Obesity and stigma; the role of the healthcare professional.

Abstract

Covid-19 has further highlighted the importance of obesity as a health issue for adults and children. Prevalence in both groups has increased since the onset of the pandemic. Obesity is frequently seen as a behaviour change issue with individual responsibility rather than a complex multifactorial disease with a strong genetic component. It is both highly visible and highly stigmatised. Healthcare professionals, including nurses, have important roles in facilitating healthful behaviour change, discussing weight in neutral and respectful ways. This article first outlines the impact of the pandemic on weight and weight-related behaviours, then discusses complexity of obesity and weight stigma. It concludes with application to practice for nurses, discussing their roles and the importance of advocating for action to address the obesogenic environment.

Keywords: To be drawn from the Nursing Standard taxonomy

Covid-19 highlighted the high prevalence of overweight and obesity in the UK. Both are diagnosed using body mass index (BMI), a measure calculated by weight (kg) divided by height squared (m^2). In adults, obesity and overweight are classed as ≥30kg/m^2 and ≥25kg/m^2 respectively (NICE, 2014). Approximately 67% of men and 60% of women in England now live with overweight, including 26% and 29% respectively with obesity (NHS Digital, 2020a). In Scotland, overweight and obesity affected 62.2% of adults in 2020 (Baker, 2022). In Wales, prevalence of overweight and obesity combined was 66% in men and 56% in women in 2020/21, while equivalent figures for Northern Ireland were 71% and 60% respectively in 2019/20 (Baker, 2022). In children, since growth modifies both weight and height, BMI is plotted on age-and gender-specific BMI centile charts. Clinical diagnosis of childhood obesity is ≥98th and overweight ≥91st centile (NICE, 2014). Before the pandemic,

23% of 4-5 year olds and 35% of 10-11 year olds in England were living with overweight or obesity (NHS Digital, 2020b). However, since then obesity prevalence in both age groups increased by 4.5% (NHS Digital, 2021). In Northern Ireland, obesity affected 7% of 2-10 and 4% of 11-15 year olds in 2019/20, while prevalence in Wales was 12.6% in 4-5 year old children (2018/19). In Scotland, 30% of 2-6 year olds and 33% of those aged 12-15 years were living with obesity in 2019, obesity being classed as >95th centile (Baker, 2022).

The increased risk of severe illness and death from Covid-19 in those with obesity further raised its profile (Gao et al, 2021). While obesity is a known risk factor for chronic diseases like Type 2 diabetes, cardiovascular disease, musculoskeletal and mental health problems (Fruh, 2017), obesity as a risk factor for severe outcomes of this novel acute viral infection was new (Public Health England (PHE), 2020).

Impact of the pandemic on weight and weight-related behaviours

Measures introduced to control the pandemic themselves impacted upon eating behaviours, physical activity and body weight. Some changes were positive, lockdowns being an opportunity to eat with family or members of direct social circles, to reduce food waste and eat more freshly prepared foods (Bennett et al, 2021; Bracale et al, 2020; Food Standards Agency, 2022). However, this was not universal. A review exploring the pandemic's influence on lifestyle behaviours found that intake of snack foods, often high in fat, sugar and salt (HFSS), increased in the first lockdown, often as a coping mechanism while self-isolating (Bennett et al, 2021; Kass et al, 2021). Physical activity levels also declined, sedentary behaviours increased (Ammar et al, 2020; Kass et al, 2021), and many individuals reported weight gain (Bennett et al, 2021; Dicken et al, 2021; Kass et al, 2021). One

international online survey of 1047 respondents in Europe, Asia and Africa found that sitting time increased from 5 to 8 hours daily, while all levels of physical activity decreased (Ammar et al, 2020). Sitting time at weekends and on weekdays increased in an English cohort in the first lockdown (n=818). However, while engagement with online/home gym and classes was low, outdoor running, cycling and walking increased and 13% more of the previously sedentary group met national physical activity recommendations (Kass et al, 2021). An online longitudinal study among UK adults (n=1818), found that self-reported weight and BMI fluctuated throughout the pandemic. However, in those with an overall increase in weight or BMI, a positive association with monthly intake of HFSS foods and alcohol was found (Dicken et al, 2021). In addition to facing greater risks from Covid-19, those living with obesity were also disproportionately affected by the lockdowns. Higher BMI in UK adults was associated with lower levels of physical activity and diet quality, and higher frequency of overeating (Robinson et al, 2021; Herle et al, 2021). Although national guidance advised the population to remain active, those with obesity were identified as vulnerable and advised to self-isolate.

Links between Covid-19 and obesity

It is noteworthy that the UK has both a high death rate from Covid-19 (highest in Western Europe and 7th globally as of 21st March 2022) (Statista, 2022), and a relatively high prevalence of overweight and obesity, above the OECD average (Organisation for Economic Cooperation and Development, 2021). Globally, countries where ≤50% of the population have excess weight had approximately one tenth the Covid-19 deaths of countries where >50% had excess weight (World Obesity Federation, 2021). There are multiple plausible mechanisms by which obesity may increase risk of poor outcomes. These include increased adipose tissue

expression of the ACE-2 receptor to which the Covid-19 virus binds, pre-existing chronic inflammation increasing the likelihood of a cytokine storm, greater fat deposition around the thorax impeding breathing, and hormonal changes in those with obesity (PHE, 2020).

Complexity of obesity

Obesity is recognised as a complex multifactorial disease, strongly influenced by genetics (Loos & Yeo, 2021). In 2007, the multiple synergistic drivers of body weight were mapped comprehensively in the landmark Foresight report. This suggested that obesity was an '*involuntary and largely inevitable consequence*' of human biology in the current environment (Butland et al, 2007). An estimated 40-70% of variance in BMI is genetic, spread across multiple genes (Loos & Yeo, 2021). Yet despite this, policy emphasis frequently focuses on personal responsibility for lifestyle practices such as eating, sedentary behaviours and physical activity.

While behavioural choices are important, genetic influences mean that achieving a healthy weight is more difficult for some than others. The rate at which obesity prevalence has increased suggests strong environmental influences on behaviour (Butland et al, 2007). The current environment is often described as obesogenic, encouraging sedentary behaviour and calorie overconsumption, favouring weight gain (Jones et al, 2007). People make an estimated 200 food-related decisions daily, most unconsciously (Wansink & Sobal, 2007). This means that cognitive shortcuts influence usual eating behaviours and habits, in turn influencing health. People are more susceptible to environmental influences than they may realise – portion size, advertising, marketing and price impact upon purchase and consumption behaviours (Coates et al, 2019; McCrory et al, 2019; Hallez et al, 2020). Focusing on personal

responsibility but neglecting to recognise the influence of the obesogenic environment on weight-related behaviours, is counterproductive.

Weight-related stigma

Focusing on personal responsibility has other potential sequelae. Intentionally or not, it implicitly suggests that excess body weight must be a failure of the person - if they are living with overweight or obesity, they must be to blame. Obesity is both highly visible and highly stigmatised (Puhl et al, 2021a; Puhl et al, 2021b), with negative personal qualities such as greed and laziness frequently attributed to those struggling with excess weight (Sikorski et al, 2011). These negative attributes can become internalised, resulting in low self-esteem with a detrimental impact on mental health and well-being, potentially resulting in a reluctance to seek medical help (Bidstrup et al, 2021). Stigma and bias are widespread (Fruh et al, 2021; Puhl et al, 2021b). Both implicit and explicit weight-related bias have been demonstrated in healthcare professionals including nurses, doctors, dietitians and physiotherapists (Lawrence et al, 2021). They may make assumptions about eating and activity behaviours, avoid conversations about weight or discuss it in unhelpful ways (Alberga et al, 2019). Weight bias increases the risk of disordered eating and further weight gain in those living with overweight or obesity but has additional negative health impacts (Tomiyama et al, 2018). Women with obesity, especially more extreme obesity, have greater reluctance to attend cancer screening appointments (Beeken et al, 2014; Mitchell et al, 2008). This is especially troubling since an estimated 6% of cancer cases in the UK are attributable to obesity (Brown et al, 2018). Stigmatising conversations about weight negatively impact on health motivation and compliance, but the reverse is true for empathetic and supportive weight-related conversations (Hayward et al, 2020).

Since obesity was identified as a risk factor for severe or even fatal outcomes of Covid-19, it has been discussed by the media throughout the pandemic. Analysis of media coverage identified two distinct and contradictory aspects. Some coverage was positive particularly related to race differences in obesity prevalence and pandemic risk, being more critical than usual of national policy and thereby potentially more supportive of public health interventions. Other coverage was more stigmatising than usual, framing obesity as an additional burden to the NHS at an already difficult time (Flint, 2020; Brookes, 2021). This is likely to have increased the difficulty for those living with obesity; their personal risk was greater in the context of a new public health emergency, but they were explicitly identified as a 'burden' to the NHS. Within healthcare, barriers to helpful conversations about weight include fear of giving offense, lack of knowledge about local weight management referral options and lack of training (Auckburally et al, 2021). An added complexity is that many healthcare professionals themselves struggle with excess weight (Kyle et al, 2017). Healthcare professionals' own lifestyles may affect their willingness to offer health advice and patients' willingness to accept it (Fie et al, 2013; Kelly et al, 2017). Nonetheless, healthcare professionals can facilitate healthful change in patients, ensuring the environments provided benefit them and that interactions, however brief, are helpful (PHE, 2017).

Application to practice

Multiple disciplines in healthcare can advocate for respectful policies and practices in relation to overweight and obesity, in line with the compassion and empathy extended to other patients and the recent consensus statement to reduce obesity stigma (Rubino et al, 2020). For example, local guidelines and care pathways for weight management should be checked to ensure that they accurately reflect the

complexity of obesity, while tone and language used are non-discriminatory (see below). There may be opportunities to contribute to national or profession-specific consultations about prevention and/or management of overweight and obesity. Education about obesity for healthcare professionals should include the complexity of obesity, and where available healthcare professionals should undertake it. All healthcare professionals should challenge the presentation of obesity as a lifestyle choice, instead framing care and interventions around the concept of a complex multifactorial disease strongly influenced by genetics (Rubino et al, 2020). Within healthcare practice, it is important to self-reflect on personal and unconscious biases, for example using the process of revalidation, clinical supervision, and implicit association tests (See Table 1). Written health promotion materials should use approaches such as People First language, putting the person before the diagnosis (e.g. ‘person living with obesity’, rather than ‘obese person’). Any images used should be non-discriminatory images of people with overweight and obesity engaged in everyday activities (See Table 2). It is common to see those with obesity depicted as isolated body parts e.g. disembodied abdomens, being sedentary or consuming large quantities of unhealthy foods and drinks. These images perpetuate bias by reinforcing incorrect perceptions about obesity, ignoring its complex drivers (World Obesity Federation, no date). The Nursing and Midwifery Council (2018) expect a standard of care where discriminatory attitudes and behaviours towards those receiving care are challenged. There is a need to be aware and cognisant of the local care pathways and referral options for patients in different weight categories to help achieve person-centred care. It is also important to listen to patients and service users, eliciting the words they find most acceptable in talking about the sensitive issue of weight reduction (Auckburally et al, 2021). ‘First do no harm’ is an

abiding principle of medical ethics (General Medical Council & Medical Schools Council, 2015), and by identifying our own implicit biases, being mindful of our own behaviours, assumptions and language, nurses and other healthcare practitioners can truly facilitate and support healthful behaviours in patients, no matter what their weight status.

Conclusion

Healthcare professionals, including nurses, have a responsibility to understand the causes of obesity, and the negative consequences of stigmatising language and images. Healthcare professionals have the power to challenge misrepresentations in relation to obesity, but also have influence within multidisciplinary teams, so their impact extends beyond individual professions. More importantly, further stigmatising a group of people who need support and encouragement to live with a complex disease can be avoided.

References

Alberga AS, Edache IY, Forhan M et al (2019) Weight bias and health care utilization: a scoping review. Primary Health Care Research & Development. 20, e116, 1-14.

Ammar A, Brach M, Trabelsi K et al (2020) Effects of COVID-19 Home Confinement on Eating Behaviour and Physical Activity: Results of the ECLB-COVID19 International Online Survey. Nutrients. 12, 6, 1583.

Auckburally S, Davies E, Logue J (2021) The Use of Effective Language and Communication in the Management of Obesity: the Challenge for Healthcare Professionals. Current Obesity Reports. 10, 3, 274–281.

Beeken RJ, Wilson R, McDonald L et al (2014) Body mass index and cancer screening: findings from the English Longitudinal Study of Ageing. Journal of Medical Screening. 21, 2, 76-81.

Bennett G, Young E, Butler I et al (2021) The Impact of Lockdown During the COVID-19 Outbreak on Dietary Habits in Various Population Groups: A Scoping Review. Frontiers in Nutrition 8:626432.

Bidstrup H, Brennan L, Kaufman L et al (2021) Internalised weight stigma as a mediator of the relationship between experienced/perceived weight stigma and biopsychosocial outcomes: a systematic review. International Journal of Obesity. 46, 1-9.

Bracale R and Vaccaro CM (2020) Changes in food choice following restrictive measures due to Covid-19. Nutrition Metabolism & Cardiovascular Diseases. 30, 1423–6.

Brookes G (2021) 'Lose weight, save the NHS': Discourses of obesity in press coverage of COVID-19. Critical Discourse Studies. 1-19.

Brown KF, Rumgay H, Dunlop C et al. (2018) The fraction of cancer attributable to known risk factors in England, Wales, Scotland, Northern Ireland, and the UK overall in 2015. British Journal of Cancer. 118, 8, 1130-1141.

Butland B, Jebb S, Kopelman P et al (2007) Tackling Obesities Future Choices, 2nd edition. Department of Universities Innovation & Skills, London.

Coates AE, Hardman CA, Halford JCG et al (2019) Social Media Influencer Marketing and Children's Food Intake: A Randomized Trial. Pediatrics. 143, 4, e20182554.

Dicken SJ, Mitchell JJ, Newberry Le Vay J et al (2021) Impact of COVID-19 Pandemic on Weight and BMI among UK Adults: A Longitudinal Analysis of Data from the HEBECO Study. Nutrients. 13, 9, 2911.

Fie S, Norman IJ, While AE (2013) The relationship between physicians' and nurses' personal physical activity habits and their health-promotion practice: a systematic review. Health Education Journal. 72, 1, 102–119.

Flint SW (2020) Stigmatizing Media Portrayal of Obesity During the Coronavirus (COVID-19) Pandemic. Frontiers in Psychology. 11, 2124.

Food Standards Agency (2022) COVID-19 consumer tracker survey. Summary report (waves 1-19). Available from: https://doi.org/10.46756/sci.fsa.gnu416 (accessed 17/03/22)

Fruh SM (2017) Obesity: Risk factors, complications, and strategies for sustainable long-term weight management. Journal of the American Association of Nurse Practitioners. 29, Suppl 1, S3–S14.

Fruh SM, Graves RJ, Hauff C et al (2021) Weight Bias and Stigma: Impact on Health. Nursing Clinics of North America. 56, 4, 479-493.

Gao M, Piernas C, Astbury NM et al (2021) Associations between body-mass index and COVID-19 severity in 6·9 million people in England: a prospective, community-based, cohort study. Lancet Diabetes and Endocrinology. 9, 6, 350-359.

General Medical Council & Medical Schools Council (2015) First, do no harm. Enhancing patient safety teaching in undergraduate medical education. Available from: https://www.gmc-uk.org/-/media/documents/first-do-no-harm-patient-safety-in-undergrad-education-final_pdf-62483215.pdf

Hallez L, Qutteina Y, Raedschelders M et al (2020) That's My Cue to Eat: A Systematic Review of the Persuasiveness of Front-of-Pack Cues on Food Packages for Children vs. Adults. Nutrients. 12, 4, 1062.

Hayward LE, Neang S, Ma S et al (2020) Discussing weight with patients with overweight: supportive not stigmatizing conversations increase compliance intentions and health motivation. Stigma and Health. 5,1, 53–68.

Herle M, Smith AD, Bu F et al (2021) Trajectories of eating behavior during COVID-19 lockdown: Longitudinal analyses of 22,374 adults. Clinical Nutrition ESPEN. 42, 158-168.

Jones A, Bentham G, Foster C et al (2007) Tackling Obesities: Future Choices – Obesogenic Environments – Evidence Review. Department of Universities Innovation & Skills, London.

Kass L, Desai T, Sullivan K et al (2021) Changes to Physical Activity, Sitting Time, Eating Behaviours and Barriers to Exercise during the First COVID-19 'Lockdown' in an English Cohort. International Journal of Environmental Research and Public Health. 18, 19, 10025.

Kelly M, Sykes S, Wills J (2017) Do healthcare professionals' own health behaviours impact on patient outcomes? A systematic review. International Journal of Nursing Studies. 76, 62-77.

Kyle RG, Wills J, Mahoney C et al (2017) Obesity prevalence among healthcare professionals in England: a cross sectional study using the Health Survey for England. British Medical Journal Open. 7, e018498.

Lawrence BL, Kerr D, Pollard CM et al (2021) Weight bias among health care professionals: A systematic review and meta-analysis. Obesity. 29, 11, 1802-1812

Loos RJF & Yeo GSH (2021) The genetics of obesity: from discovery to biology. Nature Reviews Genetics. Doi: 10.1038/s41576-021-00414-z

McCrory MA, Harbaugh AG, Appeadu S et al (2019) Fast-Food Offerings in the United States in 1986, 1991, and 2016 Show Large Increases in Food Variety, Portion Size, Dietary Energy, and Selected Micronutrients. Journal of the Academy of Nutrition and Dietetics. 119, 6, 923-933.

Mitchell RS, Padwal RS, Chuck AW et al (2008) Cancer Screening Among the Overweight and Obese in Canada. American Journal of Preventive Medicine. 35, 2, 127-132.

NHS Digital (2020a) Statistics on Obesity, Physical Activity and Diet, England, 2020. Available on: https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-obesity-physical-activity-and-diet/england-2020 (accessed 14/12/21)

NHS Digital (2020b) National Child Measurement Programme, England 2019/20 School Year. Available on: https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2019-20-school-year/age (accessed 14/12/21)

NHS Digital (2021) National Child Measurement Programme, England 2020/21 School Year. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year (accessed 14/12/21)

NICE (2014) Obesity: identification, assessment and management. Clinical guideline [CG189]. Available on: https://www.nice.org.uk/guidance/cg189/chapter/1-Recommendations#identification-and-classification-of-overweight-and-obesity (accessed 19/03/22)

Nursing and Midwifery Council (2018) The Code: Professional Standards of Practice and Behaviour for Nurses, Midwives and Healthcare Associates. NMC, London.

Organisation for Economic Cooperation and Development (2021) Health at a Glance 2021: OECD Indicators. Available from: https://www.oecd-ilibrary.org/sites/ae3016b9-en/1/3/4/6/index.html?itemId=/content/publication/ae3016b9-en&_csp_=ca413da5d44587bc56446341952c275e&itemIGO=oecd&itemContentType=book (accessed 14/12/21)

Public Health England (2017) Let's Talk About Weight: A step-by-step guide to brief interventions with adults for health and care professionals. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/737903/weight_management_toolkit_Let_s_talk_about_weight.pdf (accessed 17/03/22)

Public Health England (2020) Excess weight and Covid19: insights from new evidence. Available from: https://www.gov.uk/government/publications/excess-weight-and-covid-19-insights-from-new-evidence (accessed 19/03/22)

Puhl RM, Lessard LM, Himmelstein MS et al (2021a) The roles of experienced and internalized weight stigma in healthcare experiences: Perspectives of adults engaged in weight management across six countries. PLoS ONE. 16, 6, e0251566.

Puhl PM. Lessard LM, Pearl RM et al (2021b) International comparisons of weight stigma: addressing a void in the field. International Journal of Obesity. 45:1976–1985.

Robinson E, Boyland E, Chisholm A et al (2021) Obesity, eating behavior and physical activity during COVID-19 lockdown: A study of UK adults. Appetite. 156, 104853.

Rubino F, Puhl RM, Cummings DE et al (2020) Joint international consensus statement for ending stigma of obesity. Nature Medicine. 26, 485–497.

Sikorski C, Luppa M, Kaiser M et al (2011) The stigma of obesity in the general public and its implications for public health - a systematic review. BioMed Central Public Health. 11, 661.

Statista (2022) Number of novel coronavirus (COVID-19) deaths worldwide as of March 21 2022, by country. Available from: https://www.statista.com/statistics/1093256/novel-coronavirus-2019ncov-deaths-worldwide-by-country/ (accessed 22/03/22)

Tomiyama AJ, Carr D, Granberg EM et al (2018) How and why weight stigma drives the obesity 'epidemic' and harms health. BioMed Central Medicine.16,1, 123.

Wansink B & Sobal J (2007) Mindless Eating: The 200 Daily Food Decisions We Overlook. Environment and Behavior. 39, 1, 106-123.

World Obesity Federation (no date) Image use and obesity: recommendations. Available from: https://www.worldobesity.org/downloads/healthy_voices_downloads/HV_Image_guidelines.pdf (accessed 19/03/22)

World Obesity Federation (2021) COVID-19 and Obesity: The 2021 Atlas. Available from: http://s3-eu-west-1.amazonaws.com/wof-files/2722_WOF_-_COVID-19_and_Obesity-The_2021_Atlas_WEB.pdf (accessed 19/03/22)

Table 1: Exploring personal weight bias

UConn Rudd Center for food policy & obesity (n.d.) Measures to assess weight bias
https://uconnruddcenter.org/wp-content/uploads/sites/2909/2020/07/Measures-to-Assess-Weight-Bias.pdf
Implicit Association Tests (IAT) raise awareness of implicit biases on a range of different subjects. Go to the Harvard Project Implicit website, click on 'Take a Test', and then choose Weight IAT:
https://implicit.harvard.edu/implicit/takeatest.html

Table 2: Resources to help reduce stigma in words & images

Obesity Action Coalition (2021) People-First language for obesity.
https://www.obesityaction.org/wp-content/uploads/1033162_FirstPersonOne-Pager01_041921.pdf

NHS England (2018) Language Matters Language and Diabetes.
https://www.england.nhs.uk/wp-content/uploads/2018/06/language-matters.pdf

Public Health England (2017) Let's Talk About Weight: A step-by-step guide to brief interventions with adults for health and care professionals.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/737903/weight_management_toolkit_Let_s_talk_about_weight.pdf

World Obesity Federation Image bank: images of those living with overweight or obesity https://www.worldobesity.org/resources/image-bank