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Patients' and professionals' experiences and perspectives of obesity in health-care settings: a synthesis of current research

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Abstract

Background Obesity-related stigma likely influences how obese people interact with health-care professionals and access health care.

Aim To undertake a synthesis of studies examining the views and experiences of both obese people in relation to their health-care provision and health-care professionals in providing care to obese patients.

Search strategy A systematic search of key electronic databases relating to professional or patient experiences of, or perspectives on, obesity was performed in 2008 and updated in 2010. Reference lists of article bibliographies were searched, along with hand searches of relevant journals.

Inclusion Criteria Studies were screened against explicit inclusion criteria and published between 1990 and 2010. Findings were examined and organized thematically.

Data Extraction Data were extracted focusing on obesity, stigma and access to health-care services. All included studies were subject to critical appraisal to assess the quality of the research.

Findings Thirty studies were identified. All the studies reported obesity impacting on health-care interactions. Key themes identified were experiences of stigma and feelings of powerlessness, treatment avoidance, psycho-emotional functioning, professional attitudes, confidence and training, variations in health contact time and finally, differences in treatment options and preventative measures.

Conclusion Obesity is a stigmatized condition that impacts negatively on the relationship between patients and health-care providers. Given the increasing prevalence of obesity and the range of therapeutic options available, further work is necessary to understand how the presence of obesity affects health-care interactions and decision making.

Obesity is a major health hazard contributing much to the current worldwide epidemic of chronic disease.[1–3] Obesity is a complex problem, the product of a range of biological, psychological and social factors. While the number of therapies for treating obesity are expanding (non-pharmacological, pharmacological and surgical), it remains one of the most difficult and challenging health problems to manage.[4–7]

The increasing range of available therapies requires patients and professionals to make choices about which therapies are suited to the needs of the individual patient. While these choices are in part supported by clinical guidelines,[8–11] they are also influenced by treatment costs, therapy availability and the knowledge/motivation of the health professional to introduce them. Patients also need considerable psychosocial support in adopting the self-care and lifestyle behaviours that are advocated within obesity management. Therefore, the effectiveness of the obesity care provided is likely to be influenced by the relationship between obese patients and the care system (including the health-care workers within that system). Obesity management may also be affected by the extent to which the obese patient feels valued and supported within the care system and how the health professional responds to the needs of the obese patient.

Obesity, however, is a stigmatized condition[12,13] and, as such, it may be that being obese could result in implicit or explicit discrimination, impeding patients' access to therapies or the efficacy of therapies that require patient participation. This review was undertaken to provide a synthesis of current research examining the experiences of obese people and health-care professionals as the respective recipients and providers of health care.

Background

Erving Goffman (1963) began his work into stigma by outlining how bodily differences or 'bodily signs' were either of 'holy grace' or 'physical disorder', the latter of which was used as a sign for 'disgrace' (ref. (14), 1963, p. 11). Goffman (1963) refers to stigma as being 'an attribute that is deeply discrediting' resulting in the person being reduced 'from a whole and usual personal to a tainted, discredited one' (ref. (14), 1963, p. 13). It is therefore not surprising that stigma has become associated with physical illness and bodily differences.

While different theorists, following Goffman, have introduced variations in how stigma is constructed, Yang *et al*. (2007) (ref. (15) 2007, p.1525) observed that the two common components of stigma are that people are marked as different and are devalued as a consequence and that stigma is social constructed in so far as it depends on the 'relationship and context' between individuals.

The concept of stigma has, however, been criticized by some social scientists for neglecting the stigmatized person's perspective and by grounding the origins of stigmatized events on the individual rather than on social factors.[16,17]

In an attempt to address this limitation, Link and Phelan (2001) (ref. (17), 2001, p. 377) have suggested that stigma should be viewed as a broad concept that arises when 'labelling, stereotyping, separation, status loss, and discrimination occur together in a power situation that allows them'. Link and Phelan (2001) define stigma in terms of its effects: status loss, discrimination and loss of power. They also highlight that it takes power to stigmatize because labelling people, whether they are obese, disabled or mentally ill, distinguishes between those that have those attributes and those that do not.[17] Following this definition of stigma, it is clear that the power relations between health professionals and patients have the potential to be stigmatizing, although equally health professionals are trained to recognize differences so could in theory be less stigmatizing.

This synthesis builds on current knowledge by exploring patients' experiences of using health-care services; professional experiences of providing care to obese patients; and their interactions in context to the social and organizational factors that contribute to these situations. In highlighting these areas, we may identify the power relations between these

people and the context of these social processes. Exploring patient and professional interactions in the context of obesity is likely to generate interesting insights both into those interactions themselves and into the nature of stigma.

Method

The review was executed in three steps: identification of studies; content extraction and critical appraisal; and synthesis of extracted content.

Step 1- Identification of studies

Electronic searches were undertaken using Medline, PubMed, CINAHL and the Social Science Citations. Index and free-text term searches included obesity (and related terms such as body size, body image, body weight, overweight), stigma, bias and discrimination, inequalities and access (and related search terms). Electronic database searches were limited by date – including only literature published within an inclusive 20-year period (between February 1990 and February 2010) – and by age, focusing on adults only. No limits were set for language or document type. These searches were supplemented with hand searches of key journals and open Internet searches. Citation searches (following key papers and authors) and secondary references were also undertaken.

All identified papers were considered for inclusion in the review. The inclusion criteria were the following: the paper had to describe original research or a review of original research and had to identify patients' or professionals' experiences or views on obesity (or both) in relation to delivery and/or uptake of health-care services. Papers were included on the basis that they contributed to this knowledge. The authors did not limit the inclusion criteria according to the type of health care or disease group, feeling that this could prematurely impede the range and depth of evidence in this area. As such, a low level of suspicion was adopted to ensure maximum initial inclusion. Retrieved studies were initially reviewed by one author (FM), and final inclusion of each paper was discussed between authors (FM & AF).

Box 1 Examples of search terms

- Obesity, body size, body image, body weight, overweight (and related terms)
- Stigma, bias, discrimination (and related terms)
- Inequalities, access (and related terms)

Step 2- Content extraction and critical appraisal

A range of information was extracted from each of the studies including the core features of the studies and their findings related to the professionals' and patients' perspectives on the experiences of obese patients and the care they receive. The questions used to guide this process included the following: Does the article relate to body weight and stigma/weight bias within health-care settings? Does the article explore/describe either the patient or professional perspectives or experiences of health service delivery/uptake? Does the article suggest any variations or barriers to the health care provided/received by overweight and obese patients? Each paper was critically appraised for the quality of the research using a broad critical appraisal process that considered the various research designs of each study.[18,19] Key considerations at critical appraisal included methodological (validity, results and relevance) and analytical soundness (whether the analysis is consistent with the results) and considerations for minimizing research bias. Hand notes were made against each paper noting their suitability for either inclusion or exclusion. Notes were important in considering the validity and rigour of the identified studies.

At this stage, each of the papers were categorized according to the ways in which obese and overweight people relate to service providers/service uptake; how these issues may impact on health-care professionals' ability/willingness to provide care; and in what ways do these issues impact on professionals and patients interaction.

Step 3 Synthesis

The extracted findings of the identified studies were synthesized by hand in two ways: firstly, tabulative synthesis and secondly, thematic

synthesis.[19,20] The tabulative synthesis involved summarizing the core details of the studies into summary tables. The thematic synthesis was conducted in several stages. Initially, each article was organized into three groups: (i) the patient experience (ii) the professionals' experience and (iii) patient–professional interaction. Reoccurring themes within each category were then identified, for example patients' sense of ambivalence towards health-care providers. Finally, thematic synthesis considered the findings of the studies collectively to identify the key themes expressed within those findings and how these findings contribute to the synthesis objectives.

Findings

The abstracts and titles of 278 papers were screened. From this initial screening, 48 studies and reviews were identified and were fully appraised. Of these, only 30 studies met the review inclusion criteria, and the reasons for rejecting the 18 studies[21–38] are given in Table 1.

Overview of included studies (participants, context and methods)

The majority of the papers (n = 19) originated from the USA, and nine studies were conducted in the UK. The remainder were from Australia and Canada. Further details of the study design, participants and study settings are given in Table 2.

Patient experiences and perspectives

Twelve studies reported findings of the experience and views of obese patients on their health care (see Table 3). Four main themes were identified from these studies:

Theme 1. Patient ambivalence

Brown *et al.* (2006) reported that obese patients felt health-care professionals in primary care were ambivalent towards their health needs.[39] This professional ambivalence amplified the extent to which patients felt personally responsible for their condition, leading to a sense of personal ambivalence in relation to accessing and using services.

In contrast, more recent research by Thomas *et al.* (2008) into the lived experience of people with obesity (n = 76) found that while half of those studied (n = 38) described the experiences of weight stigma at the hands of health-care professionals, a third of participants (n = 27) recounted positive experiences with health professionals, stating that they had been active in their treatment and care plans.[40] However, participants also reported that GPs never initiated talking about weight issues.

Theme 2. The experience of stigma and feelings of powerlessness

Two studies described obese patients' experience of weight-based stigma and how these everyday experiences shape their opinions about their body, generating feelings of powerlessness.[41,42] Rogge & Greenwald (2004)[41] reported that obese people frequently experienced stigma and discriminatory behaviour in everyday encounters, contributing to individuals' sense of powerlessness and humiliation. Puhl *et al.* (2008)[42] identified that obese adults experience common weight-based stereotypes, such as being viewed as lazy, an overeater and unintelligent. This observation was coupled with the fact that participants expressed self-blame about their weight.

Theme 3. Care and treatment avoidance

Several studies suggested that obese patients' negative experiences with health-care professionals and their own negative self-image contributed to a reluctance among obese people to access services and/or engage in positive health-seeking behaviours.[43–46]

Adams *et al.*'s (1993) survey of medical professionals' attitudes towards obesity found that 83% (n = 1092) of total responders (n = 1316) expressed a reluctance to perform pelvic examinations on female obese patients because of the practical difficulties in performing these procedures.[43] Adams *et al.* (1993) also observed that as patients' weight increased, so did the negative opinions about their own appearance and the opinions of health-care professionals. These opinions impacted on women patients' reluctance to obtain pelvic examinations,

Table 1 Excluded papers

Reference number	Author (year)	Reason for rejection
21	Crerand *et al.* (2007)	Exploration of obesity-related attitudes to women on a dieting and non-dieting intervention. Does not consider health-care use or delivery.
22	Ernsberger & Koletsky (1999)	Review focusing on obesity from the perspective of public health practices. Does not consider professional perspectives or patient experiences.
23	Ferguson *et al.* (2009)	Commentary on how obese individuals face multiple forms of prejudice because of their weight. Does not consider professional perspectives or patient experiences or centre on the use or delivery of health care.
24	Ferraro & Kelley-Moore (2003)	Examines the cumulative disadvantage of obesity over the life course. Does not consider professional perspectives or patient experiences or centre on the use or delivery of health care.
25	Huizinga *et al.* (2009)	Investigates whether physicians respect for patients decreases with higher body mass index (BMI). Does not explore mechanisms for treatment differences.
26	King *et al.* (2009)	To investigate whether overweight and obese patients are less likely to undergo coronary revascularization. Does not provide mechanisms for treatment differences.
27	Lillis *et al.* (2009)	Examines a new model aimed at reducing avoidant behaviour in the treatment of health problems in obese patients. Does not consider professional perspectives or patient experiences.
28	Moon *et al.* (2007)	Examines the geographical distribution and prevalence of obesity. Does not focus centrally on obesity in relation to health care.
29	O'Brian *et al.* (2007)	To investigate the implicit and explicit prejudices of physical education students. Does not consider health-care use or delivery.
30	Phelan *et al.* (2008)	Review of conceptual models of stigma and prejudice. Does not consider health-care delivery or focus centrally on professional perspectives or patient experiences.
31	Puhl & Brownell (2001)	Review article focusing on discriminating attitudes and behaviour against obese people. Does not exclusively focus on health care.
32	Puhl *et al.* (2005)	Experimental study exploring perceived social attitudes towards obesity. Does not consider health-care delivery.
33	Ross *et al.* (2009)	Examines how undergraduates categorize and judge obese patients. Does not exclusively focus on health care or care delivery.
34	Staffold *et al.* (2007)	Identifying the contextual determinants of physical activity and diet in relation to pathways to obesity. Does not focus centrally on health care or professional perspectives and patient experience.
35	Stuber *et al.* (2008a)	Review article from the perspective of public health practices on the relationship between stigma and health. Does not focus exclusively on obesity and/or body weight.
36	Withall *et al.* (2009)	To identify the barriers to regular exercise and consuming a healthy diet in overweight and obese low-income families. Does not consider health-care delivery.
37	Zettel-Watson & Britton (2008)	Investigation into whether negative associations between obesity and social participation are apparent from younger age groups into adulthood. Does not consider health-care delivery.
38	Zhang & Wang (2004)	Focuses on the socio-economic inequalities association with obesity. Does not consider health-care delivery.

suggesting that the negative views of patients and professionals may compound one another.

Similarly, Fontaine *et al*. (1998) reported that after adjusting for age, ethnicity, income, education, smoking and health insurance status, BMI for obese women was related to a reduced probability of undergoing various procedures; a clinical breast examination OR 1.26 (95% CI 1.00–1.58), gynaecological examination OR 1.39 (95% CI 1.15–1.69) and papanicolaou smear OR 1.29 (95% CI 1.04–1.58).[44] Obese women (with BMI > 35) were also more likely than

Table 2 Overview of study characteristics

(a) Study Designs

Quantitative		Qualitative		Literature review		Evaluation study	
n	References	*n*	References	*n*	References	*n*	References
20	42–50, 52–56, 60, 62–64, 66, 68	8	39–41, 51, 57, 59, 65, 67	1	58	1	61

(b) Participants

Overweight or obese patients		Health-care professionals (including nurses, doctors and allied health professionals)		Both patients and professionals		Dietetic and nursing students	
n	References	*n*	References	*n*	References	*n*	References
14	39–42, 44–49, 62, 65, 66, 68	13	50–61, 67	1	43	2	63, 64

(c) Setting

Community settings (including GP practice, weight loss/management group, own home and internet)		Education settings (including universities and continuing education meetings)		Academic/medical conferences		Secondary care/acute care settings (including surgery programmes)	
n	References	*n*	References	*n*	References	*n*	References
22	39–46, 48–51, 55, 57–62, 65, 66, 68.	3	53, 63, 64	2	54, 56	3	47, 53, 67

non-obese women (BMI < 25) to delay having these examinations performed. Olson *et al.* (1994)[45] reported that women with greater BMI were significantly more likely to delay or cancel medical appointments because of embarrassment about larger body size or concerns over discussing weight with medical practitioners. They found that 12.7% (n = 40) of respondents had cancelled or delayed a health-care appointment with a physician because they thought they would be weighed.

Amy *et al.* (2006) identified a number of factors that contribute to low uptake of women's health care, which included the following: disrespectful treatment (36%, n = 131), embarrassment about being weighed (35%, n = 127), negative attitudes of providers (36%, n = 131), unsolicited advice about weight loss (46%, n = 167) and equipment limitations (46%, n = 167) (such as gowns, tables and diagnostic equipment).[46]

Theme 4. Psycho-emotional functioning

Studies also suggest a relationship between the stigmatizing experience of obesity and negative psychobehavioural responses such as maladaptive coping and low self-esteem, which may impede their ability to adopt positive self-care behaviours.[47–49] Puhl & Brownell (2006)[49] in a survey of 2449 adult obese women found most participants reported mild depressive symptoms. However, results from their self-esteem scores indicated that self-esteem and depressive symptoms were not significantly related to stigmatizing situations. Myers & Rosen (1999)[47] observed that exposure to negative social encounters related to poor body image and an increase in body dissatisfaction. Numerous coping responses were employed by obese persons to negate stigmatizing experiences, including use of positive self-statements (for example, saying to oneself, 'it's the person on the inside that

Table 3 Patient experiences and perspectives

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Brown *et al.* (2006), UK (39)	To explore obese patients' experiences and views of support offered to them in primary care.	A qualitative study using semi-structured interviews conducted in patients' own home.	A purposive sample of 28 patients with different socio-economic backgrounds, ages, level of obesity and experience of primary care services. Patients sourced from five general practices located in a socio-economic diverse area of Sheffield, UK.	Patients felt a lack of service resources and insensitivity in the support they received from primary care providers. Patients felt rushed in consultations or received ambiguous communications. These issues contributed to patients' own feelings of personal responsibility and sense of stigma. Good professional–patient interaction only partly reduced the effects of their sense of stigma.
Thomas *et al.* (2008), Australia (40)	To explore the lived experience of people with obesity and the impact of sociocultural factors on their lives.	A qualitative study using semi-structured interviews conducted either using the telephone or face-to-face encounters.	Seventy-six adults were interviewed from a sample of $n = 90$ recruited following a newspaper report. Data analysis was undertaken using constant comparison and comparative methods using QSR NVivo 7.	Over half of all interviewees ($n = 45$) struggled with their weight over their lifetime. Almost all had experienced stigma as an adult ($n = 72$). Half of the participants ($n = 38$) had been subject to humiliating experiences, including derogatory comments from their encounters with health-care professionals. The remaining participants ($n = 27$) recounted positive experiences with health professionals, because they had been active in their treatment.
Rogge & Greenwald (2004), USA (41)	To explore obese people, their families and experience of living with obesity as a chronic illness.	An interpretative phenomenological design based on open-ended interviews.	A convenience sample was used to recruit 13 obese individuals and 5 other family members for interview. Interview data were analysed thematically, identifying major themes within each transcript and patterns of meaning across narratives.	Participants frequently experienced stigmatization and discriminatory behaviour. Perpetrators of stigmatization included family members and health-care providers contributing to individuals' sense of powerlessness and humiliation. These events shaped the lived experiences of obese people and helped shape their social construction of illness and obesity.

Table 3 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Puhl *et al.* (2008), USA (42)	To identify and describe obese adults' subjective experiences of weight bias.	An online survey method comprising open questions about weight stigmatization.	*N* = 318 participants completed an online self-reported questionnaire about their worst experiences of weight stigmatization and common weight-based stereotypes. Data were analysed using a stage model of qualitative data analysis.	The worst weight stigmatization emerged from people closest to the participant and health-care professionals. Perceptions of weight-based stereotypes that prevailed included laziness, overeating and low intelligence. Suggestion by obese individuals for stigma reduction strategies included education about the causes of obesity and weight stigma.
Adams *et al.* (1993), USA (43)	To examine the differences in frequency of pelvic screening examinations between obese and non-obese women and the effect of physicians and patient attitudes towards obesity on examination frequency.	Volunteers were telephoned and then mailed a multiple-choice and short-answer item questionnaire. All (*n* = 3,095) Connecticut physicians specializing in family medicine were mailed a postal questionnaire.	A total sample of *n* = 291 women subjects, sourced from local and statewide advertisement, and *n* = 1316 physician subjects participated in a postal questionnaire. The joint effect of weight, attitudes towards examinations and opinion of women's appearance was examined by logistic regression.	Attitudes and behaviour of both participant groups were negatively influenced by weight. As subjects' weight increased, so did the negative opinions about women's appearance and the likelihood of women having an annual pelvic examination. Women were also reluctant to obtain pelvic examinations. Eighty-three (83%) percentage of physicians (*n* = 1092) expressed reluctance to perform these examinations on obese and reluctant patients.
Olson *et al.* (1994), USA (45)	To explore whether women delay or avoid needed health-care services because they are overweight.	Observational study using a self-administered survey to female nurses, nursing assistants and health unit coordinators (total *n* = 409) working in a medical centre in Wisconsin, USA.	Department heads distributed a 15-item survey to each of their unit staff. The survey included a visual analogue scale to explore views of body weight and satisfaction with woman's interaction with physicians. Regression analysis used to develop models to identify those who delay medical care.	Of the *n* = 310 completed responses, 12.7% respondents (*n* = 40) reported cancelling or delaying health appointments with a physician because of weight concerns. Another 2.6% of respondents (*n* = 8) attended their appointments but refused to be weighed. Findings suggest that BMI was significantly associated with appointment cancellations.

Table 3 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Fontaine *et al.* (1998), USA (44)	To examine the relation between BMI and the use of medical care services among women	A multi-stage cluster area sampling survey including questions of health-related knowledge and attitudes on the use of health-care services.	N = 6981 women over the age of 18 years residing in the USA. Multiple regression analysis was used to examine the relation between BMI and frequency of physician's visits over 12 months. Data adjusted for age, ethnicity, income, education, smoking and health insurance status. Interactions between BMI and each covariant were also tested.	BMI was directly related to reduced likelihood of undergoing a clinical breast (P = 0.04) examination, gynaecological examination (P = 0.001) and papanicolaou smear (P = 0.02). Obese women (with BMI of 35) were more likely than non-obese women (BMI of 25) to delay having these examinations performed. BMI was not significantly related to delays in mammography, but it was related to increased number of physician visits (P = 0.001).
Amy *et al.* (2006), USA (46)	To investigate the factors that may contribute to lower rates of screening for gynaecological cancer in overweight and obese women.	Survey including questions on patients' experiences and potential and actual barriers that cause delay in seeking treatment.	A purposeful sample of 498 white and African American women with BMIs ranging from 25 to over 55. Stepwise multiple regression analysis was used to examine whether BMI was associated with weight-related barriers.	Several issues impacted on patients' willingness to obtain care: disrespectful treatment (36%), embarrassment of being weighted (35%), negative attitudes of providers (36%), unsolicited advice about weight loss (46%) and equipment failures (46%). Findings indicated that those women who delayed seeking care (n = 201) were significantly less likely to have a Pap test, timely pelvic examination or mammogram.
Myers & Rosen (1999), USA (47)	To create inventories of stigmatized situations encountered by obese people and how they cope with such events. To examine how stigma and coping relate to psychological distress.	A postal questionnaire comprising of a 50-item stigmatizing situations and a 99-item coping response questionnaire. Other mental health, body image and self-esteem measurement tools were also used.	Accounts of stigmatized events were obtained from 63 severely obese patients in a gastric bypass surgery programme and 38 non-clinical subjects via an obesity support website. Data were analysed using univariate analysis.	Exposure to stigmatization was related to negative body image and increased body dissatisfaction. These issues negatively impacted on self-esteem and mental health symptoms. Numerous coping responses were employed to negate stigmatizing experiences, including problem-solving efforts, strategies to disarm critical people, wishful thinking and avoidance of situations.

Table 3 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Friedman *et al.* (2005), USA (48)	To evaluate the relationship between weight stigmatization, beliefs about weight and psychological functioning in treatment-seeking adults.	Self-reported questionnaire design measuring psychological adjustment, attitudes towards weight and frequency of weight-based stigmatization.	One hundred and nineteen individuals self-referred to a residential weight loss centre. A self-selecting sample of $n = 93$ individuals were recruited to the study. Psychological functioning was measured using standardized measures for depression and self-esteem. Data were analysed using multiple regression analysis.	BMI was significantly and positively associated with weight-based stigmatization ($P < 0.01$). Stigmatizing experiences included negative assumptions about obese people (78.3%), encountering physical barriers (96.8%), being avoided, excluded or ignored (55.9%) and receiving inappropriate comments from doctors (89.1%). Frequency of these experiences was also positively associated with predictions of depression ($P = 0.001$).
Puhl & Brownell (2006), USA (49)	To examine experiences of weight stigmatization, sources of stigma, coping strategies, psychological functioning and eating behaviour.	Online survey method comprising open questions about weight stigmatization including frequency of weight stigmatization, coping response, self-esteem and attitudes about weight	A sample of $n = 2671$ overweight and obese adults completed an online self-reported questionnaire. Multivariate analysis was used to analyse survey responses.	Experiences of weight stigmatization were common and emerged in many forms. Bias originated from physicians and family members. A range of coping strategies were employed to minimize exposure to stigma, including seeking support from others, coping via faith, positive self-talk and heading off negative comments. Coping responses, such as coping by using positive self-talk, were associated with lower levels of depression ($P < 0.05$).

matters'), strategies to disarm people who might be critical, wishful thinking and avoidance of distressing situations.

Patient experiences and perspectives – Discussion

Key themes raised by patients include how health-care professionals in primary care were ambivalent towards obese people's health needs, potentially leading to a sense of personal ambivalence for obese individuals in accessing and using services.[39,40] Obese patients' experience of weight-based stigma also emerged from a variety of everyday settings and encounters. These everyday experiences were then thought to shape obese patients' opinions about their body, generating feelings of powerlessness.[41,42] Finally, the literature suggested that obese patients' negative experiences with health-care

professionals, and their own negative self-image, contributed to their reluctance to access services and to engage in positive health-seeking behaviours.[43–46] These themes largely focus on how patients' negative view of themselves shape their willingness to interact with health-care providers and even shape their perceptions of how they believe they will be treated. The studies included in this synthesis may suggest how obese patients need a positive experience with health-care professionals to build up trust not only in how they will be treated in future by health professionals but also their trust in professionals' clinical decisions. This trust may also reduce patients' sense of powerlessness, because they would have an active role in sharing care decisions, and would also reduce treatment avoidance as they would be more willing to seek future care.

Professional experiences and perspectives

Ten studies reported findings that relate to the experience and views of health-care professionals (see Table 4).

Theme 1. Professional attitudes and beliefs about obesity and these views in relation to weight management practices

Several studies explored professionals' attitudes and beliefs about obesity and consequently their sense of ambivalence towards obese patients.[50–59] Harvey & Hill (2001)[52] compared health professionals' view of overweight people with that of smokers finding that smokers were seen as more personally responsible for their condition and less accepted than overweight people. They also reported a sense that professionals felt that extremely overweight people should take more responsibility by understanding and acting on the causes of their weight problem.

Research by Teachman and Brownell (2001)[53] further highlights health professionals' implicit negative attitudes and beliefs towards overweight people when compared to that of the general population. They found that health professionals had an anti-fat bias on both the implicit attitude measures and implicit belief measures they used. However, compared with the general population, health professionals had slightly less stigmatized views of obese people, because of their experience of caring for the obese.

Professional experiences and perspectives – Discussion

The evidence reviewed in this paper suggests differences in how professionals view obese patients. This emerges not only in how health professionals were largely ambivalent towards obese patients[50–59] but also how health professionals hold implicit negative attitudes and beliefs towards overweight people[53] and thought these individuals were less acceptable.[52]

The studies included in the review suggest that health professionals may require additional support and training to ensure that they provide good quality care to obese and overweight patients. The observation that health professionals may also be reluctant to raise obesity and weight as an issue with patients is a particular concern if preventative and or weight-reducing therapies are to be implemented appropriately. There is a need to ensure that health professionals approach obese patients sympathetically and that they have a good knowledge of specific treatment options available to reduce weight.

The papers reviewed have suggested several issues which may help us understand the motivation that underpins professionals' view and behaviour for caring for obese patients. Obese patients may be more demanding because of the level of contact time needed, equipment design issues and organization of multiple interventions. The limitations professionals experience may be even more marked if they are caring for patients at higher risk of chronic disease and for those with current multiple morbidities.

Research, so far, suggests potential variations and differences in doctors and nurses clinical practice according to body size and hint how professional's perspective of obesity may stigmatize this patient group and impact on clinical decisions and willingness or ability to provide care.

Table 4 Professional experiences and perspectives

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Hoppe & Ogden (1997), UK (50)	To explore the relationship between practice nurses' beliefs and behaviours about obesity, their current weight management practices, and their own weight status.	National cross sectional survey using a self-administered postal questionnaire.	Practice nurses (n = 586) in ten health service authorities completed the questionnaire. Analysis was undertaken using SPSS, using one way ANCOVA to examine the main effects of clinical and BMI data, by age, time spent with patients, and advice provided.	Nurses believed obesity was caused by lifestyle factors that included threat of serious illnesses (diabetes). Practice nurses reported high confidence in their ability to give advice to obese patients. However, expectations of patient compliance and weight loss were low; indicating that nurses rate their provision of advice as being independent to that of outcomes of this advice. Beliefs and behaviour also altered with practice nurses own BMI.
Mercer & Tessier (2001), UK (51)	To examine practice nurses and general practitioners views of obesity and the obstacles towards better weight management in primary care.	Semi-structured interviews with general practitioners and practice nurses within the greater Glasgow area.	Semi-structured interviews with n = 10 general practitioners and n = 10 practice nurses located in general practices. Data analysed using thematic analysis.	Nurses and general practitioners were ambivalent about working with obese patients on weight management issues. Patient's lack of motivation was viewed as a contributory factor. Professionals were keener to be directly involved in weight management issues when co-morbidities, like diabetes, were present.
Harvey & Hill (2001), UK (52)	To examine health professionals' views of overweight people compared with that of smokers and to explore the role of severity on these views.	A postal survey of health professionals using a 2 × 2 factorial design (overweight or smoker) divided by level of severity (moderate and extreme) so that responders were questioned about a range of situations.	N = 255 general medical staff and clinical psychologists in the north of England. The questionnaire was analysed to explore several issues including beliefs' about causes of weight gain and attitudes and perceptions about responsibility for being overweight or a smoker.	Of the four categories analysed moderately overweight people were viewed more positively and obese patients were viewed least positively. Health professionals viewed overweight people as somewhat responsible to do something about their situation; however this responsibility was not as acute as it was for professionals' views of smokers.

Table 4 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Teachman & Brownell (2001), USA (53)	To investigate whether negative attitudes and beliefs towards overweight patients exist among physicians, nutritionists and pharmacists who work within obesity management. Findings were compared with bias present in the general population.	Health-care professionals completed a demographics questionnaire and a standardized Implicit Association Test (IAT), measuring attitudes and beliefs, relating to social, gender and racial evaluations / prejudices.	$N = 84$ participants were chosen from those attending a pharmaceutically sponsored continuing education meeting. Those chosen were current or likely prescribers of obesity medication. IAT material was analysed using t-tests.	Health professionals demonstrated statistically significant anti-fat bias on both the implicit attitude ($P < 0.0001$) and implicit belief measures ($P < 0.0001$). Bias demonstrated by health professionals was lower than that of the general population. Heath care professionals had strong negative associations towards obese people; however, their views may be muted because of their caring for obese people.
Harvey *et al.* (2002), UK (54)	To explore dieticians' views of overweight and obese people, the severity of these perceptions and the impact of these view on dieticians weight management practices.	A survey based on an independent measure design including questions on beliefs about causes of obesity, attitudes towards obesity and overweight people, and clinical management practices.	A total of $n = 158$ completed questionnaires were returned from members of the British Dietetic Association's mailing list and BDA 1999 annual conference. Statistical analysis using chi-squared tests and independent t-tests.	Overweight people were rated as significantly more positively compared with obese people ($P = 0.001$). Obese people were thought less likely to be successful workers ($P < 0.01$), more likely to be ashamed of their weight ($P = 0.001$) and less healthy ($P < 0.01$) compared with overweight people. Length of time dieticians spent with overweight and obese patients in the last year were similar at both appointment time and follow-up.
Foster *et al.* (2003), USA (55)	To assess primary care physicians' attitudes towards obese patients, causes of obesity and their treatment.	A multi-item questionnaire including Likert-type scales to assess causes of obesity, patient attributes and beliefs about treatments.	Questionnaire administered to two random samples of 5000 primary care physicians. $N = 623$ responses were received. Survey data were analysed using descriptive statistics, including mean, SD and frequency distributions.	Physicians thought physical inactivity was significantly more important than any other cause of obesity ($P < 0.0009$). Overeating and high-fat diets were mentioned as two other behavioural factors contributing to obesity. Over half of physicians would spend more time discussing weight management issues, if their time was reimbursed.

Table 4 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Schwartz *et al.* (2003), USA (56)	To determine the level of anti-fat bias in health professionals who work with obese patients, and to identify how individual characteristics relate to implicit and explicit bias.	A large self-administered survey based in a measured implicit attitudes scale, IAT score.	Participants (n = 389) attending a health professionals conference in 2001. Subjects included doctors, dieticians, pharmacologists, psychologists and nurses. Statistical analysis was conducted using one-sample t-tests.	Weight bias among health professionals specializing in obesity was significant on all four attribute categories of the IAT tools, including bad-good ($P < 0.0001$), lazy-motivated ($P < 0.0001$), stupid-smart ($P < 0.0001$) and worthless-valuable ($P < 0.0001$). Participants who worked directly with obese patients exhibited less anti-fat bias in the IAT lazy-motivated measure, compared with those who did not work with obese patients ($P < 0.05$).
Epstein & Ogden (2005), UK (57)	To explore GP perspectives on treating obese patients.	Qualitative semi-structured interviews focusing on the treatment of obese patients in primary care.	Twenty-one general practitioners working in an inner London primary care trust. Data were analysed using an interpretative phenomenological approach.	General practitioners view obesity in terms of responsibility and believe its management is principally the responsibility of the patient. They also believe that patients view obesity as a medical problem and, as such, should be managed by medical staff. General practitioners' conflicting views impact on their lack of faith in existing treatment options, believing these to be ineffective.
Brown (2006), UK (58)	To review empirical studies focusing on nurses attitudes towards overweight and obese patients.	Electronic searches of seven databases prior to 2004, combined with hand searches of reference. Review of both qualitative and quantitative studies.	Search terms used were index terms obesity, nursing and attitudes. Other related search terms were included. Eleven studies met the inclusion criteria.	Evidence showed nurses' concern, empathy and willingness to work with obese patients but mixed attitudes about the causes of obesity and the impact of genetic/environmental factors contributing to patients' condition. These mixed attitudes may suggest an ambivalent rather than simple negative attitude towards obese people.

Table 4 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Brown & Thompson (2007), UK (59)	The exploration of primary care nurses' attitudes, beliefs and perceptions of own body size in relation to providing advice about obesity.	A qualitative study comprised of guided interviews and postal survey to primary care nurses about obesity management in primary care in the North of England.	Respondents were stratified according to those who had responsibilities for obesity management in the previous month. $N = 15$ registered nurses were interviewed. Data analysis was facilitated using NVivo software, and analysis was based on a 'framework approach'.	Nurses were aware of obesity stigma and this contributed to viewing obesity as a sensitive issue to discuss with patients. Strategies were employed to manage sensitivity, including maintaining good rapport and avoiding stereotypes. Nurses were also aware of their own body size in interacting with patients, especially slim-built nurses. Nurses with larger body sizes expressed themselves as empathetic to obese patients' experiences but were sensitive about being poor role models.

What emerges from this review so far is also an appreciation for the complexity of making clinical decisions with obese patients, because although professionals are trained to identify differences between patients to improve treatment decisions and ultimately to improve patient outcomes, they are also trained to balance best possible outcomes with limited service resource.

Patient and professional interaction

Eight studies reported findings relating to the patient and professional interaction (see Table 5).

Three main themes were identified from these studies:

Theme 1. Negative evaluations of obese patients
Research into the interaction between obese patients and health professionals suggests that obese patients tend to be evaluated more negatively than non-obese patients in clinical settings.[60–63] One study focusing on the clinical judgements of mental health professionals found that professionals were more likely to project negative psychological symptoms on to obese patients, such as poor emotional behaviour, impaired judgement, inappropriate behaviour and inadequate hygiene.[60] These negative evaluations were shown to have a negative impact on patients' willingness to interact with health-care professionals on a regular basis.

Carr and Friedman's (2005)[62] aimed to explore the relationship between body weight and people's perceptions of their treatment in different settings. They reported that negative attitudes to overweight and obese people translated into discriminatory behaviour against these people. When comparing obese to normal weight people, they found significantly lower self-acceptance scores, more frequent daily discrimination and increased likelihood to report health-care-related discrimination. Furthermore, obese people were more likely to attribute their discriminatory experiences to their body size, rather than to any other cause. In addition, the same authors identified the difficulties professionals face in providing care because of limitations in standard health-care equipment, which may also restrict care usage and quality.[62]

A recent study by Puhl *et al*. (2009) explored whether dietetics students' views of obese patients influenced their treatment decisions and

Table 5 Patient/professional interaction

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Young & Powell (1985), USA (60)	To explore whether body size influences the clinical judgement of mental health workers.	Self-completed questionnaire survey including an evaluated case history and photographs of differently sized patients. Measure was related to attitudes towards willingness to work with obese client group.	$N = 120$ mental health professionals from Washington DC area, USA. Data analysed according to variance of scores, by weight, age and gender of respondent.	Mental health professionals were more likely to portray negative psychological symptoms to obese clients. No significant difference in willingness to work with obese patients and no inference as to the usefulness of therapies. Male respondents were less harsh than women in their assessment of obese patients.
Hebl & Xu (2001), USA (61)	To examine how patients' weight affects both physicians' attitudes and their intention to prescribe.	A six-cell randomized design, including physicians' evaluation of a medical chart of a range of patients with different weights and genders.	A sample of $n = 122$ physicians across three medical centres in Houston, USA. Analysis of a standardized procedure form according to length of time with patient, medical tests and procedures performed with patient.	Patients' weight significantly affected how physicians' viewed and treated patients ($P < 0.03$). Results indicated that physicians prescribed more tests for heavier patients ($P < 0.03$), but spent less time with them ($P < 0.001$). Physicians also viewed heavier patients more negatively on 12 of 13 indices. These indices related to the effects of patient weight on physicians' attitudes and decisions of care.
Carr & Friedman (2005), USA (62)	To explore the frequency and psychological impact of institutional and interpersonal discrimination reported by people of various weights.	A national, multi-staged study comprising of telephone interview and self-administered postal survey.	Probability sample of more than $n = 3000$ adults (between 25 and 74 years of age) was approached for interview. Questionnaires included multi-item scales based on the perceptions of discrimination. Bivariate analysis was performed.	Compared with normal weight persons, obese patients reported significantly lower self-acceptance scores ($P < 0.001$), more frequent daily discrimination ($P \leq 0.001$) and were more likely to report health-care-related discrimination ($P \leq 0.001$). Findings suggest that obese people were stigmatized in a range of health and social care institutions with implications for their psychological well-being.

Table 5 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Puhl et al 2009, USA (63)	To investigate the attitudes of dietetic students towards obese patients and evaluate whether patients' body weight influences treatment decisions.	A self-reported survey comprising four randomly assigned mock health profiles of patients.	A convenience sample of $n = 182$ dietetic undergraduate students profiles was compared using multivariate analysis of variance.	Despite nutritional and health information being identical across different weight categories in profiles, students rated obese patients as being less likely to comply with treatment recommendations ($P = 0.02$), having poorer diet quality ($P = 0.03$), and poorer health ($P < 0.001$),
Peternalj-Taylor (1989), Canada (64)	To explore the impact of obesity and gender on the nurse–patient relationship, and how this relations to care delivery, health-care evaluations and nurse withdrawal.	Self-completed questionnaire survey based on descriptive vignettes and visual prompts.	Volunteer sample of 100 senior female nursing students. Sample was randomly allocated to one of four conditions using (2×2) factorial design based on weight and gender of patients. Dependent and independent variable analysis.	Obese patients were evaluated more negatively than normal weight patients ($P < 0.05$), and nurses were not immune to learned stereotypes that could result in withdrawal. In nurses' evaluation of patient scale, male patients were evaluated more negatively than female patients; however, this may be accounted for by female nurses being more sympathetic to the experiences of obese female patients.
Merrill & Grassley (2008), USA (65)	To identify the meaning of overweight women's experiences when encountering health-care services and professionals'.	Face-to-face interviews based on a storytelling data collection method.	In-depth face-to-face interviews were conducted with eight women. A phenomenological approach was used to highlight interview themes.	Four themes emerged from women experiences with health-care professionals. 'Struggling to fit in'; comprised of equipment and technical failures; limited time and consequently limited support or satisfaction; 'being dismissed' , meaning feelings of being demeaned in health-care encounters; and 'feeling not quite human' involving the stigma of being different.

Table 5 (Continued)

Author(s), county & reference	Aims	Methodology	Sample & Analysis	Main findings
Wadden et al (2000), USA (66)	To explore obese women's views of their physicians' attitudes towards weight management and weight management practices.	Self-completed questionnaire including measurements of mood, health, history of weight loss, frequency of medical visits per year and demographic details.	$N = 259$ obese women (BMI > 30) who sought treatment in a RCT at the University of Pennsylvania's weight and eating disorder programme. Data analysed using paired t-tests and Wilcoxon signed-rank tests.	Women were generally satisfied with the care they received from their physician but statistically less satisfied ($P < 0.001$) with the care they received for their obesity and with professional knowledge in this area. Almost half of all women (44.8%, $n = 116$) reported that their physician had not suggested any of the 10 common weight loss methods (diet, exercise plans and medication).
Wright (1998), UK (67)	To explore nurses' views of acceptable body size for female patients.	Semi-structured interviews focusing on women's beliefs about body size and interaction with those that are overweight.	Convenience sample of 10 nurses with hospital-based backgrounds. Thematic analysis.	Nurses were reluctant to discuss weight management issues with patients. Larger body sizes were seen as problematic as body size was seen as contributing to physical health risks. Several nurses were uncomfortable being the intermediary between the patient and doctors when advising on weight management issues.
Wee et al (2000), USA (68)	To examine the connection between obese women and screening with papanicolaou (Pap) smears and mammography.	Population-based survey based on elements of the National Health Interview Survey, (a household civilian survey), with an additional survey about preventative health services.	The National Health Interview Survey was distributed nationally. Fifty percentage of respondents were randomly selected ($n = 19\,738$) and sent an additional survey. Data analysed using chi-square and bivariate analyses.	Overweight women (78%) and obese women (78%) aged between 18 and 75 years who had not undergone a hysterectomy ($n = 8394$) reported fewer Pap smears in the previous 3 years ($P < 0.001$) than normal weight women (84%). Differences were still observed after adjusting for sociodemographic factors, insurance, access to care, illness burden and provider speciality for Pap smears.

health evaluations. One hundred and eighty-two students were asked to profile four mock cases where patients' conditions were all the same except for body size.[63] The results indicated that despite the nutritional and health information being identical across examples of patients in different weight categories, obese patients were evaluated more negatively than non-obese patients in relation to compliance with treatment recommendations, diet quality and health status.

The findings suggest the presence of some bias towards obese patients with students making assumptions about the diet and health of obese patients, even though they are provided with information indicating a healthy lifestyle. The authors go on to suggest that these assumptions are harmful, because they may lead patients to feel stereotyped, even if patients were making an effort to be healthy.[63]

Theme 2. Differences in patient/professional contact time

A further factor to arise is different levels of contact time between obese patients and different health-care professionals. Peternalj-Taylor's (1989)[64] study focused on nurses' evaluation of obese patients and views of physical attractiveness in relation to determinants of nurse withdrawal in the professional–patient relationship. The author found that although obese patients were evaluated more negatively than normal weight patients, there was no evidence to indicate that nurses withdraw care or time from these patients.

Hebl & Xu (2001)[61] on the other hand found that doctors spend significantly less time with heavier patients, suggesting less attention to the discussion of symptoms and concerns, less patient–professional interaction and less individualized care when discussing treatment options.

Merrill & Grassley (2008)[65] explored the meaning of overweight women's experience of health care, identifying four main themes: (i) 'struggling to fit in', comprised equipment and technical failures; (ii) 'limited time' and consequently limited support or satisfaction; (iii) 'being dismissed', meaning feelings of being demeaned in health-care encounters; and, finally, (iv) 'feeling not quite human' involving the stigma of being different because of their body size. Limited time emerged as a strong theme in context to interviewees' dissatisfaction with the quality and length of consultation. Most participants felt doctors took inadequate time to listen to their weight-related issues and frequently felt the doctor was rushed. Although these patients reported a range of experiences with health-care professionals, most interviewees put highest value on their family doctor and office nurse. This was largely because these individuals were more likely to take extra time and discuss patients' health concerns and were also familiar and friendly.

Theme 3. Differences in treatment options and preventative measures

The final theme to emerge when focusing on the patient–professional interaction relates to differences in treatment options, satisfaction and preventative measures for obese patients. Wadden *et al.* (2000)[66] drew attention to levels of general satisfaction in their study into obese women's views of their doctors and weight management. While women were generally satisfied with the care and medical expertise of their general health doctor, they were less satisfied with the care they received for their obesity and with professional knowledge in this area. Moreover, almost half of all women respondents (44.8%, $n = 116$) reported that the medical practitioner failed to suggest any of the 10 common weight loss methods (including diet plans, exercise plans, medications and commercial weight loss programmes). Patients' lack of satisfaction and weight loss treatment options both accounted for patients' low expectations of receiving weight loss assistance from their doctors. The limited choices doctors provided about the weight control treatments available to them, combined with patients' lack of expectations and subsequent materialization of weight loss assistance, resulted in an impasse, as neither medical practitioner nor patient could attain the reward of having a favourable patient–professional interaction.[66] These findings concord with an earlier study by Wright (1998)[67], which reported that nurses in particular rarely discussed weight management issues with patients and were more likely to withdraw treatments from overweight patients. Wright (1998)[67] offers two suggestions regarding nurses' reluctance to discuss weight management issues with patients. Firstly, the sensitivity of discussing weight with patients, while nurses also being aware that it is problem

for themselves. Secondly, the conflict that nurses may face between persuading women to lose weight and what they feel to be a matter of personal preference.[67]

Wright (1998)[67] also reported that male doctors were more likely to highlight female patients' weight than nurses and were also more likely to withdraw treatment from overweight patients. Accounts for treatment withdrawal were discussed in terms of refusing planned operations because of excess weight or informing patients to lose weight before the initiation of weight loss interventions. Doctors' decisions to deny patients' treatments were officially based on risk assessments, although nurses' accounts in this study suggest that these decisions were more obviously based on discriminatory practices.

The studies also showed that the uptake of preventative health measures was influenced by professional and patient interaction. A study by Wee *et al*. (2000)[68] examining the relationship between obesity and screening with papanicolaou (pap) smears and mammograms suggested that obesity, like smoking, was used to ration treatments, even in basic preventative measures such as cervical and breast cancer screening. Almost eighty percentage of overweight (78%) and obese women (78%) aged between 18 and 75 years ($n = 8394$) reported fewer pap smears in the previous 3 years than normal weight women. These differences remained even after adjusting for sociodemographic factors, insurance, access to care, illness burden and provider speciality. Similarly, in women aged 50–75 years ($n = 3502$), fewer overweight (64%) and obese women (62%) had undergone mammography, than normal weight women (68%) ($P < 0.002$), indicating a difference of between 4 and 6% difference between weight groups in a 2-year period. Several explanations were offered to explain the variation of preventative measures for overweight and obese women. Patient factors included competing medical priorities for patients, which may lead them to overlook prevention screenings and avoid certain procedures because of physical discomfort, while professional considerations that may contribute to lower screening rates include time constraints at consultations, limited reimbursements and technical difficulties in performing these procedures on obese women. Ultimately, Wee *et al*.'s (2000)[68] study indicated lower rates of preventative care could be a major problem for overweight and obese women, especially if further risks to their health are to be avoided.

Patient and professional interaction – Discussion

Evidence reviewed in this paper suggests differences in how professionals and obese patients interact, leading to differences in care treatment choices and care decisions. These differences emerge not only in diagnostic testing[61] but also in health promotion/prevention strategies[68] and weight management practices[66,67] (although differences between professional groups emerged).

More specifically, literature focusing on the patient and professional interaction has highlighted how stigmatizing events are based not only on the individual's beliefs but also on the social factors that shape that interaction or event, for example resource, equipment and time limitation experiences by health-care professionals. The papers also identify particular professional and service-resourcing issues that may impact on professionals' ability to provide best care to overweight and obese patients.

Discussion

This review has highlighted a wide range of issues from both the patient and professional perspective that may have direct implications for the delivery of care to obese and overweight patients. Specific limitations, however, emerged regarding the quality of specific papers.

The literature relating to health professionals was largely drawn from community and family medical care providers rather than from hospital or specialist clinic settings. This perhaps suggests a need to expand research to explore obesity management, beliefs and treatment decisions across a range of health-care providers in various settings, because patients themselves would

encounter health-care support from a range of professional groups. Indeed, the way patients and professionals interact, together with their underlying beliefs and attitudes to obesity, may have a significant impact on patient's care experiences and on the effectiveness, appropriateness and quality of the care provided.[69]

Previous literature has reported gender differences between obese patients' experiences of health-care provision[62,64]; however, there was an absence of knowledge drawing out gender differences in relation to different disorder groups, for example diabetes (individually or comparatively), in different care settings, with different groups of health-care workers and between genders.

Other limitations of this review are that few of the studies actually observed professional and patient interactions, the majority of these studies are over 5 years old, and attitudes may have changed as obesity has become more common.

At the outset of the review, stigma was identified as a potentially important social force in shaping how individuals view themselves in context to social norms. The reviewed papers suggest that Link and Phelan's (2001, 2006) construction of stigma, in terms of loss of status and feelings of powerlessness, is relevant to patients' experiences and perspectives. The stigmatizing effect (powerlessness) was manifest in patient ambivalence towards their care and in their view that health-care professionals were ambivalent towards them. These perceived negative experiences may shape patients' opinion about their body, impact on patients' psychoemotional functioning and ultimately result in treatment avoidance. These experiences can be interpreted in terms of Link and Phelan's (2001, 2006) discussion of feelings of powerlessness as not only did obese patients express an awareness of possible health-care disadvantages, because of their body weight, but they were also aware of how this disadvantage could be interpreted in terms of health-care provision, emphasizing again perhaps patients' own feelings of powerlessness and possibly lack of control over decisions relating to their bodily health. A recent study of patient's experiences of anti-obesity therapies also reported that patients were ambivalent towards their treatment with divergent views on whether they believed the therapy would make a difference.[70]

Patients' experiences, as described in the review, may constitute direct loss of status because obese patients perceive that they have been treated differently, were not treated equally to others and that treatment choices may be compromised.

This synthesis has also addressed previous criticisms by social scientists for grounding the origins of stigmatized events on the individual rather than on social factors, because we have shown that professional training/education, resource, environmental and equipment issues (room and furniture size) can all impact negatively on health-care use and access by obese patients.[16,17]

By revisiting earlier theoretical views regarding stigma, findings from this synthesis highlights how stigma associated with obesity follows Yangs *et al*. (2007)'s two common components of stigma: people are marked as different (and consequently devalued) and stigma as a social construct that impacts on the relationship and context between patient and health-care provider.

In examining patients' and professionals' interactions, it is possible to identify how this relationship is also grounded on what Goffman (1963) had earlier (1963) called 'virtual' social identity'. Patients' behaviour was, therefore, grounded on their interpretation on how they were viewed or characterized by others, such as health-care professionals. While professionals' views may be based on their training, because they are taught to perceive patients in terms of a complex puzzle, which requires them to balance best practice with achievable outcomes.

Conclusion

The studies presented in this review show that obesity has a strong social effect, not only on how obese individuals view themselves, but also on how they access and interact with health-care providers. This social effect has multiple

manifestations impacting negatively on psycho-emotional functioning, on the uptake of health care and in the experience of care. Obesity stigmatizes patients in a way that reduces their status and leads to feelings of powerlessness.[41,42] This in turn creates inequity and discrimination, with patients perceiving that they are treated unfavourably, with health professionals actively denying patients care, or less likely to suggest care options to obese patients. Therefore, obese patients may have less choices and opportunities to access health-care resources, compounding their already compromised health status. The data identified in this review suggest this discriminatory effect impacts on many areas of health care including: preventive screening, general health-care provision and, most paradoxically, the initiation of anti-obesity treatment. The review has also highlighted that health professionals often lack the physical equipment and technical resources to deliver care to obese patient, further compounding the situation and impeding the professionals' ability to provide best practice care. Given the rising levels of obesity confronting health-care providers, further work is essential to improve the health-care provision for this population.

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