as individuals felt empowered making their own decisions and may feel restricted if told what to do. Beneficence refers to the benefits of a decision and behaviour, to either the individual or society (Naidoo and Wills 2016). However, as Doody and Noonan (2016) highlighted beneficence as subjective as the same beneifts may not be experienced by all. Therefore an ethical dilemma may exist between providing autonomy and ensuring beneficence. As beneficence considers the wider population, Pope, Hough and Chase (2016) argued that this stance may ignore individual autonomy. Dunbar (2003) suggested that in these instances, autonomy is always a priority. This view resonates with the NMC (2015) Code of Conduct which clearly states that nurses should respect an individual's right to either accept or refuse treatment.

In conclusion, the obesity epidemic in England is resulting in costs to the economy, society and the individual. There are many determinants of health which cause health inequalities, particularly with regards to obesity. It would seem that education is essential in escaping the obesity 'trap'. Nurses play a major role in reducing inequalities through health promotion and patient advocacy, although it is clear that barriers exist including nurses not having sufficient time to deliver health education and being unaware of how to act as advocates and/or best practice guidelines.

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## References

Azevedo, S. M. and Vartanian, L. R. (2015). Ethical Issues for Public Health Approaches to Obesity. *Current Obesity Reports*, 4 (3), pp.324–329.

Barnes, R. D. and Ivezaj, V. (2014) A systematic review of motivational interviewing for Page | 47 weight loss among adults in primary care. *Obesity Reviews,* 16 (4), pp.304–318.

Booth, H. P., Charlton, J. and Gulliford, M. C. (2017). Socioeconomic inequality in morbid obesity with body mass index more than 40 kg/m<sup>2</sup> in the United States and England. SSM - Population and Health, 3 (12), pp.172–178.

British National Formulary (2017). *Orlistat.* [Online]. Available at: <u>https://www.medicinescomplete.com/mc/bnf/current/PHP2496-</u> orlistat.htm?q=orlistat&t=search&ss=text&tot=12&p=1#\_hit [Accessed 8 January 2017].

Brown, I., Stride, C., Psarou, A., Brewins, L. and Thompson, J. (2007). 'Management of obesity in primary care: nurses' practices, beliefs and attitudes'. *Journal of Advanced Nursing*, 59 (4), pp.329–341.

Brown, J. (2016) *Unemployment by ethnic background.* (Briefing Paper No. 6385). [Online] London: House of Commons. Available at: <u>http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06385#fullreport</u> [Accessed 1 March 2017].

Burgoine, T., Forouhi, N. G., Griffin, S. J., Brage, S., Wareham, N. J. and Monsivais, P. (2016). Does neighbourhood fast-food outlet exposure amplify inequalities in diet and obesity? A cross-sectional stud'. *American Journal of Clinical Nutrition,* 103 (6), pp.1540–1547.

Cohen, B. E. and Marshall, S. G. (2017). Does public health advocacy seek to redress health inequities? A scoping review. *Health and Social Care in the Community*, 25 (2), pp.309–328.

Datta, S. (2016). 'The obesity epidemic: time for the Government 'heavies' to step in?' *BJOG: An International Journal of Obstetrics and Gynaecology*, 123(2), pp.161 – 162.

Davis, S. L. and Chapa, D. W. (2015). Social Determinants of Health: Knowledge to Effective Action for Change. *The Journal for Nurse Practitioners*, 11 (4), pp.424–429.

Doody, O. and Noonan, M. (2016) Nursing research ethics, guidance and application in practice'. *British Journal of Nursing*, 25 (14), pp.803–807.

Drewnowski, A. (2009) Obesity, diets and social inequalities. *Nutrition Reviews*, 67 (1), S36 – S39.

Dunbar, T. (2003). Autonomy versus beneficence: An ethical dilemma. *Primary Health Care,* 13 (1), pp.38–41.

Dunn, P., McKenna, H. and Murray, R. (2016) *Deficits in the NHS 2016*.[Online] London: The King's Fund. Available at: <u>https://www.kingsfund.org.uk/sites/files/kf/field/field\_publication\_file/Deficits\_in\_the\_NH</u> <u>S Kings Fund\_July\_2016\_1.pdf</u> [Accessed 22 January 2017].

El-Sayed, A. M., Scarborough, P. and Galea, S. (2011) Ethnic inequalities in obesity among children and adults in the UK: a systematic review of the literature. *Obesity Reviews*, 12 (5), pp516–534.

Finer, N. (2015) Medical consequences of obesity. *Medicine*, 43 (2), pp.88–93.

Halpern, A., Pepe, R. B., Monegaglia, A. P., Beyruti, M., de Melo, M. E. and Mancini, M. C. (2010) Efficacy and Tolerability of the Association of Sibutramine and Orlistat for Six Months in Overweight and Obese Patients. [Online] *Journal of Obesity* pp. 1-5 DOI: 10.1155/2010/602537 [Accessed: 3 October 2017].

Health and Social Care Information Centre (2016). *Statistics on Obesity, Physical Activity and Diet: England, 2016.* [Online]. Available from: <u>http://content.digital.nhs.uk/catalogue/PUB20562/obes-phys-acti-diet-eng-2016-rep.pdf</u> [Accessed 8 January 2017].

Hruby, A., Manson, J. E., Qi, L., Malik, V. S., Rimm, E. B., Sun, Q., Willett, W. C. and Hu, F. B. (2016). Determinants and Consequences of Obesity. *American Journal of Public Health*, 106 (9), pp.1656–1662.

Jilcott, S. B., Keyserling, T., Crawford, T., McGuirt, J. T. and Ammerman, A. S. (2011). Examining associations among obesity and per capita farmers' markets, grocery stores/supermarkets, and supercenters in US counties. *Journal of the Academy of Nutrition and Dietetics*, 111 (4), pp.567–572.

Kable, A., James, C., Snodgrass, S., Plotnikoff, R., Guest, M., Ashby, S., Oldmeadow, C. and Collins, C. (2015). Nurse provision of healthy lifestyle advice to people who are overweight and obese. *Nursing and Health Science*, 17 (4), pp.451–459.

Lazarou, C. and Kouta, C. (2010). The role of nurses in the prevention and management of obesity. *British Journal of Nursing*, 19 (10), pp.641–647.

Lobstein, T. (2015). Prevalence and costs of obesity. *Medicine*, 43 (2), pp.77–79.

Low, K. G., Giasson, H., Connors, S., Freeman, D. and Weiss, R. (2013) Testing the Effectiveness of Motivational Interviewing as a Weight Reduction Strategy for Obese

Cardiac Patients: A Pilot Study. *International Journal of Behavioral Medicine*, 20 (1), pp.77–81.

Naidoo, J. and Wills, J. (2016) *Foundations for Health Promotion.* 4<sup>th</sup> Ed. London: Elsevier.

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Nault, D. S. (2015) Nursing considerations when caring for the obese patient. *Michigan Nurse*, 88 (2), pp.10–16.

Nguyen, A. T., Tsai, C., Hwang, L., Lai, D., Markham, C. and Patel, B. (2016) Obesity and Mortality, Length of Stay and Hospital Cost among Patients with Sepsis: A Nationwide Inpatient Retrospective Cohort Study. *PLoS ONE*, 11 (4), pp.1–12.

NHS Digital (2016) Health Survey for England 2015: Adult overweight and obesity. [Online]. Available from: <u>http://content.digital.nhs.uk/catalogue/PUB22610/HSE2015-</u> <u>Adult-obe.pdf</u> [Accessed 8 January 2017].

NHS Liverpool Clinical Commissioning Group (2015) *Healthy Liverpool: The Blueprint*. [Online]. Available from: <u>http://www.liverpoolccg.nhs.uk/media/1072/the-blueprint.pdf</u> [Accessed 8 March 2017].

Nolan, C., Deehan, A., Wylie, A. and Jones, R. (2012) Practice nurses and obesity: professional and practice-based factors affecting role adequacy and role legitimacy. *Primary Health Care Research and Development,* 13 (4), pp.353–363.

Nursing and Midwifery Council (2015) *The Code: Professional standards of practice and behaviour for nurses and midwives.* London: The NMC. Available at: <a href="http://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/revised-new-nmc-code.pdf">http://www.nmc.org.uk/globalassets/sitedocuments/nmc-publications/revised-new-nmc-code.pdf</a> [Accessed 22 January 2017].

Padwal, R. S. and Majumdar, S. R. (2007) Drug treatments for obesity: orlistat, sibutramine, and rimonabant. *The Lancet,* 369 (9555), pp. 71–77.

Pope, B., Hough, M. C., and Chase, S. (2016). Ethics in community nursing, *Online Journal of Health Ethics*, 12 (2), pp.20–29. Available at: <u>http://dx.doi.org/10.18785/ojhe.1202.03</u>

Public Health England (2013) Obesity and the environment: increasing physical activity and active travel. Health people, healthy places briefing. London: Public Health England. [Online]. Available at: <u>https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/256796/B</u> <u>riefing\_Obesity\_and\_active\_travel\_final.pdf</u> [Accessed 1 March 2017].

Public Health England (2014a). Adult obesity and socioeconomic status data factsheet. London: Public Health England. [Online]. Available at:

http://webarchive.nationalarchives.gov.uk/20170110170001/https://www.noo.org.uk/NO O\_pub/Key\_data [Accessed 26 February 2017].

Public Health England (2014b) Obesity and the environment: regulating the growth of fast food outlets. Health people, healthy places briefing. London: Public Health England. [Online]. Available at:

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https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/296248/O besity\_and\_environment\_March2014.pdf [Accessed 1 March 2017].

Public Health England (2015) Adult obesity: applying All Our Health. London: Public Health England. [Online]. Available at: <a href="https://www.gov.uk/government/publications/adult-obesity-applying-all-our-health/adult-https://www.gov.uk/government/publications/adult-obesity-applying-all-our-health/adult-

obesity-applying-all-our-health [Accessed 8 January 2017].

Public Health England (2016). *From Plate to Guide: What, why and how for the eatwell model.* London: Public Health England. [Online]. Available at: <a href="https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/579388/e">https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/579388/e</a> atwell model guide report.pdf [Accessed 1 March 2017].

Public Health England (2017). *Public Health Outcomes Framework. London: Public Health England*. [Online]. Available at: <u>http://www.phoutcomes.info/public-health-outcomes-framework#page/7/gid/1000042/pat/6/par/E12000002/ati/102/are/E08000012/iid/90640/age/164/sex/4 [Accessed 28 February 2017].</u>

Reutter, L. and Kushner, K. E. (2012). Health equity through action on social determinants of health: taking up the challenge in nursing. *Nursing Inquiry*, 17 (3), pp.269–280.

Royal College of Nursing (2012). *Going upstream: nursing's contribution to public health. London: The RCN.* [Online]. Available at: <u>https://www2.rcn.org.uk/\_\_data/assets/pdf\_file/0007/433699/004203.pdf</u> [Accessed 8 March 2017].

Trigwell, J., Waston, P. M., Murphy, R. C., Stratton, G. and Cable, N. T. (2014) Ethnic differences in parental attitudes and beliefs about being overweight in childhood. *Health Education Journal,* 73 (2), pp.179–191.

Wang, M. C., Kim, S., Gonzalez, A. A., MacLeod, K. E. and Winkleby, M. A. (2007). Socioeconomic and food-related physical characteristics of the neighbourhood environment are associated with body mass index. *Journal of Epidemiology and Community Health,* 61 (6), pp.491–498.

Watkins, F. and Jones, S. (2015). Reducing adult obesity in childhood: Parental influence on the food choices of children. *Health Education Journal*, 74 (4), pp.473–484

World Health Organization (2016). *Obesity and overweight: Fact Sheet*. [Online]. Available from: <u>http://www.who.int/mediacentre/factsheets/fs311/en/</u> [Accessed 8 January 2017].

Zhu, D. Q., While, A. E., Norman, I. J. and Ye, W. Q. (2015) Weight management care practices of English and Chinese nurses. *International Nursing Review*, 62 (4), pp.497– Page | 51 505.