“Are you doing your pelvic floor?” An ethnographic exploration of the interaction between women and midwives about pelvic floor muscle exercises (PFME) during pregnancy

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Abstract

Objective: Many women experience urinary incontinence (UI) during and after pregnancy. Pelvic floor muscle exercises (PFME) can prevent and reduce the symptoms of UI. The objective of the study was to explore challenges, opportunities and concerns for women and health care professionals (HCPs), related to the implementation of PFME training for women in current antenatal care.

Design: An ethnographic study design was used. Researchers also formed and collaborated with a public advisory group consisting of (N=7) women with recent experiences of pregnancy throughout the study.

Participants: Eighteen midwife-patient interactions were observed in antenatal clinics. In addition, 23 midwives and 15 pregnant women were interviewed. Repeat interviews were carried out with 12 of the women postnatally. Interviews were also carried out with other HCPs; four physiotherapists, a linkworker/translator and two consultant obstetricians. Additional data sources included field notes, photographs, leaflets and clinic documents.

Setting: Data were collected in three geographical areas of the UK spanning rural, urban and suburban areas. Data collection (including observations) took place in antenatal clinics, in primary and secondary care settings, and the majority of women were interviewed in their homes.

Findings: Three broad and inter-related themes of “ideological commitment” “confidence” and “assumptions, stigma and normalisation” were identified. The challenges, opportunities and concerns regarding PFME implementation were explored within these themes.

Conclusions and implications for practice: Although HCPs and some women knew that PFME were important, they were not prioritised andhe important benefits of doing PFME may not have been communicated by midwives or recognised by women. There was a lack of confidence amongst midwives to teach PFME and manage UI within the antenatal care pathway and amongst women to ask about PFME or UI. A perceived lack of consistent guidelines and policy at local and national levels, may have impeded clear communication and prioritisation of PFME. Furthermore, assumptions made by both women and midwives for example, women regarding UI as a normal outcome of pregnancy, or midwives’ perception that certain women were more likely to do PFME may have exacerbated this situation. . Training for midwives to help women in the antenatal period to engage in PFME could address challenges and concerns and to help prevent opportunities for women to learn about PFME from being missed.

Introduction

Urinary incontinence (UI) is common during pregnancy and after childbirth with prevalence rates of stress UI in the third trimester has been reported at around 31% in nulliparous women and 42% in parous women (Wesnes et al., 2007) and in almost half of all primiparous women at some point during the first 12 months postnatally (Brown et al., 2015). Pelvic floor muscle exercises (PFME) has been reported to be effective in the prevention and treatment of UI across the lifespan, including during pregnancy and after childbirth (Brown et al., 2015 Woodley et al., 2018). UK guidelines recommend that midwives offer PFME information to women during booking appointments (NICE, 2008).

In 2013 the Royal College of Midwives (RCM) and the Chartered Society of Physiotherapy (CSP) issued a joint statement highlighting the need to deliver high quality antenatal PFME training to women (Gerrard and ten Hove, 2013). Previous studies had concluded that PFME instruction during pregnancy was often fairly ad hoc and that improvements could be made (Guerrero et al., 2007, Mason et al., 2001b, Hilde et al., 2012, Ismail, 2009, Whitford and Jones, 2011, Mason et al., 2001a, Whitford et al., 2007a, Whitford et al., 2007b, Chiarelli et al., 2003). Women had criticised information provided in the antenatal period as being inadequate and failing to communicate the importance of PFME (Mason et al., 2001b). Guerrero et al's (2007) UK survey of HCPs' beliefs and practices regarding antenatal PFME suggested that midwives were well placed to teach PFME in pregnancy and other research found that women wanted midwives to teach them about PFME and to offer reassurance that they are correctly performing these exercises (Mason et al., 2001b, Ismail, 2009,

Whitford and Jones, 2011). It was suggested that a more structured antenatal programme, which ensures PFME are performed correctly, was required (Bø and Haakstad, 2011) and behaviour change literature suggested that information provision alone is often not enough to support long-term changes related to exercise behaviours (Horne and Clatworthy, 2010). In 2017, the RCM and RCP updated their 2013 joint statement on the importance of PFME. However, research suggests that many women may still not perform them correctly, or at all throughout pregnancy (Kandadi et al., 2015; Neels 2018). Additionally, competing pressures on midwives such as staff shortages and the need to provide screening and public health information within busy antenatal appointments may have contributed to PFME still being a low priority for midwives (McClurg et al., 2015).

The study reported here used an ethnographic approach that aimed to explore the communication between women and midwives about PFME, within the context of current UK antenatal care, and how organisational, professional and individual factors may impact on this communication. The central objective of the ethnography was to explore challenges, opportunities and concerns for the implementation of PFME training at these three levels. This study was carried out as part of the larger 'X' programme (Details to add following peer review) to develop and test the effectiveness of a training package for midwives to support women to carry out PFME during pregnancy to reduce UI prevalence during pregnancy and following childbirth.

Methods

Study design

An ethnographic approach (Dykes and Flacking 2016 Roper and Shapira, 2000) was used and data were collected through observations, interviews, field conversations and comprehensive field notes. Ethnography is used to understand the social and cultural contexts of research questions in healthcare research and utilises a range of methods to provide a 'nuanced understanding of an organisation' (Savage, 2000, p. 1402). We anticipated that drawing upon this approach would help us to identify why HCPs (particularly midwives) and women behave the way they do regarding teaching and learning about PFME, as well explore the context of PFME in organisational practices and cultural norms.

Public involvement was integral to the research process and aimed to incorporate women's perspectives into the research process, to ensure the research was relevant and important to them. Researchers attended a mother and toddler's group at a local community centre to invite women to join the Public Involvement advisory group. Seven women became involved in this group and remained as advisors throughout the research. There were direct impacts on the ethnography via the group's input, for example, through their critique of the interview schedule and through discussions about different perspectives regarding implementation of PFME in antenatal care.

Setting

Three research sites were chosen to span rural, suburban and urban areas in the United Kingdom; in Birmingham and Devon. Data collection at each research site consisted of: 1) observations of the interaction between midwives and women during antenatal appointments; 2) semi-structured interviews with HCPs, antenatal and postnatal women

and 3) the examination of policies, clinical guidance, leaflets, training documents, websites, and other related information sources including photographs of the settings where antenatal care took place (eg clinic noticeboards), . Field conversations, recorded as field notes, also took take place between the study researcher (RJ) and participating HCPs in order to help place observations within a cultural context (Roper and Shapira, 2000).

Ethical Approval

The UK's National Institute for Health Research (NIHR) Ethical favourable opinion was obtained on 2nd December 2016 (IRAS project ID 215180). Health Research Authority (HRA) approvals were obtained on 15 December 2016.

Participants

Inclusion criteria: HCPs involved in providing antenatal care and pregnant women over the age of 16 receiving antenatal care at any of the designated research sites were eligible to participate. Women with insufficient English were not asked to participate unless translators already employed at the research site could be utilised.

Recruitment and Consent: Principal investigators at local research sites informed HCPs, particularly midwives, about the study. One study researcher (RJ) also attended community midwifery team meetings to discuss the research and invited midwives to participate. Women who were observed in the antenatal appointments could also volunteer to be interviewed

For antenatal appointment observations and interviews with HCPs, those HCPs expressing an interest in participating in the research were provided with a PIS and contacted by a researcher one week later to discuss participation. If the HCP agreed to take part, a

convenient time and venue was agreed for the clinic observation and/or interview. Written consent was obtained prior to any observation or interviews. Regarding the recruitment of antenatal women, posters were displayed in waiting rooms and clinics describing the research, that a researcher may observe antenatal clinics, and how to obtain further information. Midwives asked antenatal women for their verbal consent for a researcher to observe the clinic. Formal written consent from the antenatal women was not obtained for this observation and no personal or identifying data were recorded. At the end of the appointment the women were given an information sheet about the research.

. Midwives were told that, during observations, they could ask the researcher to leave the room at any time. and the researcher was a passive observer of the midwife-woman interaction,

Antenatal women were recruited for interview in a number of ways: having been observed in an antenatal clinic, or seen flyers/posters and PIS in the clinics or waiting rooms, they contacted the study team by phone or email; some women were identified by their midwives as being eligible to participate and provided with a PIS; women were also invited to identify other antenatal women and provide them with researcher contact details. Women expressing an interest in participating in an interview were contacted by a member of the research, given the opportunity to ask any questions and, if willing to participate, a convenient time and place for interview was agreed.

All HCPs and women participating in interviews provided written informed consent. All consenting participants were assigned pseudonyms prior to any data being collected.

Participants were informed that they could withdraw from the study at any time. At the time of first interview women were asked if they would like to be contacted post-birth regarding participation in a postnatal interview (by telephone or in person)

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Data collection, management, coding and analysis:

Times, dates and duration of interviews and observations were flexible according to participants' preferences and the requirements of the study sites. Clinic observations, collection of other ethnographic data and interviews with women and HCPs were carried out by RJ; RT conducted interviews with women antenatally and postnatally. Both RT and RJ were experienced postdoctoral qualitative researchers.. Women received a reciprocity payment of a £10 gift voucher at each interview.

Semi-structured topic guides were developed to underpin the interviews with antenatal and postnatal women, and with HCPs. Questions explored participants' knowledge and experiences UI, of PFME, of teaching and learning about PFME, the acceptability assessing a PFM contraction, and other issues relevant to the participant group

Over the course of the interviews, which usually lasted between half an hour and an hour, RT and RJ offered small amounts of information relating to their own experiences as women with biological children, to help establish rapport. Reflexivity and reflexive accounting are key dimensions of ethnographic research, (Mays and Pope, 2000, Savage 2006)) therefore, these personal reflections of the researchers (RT and RJ) were recorded. Congruent with

our methodological approach, observations and interviews were carried out with the aim of reaching data saturation, when no new data or themes were emerging.

Clinic observations were recorded as field notes. Interview data were audio-recorded, transcribed verbatim and anonymised, participants were assigned pseudonyms. The varied data sources (field notes, photographs, documents, interview transcripts) were imported into the qualitative data analysis software package NVivo 11 for teams (QSR International) to facilitate data management, sharing data and development of a coding framework. Initial coding and analysis took place alongside data collection, allowing identification of emergent themes and for any subsequent refinement of topic guides to follow new lines of enquiry. Braun and Clarke's (2006) guidance, which outlines six phases of thematic analysis, was drawn upon whilst In Phase Four, we adopted a process similar to thethe constant comparative method (Corbin and Strauss, 2014)to help guide the theme development process: incidents in the data were compared with other incidents for similarities and differences. 'Deviant cases', where a case did not fit the pattern or could not be explained by the emerging theme, wwas explored and recorded. Data analysis was inductive and 'data-driven', as well as deductive inasmuch as data were considered specifically with respect to the aim, research question and objectives of the [x] programme. RJ and RT coded the data independently, at each iterative analysis cycle using the observational data to provide context. - The wider study group (SD, MP, RJ, VS, JHS and RT) were involved in debating and confirming emergent themes. Developing themes were also discussed with the Public involvement group and the wider research team.

Results

Seventeen antenatal clinics were observed. Whilst some of these clinics included women being booked in, these booking in appointments are often carried out in the woman's own home and the majority of the woman-midwife observations, which were in primary or secondary care settings, were of later appointments. Twenty three midwives participated in a total of 20 interviews (some were interviewed in pairs). Four physiotherapists specialising in women's health, two consultant obstetricians and one linkworker/translator took part in one to one interviews. The year of qualification for the HCPs ranged from 1975 to 2014. Fifteen women took part in interviews whilst pregnant, 12 of whom were also interviewed postnatally. Six women who were observed in antenatal clinics subsequently agreed to participate in an interview (no women were observed in clinics after taking part in an interview). Seven were expecting their first baby. Women were aged between 20 and 42; 11 women identified themselves as 'white' and four as 'Asian'. Women were interviewed in their own homes or other place convenient for the participant. add gestational weeks Antenatally, some had older children with them at the time of interview, or on occasion, other family members. Postnatally, women had their baby with them.

Three broad themes were identified: 1) ideological commitment, 2) confidence and 3) assumptions, stigma and normalisation. Other ethnographic material contextualised these data. These themes were inter-related and within these, opportunities, challenges and concerns for the implementation of PFME in current antenatal care - for the individual, for HCPs and at the organisational level - were explored.

Ideological commitment

The theme of ideological commitment reflected an acknowledgment amongst midwives and other HCPs of the importance of PFME teaching: .

> *"I certainly wouldn't have an issue with it* [teaching PFMEs] *myself and I don't think any of my colleagues, close colleagues, would, because I think it is an important, you know, as a woman, it is an important thing to be doing" (Meghan, midwife)*

Many women i reported an interest in learning about PFME and felt that they "should" do these exercises. However, they indicated that whilst they intended to do them, this intention was often not put into practice:

> *"I, well, just, "Oh yeh, I should probably do that," but then you kind of just don't because it's a ... I don't know why you don't". (Harriett, antenatal interview, first baby)*

However, amongst midwives and women, this ideological commitment to teaching or carrying out PFME was undermined by a number of challenges and concerns. The most pervasive challenge related to a 'lack of time'. For example, in spite of recognising the importance of teaching PFME to antenatal women, midwives felt unable to prioritise doing this:

"Lack of time, I think. I mean, we've got so many other things we have to discuss now. You know, I'm sure you've seen the notes and what we have to discuss? There's so many things you gotta discuss". (Rianna, midwife)

Field notes of observations also highlighted that many issues and topics had to be discussed and dealt with, including blood tests and results, fundal growth, and women's domestic situation, diet and many other issues and women themselves acknowledged how busy antenatal appointments could be;

"I don't know if they'd have the time, bless them, they've got, like, so much else to have to go through, like, not just for you but, like, the baby as well, isn't it, [...] and it's always a very short, they've got lots of women to see, haven't they?" [Greta, antenatal interview, 2nd baby]

A further challenge was the lack of 'higher level' commitment to prioritising PFME:

"*one of the big challenges is midwives are going to say they just haven't the time to do more than they are doing at the moment. [...] so I think you'd have to have commitment from all levels to be able to take that on board*" (Sally, clinical specialist physio)

Observations of clinic settings also indicated a lack of prioritisation. For example, oticeboards often had empty space on them; boards displayed numerous other topics related to pregnancy and birth, but not PFME.

Midwives also sometimes expressed concern that a fuller discussion of PFME may be overwhelming for women:

> *"I would like to think it's something that people mention, but again, I'm not sure with the kind of, the overload of information that women get at booking ...." [Miranda, midwife]*

This concern was reflected by the women, who may have felt overwhelmed by the volume of information that was provided to them:

> *"I've got loads of information you've gotta bring back - cos, obviously if.., it's the pregnancy brain, innit it? You forget sometimes and I'm just.., you know, in my own world" [Hannah antenatal interview, first baby]*

In the observations of antenatal clinics, if women were asked by midwives whether they were doing PFME, midwives may have stressed the importance of doing these exercises; reminders or questions were sometimes accompanied by cautionary 'warnings' such as reference to leaking urine if using a trampoline, a "baggy vagina" or to the use of "Tena Lady" (containment products). In the antenatal clinics midwives sometimes provided brief explanations of how to do PFME, but did not check whether women thought they were performing these correctly and, women did not initiate a discussion of UI or PFME. In interviews, both women and midwives described opportunities in appointments where a

fuller discussion of PFME could potentially have taken place, which may have been missed or not fully utilised:

> *"...so I think there is definitely the opportunity for midwives to have those discussions at that point [*antenatally]*, it may not as I say be at that very early booking stage but certainly at follow-on clinic appointments or visits or whatever" (Bethan, midwife).*

> *I don't know how frequently it needs to be brought up, I mean, I guess it's quite an easy thing to do, to bring it up. Obviously the first time you bring it up you have the conversation about how and why and when and where and all that stuff, and then future conversations might just be a, "Are you doing them?" which I guess would be quite an easy, just another thing added to the check list. I don't know whether it would require more than that, then? (Harriet, first baby, antenatal)*

Midwives reported that when reminding women to carry out PFME, pre and postnatally, women often did not understand what they were being asked to do, or why:

> *"... we broach it again postnatally and probably every time we see them we say to them "And are you doing your pelvic floor?" And, you know, how to do it, cos as I said to you, some mums look at you as if you're, you know, you've got two heads" (Belinda, midwife)*

Although midwives felt that women often did not understand the relevance or significance of PFME for their health, midwives were not observed to subsequently try to explain or

provide additional written information, other than the brief verbal or endorsements or warnings described above. omen may therefore have been unaware of the benefits of doing PFME, and the consequences of not doing them. This lack of awareness therefore continued to act as a barrier to prioritisation of PFME:

> *"I guess I just consider myself to be too busy and I don't sufficiently prioritise it. I suppose I probably don't believe that it's really gonna make a difference to my quality of life. But I could be wrong, couldn't I?" (Phillipa, antenatal interview, first baby)*

Women may also have 'taken the lead' from midwives when prioritising PFME; because midwives did not emphasise PFME and these were not visible in other forms of information provided, women may have felt that they did not need to be prioritised in comparison to other health issues, such as diet or smoking:

> *"I think if you had more information and it was given to you as though it was as important […], you would probably remember it a little bit more.[….] I do think that they could give more information just to make it a little bit feel a bit more important". (Heather, antenatal interview, first baby)*

Women who did prioritise PFME often reported that experiencing UI symptoms prompted them to do so:

"I would say most days I would [do PFME] 'cos that's because I'd had a bit of trouble with [baby's name] about it so I was just like "oh really - I don't really want it to be like that and be worse than that" (Bryony, postnatal interview, second baby)

Confidence

A further barrier to implementing PFME in the antenatal period may have stemmed from a lack of confidence amongst midwives that they had adequate knowledge and skills to teach or assess PFME, or had been sufficiently trained to teach women about the exercises:

"Oh, well, I suppose my problem is I don't necessarily feel I'm sufficiently trained to be talking about pelvic floor exercises". (Stacey, midwife)

In addition, although existing UK guidelines suggest that PFME should be discussed early in pregnancy, a lack of clarity amongst midwives regarding the content and availability of standardised advice proved to be an additional challenge:

"there's no standard guidelines or no standard advice that we would give – no national guidance...and the different websites I went onto all gave different ways and different amounts of time, different lengths of time, so there's nothing standardised" (Josie, Midwife)

In clinic observations, one midwife asked the researcher observing the clinic "should it be four times a day"? Similarly, in interviews, some midwives indicated a lack of confidence to manage UI within the scope of the midwife's role:

> *"if people are saying that it's happening on a regular occurrence, and it's not necessarily stress related where they cough or they sneeze, then that would be something that I would then want to refer onto a physio [...], they need, kind of, expert, not expert, but they need more specialist support in that area"* [Helen, midwife]

Women were often not confident that they were correctly performing PFME,

> *For me because I don't have a lot of confidence in my own abilities I would probably want somebody else to check". (Heather, antenatal interview, first baby)*

and even those who had been practicing PFME and thought that they had been doing them correctly, found that their technique improved with more specialist input:

> *"I thought I was doing them brilliantly. However, when I had a bit of help from the physio [...] I did find once that she'd guided me a bit just verbally doing it that I felt that everything was tighter. [...] So even someone who thinks they're doing it properly isn't necessarily doing it properly" [...](Sara, antenatal interview, fourth baby)*

One consultant obstetrician also described how women may adhere to a PFME programme but may contract the wrong muscles:

> "*So, for example, they maybe tighten their hands, their shoulders, they grimace, they squeeze their buttocks and if you are doing a digital vagina examination you will feel nothing at all but they are performing exercises but with the wrong muscles". (Edward, obstetrician)*

Even if midwives did feel confident to comprehensively teach women about PFME, the available timeto teach may have been undermined by the need to contend with numerous other pressing issues; midwives may face varied challenges or barriers to the effective communication of a wide range of issues:

> *".. there's a lot of language barriers, a lot of safeguarding, …. a lot of young parents. There's not very many of your typical white middle-class English ladies there. So, you're always fighting, trying to compete with other barriers, language barriers, all the other barriers – very very health complex issues (Josie, midwife)*

In addition, midwives also felt that many women lacked even very basic anatomical knowledge about PFME:

> *"There's a real general ignorance about the pelvic floor. A lot of women we are booking in, you'd say to them, "pelvic floor exercise," and they look at you blankly, like, "What's that?".[…]" (Rhianna, midwife)*

Some of the observations in clinics supported this; in an antenatal appointment a midwife asked a woman about her "pelvic floor" and the woman responded "what are they?"

Assumptions, stigma and normalisation:

A combination of assumptions, societal stigmatisation and a normalisation of UI during pregnancy and childbirth, together with embarrassment (either actual or assumed), could have affected communication between midwives and women relating to PFME and UI. HCPs often assumed that women were reluctant to engage in discussions about UI, due to embarrassment, stigma and taboo:

> *"Oh embarrassment, total embarrassment. It's a very taboo subject for people. It's getting more freely - a bit more open nowadays, I think, but on the whole it's still a huge embarrassment and of course the less people who come forward, the more people who think they're the only person in the world who suffers except old ladies". (Bridget, physio)*

Women conceded that embarrassment may prohibit discussion about UI and treatment options such as PFME and referred to the stigma surrounding the discussion of these topics and the assumptions made:

> *"I think there is a bit of a stigma about it all and it's also - I mentioned in the first interview that I think a lot people think that it doesn't affect them - it's in later life, it's incontinence, it comes with dementia, it comes with and it doesn't - it doesn't at*

all. Because I said before my friend after having her child had chronic incontinence and she still does. She has to wear incontinence pants when she goes running and stuff, she's a fitness buff and people just naturally assume that as you get older it's part of life. It can be but it shouldn't be, it doesn't need to be at all it can be dealt with yeah so I think they push the products too much. I think they should be pushing advice through the health system". (Danielle, postnatal interview first baby,)

There appeared to be some assumption amongst midwives that interest in and knowledge of PFME varied between women; this assumption was observed in interviews and exemplified in an antenatal clinic interaction between a midwife and a woman in her second trimester, who was also a yoga teacher. The midwife asked "so you know all about pelvic floor exercises then"? The patient replied "I do" and there was no further discussion. Midwives may have also assumed that a reminder of the importance of doing PFME would be enough to prompt women to do them, and that they would be performed correctly. In addition, HCPs were concerned that women would find a vaginal examination to confirm a correct pelvic floor muscle contraction embarrassing or invasive. Whilst some women did feel that a physical examination to assess a contraction could be unacceptable, or unnecessary, women often reported that they would be willing to undergo more invasive assessments, particularly if they had experienced UI:

*"Right now [*experiencing UI*] I would find that totally acceptable [vaginal examination]. But again because I am quite symptomatic - then again I don't know how other people would feel about that" (Sara, antenatal interview, 4th baby)*

Some were unaware that this could be offered:

> *"I think you're told, "Are you doing your pelvic floor?" So, you go, "Yes!" I don't know what I'm supposed to do with it... [Laughs] There's no test I guess to say whether you are or not." (Melissa, antenatal interview, 2nd baby)*

Both HCPs and women alluded to an assumption that pregnancy/childbirth inevitably leads to UI:

> *"Yeh, cos I don't wanna leak [laughs]. I know it will probably happen but if I could do it now, I hope my chances are a little bit higher!" (Hannah, antenatal interview, first baby)*

> *" when something goes wrong ladies will almost just get on with it and think oh it's normal I've just had a baby and all my friends say they leak or the advertising we see on TV and like 'oh everybody's got oops moments' and almost see that as being normal and fine" (Davina, women's health physio)*

Even though women alluded to their knowledge of a link between doing PFME and reducing UI symptoms, HCP's felt that this assumption of 'normality' may have reduced their motivation to engage in PFME:

> *"I see a lot of women [...] especially with second children and they'll tell me that they've had some incontinence – especially when you bring up pelvic floor and*

they're like, "Oh, yeah, I should be doing it because I have incontinence," and things like that, and it's almost as if they just cope with it instead of doing anything about it, if that makes sense? Which is quite sad really, but yeah, I feel like women just think it's normal, if that makes sense?" (Grace, midwife)

HCPs highlighted the need to normalize PFME education and assessment of a pelvic floor contraction, during or prior to pregnancy, rather than normalize the inevitability of UI. They also indicated the need to take steps to reduce embarrassment, stigma and taboo and to challenge any assumptions about UI amongst HCPs and women:

"*I suppose before people become pregnant you might see them, you know, if midwifery-taught pelvic floor education becomes the norm and then you see people before they are pregnant you'd obviously reassure them it's not a big deal, it's going to do them some, possibly some short term good, probably some long term good so it's just got to get culturally accepted hasn't it. The women would be absolutely fine having it* [a vaginal examination for a PFM contraction] *done [...] if you've seen a midwife several times and you trusted her and she said 'look you don't have to have this done but it's standard management now just to check your pelvic floor". (Edward, obstetrician)*

Some highlighted the possible effects of media advertising for incontinence pads, and, whilst possibly reducing taboo and stigma of UI, felt that it may contribute to the societal assumption that UI was normal, rather than challenging its inevitability:

"I think possibly because in the past it's a taboo subject, a little bit. At least now, with all those TENA pads, maybe it's, although I don't, it's horrible, they don't put on 'Do your pelvic floor', they just give you pads, maybe because it's more out there, we can now speak about it a little bit more, maybe (Katy, midwife)

Other assumptions may also have affected communication between women and midwives about PFME in the antenatal period. Women may not have initiated the topic because they assumed that midwives were too busy to discuss UI, recognising for themselves the 'busyness' of the antenatal appointments (which was consistently observed, particularly if the women assumed UI o be a normal aspect of pregnancy:

"I'm not a shy, I'm not embarrassed about anything, so I'm probably a bit different, but even I found it quite difficult to get a word in edgeways with the midwife. [...]And the whole time saying to me, "Oh, I'm so busy. I'm so busy." And you're like, "Ok, you don't really wanna hear what I've got to say, so I'm gonna go now." (Melissa, antenatal interview, 2nd baby)

Discussion

Using an ethnographic approach, this study examined how midwives and women engaged in communication relating to PFME. The three themes identified – 'ideological commitment', 'confidence' and 'assumptions, stigma and normalisation' - were interrelated and contextualised challenges and barriers to effective communication between antenatal women and their midwives, as well as provided indications of how to access opportunities to implement PFME training for antenatal women. As previously suggested (McClurg et al.,

2015) this study found that although the importance of PFME was currently recognised by HCPs, including midwives, and often by women, it was not prioritised as highly as other issues raised in the antenatal period. Midwives alluded to an unwillingness to overload or burden women with excessive information in the early stages of pregnancy and this may have been justified by the midwife, if it was considered that other more immediate concerns required prioritisation. In addition, midwives may focus on issues for which clear guidelines and training are more readily available and which they felt more confident to advise on. Thus, the specific reasons for doing PFME, or how to perform them, did not appear to be fully communicated by midwives or understood by women.

All of these findings echo previous research in this area, as identified in a recent critical synthesis of the literature (Salmon et al., In press). For example, almost twenty years ago, (Mason et al., 2001b), reported that information women received did not emphasise the importance of PFME and was not sufficient to motivate women to engage in PFME. In the present study, women may have followed the midwives 'lead' in focussing on other issues raised by the midwife, perhaps assuming that these were of greater importance, and in our observational data, these assumptions were reinforced by a lack of reference to PFME within antenatal settings, whether on noticeboards, leaflets or other supporting information. Women may have lacked the confidence to disclose problems which they felt could be viewed as unimportant by the midwife, or feeling that the midwife was 'too busy' to discuss these issues.

During antenatal clinic observations, it was noted that if the topic of PFME was raised, midwives usually only offered signposting and reminders and this was confirmed in the interviews(for

example midwives asking “have you done your pelvic floors?”). Women lacked confidence to check with their midwives whether or not they were performing these correctly. In line with earlier research (Buurman 2013) we also found that embarrassment, along with a perception of stigma and taboo surrounding UI and an assumption that this is normal during pregnancy and after childbirth, could have further discouraged fuller discussions and women described a reticence to raise concerns unprompted. But women often reported wishing they been more fully informed about the importance of PFME, and that they had known much earlier, especially if they had experienced UI. There is an increasing emphasis on prevention of health conditions across the lifespan (DHSC, 2018), rather than on cure, and our findings indicate the need to identify earlier teachable moments, for examples within school years, where girls and young women can be taught about PFME. This is also important in the light of the recent 2019 NHS Long Term plan (http//www.longtermplan.nhs.uk) which recognises the importance of pelvic health and recommends that women have access to multidisciplinary pelvic health clinics.

A training package for midwives to provide training to women about PFME could help to address challenges and barriers and allow midwives to act in line with their aspirations to promote PFME. In line with earlier research findings (eg., Bø and Haakstad, 2011, Horne and Clatworthy, 2010), PFME training for women should be in the form of a structured antenatal programme, based on known behaviour change tecnhiques and include a component to ensure the exercises are being performed correctly. This training could also be instrumental in helping to raise the profile of PFME and improve midwives’ confidence to teach PFME antenatally, equipping them with a range of resources support women. Previous research (de Jersey et al., 2018) reported that midwives who were reluctant to

provide information and support related to weight gain in pregnancy benefited from training and that this enhanced their confidence to support women. Both HCPs and women identified potential or missed opportunities within the antenatal care pathway when PFME could be discussed with women. But a perceived lack of both training for midwives and guidance at Trust or national levels may have led midwives to view the provision of fuller antenatal PMFE instruction to be an insurmountable task. Recent work has indicated that PFME research needs to explore implementation issues at a higher system level (Salmon et al, accepted for publication Dec 2019). This ethnography contextualises the review findings in the current antenatal care setting, as well as highlighting the need to reframe PFME as a preventative strategy underpinned by national and organisational policy. PFME training for the antenatal women, delivered by midwives, is underpinned by organisation and service level support. This could also help challenge and address the societal assumption of 'normality' of UI, thus empowering women to make achievable positive changes, whilst at the same time, addressing any stigma and taboo surrounding the discussion of incontinence.

Study Strengths and Limitations

To our knowledge, this is the first reported study which has taken an ethnographic approach to understanding the communication between women and their midwives about pelvic floor exercises in pregnancy to treat and manage UI. One criticism made of ethnographic research is that the presence of the researcher will influence the behaviour of those being studied, and that 'observer effects' will bias research findings (LeCompte and Goetz, 1982). The purpose of the study was explicitly disclosed to the participants. It must be considered

possible that the midwives observed in this study were alerted to the issue of PFME and discussed the topic more fully and more readily. However, Monahan and Fisher (2010) argue that participants' behaviour, even if staged or influenced by the observer, can still expose honest reflections about the topic under investigation. Ethnographies are focused on detailed examination of the topic of investigation and cannot be generalised to all women or health professionals working in antenatal care. In addition, we were unable to carry out interviews with women who did not speak English (none of our interviewees required the services of a translator). Future research needs to take steps to develop a clearer understanding of cultural variations in attitudes surrounding pelvic floor health.

Further research is currently being planned by the research team to explore ways to deliver PFME training to much younger women, to challenge societal assumptions of inevitability of UI, and to help them establish PFME habits prior to becoming pregnant.

Conclusion

Opportunities within existing antenatal care pathway to convey fuller information about PFME may be being missed, although midwives and many women knew that PFME is important. Training for midwives to assist women in the antenatal period to learn about and engage in PFME could address challenges and concerns and to help midwives embrace opportunities to teach PFME, as well as to challenge assumptions and societal stigma and help both women and midwives to feel equipped to address with any problems that may be uncovered. Higher level policy is required to support the implementation of the training for

midwives and the delivery of training to women within the existing processes and structures of local services and health organisations.

References

Bø, K., Haakstad, L. A. H., 2011. Is pelvic floor muscle training effective when taught in a general fitness class in pregnancy? A randomised controlled trial. Physiotherapy, 97(3), 190-195.

Boyle, R., Hay-Smith, E.J., Cody, J.D., Morkved, S., 2014. Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women: a short version Cochrane review. Neurourol Urodyn; 33(3): 269–76.

Braun, V. and Clarke, V. (2006) 'Using thematic analysis in psychology', *Qualitative Research in Psychology,* 3(2), pp. 77-101

Brown S, Gartland D, Perlen S, McDonald E, MacArthur C., 2015. Consultation about urinary and faecal incontinence in the year after childbirth: a cohort study. BJOG: An International Journal of Obstetrics & Gynaecology 122(7): 954-62

Buurman MBR, Lagro-Janssen ALM., 2013. Women's perception of postpartum pelvic floor dysfunction and their help-seeking behaviour: a qualitative interview study. Scandinavian Journal of Caring Sciences. 2013;27(2):406-13.

Chiarelli, P., Murphy, B. and Cockburn, J., 2003. Women's knowledge, practises, and intentions regarding correct pelvic floor exercises. Neurourology and Urodynamics 22(3), 246-249

Corbin, J. and Strauss, A., 2014 Basics of qualitative research: Techniques and procedures for developing grounded theory. London: Sage publications.

Denzin, N. K., Lincoln, Y. S., 2008. Collecting and Interpreting Qualitative Materials. London: Sage.

DHSC (Department of Health & Social Care). Policy Paper: Prevention is better than cure: our vision to help you live well for longer. Nov 2018.

Dickinson, B., Briscoe L., 2017. Why is education for pelvic floor muscle exercises a neglected public health issue? British Journal of Midwifery 25:11, 724-729

Dykes, F., and Flacking, R. Introducing the theory and practice of ethnography in Dykes, F and Flacking, F (eds) Ethnographic Research in Maternal and Child Health Routledge, London, pp. 179-198

Gerrard, J. and ten Hove, R., 2013. RCM/CSP Joint Statement on Pelvic Floor Muscle Exercise: Improving outcomes for women following pregnancy and birth. Physiotherapy, R.C.o.M.a.C.S.o., London.

Guerrero, K., Owen, L., Hirst, G. and Emery, S., 2007. Antenatal pelvic floor exercises: A survey of both patients' and health professionals' beliefs and practice, Journal of Obstetrics and Gynaecology 27(7), 684-687.

Horne, R. and Clatworthy, J., 2010. Adherence to advice and treatment, in French, D., Vedhara, K., Kaptein, A. & Weinman, J. (eds.) Health Psychology. 2nd ed. Chichester: Blackwell Publishing Ltd, 175-188.

Ismail, S. I., 2009. An audit of NICE guidelines on antenatal pelvic floor exercises', International Urogynecology Journal 20(12), 1417-1422.

de Jersey, S.J., Tyler, J., Guthrie, T., New, K. 2018. Supporting healthy weight gain and management in pregnancy: Does a mandatory training education session improve knowledge and confidence of midwives? Midwifery. Oct;65:1-7. doi: 10.1016/j.midw.2018.06.025.

Kandadai P, O'Dell K, PhD; Saini, J., 2015 Correct Performance of Pelvic Muscle Exercises in Women Reporting Prior Knowledge Female Pelvic Medicine & Reconstructive Surgery 21 (3), 135–140

Mathe M, Valancogne G, Atallah A, et al., 2016 Early pelvic floor muscle training after obstetrical anal sphincter injuries for the reduction of anal incontinence. European Journal of Obstetrics & Gynecology and Reproductive Biology 199:201–6.

Mason, L., Glenn, S., Walton, I. and Hughes, C., 2001a Do women practise pelvic floor exercises during pregnancy or following delivery? Physiotherapy 87(12), 662-670.

Mason L, Glenn S, Walton I. and Hughes, C., 2001b. The instruction in pelvic floor exercises provided to women during pregnancy or following delivery. Midwifery 17(1), 55-64.

Mays N. and Pope C., 2000 Assessing quality in qualitative research. *British Medical Journal,* 320(7226), 50.

McClurg, D., Gerrard, J. and Ten Hove, R., 2015. Reducing the incidence of incontinence. British Journal of Midwifery 23(1), 17-20.

Monahan, T. and Fisher, J. A., 2010. Benefits of 'observer effects': lessons from the field. Qualitative Research 10(3), 357-376.

Neels, H., Wachter, S., Wyndaelec, J., Van Aggelpoela, T., Vermandela, A,. 2018. Common errors made in attempt to contract the pelvic floor muscles in women early after delivery: A prospective observational study European Journal of Obstetrics & Gynecology and Reproductive Biology 220, 113–117.

NHS. The NHS long term plan. 2019. https://www.longtermplan.nhs.uk/

NICE, National Institute for Health and Care Excellence 2013 Urinary incontinence in women: management. London: NICE.

NICE, National Institute for Health and Care Excellence 2008 Antenatal care for uncomplicated pregnancies. London: NICE.

QSR International Pty Ltd (2015) NVivo Qualitative data analysis software (11)

Roper, J. M. and Shapira, J. 2000 Ethnography in nursing research. Thousand Oaks, California: Sage publications.

Royal College of Midwives https://www.rcm.org.uk/news-views-and-analysis/news/a-third-of-mothers-don%E2%80%99t-do-pelvic-floor-exercises. Accessed 11 Jan 2019

Savage, J. (2000) 'Ethnography and health care', *British Medical Journal,* 321(7273), pp. 1400 - 1402.

Salmon V, Hay-Smith J, Jarvie R, Dean S, Terry R, Frawley H, Oborn E, Bayliss, S Bick D, Davenport C, MacArthur C & Pearson M. *and on behalf of the APPEAL study group* Implementing pelvic floor muscle training in women's childbearing years: A Critical Interpretive Synthesis of individual, professional, and service issues. *Neurourology & Urodynamics* (Accepted for publication Dec 2019)

Savage, J. 2006 'Ethnographic evidence: The value of applied ethnography in healthcare', Journal of Research in Nursing 11(5), 383-393.

Wesnes SL, Rortveit G, Bø K, Hunskaar S 2007. Urinary incontinence during pregnancy. Obstetrics & Gynecology 109(4), 922-8.

Whitford, H. M. and Jones, M. 2011 'An exploration of the motivation of pregnant women to perform pelvic floor exercises using the revised theory of planned behaviour', British Journal of Health Psychology 16(4), 761-778.

Whitford, H. M., Alder, B. and Jones, M. 2007a. A cross-sectional study of knowledge and practice of pelvic floor exercises during pregnancy and associated symptoms of stress urinary incontinence in North-East Scotland. Midwifery 23(2), 204-217.

Whitford, H. M., Alder, B. and Jones, M. 2007b. A longitudinal follow up of women in their practice of perinatal pelvic floor exercises and stress urinary incontinence in north-east Scotland. Midwifery 23(3), 298-308.

Woodley, S.J., Boyle, R., Cody, J.D., Mørkved, S., Hay-Smith, E.J.C., 2017 Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. Cochrane Database Syst Rev. Dec 22;12:CD007471. doi: 10.1002/14651858.CD007471.pub3.