The attitudes of pregnant women and midwives towards raised BMI in a maternity setting: A discussion of two repertory grid studies

Hodgkinson E., Wittkowski A, Smith D. & Hare D.J. (2016)
Accepted for publication in Midwifery.

Abstract

Objectives: Weight-related stereotypes may have a detrimental impact on interactions between midwives and pregnant women with a body mass index (BMI) outside the recommended range of 18-30kg/m^2. This paper explores the reciprocal construal of midwives and pregnant women with a raised BMI and considers the clinical implications of these constructs.

Participants: Ten pregnant women with a BMI≥30kg/m^2 and 11 midwives and from an inner city maternity service were recruited.

Intervention: Participants provided information that allowed for the creation of a repertory grid; generating psychological constructs (perceptions or attitudes) identifying similarities and differences between pregnant women and midwives across a BMI range.

Findings: Midwives were extremely conscious of being perceived as judgemental. They construed all pregnant women as anxious and vulnerable, but attributed characteristics such as "less health-conscious" and "complacent" to those with a raised BMI. The *ideal pregnant woman* and *ideal midwife* were typically construed as more likely to have a BMI of 18-30kg/m^2. Pregnant women with a BMI≤18kg/m^2 were construed as lacking warmth. While midwives differentiated between the elements based on role, the pregnant women construed

the elements according to their BMI. Similarly, they construed those with a BMI≤18kg/m^2 as having an undesirable personality, and acknowledged weight-related stereotypes for those with a raised BMI.

Clinical Implications: It is possible these constructs impact on the way midwives care for and interact with women. Midwives may be supported through reflective clinical supervision and communication skills training to reduce the perceptions of stigma experienced by women with a raised BMI. It may be beneficial to involve pregnant women with a raised BMI in service development to ensure services meet their needs.

Keywords: *Body Mass Index; Obesity; Midwives: Pregnant women; Repertory Grid*

Introduction

Maternal obesity has a significant impact on National Health Service (NHS) maternity services, which have already been stretched by a reported shortage of midwives (Royal College of Midwives, 2013), and by increasing numbers year-on-year of women attending with a body mass index (BMI) above the prescribed healthy range of 18-30kg/m^2, rising from 7.6% to 15.6% in the UK between 1989 and 2007 (Fisher et al, 2013; Heslehurst et al, 2010). Women with a BMI greater than 30kg/m^2 are at significant risk of negative outcomes (Sebire et al, 2001; Wilkinson, 2011) and need increased levels of care (National Institute for Health and Care Excellence, 2010; Royal College of Obstetricians and Gynecologists, 2010), which place a significant demand on healthcare resources (Chu et al, 2008; Heslehurst et al, 2008).

In clinical settings, stereotypes or "anti-fat" attitudes (Teachman, 2001) against people with a raised BMI comprise laziness, poor self-discipline, low motivation and non-compliance (Puhl & Heuer, 2009; Mold, 2013) and are perpetuated by a lack of understanding and skill (Budd et al, 2011; Teixeira et al, 2013). Pregnant women with a raised BMI have mixed views of maternity services, with some reporting stigmatisation, negative care experiences and depersonalisation (Hodgkinson et al, 2016; Mulherin et al, 2013; Smith & Lavender, 2011). They also describe an inconsistency in the way midwives discuss their weight and weight gain, and perceive midwives' advice as either judgemental and contradictory or supportive and understanding (Mills et al, 2013). The clinical implications of these attitudes are low expectations for treatment effectiveness and the provision of fewer weight management recommendations (Ferrante et al, 2009); thus, disadvantaging these women in comparison to those with a lower BMI (Mulherin et al, 2013). This is reflected in midwives' own perceptions of interactions with these women; midwives fear that women with a raised BMI view weight-related conversations as stigmatising or derogatory (Heslehurst et al, 2011). They describe feeling challenged when caring for these

women (Schmied et al, 2013), struggling to find the correct language and the time to provide adequate care (Smith et al, 2012), but also recognising the need for honesty (Heslehurst et al, 2011). Good communication skills increase the quantity and quality of information disseminated to women (Smith et al, 1995), which in turn enables informed decision-making and good clinical practice (Smith et al, 2012, Doyal, 2001).

Most existing studies in this area have used conventional qualitative research methods that rely on the researcher's ability to ask meaningful and appropriate questions and interpret the participants' responses. In response to these questions, participants' honest disclosure may be influenced by fear of judgement. Furthermore, many attitudes are expressed as feelings or intuitions (Bjorklund, 2008) and are therefore relatively inaccessible through traditional methods. Consequently, a technique allowing for the honest elicitation of individual attitudes and non-conscious intuition is preferable. Personal construct theory (Kelly, 1955) states that individuals form perceptions or *constructs* of the world around them based on their experiences, which then form a system that allows them to predict the intentions of others. These constructs can be elicited and interpreted using repertory grids, which use a quasi-qualitative methodology to yield quantitative data suitable for statistical analysis. The repertory grid methodology is described in detail in the data collection section of this paper.

The experiences of both midwives and pregnant women are likely to have shaped their personal construct systems (Kelly, 1955), and therefore influence their interactions and behaviours in a clinical setting. For example, a midwife who construes women as personally responsible for their weight may be less likely to acknowledge the socioeconomic factors influencing their diet. Hodgkinson, Smith, Hare and Wittkowski (2016) undertook a repertory grid study with pregnant women with a BMI$\geq$30kg/m^2. They observed that pregnant women with a BMI$\geq$30kg/m^2 perceived themselves as self-conscious, vulnerable,

and personally responsible for their raised BMI. Construal of the midwife with a BMI between 30 and 40kg/m^2 was mixed, with some women construing this midwife as similar to the ideal midwife, and others construing this midwife as psychologically similar to one with a BMI≥40kg/m^2. They construed the ideal midwife as having a BMI between 18 and 30kg/m^2, and the midwife with the least desirable interpersonal style as having a BMI≤18kg/m^2. The pregnant women construed the midwife with a BMI ≥40kg/m^2 as similar to themselves; experiencing psychological difficulties due to having a raised BMI.

Understanding the nature of these women's construing (see Hodgkinson et al, 2016) led us to want to investigate the reciprocal construal of women with a raised BMI by midwives. The aims of the current paper were: 1) to explore the findings of a repertory grid study completed with midwives exploring their construing with respect to BMI, 2) to compare these findings to repertory grids developed with pregnant women with a BMI≥30kg/m^2 (discussed in detail in Hodgkinson et al, 2016), and 3) to discuss the combined results in terms of their implications and recommendations for service development and midwifery practise.

Methodology

Design

This study used repertory grid methodology which yields qualitative and quantitative data. Although interviews were conducted, only …. Were reported (Emma – add the bit about quotes maybe?). The methodology is described in full in Hodgkinson et al (2016).

Participants

Eleven midwives were recruited from a maternal health research department, antenatal clinic, and community midwifery team in an inner-city NHS hospital in the North West of England.

Midwives were included if they had worked as a qualified midwife in the NHS for at least six months and had sufficient English to comprehend the information sheet and participate in the interview. No midwives were excluded, but the sampling process was monitored to ensure a balance of midwives working in clinical and research settings. Ten pregnant women with a BMI≥30kg/m^2 were also recruited at the same time (see Hodgkinson et al, 2016, for further details). These sample sizes are acceptable because the methodology focuses on the idiosyncratic views of the individual rather than seeking representative views of a population (Blundell, Wittkowski, Wieck & Hare, 2012; Hodgkinson et al, 2016). Ethical and other approvals were granted by the Greater Manchester South Ethics Committee (reference 12/NW/0878), the relevant NHS Research and Development department (R03113) and the University of Manchester Research Ethics Committee in 2013. The research was conducted in 2013.

Data Collection

Each participant, both midwives and pregnant women, was guided to complete a repertory grid (Kelly, 1955; Fransella, Bell & Bannister, 2004) in a semi-structured interview. To generate the elements, participants were asked to consider people they knew who corresponded to the following roles: 1) *pregnant woman with a BMI 18-30kg/m^2 (PW1830)*, 2) *midwife with a BMI 18-30kg/m^2 (MW1830)*, 3) *pregnant woman with a BMI 30-40kg/m^2 (PW3040)*, 4) *midwife with a BMI 30-40kg/m^2 (MW3040)*, 5) *pregnant woman with a BMI ≥40kg/m^2 (PW40)*, 6) *midwife with a BMI ≥40kg/m^2 (MW40)*, 7) pr*egnant woman with a BMI ≤18kg/m^2 (PW18)*, 8) *midwife with a BMI ≤18kg/m^2 (MW18)*, and 9) a *pregnant celebrity (celeb)*. The participants were also asked to consider 10) themselves (s*elf*), 11) *ideal self*, 12) *ideal midwife (ideal MW)*, and 13) *ideal pregnant woman (ideal PW)*.

Participants were also shown silhouettes of women in the specified BMI ranges to help them visualise each BMI range and aid their selection (Bulik, Wade, Heath et al, 2001). Presented with three randomly selected elements, participants were asked "*How are two of these elements similar to each other, but different from the third*" in order to generate the constructs. Interviews were audio-recorded to capture the richness of the data and the experiences individuals described as influencing their construing. As the label given to a construct can be idiosyncratic, behavioural examples were elicited for each pole (Fransella et al, 2004). For example, the construct "not confident" might mean different things to different people ("*How do you know someone is not confident, what would they do/not do, how would they behave")*. This process was repeated until at least 10 constructs had been obtained, or the participant could not identify any sufficiently different constructs. The elements were ranked along each construct ("*Who is the most like that; who is the least like that; where in the middle do the other elements fit")*, and the preferred pole identified (*"Is it better to be like x or like y?"*). Interviews lasted approximately one hour. In a final meeting following interpretation, participants were shown a visual representation (a 'PrinGrid') of their repertory grid. Participants were asked to comment on the findings to ascertain whether they considered the interpretation an accurate representation of their attitudes (Fransella et al, 2004).

Data Analysis

Each repertory grid was analysed using Rep Grid IV (Gaines & Shaw, 2005). Grids were examined to determine the nature of the constructs. Hierarchical cluster analysis was used to identify similarities within the elements and constructs for each participant. A significant association between the elements was set at a cut-off of 80% (Jankowicz, 2005); the higher the percentage association between two elements, the more similarly they are construed.

Principal components analysis was used to explore the relationships within and between the elements and constructs in each repertory grid in a visual format (a PrinGrid; Gaines & Shaw, 2005). Figures 1 and 2 have been randomly selected to exemplify the resulting PrinGrids.

SocioNet Analysis was conducted to show the degree of commonality of construing within the group of midwives that might result from working within the same profession and setting, combining the data from each midwife participant into a composite plot to demonstrate the trend in construing across the sample (Gaines & Shaw, 2005).

Insert Figure 1 and Figure 2 about here

Results

Participant Characteristics

The participant characteristics for the 10 pregnant women participants are described in detail elsewhere (Hodgkinson et al, 2016). To summarise; the ten pregnant women were interviewed between 11 and 38 weeks' gestation, had an average BMI of 40kg/m^2, 50% of the women were in their first pregnancy, 80% described the current pregnancy as planned, and 70% were White British (20% Africa, 10% White non-British). The 11 midwife participants worked across research (six), maternity ward (two), antenatal clinic (two) and community midwifery (one). One midwife was pregnant, one had no children, and the remaining had between one and three children. The midwives' BMI ranged between 20kg/m^2 and 39kg/m^2 (mean 28.09kg/m^2). Three midwives reported dissatisfaction with their service's provision for women with a raised BMI, one was very satisfied, two were quite satisfied and two were neither satisfied nor dissatisfied (one not stated).

Process Issues

The midwife participants described feeling uncomfortable with completing the repertory grids, explaining that they felt they were being judgemental and that they based their constructs on stereotyped ideas. While many of the participants suggested that making judgements was a natural human phenomenon, they reported feeling pressured against doing so: *"I was very conscious not to come across as judgemental"* (P5). As a result, some participants seemed to carefully consider the constructs they generated and how they expressed them. A number of participants commented that they only saw one side of the pregnant women in clinic, which might differ to the way they behave in a non-clinical setting, thus making it more difficult to generate an accurate construal of the person.

Commonality in Construing

The participants were provided with elements but asked to generate their own constructs. Consequently, SocioNet analysis compared only the clustering of the elements across the participants. The resultant analysis indicates a high degree of mutual comprehension between the participants, suggesting the participants' choice of constructs and application to the elements demonstrated similarities, i.e. a number of the midwives construed women in the same way. It is likely that this shared culture of construing is the result of the homogeneity of the sample, with all participants employed in the same role within the same locality and exposed to the same service culture. Despite this shared commonality, the idiosyncratic nature of participants' labelling and use of constructs was clear.

Self, Ideal Self and Ideal Midwife

The participants' selves were largely construed in a positive way and often positioned close to the *ideal self* and *ideal midwife*, indicating that they were satisfied with their self-construal

at the time of the interview and had a high self-esteem. The *ideal self* and *ideal midwife* were construed by the participants in a virtually identical manner, and as "confident", "mothering", "enthusiastic", and as a "role model". The participants showed variation as to which element they construed most similar to the *ideal midwife*, with one participant rating the *midwife with a BMI≥40kg/m^2* as most similar to the *ideal midwife*, two construing the *midwife with a BMI 30-40kg/m^2* as most similar, and the remaining seven viewing the *midwife with a BMI 18-30kg/m^2* as most similar.

Ideal Pregnant Woman

The *ideal pregnant woman* was consistently positioned at the desirable pole of the constructs, and was construed in terms of internal qualities, such as "self-confidence", attitudes towards her body, healthy lifestyle choices, and her ability to cope both with pregnancy and other stressors. The mode PrinGrid demonstrates the *ideal pregnant woman* as very separate to the other elements. However within individual grids, some participants construed the *ideal pregnant woman* as similar to the *ideal midwife* or *ideal self*. For all but two of the participants, the lowest percentage match fell between the *ideal pregnant woman* and the *pregnant woman with a BMI ≥40kg/m^2* indicating this element was construed as the least similar to the ideal. Furthermore, for all but three of the elements, the *pregnant woman with a BMI 18-30kg/m^2* was construed as most similar to the ideal. Despite this, very few of these associations fell above the 80% cut off [24], supporting the inferences from the PrinGrid that the *ideal pregnant woman* is largely construed by the midwives as having very different characteristics to the pregnant women they encounter in clinical settings.

Pregnant Woman with a BMI 18-30kg/m^2

In contrast to the *ideal pregnant woman*, the remaining elements pertaining to pregnant women were construed according to help-seeking behaviour, vulnerability and interpersonal style, alongside qualities such as low self-confidence and anxiety. From the mode PrinGrid, the *pregnant woman with a BMI 18-30kg/m^2* was construed as equidistant between the *ideal pregnant woman* and the remaining elements pertaining to pregnant women. The individual grids demonstrate some variation in the construal of the *pregnant woman with a BMI 18-30kg/m^2*, unlike the remaining elements pertaining pregnant women. Four participants (P6, P4, P2, P1) construed this element at the desirable poles: as "confident", "in control", "relaxed", and as "finding it easy to talk about weight". Three participants (P11, P10, P8) construed the *pregnant woman BMI 18-30kg/m^2* at the less preferable poles: as "closed", "artificially relating to others", "anxious", and "standoffish". Interestingly, the construing of these participants was similar across all the pregnant women elements irrespective of BMI. Four participants positioned this element centrally on the bipolar constructs rather than at either one of the extreme poles (P9, P7, P5, P1).

Pregnant Woman with a BMI≤18kg/m^2

There was little variation in the construing of the *pregnant woman with a BMI≤18kg/m^2*, who was consistently construed by the participants in an undesirable way. This element was construed as "anxious", "low self-confidence", "closed off", "vulnerable"," not self-nurturing", "stressed" and "self-conscious". On the mode PrinGrid, the only element located nearer to the negative poles was the *pregnant woman with a BMI≥40kg/m^2*. Another participant (P6) explained a conflict between personally valuing thinness but also acknowledging that she associated having a BMI≤18kg/m^2 with undesirable psychological consequences, and construed this element as feeling superior to others due to her thinness.

Pregnant Woman with a BMI ≥30kg/m^2

Similarly to the *pregnant woman with a BMI≤18kg/m^2*, the elements *pregnant women with a BMI≥40kg/m^2* and *pregnant woman with a BMI 30-40kg/m^2* were also construed by the participants in a consistently negative manner:, as "anxious", "seeking care", "out of control", "unaware of the impact of raised BMI on pregnancy", "not health conscious", "feeling judged", "physically uncomfortable", "dependent", "low will power", "complacent" and as "making excuses for their BMI". On the mode PrinGrid, this is noted to be more so for the *pregnant woman with a BMI≥40kg/m^2* than for a *pregnant woman with a BMI 30-40kg/m^2*. One participant reported that when she met with a pregnant woman with a raised BMI, she was reminded of procedures she had follow: *"as soon as you see BMI, protocols and procedures spring into your mind"* (P5). Another participant (P2) construed the *pregnant woman with a BMI≥40kg/m^2* as feeling neglected by professionals, stating *"we tell women they have a raised or very low BMI that will be detrimental to yours and baby's health but then we haven't actually got anything we can tell them or anything we can do for them"*.

Participant Validation

Both participant groups were invited to discuss their repertory grid with the researcher and give feedback on the findings. Of the midwife participants, six declined feedback citing workload pressures but the remaining five received individual feedback of their repertory grids. Each participant stated they had found the process interesting and that it was helpful to have a visual representation of their internal construct system. P4 stated that her PrinGrid "*reflects the experience I have with those women".* However, a number of participants were surprised by the feedback and reflected on it with reservation*: "You don't normally have someone spell it out to you"* (P5). It may be that staffing pressures mean midwives are not

routinely offered the opportunity to engage in structured personal reflection about their service users.

Discussion

In this section we discuss the findings from the midwives' repertory grids and compare these against the conclusions drawn from the repertory grids generated by the pregnant women (Hodgkinson et al, 2016) in order to highlight potential clinical implications.

The midwives who took part in our study found it very difficult to generate psychological characteristics for the pregnant women, yet they clearly perceived themselves to be judgemental and endorsing cultural stereotypes of obesity. While many midwives suggested that making judgements was a natural human phenomenon, they reported feeling pressured against doing so, possibly through recognising their professional role as a caring one. As a result, some midwives seemed to carefully consider the constructs they generated. A number of midwives commented that they only saw one side of the pregnant women in clinic, which might differ to the way they behave in a non-clinical setting, thus making it more difficult to generate an accurate construal. These observations may reflect both a personal stance and a cultural one, with recent NHS drives mandating compassion and care within the nursing and midwifery professions (Department of Health, 2012).

The midwives and pregnant women were similar in the type of constructs they generated and the labels they used; however, the *patterns* of their construing differed in a number of ways. The pregnant women delineated between the elements based on their weight rather than their role, meaning that they identified themselves as sharing similar characteristics with midwives with a raised BMI. It is possible that these pregnant women would prefer to be cared for by a midwife with the same BMI as them, perhaps perceiving them to be more understanding of their weight-related issues. The midwives, however,

demonstrated a “them and us” pattern of construing (e.g., Figure 2), clearly distinguishing between themselves as a professional group and the pregnant women for whom they cared. It is possible that this differentiation is more pronounced in the professional group to protect against emotional burn out (Maslach, 2003). A number of the midwives construed the elements pertaining to ‘pregnant woman’ as anxious and vulnerable, irrespective of their weight, which may be an interesting reflection on the state of being pregnant. Pregnancy can be considered a normal but altered state of existence, but it is conceivable that the medicalisation of pregnancy (Hanson, 2004) and the positioning of some antenatal care in hospitals can conflate it with other forms of abnormal physical ill health. Women’s altered bodily state during pregnancy may make them more sensitive to this environment, resulting in pregnant women feeling more vulnerable and therefore being more careful, for example, avoiding crowds or being more reserved in social situations (Hodgkinson et al, 2014). It is also possible that in the hospital setting, women may subconsciously receive the message that pregnancy is something to worry about, thereby increasing their own anxiety.

Despite the similarities identified across midwives’ perception of all pregnant women, there were also specific patterns noted for pregnant women with a raised or very low BMI. Some midwives were more likely to construe elements pertaining to pregnant women with a raised BMI according to culturally constructed stereotypes and weight-related factors, such as self-neglecting, complacent or unaware of the impact of their BMI on their own health and that of their foetus. However, for the element pertaining to pregnant women with a very low BMI, the midwives’ constructs reflected an unfriendly or less approachable interpersonal style (strict, arrogant) as opposed to weight-related behaviours. The difference in construing may result from very low body weight being associated with mental health issues, such as anorexia nervosa. It is possible that those with a low BMI are more likely to be viewed as someone with anorexia nervosa, whereas those with a raised BMI are perceived as having

'normal' but socially undesirable personality characteristics. The sense of personal responsibility being socially ascribed to obesity is widely recognised (Klaczynski et al, 2004), and may result in midwives being more likely to hold women with a raised BMI personally responsible for their weight and offer practical weight management advice than psychosocial support. Research indicates that environmental and sociocultural factors play a significant role in women's weight gain (Papas et al., 2007; Reidpath et al, 2002), but such evidence is usually not acknowledged in clinical settings. Therefore, midwives may benefit from psychosocial training about the contributing factors and psychological consequences of having a raised or very low BMI. There may also be merit in commissioning clinical psychology services to work in maternity services to support those women who experience severe psychological distress as a result of their weight during their pregnancy or as an integral part of multidisciplinary pregnancy weight management programmes.

Midwives typically had a high self-esteem and construed themselves as supportive, empathetic, non-judgemental and an advocate for women, and many of the pregnant women agreed they had experienced this during their care. Current NHS policy mandates the provision of care and compassion within midwifery and nursing professions (Department of Health, 2012). This mandate implies that NHS policy makers perceive that midwives are not adequately demonstrating these values to the women in their care. This paper and the repertory grid study undertaken with the pregnant women with a raised BMI (Hodgkinson et al, 2016), however, demonstrate that care and compassion in midwifery does exist and suggest that this policy may alienate midwives and cause them to feel undervalued.

Pregnant women's construal of midwives also reflected socially constructed stereotypes of high and low BMI. Some of the midwives, especially those with a BMI $18 \leq 30 kg/m^2$, were viewed as having positive and desirable personality characteristics (intelligent, conscientious, organised, selfless, confident). However, some pregnant women

also construed midwives using undesirable characteristics. For example, the elements relating to midwives with a low BMI were more likely to be viewed as strict, arrogant, solemn, bossy and judgemental, while elements pertaining to midwives with a raised BMI were construed as anxious, worried, and having low self-confidence; characteristics the pregnant women also ascribed to themselves (e.g., Puhl & Heuer, 2009). These perceptions are likely to have a significant impact on the way the pregnant women interact with midwives. It may be possible that pregnant women with a raised BMI are more reserved with midwives with a low BMI, and are more trusting or accepting of a midwife with a raised BMI. Despite this, they recognised that having this BMI had implications for the midwives' self-confidence and possibly these midwives not "practicing what they preach" in terms of healthy weight-related behaviours. Therefore, although the pregnant women considered they had a shared perspective with the midwife with a BMI≥40kg/m^2 which may be valuable in terms of engagement, there were also aspects of this midwife's personality (feeling anxious, low self-confidence) that were not ideal in terms of managing their care.

Irrespective of the specific constructs, it is clear that pregnant women do take note of the weight of their midwife during their appointment, and that this may influence any subsequent interactions. There is substantial evidence that attests to the relationship between appearance and interaction. For example, highly attractive people are rated as more trustworthy, more intelligent and as having more positive personality traits (Langlois et al., 2000). Health professionals are aware of the impact of external appearance-related factors on their interactions with others, with many wearing role-appropriate uniforms and adhering to dress codes to maintain professionalism and role identity (Henderson, Budd & Wimhurst, 2009; Timmons & East, 2011), as indeed is mandated for midwives. However, it would be highly unethical to provide guidance as to what health professionals should weigh in order to be perceived by service-users as someone who "*practices what they preach*". Thus,

midwives, particularly those working within a clinic specialising in raised BMI, may benefit from having the opportunity to reflect on their relationships with pregnant women, possibly exploring the impact of their perception of their own BMI on the advice they give, their attitudes to others, and the attitudes others hold towards them.

The studies described here highlight the complexities of the construing of both midwives and women with respect to BMI during pregnancy, thus strengthening the argument that service development activity should take into account their opinions and experiences (Heslehurst et al., 2011, 2013). This could inform a number of service-related issues including whether there should be a specialist midwife for obesity, whether women with a raised BMI want a separate clinic, the language used to describe weight ('raised BMI', 'obese', 'BMI≥30kg/m^2', 'overweight'), and how much midwives offer guidance on healthy eating and exercise. It also provides evidence in support of the caseload model of midwifery care where women are allocated to a single midwife for the duration of their pregnancy; a model that not only has good clinical outcomes and is cost-effective (Walsh, 1999; Benjamin, Walsh, & Taub, 2001; Tracy et al, 2013), but also has psychological benefits. For high risk women vulnerable to perceived discrimination or low self-esteem, such as those with a raised BMI, a consistent relationship with someone who knows them may help them feel less judged, be more accepting of advice and reduce their anxiety.

Other research shows that midwives strive to achieve normality when caring for pregnant women with a raised BMI (Singleton & Furber, 2014), but perceive environmental factors and social constructions of obesity as a barrier (Heslehurst et al, 2013; Schmied et al, 2011). The studies described here suggest that personal attitudes may also be an issue, and that despite midwives' best efforts, they are still sometimes viewed by women as discriminating against those with a raised BMI. This finding highlights important considerations for service development and training activities in a bid to improve both

physical and psychological outcomes for women with a raised or low BMI during their pregnancy.

Strengths and Limitations

Many of the midwives perceived themselves to be judgemental and commented on carefully evaluating their constructs in line with social desirability. The midwives' repertory grids may therefore represent partial datasets that may not take into account the full range of participants' construing. Despite this, the technique requests participants to choose an opposing pole to their emergent construct, which may generate a less socially desirable construct than they would have otherwise selected. It then forces participants to rank the elements along the bipolar construct, meaning they have to allocate elements to the extreme poles, thus minimising social desirability at this stage (Jankowicz, 2005), but also possibly causing their construal to be amplified or exaggerated.

It is interesting that only a small number of participants (four midwives and six pregnant women) attended the feedback interview. The feedback interview enables repertory grids to be a vehicle for psychological change (Fransella et al, 2004), and in this setting, it would have enabled midwives to reflect on their construing and address any unhelpful aspects. Poor uptake of the feedback sessions may be due to the midwives' considerable workload pressures, or other demands placed on the pregnant women such as hospital appointments, work, or caring duties. Given midwives' comments about being aware of their constructs reflecting weight-related stereotypes, it is possible that participants declined to attend the feedback interview due to discomfort acknowledging their perceptions.

Furthermore, with regards to health professionals, this study only addresses the views of midwives and women's attitudes towards midwives. Although valuable, this neglects those held by and towards obstetricians, general practitioners or sonographers. For many

women with a raised BMI, some of their care is physician-led due to their high risk status (Royal College of Obstetricians and Gynecologists, 2010). The physician-woman relationship often involves a power-differential raising the trust and expectation placed in the physician by their patient (Goold & Lipkin, 1999). If a pregnant woman with a raised BMI perceives their doctor to have judgemental attitudes, this will be given disproportional weight and likelihood of ongoing engagement with care may decrease (Goold & Lipkin, 1999; Cameron, 1996).

Another strength is that this study provides a snapshot of midwives' idiosyncratic views towards both pregnant women in general, but in particular those with a raised or very low BMI. Whilst the elements presented to the participants could have influenced the themes generated, the labelling and nature of these themes and constructs are largely free from researcher-interference. Any causal relationships drawn between midwives' constructs and their behaviours are tentative; however these findings are valuable in a training context, for example communication skills training and guidance on preferred language. As part of the 'Six C's of Nursing' implementation (Department of Health, 2012), a service evaluation may help determine how women would like BMI-services to be structured; whether they would like a separate clinic or a specialist midwife. Clinical supervision for midwives working with women with a raised BMI would allow them to share their experiences, as well as have a confidential space to reflect on their own attitudes. Furthermore, this study highlights that NHS policies mandating compassion need to be implemented in a way that respects midwives' intentions to be caring and compassionate, recognising that it is often service-related pressures that impair their ability to do so.

Conclusion

This group of midwives perceived themselves to be judgemental when generating the psychological constructs, but felt pressured not to be so. They delineated between elements based on role, suggesting they viewed midwives (as a professional group) and pregnant women as fundamentally different. In contrast, the pregnant women who took part in a separate but similar study grouped the elements based on weight, recognising similarities in psychological characteristics between people of the same BMI irrespective of their professional role. Midwives tended to view pregnant women as anxious and vulnerable, perhaps due to the positioning of pregnancy care within a maternity hospital setting. Both the midwives' and the pregnant women's construing of pregnant women with a very low or high BMI reflected culturally constructed stereotypes, suggesting that women's engagement with services may depend on the BMI of their midwife. Those with a high BMI were construed as anxious and low in self-confidence, whereas those with a low BMI were construed as lacking interpersonal warmth. Both the ideal midwife and ideal pregnant woman were construed as having a BMI of between 18 and 30kg/m^2.

Recommendations from these studies include commissioning clinical psychologists either to work in maternity services to support women with weight-related distress in their pregnancy or to inform pregnancy weight management programmes, and providing clinical supervision to allow midwives the opportunity to reflect on their weight-related attributions and interactions with patients. The findings also support a caseload model of midwifery care, enabling vulnerable women to develop a strong rapport with one midwife during their pregnancy which may have benefits of increasing perceived support and reducing anxiety. Surveying and incorporating the views of women with a raised BMI in maternity service development may help to ensure that services are structured in a way that fosters their engagement and improves satisfaction with care as well as clinical outcomes.

References

Benjamin, Y., Walsh, D., & Taub, N. 2001. A comparison of partnership caseload midwifery care with conventional team midwifery care: labour and birth outcomes. Midwifery 17(3), 234-240.

Bjorklund, L. 2008. The repertory grid technique: Making tacit knowledge explicit. In: Middleton H, editor. Researching technology education: Methods and techniques. Rotterdam: Sense Publishers.

Blundell, J., Wittkowski, A., Wieck, A., Hare, D.J. 2012. Using the Repertory Grid Technique to Examine Nursing Staff's Construal of Mothers with Mental Health Problems. Clinical Psychology and Psychotherapy 19(3), 260-269.

Budd, G.M., Mariotti, M., Graff, D., & Falkenstein, K. 2011. Health care professionals' attitudes about obesity: An integrative review. Applied Nursing Research 24(3),127-37.

Bulik, C.M., Wade, T.D., Heath, A.C., Martin, N.G., Stunkard, A.J., & Eaves, L.J. 2001. Relating body mass index to figural stimuli: population-based normative data for Caucasians. International Journal of Obesity 25(10), 1517-24.

Cameron C. 1996. Patient compliance: Recognition of factors involved and suggestions for promoting compliance with therapeutic regimens. Journal of Advanced Nursing 24(2), 244-50.

Chu, S.Y., Bachman, D.J., Callaghan, W.M., Whitlock, E.P., Dietz, P.M., Berg, C.J., … Hornbrook, M.C. 2008. Association between Obesity during Pregnancy and Increased Use of Health Care. American Journal of Health Promotion 23(2), 152-.

Department of Health. 2012. *Compassion in Practice*. Department of Health, London. Available from http://www.england.nhs.uk/wp-content/uploads/2012/12/compassion-in-practice.pdf [accessed 11/05/2014].

Doyal, L. 2001. Informed consent: moral necessity or illusion? Qualitative Health Care 10, I29-I33.

Ferrante, J.M., Piasecki, A.K., Ohman-Strickland, P.A., & Crabtree, B.F. 2009. Family Physicians' Practices and Attitudes Regarding Care of Extremely Obese Patients. Obesity 17(9), 1710-6.

Fisher, S.C., Kim, S.Y., Sharma, A.J., Rochat, R., Morrow, B. 2013. Is obesity still increasing among pregnant women? Prepregnancy obesity trends in 20 states, 2003-2009. Preventative Medicine 56(6), 372-8.

Fransella, F., Bell, R., Bannister, D. 2004. *A manual for repertory grid technique*. 2nd Edition ed. UK: John Wiley & Sons Ltd.

Gaines BR, Shaw MLG. 2005. *Rep IV (Version 1.12).* Canada: Centre for Person-Computer Studies.

Goold, S., Lipkin, M. 1999. The doctor-patient relationship - Challenges, opportunities, and strategies. Journal of General Internal Medicine S26-S33.

Hanson C. 2004. A Cultural History of Pregnancy, Medicine and Culture, 1750-2000. Palgrave, UK.

Henderson, J., Budd, H., & Wimhurst, J. 2009. Bare below the… What do patients want their doctor to wear? Bulletin of The Royal College of Surgeons of England 91(7), 246-248.

Heslehurst, N., Moore, H., Rankin, J., Ells, L.J., Wilkinson, J.R., & Summberbell, C.D. 2011. How can maternity services be developed to effectively address maternal obesity? A qualitative study. Midwifery 27(5), E170-E177.

Heslehurst, N., Rankin, J., Wilkinson, J.R., Summerbell, C.D. 2010. A nationally representative study of maternal obesity in England, UK: trends in incidence and

demographic inequalities in 619 323 births, 1989-2007. International Journal of Obesity 34(8), 420-428.

Heslehurst, N., Russell, S., Brandon, H., Johnston, C., Summerbell, C., & Rankin, J. 2013. Women's perspectives are required to inform the development of maternal obesity services: a qualitative study of obese pregnant women's experiences. Health Expectations 18(5), 969-981.

Heslehurst, N., Russell, S., McCormack, S., Sedgewick, G., Bell, R., & Rankin, J. 2013. Midwives perspectives of their training and education requirements in maternal obesity: A qualitative study. Midwifery 29(7), 736-744.

Heslehurst, N., Simpson, H., Ells, L.J., Rankin, J., Wilkinson, J., Lang, R., …Summerbell, C.D. 2008. The impact of maternal BMI status on pregnancy outcomes with immediate short-term obstetric resource implications: a meta-analysis. Obesity Review 9(6), 635-.

Hodgkinson, E.L., Smith, D.M., & Wittkowski, A. 2014. Women's experiences of their pregnancy and postpartum body image: A systematic review and metasynthesis. BMC Pregnancy & Childbirth 14, 330.

Hodgkinson, E.L., Smith, D.M., Hare, D.J., & Wittkowski, A. 2016 The construal of midwives by pregnant women with a body mass index greater than or equal to 30kg/m^2 (BMI≥30kg/m^2): A Repertory Grid Study. Journal of Clinical Psychology and Psychotherapy.

Jankowicz D. 2005. *The Easy Guide to Repertory Grids*. Chichester: John Wiley & Sons.

Kelly, G. A. 1955. *The Psychology of Personal Constructs*. Norton, New York.

Klaczynski, P., Goold, K., & Mudry, J. 2004. Culture, obesity stereotypes, self-esteem, and the "thin ideal": A social identity perspective. Journal of Youth and Adolescence 33(4), 307-317.

Langlois, J., Kalakanis, L., Rubenstein, A., Larson, A., Hallam, M., & Smoot, M. 2000. Maxims or myths of beauty? A meta-analytic and theoretical review. Psychological Bulletin 126(3), 390-423.

Maslach, C. 2003. *Burnout: The Cost of Caring.* ISHK, Cambridge MA.

Mills, A., Schmied, V., & Dahlen, H. 2013. 'Get alongside us', women's experiences of being overweight and pregnant in Sydney, Australia. Maternal and Child Nutrition 9(3), 309-321.

Mulherin, K., Miller, Y. D., Barlow, F. K., Diedrichs, P. C., & Thompson, R. 2013. Weight stigma in maternity care: women's experiences and care providers' attitudes. BMC Pregnancy and Childbirth, 13.

Mold, F., & Forbes, A. 2013. Patients' and professionals' experiences and perspectives of obesity in health-care settings: a synthesis of current research. Health Expectations 16(2), 119-42.

National Institute for Health and Care Excellence. 2010. *Weight management before, during and after pregnancy*. London: National Institute for Health and Care Excellence http://guidance.nice.org.uk/PH27 (accessed 22.04.2014).

Papas, M., Alberg, A., Ewing, R., Helzlsouer, K., Gary, T., & Klassen, A. 2007. The built environment and obesity. Epidemiologic Reviews 29, 129-143.

Puhl, R.M., & Heuer, C.A. 2009. The Stigma of Obesity: A Review and Update. Obesity 17(5), 941-64.

Reidpath, D., Burns, C., Garrard, J., Mahoney, M., & Townsend, M. 2002. An ecological study of the relationship between social and environmental determinants of obesity. Health & Place 8(2), 141-145.

Royal College of Midwives. 2013. *State of Maternity Services Report*. Royal College of Midwives, London. Available from http://www.rcm.org.uk/college/policy-practice/government-policy/state-of-maternity-services/ [accessed 11/05/2014].

Schmied, V. A., Duff, M., Dahlen, H. G., Mills, A. E., & Kolt, G. S. 2011. 'Not waving but drowning': a study of the experiences and concerns of midwives and other health professionals caring for obese childbearing women. Midwifery 27(4), 424-430.

Sebire, N.J., Jolly, M., Harris, J.P., Wadsworth, J., Joffe, M., Beard, R.W., …Robinson, S. 2001. Maternal obesity and pregnancy outcome: a study of 287 213 pregnancies in London. International Journal of Obesity 25(8), 1175-82.

Singleton, G., & Furber, C. 2014. The experiences of midwives when caring for obese women in labour, a qualitative study. Midwifery 30(1), 103-111.

Smith, D.M., Cooke, A., & Lavender, T. 2012. Maternal obesity is the new challenge; a qualitative study of health professionals' views towards suitable care for pregnant women with a Body Mass Index (BMI) >= 30 kg/m(2). BMC Pregnancy & Childbirth 12. doi:10.1186/1471-2393-12-157.

Smith, D., & Lavender, T. 2011. The maternity experience for women with a body mass index >= 30 kg/m2: a meta-synthesis. British Journal of Obstetrics and Gynaecology 118(7), 779-789.

Smith, D.K., Shaw, R.W., Slack, J., & Marteau, T.M. 1995. Training obstetricians and midwives to present screening-tests - Evaluation of 2 brief interventions. Prenatal Diagnosis 15(4), 317-24.

Teachman, B.A., & Brownell, K.D. 2001. Implicit anti-fat bias among health professionals: is anyone immune? Internaitonal Journal of Obesity 25(10), 1525-31.

Teixeira, F.V., Pais-Ribeiro, J.L., & Pinho da Costa Maia, A.R. 2012. Beliefs and practices of healthcare providers regarding obesity: a systematic review. Revista da Associação Médica Brasileira 58(2), 254-62.

Timmons, S., & East, L. 2011. Uniforms, status and professional boundaries in hospital. Sociology of Health & Illness 33(7), 1035-1049.

Tracy, S., Hartz, D., Tracy, M., Allen, J., Forti, A., Hall, B., et al. 2013. Caseload midwifery care versus standard maternity care for women of any risk: M@NGO, a randomised controlled trial. Lancet 382(9906), 1723-1732.

Walsh, D. 1999. An ethnographic study of women's experience of partnership caseload midwifery practice: the professional as a friend. Midwifery 16(3), 166-176.

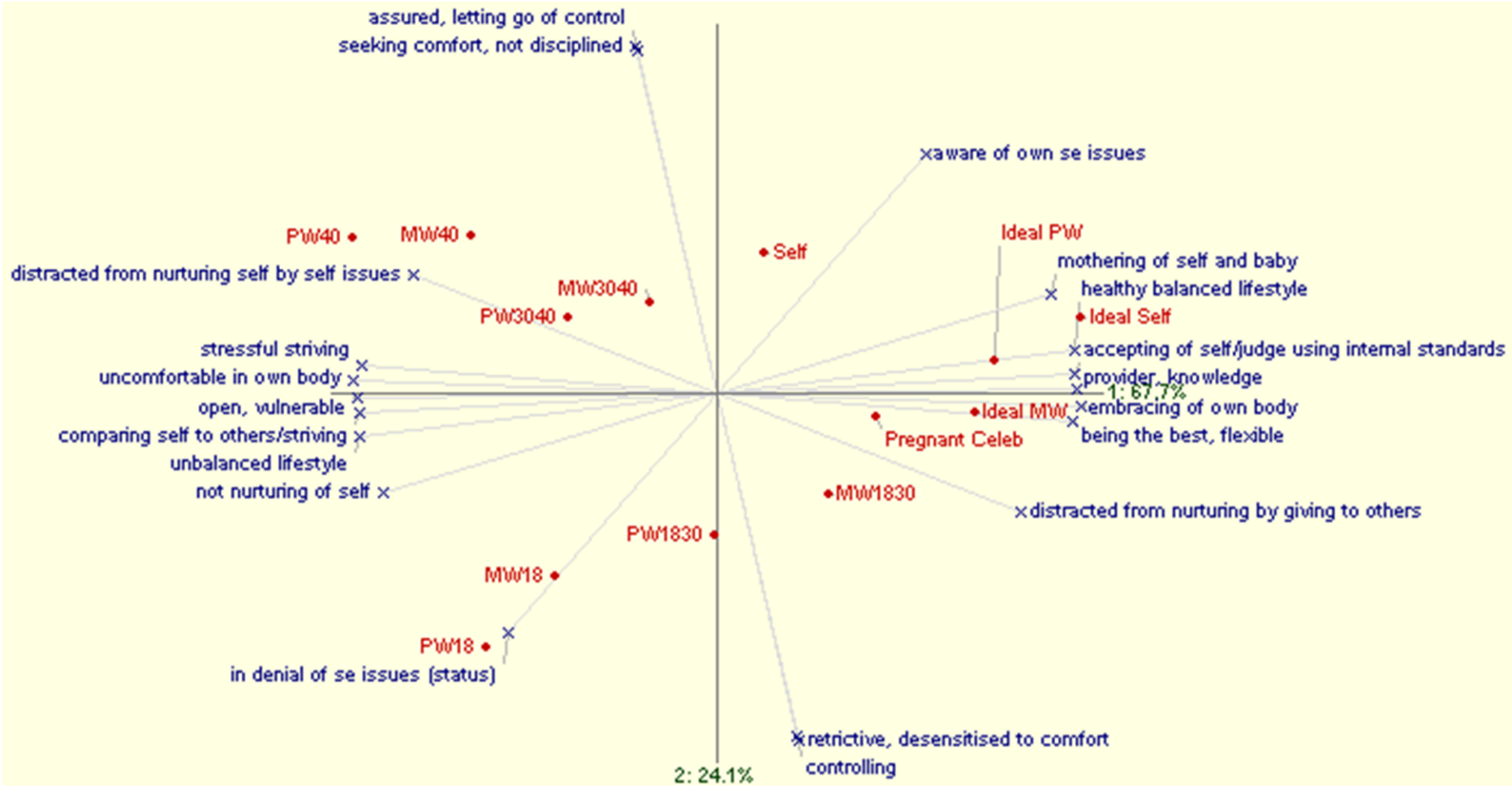
Wilkinson, H. 2011. Saving Mothers' Lives. Reviewing maternal deaths to make motherhood safer: 2006-2008. British Journal of Obstetrics and Gynecology 118(11), 1402-3.

Figure Captions

Figure 1: P1's PrinGrid: A visual representation of the principal components analysis from P1's repertory grid, showing the positioning of each element across the constructs and the nature of the clustering of the constructs.

Figure 2: P2's PrinGrid: A visual representation of the principal components analysis from P2's repertory grid, showing the positioning of each element across the constructs and the nature of the clustering of the constructs.

Figure 1


assured, letting go of control
seeking comfort, not disciplined
aware of own se issues
PW40
MW40
Self
Ideal PW
mothering of self and baby
distracted from nurturing self by self issues
MW3040
healthy balanced lifestyle
PW3040
Ideal Self
stressful striving
accepting of self/judge using internal standards
uncomfortable in own body
provider, knowledge
1: 67.7%
open, vulnerable
Ideal MW
embracing of own body
comparing self to others/striving
Pregnant Celeb
being the best, flexible
unbalanced lifestyle
not nurturing of self
MW1830
distracted from nurturing by giving to others
PW1830
MW18
PW18
in denial of se issues (status)
retrictive, desensitised to comfort
controlling
2: 24.1%

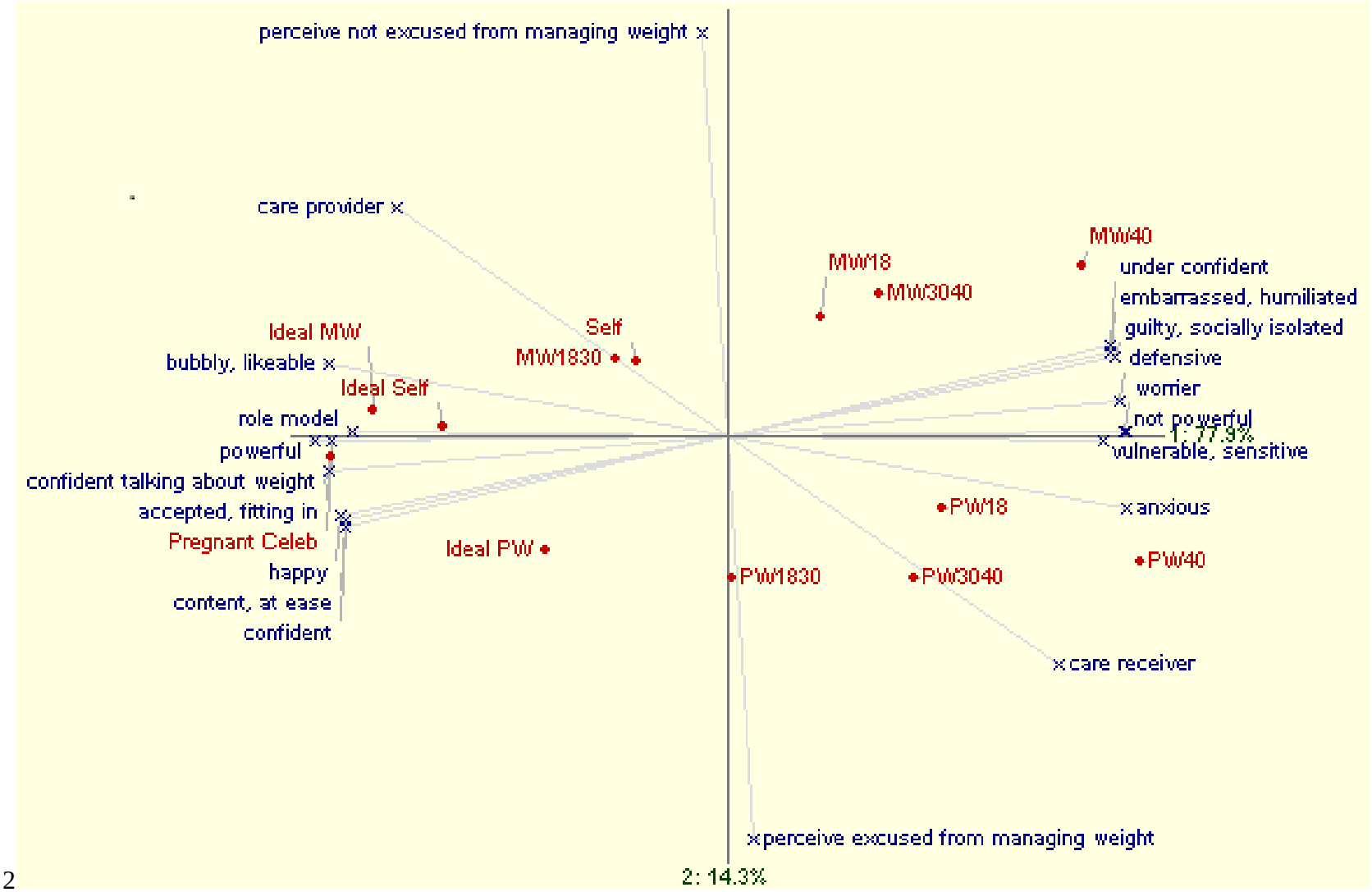

perceive not excused from managing weight
care provider
MW40
MW18
MW3040
under confident
embarrassed, humiliated
guilty, socially isolated
defensive
worrier
not powerful
vulnerable, sensitive
Ideal MW
bubbly, likeable
Self
MW1830
Ideal Self
role model
powerful
confident talking about weight
accepted, fitting in
Pregnant Celeb
happy
content, at ease
confident
Ideal PW
PW18
anxious
PW40
PW1830
PW3040
care receiver
perceive excused from managing weight
1: 77.9%
2: 14.3%

Figure 2