> My midwife's been really good. I've mentioned my weight a couple of times and she's not been really bothered about it, because everything else is going fine. Blood pressure and everything is ok **(Keely et al. 2011)**

Discussion

Overall, the data indicate a number of findings which were found to impact upon the experience of women who are obese. It was evident that some women had specific expectations of HCPs with respect to their weight status. Antenatally, women expected their obese status to be acknowledged in the early encounters with HCPs. More importantly, women wanted an open and honest, neutral unbiased discussion about their weight, preferably in the initial appointment. However, the time awarded to discussing weight and the associated risk their weight posed to the pregnancy, had to be appropriate, with other aspects of the consultation being afforded equal time and attention. Identifying that obesity can create a degree of risk to pregnancy and birth, as opposed to non-identification, was an acceptable approach for many women. Data suggests that women have a tendency to feel guilt and shame, and that some interactions may leave them feeling they fall short of an idealised standard of mothering. Clearly women appreciate a discussion between their weight status, and this is key to avoiding tension in the practitioner client relationship, however, over playing the concept of risk has a negative effect on women's feelings of self-worth; equally, under playing it, can leave women still feeling 'at risk' of something. The women across these studies had an inherent sense that there was a 'risk', but they wanted this to be handled sensitively. There was very little reference from women as to what they were told their babies or their pregnancies, or their birth experience were 'at risk' of. It could be that failure to state risks overtly and in greater detail, may be midwives and other HCPs attempts at being sensitive and not apportioning blame. However, the data suggests that women encountered an overall lack of clarity about their risk status, and equally a lack of clarity about the steps they need to take to gain 'non-risk' status.

Of additional interest in the data is that many women indicate that HCPs are unable to discuss weight status openly and clearly. Women felt that practitioners employed a set of actions to manage their weight issue, for example, documentation in the notes, and referring for further assessments, as opposed to undertaking clear and helpful discussion. Data indicates that women prefer to have their weight status addressed directly to them in face to face interactions. However, there is a complexity here; the data suggests that HCPs face the dilemma of 'avoid or confront'. In doping so, they are walking a difficult path, as 'confronting', i.e. being open and honest, means identifying risk, and risk appears to be associated with blame. This presents difficulties for HCPs, and there doesn't appear to be a diplomatic hand in this context. HCPs appear to be giving the impression that they are engaging in avoidance tactics. Satisfaction with care is often linked to the level at which women feels involved in, and has some control over, the process of their care (Slade et al. 1993; Tinkler and Quinney, 2001). Evidence suggests that women's feelings of being 'in

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control' are impacted on by the positive attitudes of the professionals caring for them, information giving and being able to make and be included in decision-making (Gibbins and Thomson, 2001). This could be defined as supportive care, which has been identified both qualitatively and quantitatively as an important variable with regard to more positive experiences for women (Waldenstrom et al. 2004; Kitzinger, 2006; Kirkham, 2010). Hence failure to give information does not afford women any sense of control, neither does highlighting risk but not offering solutions.

Data suggests that women want to feel that their experience of antenatal, intra partum and the postpartum has been the same as that experienced by their peers. Women's accounts of their antenatal consultations suggest that in the context of pregnancy, women perceive the routine aspects of care to represent normality. Women's accounts of being denied access to the normal aspects of care, and normal aspects of caring for their baby suggest that they also perceived 'normality' to represent 'inclusivity'. This was evident in women's accounts; being told they would be unable to engage in things which women themselves perceive to be cornerstones of 'normality', left them feeling stigmatised; breastfeeding for example. Perceptions of penalisation and stigmatisation were lucid in women narratives.

The data provides some insights into positive interventions in the context of obese women's experiences. The perception of a positive encounter i.e. when women identify that HCPs were 'good' and 'brilliant' is inherently associated with action and intervention; adversely, negativity is linked to conflicting or absent healthy lifestyles advice. The positive actions and interventions in this review were associated with specialist services and access to appropriate advice from the knowledgeable people. In these situations, where an appropriate intervention is an option (for example a referral to a healthy lifestyles advisor or a dietician), the woman becomes the decision maker, and in many ways, drives the intervention. Thus, she becomes the core determinant of behaviour change.

Womens effective engagement with a suitable lifestyle intervention adds to a growing recognition of the value of theoretical models in clinical practice in the context of health behaviour change. This forms the central element of the Health Belief Model (HBM), one of the most widely used conceptual frameworks for understanding health behaviour. The suggestion with the HBM, and what is reflected in the data, is that whilst beliefs can successfully predict health behaviours, this also requires health motivation – readiness to be concerned about health matters – and perceived control – belief in personal ability to enact the behaviour (Becker and Rosenstock, 1984). It could be argued that women need access to accurate advice, alongside the encouragement to take control, and enact change to promote positive outcomes. Furthermore, the data suggests that assurances about continued wellbeing during pregnancy from HCPs, supported and evidenced by information from clinical observations remaining within the limits of

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‘normality’, could act as mediators to the negative perceptions that women have with respect to the dominant discourse of risk.

Conclusions

This meta ethnographic approach provides a synthesis of concepts which represent women with a BMI ≥ 30 kg/m² and their experience of maternity care. Research suggests that a significant proportion of HCPs in primary health care settings consider themselves insufficiently skilled to treat patients with obesity (Hansson et al. 2011). Furthermore, evidence exists to suggest that nurses perceive weight as a sensitive issue to discuss with patients (Greener et al. 2010; Mold and Forbes, 2013). The data supports and extends these findings, to illustrate how women perceive their encounters with HCPs when weight status is an issue.

Many women who are categorised as obese appear to be dissatisfied with the way in which their weight status is addressed (or not) when engaging with health. The data reported here suggests that women with a BMI ≥ 30 kg/m² have clinical care and health advice needs which at times are not fully understood or addressed. This work set out to identify the possible barriers to, and the facilitators of effective engagement with strategies to reduce the health risks associated with obesity. HCPs should be aware that the absence of open and honest discussions about weight and weight management, the feeling of being denied of a normal experience, and an over emphasis on the risks imposed upon pregnancy and childbirth by obesity, leave women feeling dissatisfied and disenfranchised. These elements of the health care encounter may create barriers to women’s positive engagement with effective weight management strategies. Care which acknowledges and explains what is meant by ‘risk’, and balances these discussions equally with support and advice about diet and physical exercise, can facilitate a sense control for women with respect to weight management. A sensitive but proactive approach to weight status, which includes the involvement of other services and individualised plans of care is effective for women. Central to the relationship of the woman and HCP is the recognition of the woman as competent and capable of engaging with healthy lifestyles. Clearly an enabling environment is required; and this in turn leads to an increase in women’s self-perceptions of themselves as good mothers.

Practical implications

The work aimed to provide new understandings of client-practitioner interactions in the context of maternity care and obesity. Findings from the review indicate that the absence of open and honest discussions about weight and weight management, the feeling of being denied a normal experience and an over emphasis on the risks imposed upon pregnancy and childbirth by obesity, leaves women feeling dissatisfied and disenfranchised. In addition, findings demonstrate that care which acknowledges and explains what is meant by ‘risk’, and balances this equally with support and advice about diet and physical exercise is considered to be a facilitator to engagement with healthy lifestyles advice and support. Other

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facilitators include a sensitive but proactive approach to weight status, the involvement of other services and individualised plans of care, and the recognition of the woman as competent and capable of engaging with healthy lifestyles advice and support.

Strengths and limitations

We have found the meta ethnographic approach using the Noblit and Hare (1988) framework as a guide, a useful tool to elicit concepts that increase our understanding of women's experiences of their encounters with HCPs, and the use of this approach has opened up possibilities for exploring other public health problems using the same framework. There are some limitations to this work. Firstly, we explored the views of women with BMI ≥ 30 kg/m² and this meant that the work failed to incorporate the views of women with a BMI of 25 – 29 kg/m², who may have similar experiences. A number of studies which used samples of women who were overweight and obese together had to be excluded from the review where the narratives of the women who were obese could not be identified.

Further research

This work has facilitated an exploration of the experiences of women with BMI ≥ 30 kg/m² as they engage with maternity care. Some insights have been gained into the possible facilitators to engagement with healthy lifestyles advice and support with respect to practitioner-client encounters. More research is clearly required to establish the most successful models of healthy lifestyle, diet and exercise support for women during the perinatal period. It is also important to understand the needs of different groups of women during this period of time so that interventions can be designed around individual needs. It remains to be seen if this work offers some insights into the possible barriers to engagement with strategies to reduce the health risks associated with obesity, as the issue of non-engagement is complex. Therefore, the relevance of our findings with respect to non-engagement with health lifestyles initiatives are largely unknown. It seems appropriate that further research should be directed towards using these findings to explore non-engagement in more detail.

References

Arden, M.A., Duxbury, A., Soltani, H. 2014. Responses to gestational weight management guidance: a thematic analysis of comments made by women in online parenting forums. BMC Pregnancy & Childbirth. Available online from; http://www.biomedcentral.com/content/pdf/1471-2393-14-216.pdf [Accessed 12th April 2014]

Atkins, S., Lewin, S., Smith, H., Engel, M., Fretheim, A., Volmink, J. 2008. Conducting a meta ethnography of qualitative literature; lessons learnt. Available online from; http://bmcmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-8-21 [Accessed 8th April 2017]

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Atkinson, L., Olander, E., French, DP. 2015. Acceptability of a weight management intervention for pregnant and post-natal women with BMI >30kg/m2: A qualitative evaluation of a service delivered in primary care settings which meets current UK public health guidelines. Maternal and Child Health Journal. Available online from http://www.coventry.ac.uk/Global/PDF%20Documents/Atkinson%20et%20al%20BMC%20Preg%20and%20Childbirth%20submission%20Oct%202012.pdf [Accessed 12th April 2014]

J. Baker, "Developing a care pathway for obese women in pregnancy and beyond," *British Journal of Midwifery*, vol. 19, no. 10, 632–643, 2011.

Becker, M.H., Rosenstock, I.M. 1984. Compliance with medical advice, in Steptoe, A, Matthews, A., (Eds) Healthcare and Human behaviour). London. Academic Press.

Biro, M.A., Cant, R., Hall, H.G., Bailey, C., Sinni, S., East, C. 2013. How effectively do midwives manage the care of obese pregnant women? A cross sectional survey of Australian midwives. Women and Birth 26 (2), 119 – 124.

Britten, N., Campbell, R., Pope, C., Donovan, J., Morgan, M., Pill, R. 2002. Using meta ethnography to synthesise qualitative research: a worked example. Journal of Health Services Research Policy 7(4), 209-215.

Brown, I., Thomson, J., Todd, A., Jones, G. 2006. Primary care support for tackling obesity: a qualitative study of the perceptions of obese patients. Available online from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1876632/pdf/bjpg56-666.pdf [Accessed 7th December 2014]

Buxton, B., Snethen, J., 2013. Obese women's perceptions and experiences of healthcare and primary care providers. Nursing Research 62 (4), 252 – 259.

Campbell, R., Pound, P., Morgan, M., Daker White, G., Britten, N., Pill, R., Yardley, L., Pope, C., Donovan, J., 2011. Evaluating meta ethnography: systematic analysis and synthesis of qualitative research. Health Technology Assessment, 15 (43), 1 – 164.

Carpenter, M.W., 2007. Gestational diabetes, pregnancy hypertension, and late vascular disease. Diabetes care 30 (2), 246-50.

Centre for Maternal and Child Enquiries (CEMACE), 2010. Maternal obesity in the UK, findings from a national project. London. CEMACE.

Centre for Research and Dissemination, 2009. Guidance for undertaking reviews in healthcare. Available online from; http://www.york.ac.uk/crd/SysRev/!SSL!/WebHelp/SysRev3.htm [Accessed 7th February 2017]

Confidential Enquiry into Maternal and Child Health (CEMACH), 2007. Saving mothers lives: reviewing maternal deaths to make motherhood safer. Department of Health, CEMACH.

Critical Appraisal Skills Programme (CASP), 2013. Qualitative Research checklist. Available online from;

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http://media.wix.com/ugd/dded87_29c5b002d99342f788c6ac670e49f274.pdf [Accessed 7th February 2017]

Department of Health (DoH), 2010. Healthy lives, health people: our strategy for public health in England, London. Department of Health Stationary Office.

European Association for the Study of Obesity (EASO), 2013. About obesity. Available online from; http://easo.org/media-portal/obesity-facts-figures/about-obesity/#3 [Accessed 4th December 2016]

France, E.F., Ring, N., Thomas, R., Noyes, J., Maxwell, M., Jepson, R., 2014. A methodological systematic review of what's wrong with meta ethnography reporting. Available online from; https://bmcmedresmethodol.biomedcentral.com/articles/10.1186/1471-2288-14-119 [Accessed 4th December 2016]

Furber, C.M., McGowan, L., 2011. A qualitative study of the experiences of women who are obese and pregnant in the UK. Midwifery 27 (4), 437-44.

Furness, P.J., McSeveny, K., Arden, M.A., Garland, C., Dearden, A.M., Soltani, H., 2011. Maternal obesity support services: a qualitative study of the perspectives of women and midwives. BMC Pregnancy and Childbirth. Available online from; http://www.biomedcentral.com/content/pdf/1471-2393-11-69.pdf [Accessed 2nd September 2013]

Gibbins, J., Thomson, A.M., 2001. Womens expectations and experiences of childbirth. Midwifery 17 (4), 303 – 312.

Greener, J., Douglas, F., Teijilingen, E., 2010. More of the same? Conflicting perspectives of obesity causation and intervention amongst overweight people, health professionals and policy makers Social Science & Medicine 70, 1042-1049.

Hansson, L., Rasmussen, F., Ahlstrom, G., 2011. General practitioners and district nurses conceptions of the encounter with obese patients in primary health care. BMC Family Practice 12 (7), 1 – 10.

Hannes, K., Macaitis, K., 2012. A move to more systematic and transparent approaches in qualitative evidence synthesis: update on a review of published papers. Qualitative Research, 12 (4), 402 – 442.

Heslehurst, N., Russell, S., Brandon, H., Johnston, C., Summerbell, C., Rankin, J., 2015. 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, 969–981.

Jeyabalan, A., 2013. Epidemiology of preeclampsia: impact of obesity. Nutritional Review 70, 1-14.

Johnson, M., Campbell, F., Messina, J., Preston, L., Buckley Woods, H., Goyder, E., 2013. Weight management during pregnancy: A systematic review of qualitative evidence 29, 1287 – 1296.

Keely, A., Gunning, M., Denison, M., 2011. Maternal obesity in pregnancy: women's understanding of risks. British Journal of Midwifery 19 (6), 344 – 348.

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Keenan, J., Stapleton, H., 2010. Bonnie babies? Motherhood and nurturing in the age of obesity. Health, Risk and Society 12 (4), 369 – 383.

Khazaezadeh, N., Pheasant, H., Bewley, S., Mohiddin, A., Oteng-Ntim, E., 2011. Using service-users' views to design a maternal obesity intervention. British Journal of Midwifery 19 (1), 49 – 52.

Kirkham, M., 2010. The midwife-mother relationship 2nd Eds, Hampshire. Palgrave Macmillan.

Kitzinger, S., 2006. Birth crisis. Oxon, Routledge.

Knight-Agarwal, C., Williams, L.T., Davis, D., Davey, R., Shepherd, R., Downing, A., Lawson, K., 2016. The perspectives of obese women receiving antenatal care: a qualitative study of women's experiences. Women and Birth 29, 189-195.

Lavender, T., Smith, D.M., 2015. Seeing it through their eyes: a qualitative study of the pregnancy experiences of women with a body mass index of 30 or more. Health Expectations 19, 222–233.

Leddy, M.A., Power, M.L., Schulkin, J., 2008. The impact of maternal obesity on maternal and fetal health. Reviews in Obstetrics and Gynaecology 1, 170–178.

Lindhardt, C.L., Rubak, S., Mogenson, O., Lamont, M.F, Joergenson, J.S, 2013. The experience of pregnant women with a body mass index >30 kg/m2 of their encounters with health professionals. Available online from:
http://onlinelibrary.wiley.com/doi/10.1111/aogs.12186/pdf [Accessed 2nd September 2013]

Mills, A., Schmied, V.A., Dahlen, H.G., 2011. 'Get alongside us', women's experiences of being overweight and pregnant in Sydney, Australia. Available online from:
http://onlinelibrary.wiley.com/doi/10.1111/j.1740-8709.2011.00386.x/epdf [Accessed 2nd September 2013]

Mold, F., Forbes, A., 2013. Patients and professionals experiences and perspectives of obesity in health-care settings: a synthesis of current research. Health Expectancy 16 (2), 119 – 142.

Mothers and Babies Reducing Risk through Audits and Confidential Enquiries across the UK (MBRACE), 2016. Saving lives, improving mothers' care. Available online from;
https://www.npeu.ox.ac.uk/downloads/files/mbrrace-uk/reports/MBRRACE-UK%20Maternal%20Report%202016%20-%20website.pdf [Accessed 2nd March 2017]

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 Childbirth. Available online from;
http://www.biomedcentral.com/content/pdf/1471-2393-13-19.pdf [Accessed 2nd September 2013]

Nair, M., Kurinczuk J.J., Brocklehurst, P., Sellars, S., Lewis, G., Knight, M., 2015. Factors associated with maternal death from direct pregnancy complications: a UK national case-control study. Available online from;
http://onlinelibrary.wiley.com/doi/10.1111/1471-0528.13279/epdf [Accessed 2nd March 2017]

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National Health Service (NHS) Choices, 2015. Obesity: overview. Available online from; http://www.nhs.uk/conditions/obesity/Pages/Introduction.aspx [Accessed 2nd March 2017]

National Institute for Health and Clinical Excellence (NICE) Guidelines, 2010. Weight management before, during and after pregnancy, NICE, Department of Health.

Noblit, G.W., Hare, R.D, 1988. Meta-ethnography: synthesizing qualitative studies. Newbury Park, Sage Publications.

Nyman, V.M.K., Prebensen, A.K., Flenser, G.E.M, 2010. Obese women's experiences of encounters with midwives and physicians during pregnancy and childbirth. Midwifery 26 (4), 424 – 429.

Olander, E., Fletcher, H., Williams, S., Atkinson. S., Atkinson, L., Turner, A., French, D.P., 2013. What are the most effective techniques in changing obese individual's physical activity self-efficacy and behaviour: a systematic review and meta-analysis? International Journal of Behaviour, Nutrition and Physical Activity. Available online from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3639155/pdf/1479-5868-10-29.pdf [Accessed 13th June 2014]

Olander, E.K., Atkinson, L., Edmunds, J.K., French, D.P., 2012. Promoting healthy eating in pregnancy: What kind of support services do women say they want? Primary Health Care Research and Development 13 (3), 237-243

Patel, C., Atkinson, L., Olander, E.K., 2013. An exploration of obese pregnant women's views of being referred by their midwife to a weight management service. Sexual and Reproductive Healthcare 4, 139 – 140.

Puhl, R.M., Heuer, C.A., 2009. The Stigma of Obesity: A Review and Update. Available online from http://img2.timg.co.il/forums/1_142509019.pdf [Accessed 21st March 2017]

Ring, N., Ritchie, K., Mandava, L., Jepson, R., 2011. A guide to synthesizing qualitative research for researchers undertaking health technology assessment and systematic reviews. Available online from; http://www.nhshealthquality.org/nhsqis/8837.html [Accessed 21st March 2017]

Royal College of Midwives (RCM), 2013. Obesity in pregnancy is a real concern says midwives. Available online from; https://www.rcm.org.uk/news-views-and-analysis/news/%E2%80%98obesity-in-pregnancy-is-a-real-concern-says-midwives%E2%80%99

Shah, A., 2010. Obesity. Available online from; http://www.globalissues.org/article/558/obesity [Accessed 21st March 2017]

Seidell, J.C., 2000. Obesity, insulin resistant diabetes – a worldwide epidemic. British Journal of Nutrition 83, 5-8.

Slade, P., McPherson, S.A., Hume, A., Maresh, M., 1993. Expectations, experiences and satisfaction with labour. British Journal of Clinical Psychology 32, 469 – 483.

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Soltani, H., Furness, P.J., Arden, M.A., McSeveny, K., Garland, C., Sustar, H., Dearden, A., 2012. Womens and Midwives Perspectives on the design of a text messaging support for maternal obesity services: an exploratory study. Journal of Obesity 12, 1-10.

Swift, J.A., Choi, E., Puhl, R.M., Glazebrook, C., 2013. Talking about obesity with clients: preferred terms and communication styles ok UK pre-registration dieticians, doctors and nurses. Patient Education Counselling 91, 186–191.

Tinkler, A., Quinney, D., 2001. Team midwifery: the influence of the midwife-woman relationship on women's experiences and perceptions of maternity care. Journal of Advanced Nursing 28 (1), 30 – 35.

Toye, F., Seers, K., Allcock, N., Briggs, M., Carr, E., Barker, K., 2014. Meta-ethnography 25 years on: challenges and insights for synthesising a large number of qualitative studies. BMC Medical Research Methodology 14 (80), 1-14.

Waldenström, U., Hildingsson, I., Rubertsson, C., Radestad, I., 2004. A negative birth experience: Prevalence and risk factors in a national sample. Birth 31, 17–27.

Weir, Z., Bush, J., Stephen, C.R., McParlin, C., Rankin, J., Bell, R. 2010. Physical activity in pregnancy: a qualitative study of the beliefs of overweight and obese pregnant women. BMC Pregnancy and Childbirth. Available online from;
http://www.biomedcentral.com/content/pdf/1471-2393-10-18.pdf [Accessed 21st March 2017]

World Health Organisation (WHO), 2016. Health topics: obesity. Available online from;
http://www.who.int/topics/obesity/en/ [Accessed 21st March 2017]

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Table of Included Studies: Table 1

Author and Country	Method of investigation	Aims/Objectives	Sample size	Recruitment strategy	Study setting	Key findings	CASP (2013)
1. Knight-Agarwal CR, Williams LT, Davis D, Davey R, Shepherd R, Downing A, Lawson K (2016) **Australia**	Qualitative study using individual interviews	To investigate the perspectives of pregnant women with a BMI ≥ 30 kg/m^2 receiving antenatal care	16 women with BMI ≥ 30 kg/m^2	In-person recruitment through researcher contact at an antenatal clinic	Maternity setting	Four super ordinate themes illustrating maternal obesity were identified; *1. Obese during pregnancy as part of a long history of obesity* *2. Lack of knowledge of the key complications of obesity for both mother and child* *3. Communication about weight and gestational weight gain (GWG) can be conflicting, confusing and judgemental* 4. *Women are motivated to eat well during pregnancy and want help to do so*	High
2. Lavender T, Smith DM (2015) **England, United Kingdom**	Qualitative methodology using focus group discussions and semi structured interviews	To gain insight into the experience of pregnant women with BMI ≥30 kg/m^2, when accessing maternity services and attending a community lifestyle programme	34 women with BMI ≥ 30 kg/m^2	In-person recruitment through midwife contact at a specialist clinic	Community setting	Three main themes were identified relating to the experience of pregnant women with BMI ≥30, when accessing maternity services and attending a community lifestyle programme: *1. Disappointment with pregnancy (this relates to women feeling that adequate information from health professionals about weight and gestational weight management (GWM) was* ***not*** *forthcoming)* *2. Readiness to make a lifestyle change* *3. Spurred on by success*	High
3. Patel C, Atkinson L, Olander EK (2013) **England, United Kingdom**	Qualitative methodology using telephone interviews	To assess if service referral contributes to obese women's decision to decline a weight management service	15 women with BMI ≥ 30 kg/m^2	Unknown	Unknown	Three main themes were identified which relate to whether service referral contributes to obese women's decision to decline: *1. Information from the midwife* *2. Midwives in an ideal position* *3. Expectation of the midwife* Women approved of the referral process.	Low
4. Atkinson L, Olander EK, French DP (2013) **England, United Kingdom**	Qualitative methodology using cross sectional interviews	To investigate why some women referred to a healthy weight service chose not to use, or disengaged with the service	18 women with BMI ≥ 30 kg/m^2	Women who chose not to use, or disengaged with the service were approached by the healthy weight service project lead	Unknown	Four themes were identified in the data which relate to women choosing to decline or disengage with the service: *1. First contact counts* *2. Missed opportunities for support* *3. No need for help* 4. *Service not meeting needs*	Medium
5. Mills A, Schmied VA, Dahlen HG (2013) **Australia**	Qualitative methodology: face to face interviews	To explore women's perceptions and experiences of attending two maternity units in Sydney, Australia	14 women with BMI > 30 kg/m^2	In-person recruitment through midwife contact at a specialist clinic	Participant's home setting and maternity setting	Four themes were identified in the data which relate to women's perceptions and experiences of attending two maternity units: *1. Being overweight and pregnant* *2. Being on a continuum of change* *3. Get alongside us* 4. *Wanting the same treatment as everyone else*	High
6. Lindhardt CL, Rubak S, Mogensen O, Lamont F, Stenet J (2013) **Denmark**	Qualitative methodology: face to face in-depth interviews	To describe the experiences of pregnant women with a pre-pregnant BMI >30 kg/m^2	16 women with a pre pregnant BMI > 30 kg/m^2	In-person recruitment through midwife contact at a specialist clinic. Women randomly selected	Participant's home setting	Two dominant themes emerged which reflect the experiences of pregnant women with a pre-pregnant BMI >30 during their interface with health professionals: *1. An accusatorial response from healthcare professionals* *2. Lack of advice and helpful information*	High

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		during their interface with health professionals		by the author by date of birth and weekday			
7. Heslehurst N, Russell S, Brandon H, Johnston C, Summerbell C, Rankin J (2013) **England, United Kingdom**	Qualitative methodology: One-to-one depth-interviews	To explore women's lived experiences of being obese and pregnant to inform the development of services that women will find acceptable and utilize	15 women with BMI > 30 kg/m²	Postal and In-person recruitment through midwife contact at a specialist clinic	Maternity and community setting	Four overarching themes were identified which reflect women's lived experiences of being obese and pregnant: *1. Women's weight* *2. Women's families* *3. Women's experience of negativity* *4. Women's priorities and desired outcomes*	High
8. Furness PJ, McSeveny K, Arden MA, Garland C, Dearden AM, Soltani H (2011) **England, United Kingdom**	Qualitative methodology: Semi structured focus group discussions	To explore women's experiences of managing weight in pregnancy and the perceptions of women, midwives and obstetricians of services to support obese pregnant women in managing their weight	6 women with BMI ≥ 30 kg/m²	In-person recruitment through a midwife contact at a specialist clinic	Community setting	Two overarching themes were identified which represent women's experiences of managing weight in pregnancy: *1. Explanations for obesity and weight management* *2. Best care for overweight women*	High
9. Furber CM, McGowan L (2010) **England, United Kingdom**	Qualitative methodology: Face to face semi structured interviews and field notes	To explore the experiences related to obesity in women with BMI > 35 kg/m² during the childbearing process	19 women with a BMI > 35 kg/m²	In-person recruitment through midwife contact at a specialist clinic	Maternity setting	This paper reports on 2 sub-themes from the feelings associated with child bearing when obese: *1. The humiliation of being pregnant when obese* 2. *The medicalisation of obesity when pregnant*	High
10. Keeley A, Gunning M, Denison F (2011) **Scotland, United Kingdom**	Qualitative methodology: Open ended semi structured interviews	To explore obese women's experiences of pregnancy care and perceptions of obesity as a risk factor in pregnancy	8 women with a BMI > 40 kg/m²	In-person recruitment through midwife contact at a specialist clinic	Participant's home setting	Five overarching themes were identified which reflect women's experiences of pregnancy care and perceptions of obesity as a risk factor in pregnancy: *1. Perceptions of health* *2. Medical/obstetric problems* *3. Risk awareness* *4. Risk awareness and lived experience* 5. *Experience of NHS maternity care*	Medium
11. Nyman VMK, Prebensen AK, Flensner GEM (2010) **Sweden**	Qualitative methodology: interviews	To describe obese women's experiences of encounters with midwives and physicians during pregnancy and childbirth	10 women with a BMI > 30 kg/m²	In-person recruitment through midwife contact at a specialist clinic	Participant's home setting and maternity setting	Obesity in the pregnant women evokes a constant awareness of the body and its exposure to the scrutiny of others, which may lead to negative emotions and discomfort. Humiliating treatment adds to the discomfort, whilst emotionally supportive encounters counteract the discomfort and facilitate wellbeing	Medium
12. Weir Z, Bush J, Robson SC, McParlin C, Rankin J, Bell R (2010)	Qualitative methodology: semi structured in-depth interviews	To explore the views and experiences of overweight and obese pregnant women and inform interventions which could	8 of the sample had BMI ≥ 30 kg/m²	Unclear	Participant's home setting	Data arranged into analytical typologies of: *1. Behaviour beliefs/attitude* *2. Control beliefs* *3. Normative beliefs*	Medium

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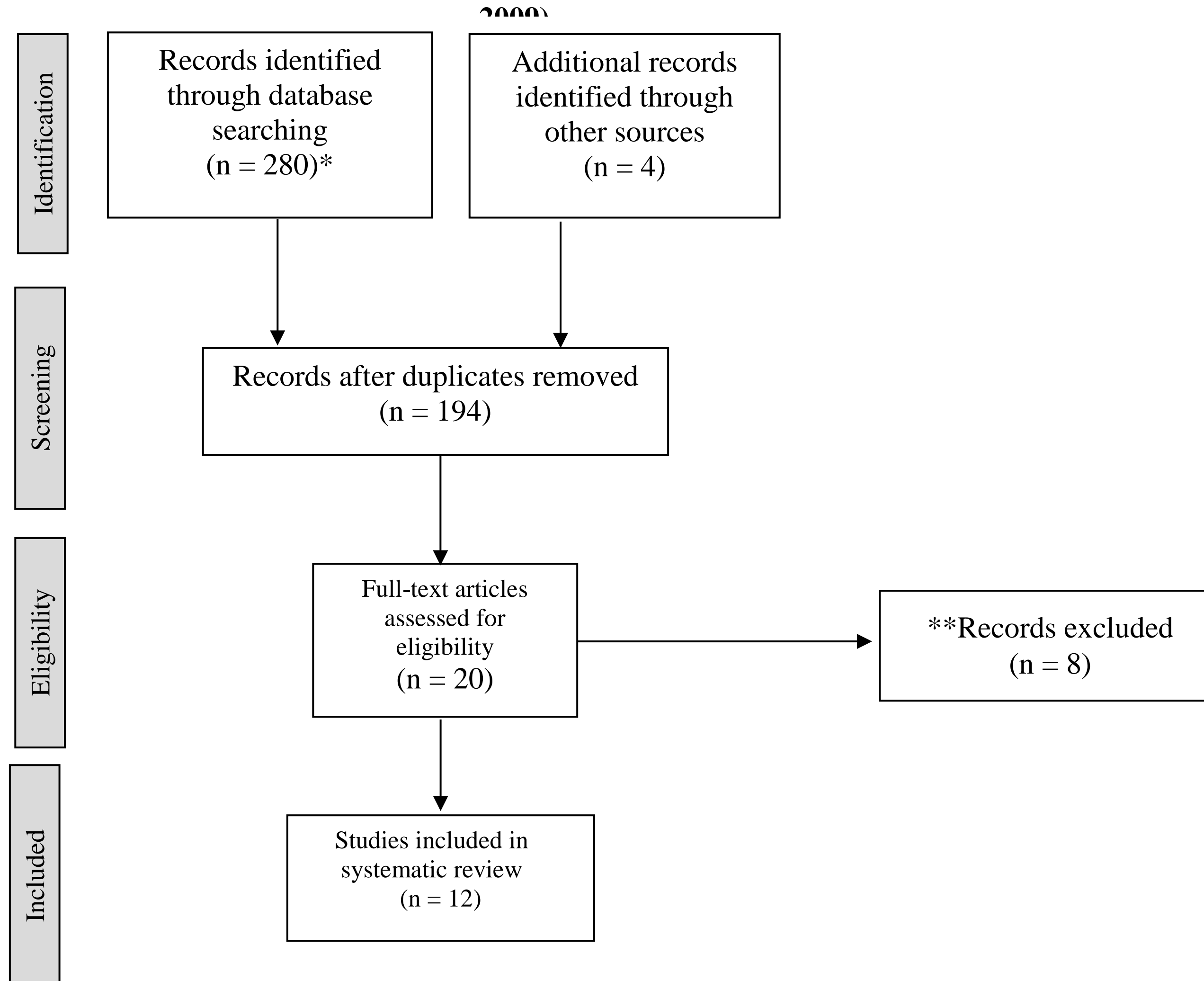
England, United Kingdom		promote the adoption of physical activity during pregnancy				Findings suggest women have awareness of the benefits of healthy eating in pregnancy than physical activity. Participants lacked access to consistent information advice and support regarding physical activity during pregnancy	

Figure 1: PRISMA flowchart of review phases (adapted from Moher et al. 2009)



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* PsychINFO 15, Academic Search Premier 85, Medline 112, Cinahl complete 68

** Full-text articles excluded (n=8)

Reasons for exclusion:

- Unable to determine which participants were specifically BMI ≥ 30 kg/m²: (n=5) Stengel et al (2012), Lingetun et al (2017), Keenan and Stapleton (2010), Chang et al (2015), Arden et al (2014)
- No reports of a specific encounter with health professional provided: (n=2) Fieril et al (2017), Orlander et al (2012),
- Unable to determine if encounter was pre-conception or antenatal, intrapartum or postpartum: (n=1) Khazaezadeh et al (2011)

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