

# Weight Bias and the Training of Health Professionals to Better Manage Obesity: What Do We Know and What Should We Do?

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Published online: 24 August 2013  
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**Abstract** Health professionals have a role in supporting patients with weight management. Good training is available but has yet to be widely implemented. The required content of training is clear except perhaps how to address negative attitudes that stem from obesity stigma. There is good evidence that healthcare professionals hold and perpetuate the negative stereotypes and attributions that are core elements within obesity stigma and weight bias; with consequences for relationships with patients and their experiences of care. There may also be consequences for health outcomes but more research is needed. Further studies should triangulate weight bias attitudes with robust observation of healthcare processes and outcomes. This will help determine whether training about weight bias can simply reside in the general preparation of healthcare professionals (as part of anti-discriminatory practice for example) or, whether it requires more active interventions to change practice.

**Keywords** Obesity stigma · Weight bias · Weight management · Healthcare professionals · Training

## Introduction

With obesity forecast to continue as a leading public health problem in most parts of the world it is necessary to reconsider the training of healthcare professionals [1–3]. This is not a simple exercise because the causes and consequences of obesity are complex and the scale of recent trends extremely daunting [4, 5]. Obesity has implications across society not

just for health organisations [5]. Nevertheless, health professionals clearly have a role in identification, assessment and management of those at risk from excess weight and in providing effective prevention and treatment interventions [6–8]. Potentially, training could encompass a very wide range of issues – beyond the scope of a short article. Instead we will briefly consider general issues relevant for all professionals, namely supporting patients with the fundamentals of weight control, and then focus on obesity stigma and weight bias among health professionals.

Our focus is prompted by consistent research reports over the last two decades that health professionals have negative attitudes about obesity and about patients who are obese [9–11]. However this is an area in which social values are not stable and also approaches to study and measurement of obesity stigma are changing. We will outline recent work on conceptualisation of obesity stigma, its measurement and impact in health care settings. We will provide an update on what is known of health professional attitudes and review training interventions that might address this issue. Finally, we will discuss insights from work on the attitudes of nurses.

## General Training

In most health care systems a person would be initially identified and advised about weight management in a primary care context [12–15]. Typically this entry level with a general practitioner or a nurse addresses lifestyle factors for weight loss. Other levels of health care reinforce the primary level adding specialist and intensive interventions - for example input from a dietician, physical therapist or clinical psychologist. A number of comprehensive evidence based guidelines are available for lifestyle or behavioural interventions and these guidelines highlight the training that health professionals generally require [12–15]. In short the evidence guidelines

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make it apparent that an understanding of nutrition, physical activity, and psycho-social and behavioural factors pertaining to obesity are all required in training. Broadly not much has changed in the recommended content of training over recent years; however, the calls for action have become more urgent [16••, 17]. Indeed, it is now clearly recognised that the traditional training of doctors in particular does not adequately provide the understanding necessary for tackling the obesity pandemic.

A training framework for healthcare professionals was published by the Royal College of Physicians in London, UK [16••]. This provides a roadmap, relevant also to an international audience [6–8, 12, 13], for considering the content of training for both generalists and specialists in relation to obesity. Every health professional should be able to identify and assess those at risk of increased body weight and be able to provide initial assessment, support and management; and be able to integrate the relevant understanding into the many clinical practice contexts in which weight is an issue. Much of the knowledge and skills content is not controversial and recent literature does not suggest any particular updates. The issues are rather how to implement this into pre-registration and continuing professional development effectively [17].

So far then, the training issues appear relatively straightforward to grasp. We turn now to an issue that is less apparent in clinical guidelines and is more controversial as regards training, namely attitudes about obesity and towards patients who are obese. Far from being an afterthought, this issue is probably crucial to the success of all that was previously described. Get the attitudes wrong and it is likely to undermine the quality of support that can be offered about weight control. It is important for healthcare professionals to understand the concept of stigma and to distinguish it from intentional actions of prejudice. The former is a pervasive, probably impossible to avoid psycho-social phenomenon affecting all interactions with patients; the latter is an observable, hopefully unusual consequence, but not the only consequence of stigma. We believe it is useful first to provide an introduction to the concept of stigma.

## Stigma

The concept of stigma refers broadly to how societal evaluations differentiate and devalue individuals in social interactions [18]. Indeed, 2013 is a landmark for work on stigma in that it is 50 years since Goffman's seminal social-psychology treatise [18]. Over that time the core concept of stigma has changed little even though its empirical study has grown exponentially across a range of conditions, including obesity [9, 19]. It is worth noting that recent theory distinguishes types of stigma according to social levels, thereby extending the concept beyond the more overt emotional and behavioural

responses to someone perceived to have a stigmatised condition [19, 20]. This latest work usefully clarifies further how individuals internalise negative evaluations associated with a stigmatised condition (such as obesity) and also how social institutions (such as health professionals) may legitimise and structurally perpetuate stigma [20]. In these latter respects stigma is a more elusive, yet still powerful, force in social interaction.

Recent work also reinforces the value of distinguishing implicit and explicit negative reaction processes [20]. Implicit reactions refer to the automatic mental processing that occurs before having time to think about a response. Explicit processing follows with a more considered or thoughtful response that may take account of what is a socially appropriate reaction. Methods for studying obesity stigma have reflected these distinctions.

## Obesity Stigma and Weight Bias

There is decisive evidence that obesity carries a strongly devalued physical and moral identity, creating challenges for those affected by obesity in many societies [9–11]. Obesity stigma has powerful overt effects in terms of social depersonalisation and negative stereotyping as well as more subtle effects in undermining and discomforting social interactions including those between healthcare professional and patient. Several decades of work on obesity stigma has demonstrated how the particularly strong negative associations for obesity are related to beliefs about personal responsibility for body size [21–23]. Obesity is seen as readily under an individual's control and hence to be judged more harshly than other conditions perceived to be less controllable. Recent work reinforces understanding of the importance of attributions [9–11].

There is also good evidence that obesity stigma translates to experiences of prejudice and discrimination and to negative physical and psychological consequences. The evidence of weight bias is strongest in fields of employment, media and healthcare settings [11]. Evidence of psychological consequences includes reduced emotional wellbeing, poorer body image and greater risk of depression. Physical consequences may include poorer eating behaviours and limited participation in lifestyle activities. Such health consequences could be despite the best intentions of healthcare professionals. In a weight biased society the current flows strongly towards weight bias, prejudice and discrimination. Without actively swimming (to continue the metaphor) against the current, the interactions between healthcare and patient will also drift in the direction of weight bias. However, the contention from recent research is that healthcare professionals are in fact not so neutral about obesity, that they certainly reflect and indeed may reinforce negative attitudes held more widely within

society. Where does this evidence come from, how are such attitudes measured and how do they translate into clinical practice?

### Research Approaches

Different research traditions approach obesity stigma with different methodologies of course. First, we can note there has been a proliferation of qualitative studies undertaken in varied contexts but focused on users and providers of healthcare. Typically these have involved small samples interviewed in depth with inductive analyses of verbatim transcripts to produce themes illuminating experiences and perceptions. In the UK, for example, there have been a series of qualitative studies led by Ogden [24, 25] and by Brown [26–30] with data collected from interviews with patients and healthcare professionals. There have also been similar and community based studies in Australia [31–33], USA [34–36] and elsewhere [37–40]. A recent development has been in the synthesis of findings from across qualitative studies to draw out overarching themes about obesity experiences [41•, 42, 43•].

More generally the research about obesity stigma has its origins in the quantitative attitude measurement of social-psychology [44]. The main thrust of this work has been descriptive, employing questionnaire items to measure attitudes. These measures allow individuals to explicitly consider their beliefs before responding using a scale provided [44]. Various scales to measure attitudes towards obesity and obese persons have been employed in research over the last 20 years [45–51]. The more widely used scales have been the F-Scale [48], which measures the extent to which participants associate 14 characteristics with being either fat or thin and the Beliefs About Obese Persons (BAOP) scale [46] that measures the extent to which participants believe obesity is controllable. These two measures in addition to the Anti-Fat Questionnaire [47] and the Attitudes Towards Obese Persons scale [46] appear to be the most frequently employed to measure healthcare professionals attitudes towards obesity.

Explicit measures may provide an inaccurate representation of attitudes due to their self-report nature and the potential for a considered, socially acceptable, response bias [52]. More recently, research has employed implicit measurement such as the Implicit Association Test [IAT; 53] to counter the limitations of explicit measurement. In the IAT individuals are presented with stimuli (for example, a word or picture) and are required to respond as quickly as possible to make associations between stimuli. The assumption is that the faster their response, the stronger that association is within their automatic mental processing. For example, it is easier within a Western culture to associate the words lazy and fat than it is to associate the words lazy and slim. Implicit measures have been used to assess attitudes towards obesity in various

populations, but relatively little research has been undertaken with healthcare professionals.

### Health Professional Attitudes

The previous background about how attitudes might be studied is relevant in order to appreciate the extent of our understanding about healthcare professionals. It is relatively easy to find a study in which negative attitudes are evident measured this way or that. But the implications are less clear. For example, are healthcare professionals such sophisticated responders to explicit measures that they generally mask their true attitudes? In which case the picture may be worse than it appears. On the other hand do findings of negative associations in implicit tests simply reflect the wider culture in which the person was raised? It is easier to make certain associations between words because your early years were spent within a weight biased culture. Recent work reinforces the view that there is a weight bias problem in healthcare but it does so on more or less the same methodological foundations. There is still very little direct observation of clinical practice interactions or robust triangulation of attitudes with patient outcomes and experiences.

Having noted the above it has to be said that the verbatim data from patients talking about their experiences are compelling and should make any healthcare professional sit up and take notice. Clearly a proportion of patients experience poor service and are unhappy about it with probable consequences for health service use and mental wellbeing. Recent systematic syntheses of qualitative studies are useful for confirming and illuminating this picture. Brown and Gould [42] reviewed 29 qualitative studies of patient experiences of obesity. The majority of studies found participants were affected by obesity stigma with heightened awareness of negative stereotypes and internalisation of negative thoughts about self. These thoughts were further heightened for some in the context of an interaction with a health professional in discussions about weight management. Malterud and Ulriksen [41••] synthesised findings from 13 studies that included both patients and health professionals. They highlight how stigma is enacted within clinical contexts with heightened ambivalence and discomfort, perception of negative attitudes, and tensions about responsibility and attribution. Likewise a wider synthesis of research by Mold and Forbes [43••] which included qualitative studies concluded that obesity stigma impacts negatively on the relationship between healthcare professional and patient. In summary, over a decade of qualitative work consistently shows an impact of obesity stigma on both clinician and patient.

Quantitative studies of anti-fat attitudes among healthcare professionals have predominantly used explicit measures. The conclusions from the review by Puhl and Heuer in 2009 still hold. These measures demonstrate a substantial minority

(perhaps 20–50 per cent across different studies) of healthcare professionals hold attitudes that comprise negative stereotypes about obese persons (laziness, lack of motivation, greediness among others) and beliefs that weight is readily under personal control and that overweight is therefore blameworthy. More recent work, for example by Teixeira [54] and by Swift [55], does not alter these conclusions.

Likewise with studies using implicit measures in which a strong anti-fat bias can be demonstrated with negative attributes such as ‘bad’ and ‘lazy’ associated with ‘fat people’ [56–58]. Again, recent work by Sabin [59••] portrays a similar picture. A sample of 2284 qualified doctors completing an online test showed a strong anti-fat bias from both implicit and explicit measures. It seems to be conclusive that negative attitudes can be found when studies employ attitude measurement.

Along with this confirming descriptive work there are now more studies emerging which examine the association of attitudes with clinical practice processes and outcomes in more depth. A step in this direction is experimental studies using vignettes with healthcare professionals, which have demonstrated differences in actions of professionals in these contexts [60, 61]. For example, that physicians spend less time with heavier patients [60]. A recent study by Gudzone and colleagues [62] demonstrated a reduced emotional rapport between physicians and patients who are overweight or obese. Along with patient experiences reported in qualitative work it adds up to a clear warning that these attitudes affect health professionals' actions and should be tackled.

Other circumstantial evidence suggests that those who are obese do not get the best from the health service particularly in preventive services [9–11, 43••]. The evidence is mixed but indicates that women in particular may delay or avoid screening because of perceptions of weight bias. A recent study [30] examining patient decision making about weight management concluded that obesity stigma makes the mental processing of a decision more difficult and also increases ambivalence rather than motivation to take action. At its simplest it may be that stigma adds emotional and cognitive demands to thinking about health actions thereby affecting uptake of health services.

Other topics related to attitudes and obesity stigma have come to the fore in recent times. Two interesting issues are the healthcare professional's own body size and the choice of language within interactions with patients who are overweight. Puhl and colleagues [63] examined the impact of physicians' body size on patients' attitudes and found that obese providers may experience anti-fat attitudes from patients; along with a perception that the physician has lower credibility, a lower level of trust and a lower compliance to medical advice. Moreover, in a review of 14 independent samples, comprised of 10,043 participants, it has also been reported that normal weight health professionals are more confident and perceive fewer barriers to weight management than overweight or obese providers [64]. Future research will

likely draw out the impact of healthcare professionals body size on healthcare processes and outcomes.

Various terms are used to refer to overweight and obesity and there is a growing appreciation of the importance of avoiding harmful terminology [65–71]. Recent studies [65, 66] report that certain terms to describe obesity such as fatness and heaviness may be harmful, while other terms such as BMI and weight are more preferred. The terminology used in weight management advice should be carefully considered because stigmatising content is reported to have the lowest patient compliance [72]. Advice that made no reference to body weight or obesity was perceived as more positive and motivating.

### Training Interventions

Despite the clear evidence of anti-fat attitudes and the probable negative impact this has on patient experiences there is a dearth of evaluated training interventions for healthcare professionals [73••]. Generally two types of intervention have been evaluated but the studies have been mostly confined to school and university student populations. Evaluated interventions employ educational media such as stories or films to either alter beliefs about controllability or evoke empathy with persons who are obese. The effectiveness of individual interventions is not encouraging so far. Two recent examples of this approach with samples more closely matching healthcare practice are typical. Swift and others [74] in a small pilot study reported that educational films were effective in reducing explicit anti-fat attitudes and beliefs about the controllability of obesity measured at six weeks. The intervention was unsuccessful in altering implicit anti-fat attitudes. Another education based intervention manipulating the causal information for obesity also showed mixed results [75].

Care has to be taken in generalising from, for example, a psychology student responding to an intervention in isolation to, for example, a middle aged doctor faced with real life clinical pressures. Furthermore, demonstrating a change of attitudes over a short period and outside the context in which they really matter may be of limited value. In fact a practice based complex intervention with patient outcomes as outcome measures would probably be much more useful. The qualitative work with healthcare professionals and patients gives a further indication as to how these issues can be tackled. A consistent finding is that trust, rapport and communication are undermined by obesity stigma but improving these was thought to overcome negative effects.

### Work with Nurses

Brown's research and development work focused on nurses in the UK provides several insights [26–30, 76–80]. (A



preliminary insight is that this work was patched together from small grants - obesity stigma has not been a priority for health research funders!) A literature review concluded, as above, that a proportion of nurses hold attitudes that comprise the negative stereotypes and attributions associated with obesity that are ingrained in Western societies [76, 77]. A questionnaire survey of nurses in the UK reinforced this finding with other insights - for example, that nurses may overstate the health risks of obesity as part of healthcare weight bias [78]. A qualitative study of nurses of different body size drew out understanding of the impact of obesity stigma on clinical consultations [28]. Nurses described clear effects on their consultations, especially in the rapport with patients and communication style. Likewise, several studies of patient experiences [26–29] found patients feel health services are not supportive and that obesity stigma undermines relationships with healthcare professionals.

Work was undertaken to develop an e-learning package to address negative attitudes and experiences. A key component was the support of a service user group with personal experiences of obesity. An e-learning package was selected as the main vehicle for a complex training intervention because it is readily transferable and reproducible and it enables a variety of interactive learning resources to be covered flexibly by the learner [79]. The DVD/online package included small group work (as well as individual) learning activities [80]. These activities were designed to be facilitated by an experienced clinician. The intervention had five elements.

First, the learning activities set out to raise awareness of and personal and group reflection on weight bias in society. Second, the activities directly addressed beliefs about causes and about controllability. A mix of materials was employed including video clips of patients talking candidly about their experiences. A naïve attribution was not compatible with the

complex real life accounts of these individuals. The third element built on this and was designed to evoke empathy for those with weight problems. Again, talking head videos were incorporated into the materials with emotionally engaging accounts from patients of their difficulties in interacting with health services. Fourth, the learning materials focused on practical skills to improve rapport and communication with patients. These included activities to take account of how the nurse's own body size and choice of terminology might (sub-consciously) have an effect on the interaction with a patient. Figure 1 is an example page from the package, showing activities to help the learner to develop an aide memoire for use during clinical practice. The final intervention element was based in social learning or consensus – namely employing respected clinical leaders to model a positive and engaged response to the issues.

Attempts to secure funding for a full evaluation of the package were revealing. The value of any intervention was rejected outright by a funding board led by a senior medical practitioner. The senior individual believed strongly that negative attitudes were not meaningfully present in practice or evident in patient outcomes. This update article indicates such a stance is increasingly unconvincing. Two other points will be highlighted. First, it is easy to increase resistance among healthcare professionals because it can appear to suggest they are prejudiced or less caring about obese patients. Any training must include a sophisticated sociological understanding of stigma to reduce this resistance. Second, it demonstrates again the need for better evidence of a problem for patient outcomes; of a problem for which it is worth prioritising research funds and precious training time. This requires a shift in the research approach towards understanding consequences and outcomes for patients.

Without funding for an intervention study the electronic learning assets were then incorporated into a range of pre-

**Fig. 1** Image from an e-learning intervention for nurses

**A six point plan in the palm of your hand**

We are suggesting six points to improve relationships and communication. To help you remember we are matching these to what you can tick off on your hand.



- Palm – maintain weight-bias awareness
- Thumb – sensitive use of terms and language
- Index finger – avoid attributing personal causes
- Middle finger – keep health risks in proportion
- Ring finger – focus on rapport and relationship quality
- Little finger – use self disclosure counselling techniques to demonstrate empathy and credibility

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registration training courses for healthcare professionals. They continue in use but are somewhat scattered across modules covering communication, anti-discriminatory practice, ethics and sociology.

## Conclusions

All healthcare professionals have a role in supporting patients with weight management. Good training is available but has yet to be widely implemented. The content of generalist training is clear except perhaps for the issue of how to address negative attitudes that stem from obesity stigma. There is good evidence that healthcare professionals hold and perpetuate negative stereotypes and attributions that are core elements within obesity stigma and weight bias. It is clear that this has consequences for rapport, communication and relationships with patients and their satisfaction with experiences of health services. It is also likely that there are consequences for health outcomes but more research is needed. Further studies should triangulate the study of attitudes with robust observation of healthcare processes and outcomes. This will help determine whether training about weight bias can simply reside in the general preparation of healthcare professionals (as part of anti-discriminatory practice and communication for example) or whether it requires more active training interventions.

## Compliance with Ethics Guidelines

**Conflict of Interest** Ian Brown and Stuart W. Flint declare that they have no conflict of interest.

**Human and Animal Rights and Informed Consent** This article does not contain any studies with human or animal subjects performed by any of the authors.

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