Midwifery 31 (2015) 208–214

Contents lists available at ScienceDirect

Midwifery

journal homepage: www.elsevier.com/midw

What do men want from antenatal screening? Findings from an interview study in England ☆

Dr. Sandi Dheensa, PhD (Research Fellow)[a,*], Prof. Alison Metcalfe, PhD (Professor of Health Care Research and Associate Dean for Research)[b], Dr. Robert Williams, PhD (Senior Lecturer)[b]

[a] Clinical Ethics and Law, University of Southampton, Room AB 203, MP 801, Southampton General Hospital, South Academic Block, Tremona Road, Southampton SO16 6YD, UK
[b] Florence Nightingale School of Nursing and Midwifery, King's College London, UK

ARTICLE INFO

Article history:
Received 18 March 2014
Received in revised form
21 August 2014
Accepted 30 August 2014

Keywords:
Antenatal screening
Fathers
Men
Pregnancy
Antenatal diagnosis

ABSTRACT

Objective: in the UK, midwives are facing a policy-drive to include men in antenatal care, and men will soon receive paternity leave to enable their involvement. As a result, more men will be able to attend screening, support women and participate in decision-making. We therefore conducted a timely exploration of what being involved means for men and what they want from antenatal screening and midwives.

Design and setting: in-depth, semi-structured interviews with 12 men were carried out, mostly by telephone. Data were analysed using grounded theory.

Findings: we constructed three themes and showed that (1) in normal pregnancies, men knew little about screening, and were happy for midwives to take control during appointments, (2) in complicated pregnancies, men wanted to be more actively involved but some perceived that they faced suspicions of being coercive if voicing opinions, and (3) over time, men became more adept at communicating with midwives, but some disengaged from screening because of poor communication with midwives and/or a lack of faith in the benefits of screening.

Conclusion: findings build on other studies to highlight the multiplicity of roles men play during screening. For men and women to reap the benefits of men's involvement in antenatal screening, good communication is required between midwives and couples. Communication training could help to improve care delivery and the relationships between men, women and midwives.

Introduction

In the UK, antenatal screening for haemoglobinopathies and fetal anomalies (from here on referred to simply as antenatal screening) involves voluntary blood tests and ultrasound scans in the first and second trimesters, and antenatal diagnosis following a high-risk screen (see Table 1 for tests offered in England). The UK Royal College of Midwives (RCM) have agreed that midwives need to involve men in antenatal care (2011) and research reveals that women want men involved (Aune and Moller, 2012). Yet compared with research with women (e.g. Ahmed et al., 2012), there is scarce research about men's experiences of antenatal screening, and the meaning of 'involvement' for men has not been clarified. This issue is timely because from 2015, UK men will be permitted to take paternity leave for two antenatal appointments, meaning more men will be able to attend (Department of Business, Innovation and Skills (DBIS), 2011). The government's justification for this policy-change is that 'there is strong evidence that a father's attendance at ultrasound scans helps early bonding and increases his commitment to the pregnancy' (DBIS, 2011, p. 29). Yet the evidence for paternal antenatal bonding is limited, and a single, dated study is cited to back up this claim (Draper, 2002).

Secondly, they suggest that 'a father's attendance at ultrasound scans […] is strongly linked with positive engagement throughout childhood, including an increased likelihood to read to the child and to provide nurturing care' (p. 29). Along with Bronte-Tinkew et al. (2007), whom they cite, more recent research from the USA suggests that men's antenatal involvement can predict engaging and playing with the child and making health-related decisions, up to three years after birth (Cabrera et al., 2008; Zvara et al., 2013). However these findings might reflect, more simply, that men likely to attend antenatal

☆Work funded by Nursing and Physiotherapy, School of Health and Population Sciences, University of Birmingham 2009–2012.
* Corresponding author.
E-mail address: s.dheensa@soton.ac.uk (S. Dheensa).

http://dx.doi.org/10.1016/j.midw.2014.08.011
0266-6138/

Table 1
Antenatal screening and prenatal diagnosis in the NHS.

	Time point (weeks)	Type of test	Targets
Antenatal screening	8–10	Blood test	Haemoglobinopathies e.g. thalassaemia
	11–13	Blood test	Chromosomal anomalies e.g. Down syndrome
		Nuchal translucency ultrasound scan	
	15–20	Blood test	Chromosomal anomalies e.g. Edward syndrome
		Ultrasound scan	Structural anomalies e.g. spina bifida
Prenatal diagnosis	> 7	NIPD	X-linked conditions, e.g. Duchenne Muscular Dystrophy, and some single gene disorders
	< 10	CVS	To confirm screening result
	15–20	Amniocentesis	To confirm screening result

appointments are equally likely to engage with their children. There may be no causal relationship between the two factors.

Recent policy drives thus warrant some careful consideration rather than unconscientious adoption. The changes the new paternity leave policy might necessitate in antenatal service delivery, and the complexities that could arise from increased paternal involvement, as well as what being involved means for men, and what they want from midwives, requires exploration.

The existing literature only provides limited answers to these questions. Our systematic review and metasynthesis about men's screening experiences (redacted) showed that only two UK studies (Locock and Alexander, 2006; Reed, 2009a, 2011) have specifically explored men's involvement. In both, women outnumbered men. Moreover, Locock and Alexander (2006) focussed on fetal anomalies and Reed (2009a, 2011) on blood screening only. Nevertheless, the studies highlight some important findings. Locock and Alexander (2006) found that men played numerous roles in screening, including bystander, parent, supporter/protector, gatherer/guardian of facts and decider/enforcer. In short, their involvement consisted of providing women with emotional support, advocating for them, and sourcing information to help with decision-making. Reed (2009a, 2011) discovered that men generally felt less responsible for fetal health and for making screening decisions compared with women, but still wanted to be involved. These authors suggest that men need to be recognised by health care professionals (HCPs) as more than just women's supporters.

Studies conducted internationally have likewise shown that men want to be involved in decision-making (e.g. Wätterbjörk et al., 2012). They have indicated a tendency among men to seek technical and statistical information about screening to guide their partners' decisions, and to understand any complications (Sandelowski, 1994; Browner and Preloren, 1999; Markens et al., 2003; Gottfreðsdóttir et al., 2009a; Reed, 2009a). Other men feel uninformed about screening or overwhelmed with information (Ivry and Teman, 2008; Gottfreðsdóttir et al., 2009b; Pieters et al., 2011; Åhman et al., 2012). In complicated pregnancies, men feel anxious and under pressure to set aside their own worries to support their partners (Sjögren, 1992; Ekelin et al., 2008).

Across UK and international studies, men are reported to feel ignored by midwives (Ekelin et al., 2004; Locock and Alexander, 2006; Ivry and Teman, 2008; Reed, 2011). Men whose opinions about screening differ to their partners' additionally have misgivings that their views will be disregarded by HCPs (Markens et al., 2003). The impact of this perception has not been investigated in the current literature.

There is more to be understood about men's views and feelings about being involved in antenatal screening. By interviewing men about all types of screening, we aimed to build on UK studies by Locock and Alexander (2006) and Reed (2009a, 2011) and explore what men who attend antenatal appointments want from screening and from midwives, whether facing pregnancy anomalies or not.

Methods

Study design and sample

Data were collected in 2011. After receiving National Health Service (NHS) research ethics committee approval (10/H1207/38), we recruited men aged at least 18 whose partners had been offered a minimum of one screening test, and were prenatal or up to three years post partum. These broad inclusion criteria were used because the exploratory nature of the study meant no presumptions were made that any one demographic of men would have more valuable views than another. We recruited through an inner-city NHS antenatal department and antenatal class in the same location, and online parenting forums and mailing lists. To make potential participants aware that our study was about antenatal screening rather than ultrasound screening as a way of 'seeing the baby' (Draper, 2002, p. 771), we outlined on information sheets what antenatal screening involved (ultrasounds/blood tests) and what it could reveal. We are unsure how many men were invited to participate, because information was sent out by midwives and posted online.

Recruitment was ceased once we achieved theoretical saturation. Theoretical saturation occurs when themes have depth and variation, but new data stops shedding light on the central findings (Corbin and Strauss, 2008). We only sought saturation of the central (as opposed to all) findings because each man had an individual and nuanced experience, meaning it would be impossible to achieve saturation of every idea that surfaced. There is no set sample size necessary to achieve theoretical saturation. Rather, theoretical saturation will determine how many interviews are needed. Saturation in turn depends on a number of other factors, such as the richness of the interview data (Corbin and Strauss, 2008; Mason, 2010). To determine when saturation of the main topics occurred, we recorded newly arising concepts after each interview, and ceased interviewing soon after novel concepts stopped emerging (Guest et al., 2006). Saturation began to occur around the tenth interview and we stopped recruiting after 12 interviews.

Data collection and analysis

Our interviews were cross-sectional and semi-structured. To develop the interview schedule, we adapted the unanswered

questions identified in our metasynthesis (redacted) and pilot study (redacted), and brainstormed and refined additional questions within our team. Participants gave their consent before each interview. To encourage men to speak openly and comfortably about potentially sensitive matters, men were given a choice of being interviewed in-person or by telephone, email or online chat (Butera, 2006; Opdenakker, 2006; Kazmer and Xie, 2008; redacted).

To analyse data, we used Grounded Theory because firstly, it elicits rich analyses that closely reflect subjective meanings in participants' talk. Secondly, the steps involved help to uncover and explain differences and similarities between views and experiences (Corbin and Strauss, 2008). Our analytical procedure involved coding transcripts for concepts and processes and grouping similar concepts to create arguments. We developed these arguments by iteratively revisiting transcripts, and interrogating data to refine or redefine them. To further examine emergent arguments, we added questions to successive interview schedules and used theoretical sampling. We authors analysed data extracts together and discussed our different interpretations to reduce bias (Lincoln and Guba, 1985).

Findings

Sample description

Pseudonyms and demographic information are featured in Table 2. All men were white-British and the 10 who answered the relevant question on the demographics questionnaire were educated to at least degree-level. We categorised socio-economic status using the National Statistical Socio-Economic Classification three-tier framework, indicating a (1) lower, (2) medium, or (3) higher status (Reed, 2009a, 2011). Three participants (Geoff, Luke and Iain) were of a medium socio-economic status and the remainder a high-status. Men were all from areas of England where comparable screening tests are offered. All were married except Bryan and Iain who were cohabiting with their partners. We use the term 'partner' ubiquitously. On the basis of the information men gave us, we broadly categorised whether the men had faced complications in the current/most recent pregnancy or any previous pregnancies.

We present a set of three themes from our analysis. These themes are taken from a wider project where we aimed to explore men's experiences of haemoglobinopathy and fetal anomaly screening more generally. Another group of themes that emerged have been published elsewhere (redacted).

Normal pregnancies: men want experts to take control

Men attended appointments because they wanted to support their partners. Regarding their views about screening, most men felt that if a test was offered, taking it up must be in the best interest of the fetus. More specifically, they trusted that tests would pose no risk and would provide reassurance about fetal health or some guidance if an anomaly were detected. Most men did not think carefully about whether to take a test up or not, and did not feel obliged to seek details such as what conditions were being screened for. Instead, they were satisfied with being shown basic markers of health:

> Daniel 'I was happy with the information. They told us that the baby was fine, pointed out where various parts of the baby were and told us that it's got a good strong heartbeat'

> Andy 'Not much explanation given, mainly just a 'that all looks fine' which is normally all you need if you're not a medic. They would show you where everything was.'

Men rarely asked midwives questions. Some said their reluctance to seek medical information was down to receiving plenty of advice from friends and family:

> Geoff 'There's always a tonne of people ready to pass information to you. It's all people want to talk about so you get a bit sick of having to listen and then having to go home and read about it as well; it's one or the other.'

Several men felt that midwives did not explain information clearly, and failed to address or include them in discussions with women. This behaviour caused men to feel excluded, and appeared to perpetuate their low knowledge about screening. Nevertheless, men trusted midwives and their expertise, so they were content to remain bystanders while the 'experts' took charge of the consultation:

> Eric 'We were rather confused at the beginning. The way all the screening tests were presented to us by the midwife wasn't very clear. Usually I would go and look up these things but I suppose I thought it's not whether I know about it or not.'

Complicated pregnancies: men want to be actively involved

Men whose partners were experiencing complications or those whose pregnancies were at risk wanted more information and to actively participate in decision-making, to help support their

Table 2
Participant demographics.

	Age	Interview medium	Other children and age	Number of pregnancies	Weeks' gestation/since birth	Pregnancy complications: current or previous pregnancy
Andy	34	Online chat	Son, 3	3	1 post partum	Previous: first pregnancy was blighted ovum followed by dilation and cutterage
Bryan	30	Telephone		1	22	
Chris	36	Telephone	Son, 2	2	9	
Daniel	29	Telephone	Son, 1	2	12	
Eric	32	Telephone		1	22 post partum	
Frank	40	Telephone		1	34	Current: ovarian cyst
Geoff	28	Telephone		1	18	
Harry	39	Telephone	Son, 3	2	21	Current: high-risk Down syndrome screen; amniocentesis negative
Iain	42	Email	Son, 2	3	34 post partum	Previous: first child still-born
Joshua	39	Telephone		1	20	Current: partner infertile. Used IVF and eventually an egg donor
Karl	35	In-person		5	34 post partum	Previous and most recent pregnancy: three miscarriages due to chromosomal translocation. Negative CVS in fourth pregnancy, lead to birth of healthy child.
Luke	42	Telephone		3	39	Previous: two miscarriages

partners, and because they felt a parental responsibility to ensure the fetus was safe:

> Frank 'We had to probe a bit and ask [the consultant] a lot of questions to get the information. She did her best to include me, although, the room she was scanning in, it was slightly more difficult to do that just because of the position of the equipment. I did think at one point her assistant pulled the curtain across and blocked my view of the screen, which, well actually I'd like to see the scan.'

Men with uncomplicated pregnancies felt it was reasonable and understandable that midwives and other HCPs, such as obstetricians, excluded them:

> Chris 'They don't have enough time to take the time to get to know me, to include me, and all the mental energy to start worrying about me as well.'

Contrastingly, men facing current complications wanted to make sure their voices, as well as their partners' concerns, were heard. For example, Harry and Iain reported that their partners felt anxious and confused. These women asked men to advocate for them. Upon trying, these men continued to feel excluded by HCPs, but persisted with communication nonetheless. This process was tricky for these men, who felt that their persistence could be regarded by midwives as dominance or coerciveness:

> Harry '[My wife and I] have good communication between us and I can air my opinion on things but without her feeling like I'm bullying her into it. I made sure that I am included in the discussions without being pushy and without being overbearing. I don't want to come across as that but it's not, it's a case of wanting to show that [wife] and I are in this together'

These feelings of being perceived as coercive were particularly prominent for Iain, who disagreed with his partner about whether she should have an induced birth. The question about induction arose because their previous child was stillborn and screening for fetal growth showed that the current fetus was large, highlighting the 'cascade of interventions' more routine screening can lead to (p. 863, redacted), and the resulting multitude of decisions women and men are faced with. Usually, if disagreements occurred, men felt women had the right to make final decisions:

> Bryan 'I can tell her how I feel about the matters but ultimately it's her decision.'

Conversely, Iain did not automatically cede the decision, because he felt the induction would be in the best interest of the fetus and his partner, and could prevent another stillbirth. Iain wanted HCPs to mediate a discussion and help them come to a reasoned decision. Instead, he felt that the disagreement exacerbated what he discerned to be the midwives' unwarranted apprehensions about his dominance. His experience shows how difficulties regarding men's involvement can arise in the antenatal care that follows screening, and not just in the screening setting itself:

> Iain 'The discussions were not hostile, but there was the implication that I was being a controlling partner – which perhaps relates to the numerous domestic violence literature that festooned the wards. I am not so naive as to believe that such things do not happen, but equally it is frustrating that for the sake of safety the assumption is that as a man you are conforming to a perceived stereotype, rather than attempting to clarify your partners concerns and protecting their interests.'

By comparing Iain's experience of discussions about induction with men's experiences of antenatal screening more generally, it became clear that a man might concede decisions about routine screening, but may want to be more actively involved in complicated decisions within or following screening—decisions that can have serious implications. Men like Iain who were experiencing complicated pregnancies were in difficult and sensitive positions, having to manage their anxieties and complex roles as supporters and advocates, while negotiating their place in a woman-centred environment.

Effect of time: men learn or disengage

Appropriate and effective communication with HCPs was a skill that men had to learn over time. Men had a better idea of what to expect from screening and how to communicate with midwives in their second and third pregnancies:

> Daniel 'It's not the complete unknown situation, happy going in and find out hopefully if we're fortunate to have a baby that's healthy.'

For Harry, communicating with midwives confidently was vital in their second pregnancy because of a high-risk Down syndrome result. Because of this result, he was eager to be more involved, asking questions and helping his wife make decisions:

> Harry 'I've learnt over the years to not be ignored. The first time round I didn't really know what was going on, you take a backseat and the emphasis first time round was very much on [wife] and the baby, whereas this time because I've got issues and questions and things about it, I've spoken up and asked. I think they've come round to the idea that actually you can't ignore [the father] because the stress that waiting for an appointment for an amnio, having the amnio, and then waiting for the results is phenomenal.'

The success of men's attempts at communicating with midwives was dependent on the observed amenability of the professional team. Iain felt he had an unreceptive team, and rather than becoming more involved in the second and third pregnancies, he disengaged from antenatal services. His partner would have preferred him to attend appointments, but as a couple they felt he was unlikely to be made welcome:

> Iain 'With the second and third pregnancies I just accepted that I wasn't welcome, and made a point of not asking questions. Indeed with the third pregnancy my partner went to a number of the scans on her own – partly because children are not allowed in the screening room, and I stayed at home to look after [son], but also because she was annoyed by the attitude of the staff towards me.'

As well as the midwifery team's reactions, another possible reason for differences in Harry and Iain's accounts was that for men who had experienced pregnancy losses or complications previously, screening could provide only limited reassurance. It was especially apparent to such men that a good screening result did not necessarily lead to the birth of a healthy child. These men did not use ultrasounds as an opportunity to bond with the fetus, as they did not want to emotionally invest until the child was safely born:

> Luke 'I'm more excited about when the baby's born. I haven't got an attachment yet because, I'm scared to, in case there are problems. We have had two miscarriages in the past, so that would be my reasoning for being a bit colder. It's fear more than anything.'

> Iain 'Subsequent pregnancies were rather fraught…all I really wanted to see was that the heart was beating – obviously the

measurements are important, and it is nice to see the percentile stuff, but so long as the heart was beating then I was happy.'

Joshua 'There's that whole thing about hedging your bets and being careful and stuff, so you've got to do that. I've no doubt that as soon as they're born I will be holding them and very, very close to them and all this, but right now, I'm not sure how close to them I feel.'

Unlike men with no complications, or men with complications in the current pregnancy, those who had experienced a complicated pregnancy in the past felt that screening could not reassure them, so did not look to midwives to ease their anxieties and fears.

Discussion

We aimed to identify and explain what men who attend screening appointments want from screening and from midwives. We have not captured the full range of complexities and diversities in men's experiences, but have highlighted the accounts of a group of men, which has helped to elucidate topics requiring further consideration by HCPs, policy-makers and researchers.

Limitations

Our sample size was relatively small and although we reached theoretical saturation, a broader range or different set of issues might have been identified if more interviews were conducted. Another possible limitation is that men were recruited from throughout England rather than from one hospital, so differences in their experiences could have been a product of the variation in the way screening was delivered in their respective antenatal units. Nonetheless, we noted no patterns in views or behaviours according to region and source of recruitment.

Despite our wide recruitment and offering interviews in a variety of formats, the sample was somewhat homogeneous in terms of demography. It has been reported that some women from South Asian and other non-Western cultures refuse screening either due to being under-informed or on religious grounds (Rowe et al., 2008; Fransen et al., 2010). Women from socio-economically-deprived regions also engage less with antenatal services than women from less deprived regions (Docherty et al., 2012). With our well-educated, white British sample, we were unable to explore similar trends in men. Regarding interview timings, four men's babies had already been born. Their recollections of screening might have been less clear and their reports coloured by the eventual positive outcomes of screening (Pilnick and Zayts, 2012).

The sample was self-selected, so men were likely to have been engaged and interested in pregnancy and screening, and while we did not target them, a large proportion of those who volunteered to participate had experienced pregnancy complications, which suggests that these men were especially keen to have their voices heard. The paper also relied heavily on a few participants' accounts. We do not, however, claim that these participants' experiences are generalisable.

Reflections about the interview medium

We cannot draw any firm conclusions about differences in data according to interview method as most interviews were conducted by telephone and only one each via online chat, email and face-to-face. There were no apparent differences in content or length, and all produced rich and emotive data, possibly because participants chose whatever method they felt most comfortable with. Differences between types of data nevertheless warrant further research. Some have argued that email data is less rich because there is greater loss of non-verbal data (e.g. sighs and laughter) and spontaneity of responses, as participants can deliberate over their replies (Opdenakker, 2006; Fontes and O'Mahoney, 2008; Novick, 2008; Jowett et al., 2011). Our email interview, on the contrary, produced rich data and the loss of spontaneity did not seem to be detrimental. The absence of the researcher's voice in online interviews, along with the length of time participants have to respond to questions, and the ability to reflect over previous responses may facilitate reflection and make discussion of emotional issues more comfortable and easy compared with telephone interviews (Bjerke, 2010).

Reflections on the findings

Our findings suggest that involving men in antenatal screening is not always straight-forward. Involving men, as recommended by the UK government (DBIS, 2011) and RCM (2011) will therefore merit some careful thought before practice and policy changes are implemented.

Men in our study, like those in previous research, wanted to attend appointments (Genesoni and Tallandini, 2009), but did not know much about screening tests. Unlike men in previous studies (Gottfreðsdóttir et al., 2009a), they did not seek out technical or statistical information. Indeed, screening-related knowledge is generally poor among expectant couples (Skirton and Barr, 2009), because it can be a time of high stress or anxiety (Pieters et al., 2011), where there is a short time-frame within which to make decisions (Ahmed et al., 2013). Men and women can be overloaded with information (Barr and Skirton, 2013), and are given factual and not experiential information about raising an affected child (Carroll et al., 2012). Men in our study did not see their lack of knowledge as problematic; they felt the tests offered would be beneficial, and trusted that with midwives, they were in capable and expert hands. This finding echoes Green's (1999) argument, that women can contradictorily exercise control over their maternity care by relinquishing control and decision-making to those deemed to know best for them and their child.

Some might argue that men's screening-related knowledge and choices are inconsequential—only women have the right to consent, so arguably only they need to be informed (Ahmed et al., 2012). But whether men are informed becomes more important if they have some influence over women's decision-making, as was the case in complicated pregnancies. As in previous studies (Locock and Alexander, 2006; Reed, 2009a, 2011) men facing complications wanted to take on a more active role in screening. Some men in our study, however, felt sharing their opinion could potentially be regarded by midwives as dominating or coercive. We argue that this is a pertinent finding, albeit purported by just two men in our study, as it brings to light an oversight in the RCM guideline (2011), governmental paternity leave consultation (DBIS, 2011), and existing research. All fall short of addressing the possible difficulties some men will face in tackling the fine line between being involved and respecting women's choices. As Iain's experiences of induction highlighted, this issue may be relevant not just with antenatal screening, but involving men in antenatal care in general.

The RCM (2011) has not addressed in their guideline how midwives might manage the similar and difficult tensions they may face themselves between respecting women's decisions to involve men in antenatal screening and care, listening to men's concerns, and protecting women's emotional well-being and bodily autonomy (Stenson et al., 2005; Reed, 2009b). To evaluate whether a man's involvement is appropriate could be a challenging task for a midwife, particularly considering the busy and time-pressured antenatal environment. In a Swedish focus group study by Stenson et al. (2005), midwives facing these conflicts felt

they were sending men ambiguous messages: encouraging their involvement in antenatal care, but discouraging it so they could ask women about coercion and abuse. These midwives encountered men they thought were controlling, who would dominate conversations, answer questions for women, and make decisions for them, but midwives felt that some of their suspicions could be unfair.

Suspicions can cause men to feel uncomfortable, and this in turn can lead to disengagement and non-attendance. In another Swedish study with 655 men (Hildingsson and Sjöling, 2011) being expected to attend antenatal appointments but feeling uninvolved by midwives was associated with feeling a lower sense of support. This lower sense of support was in turn associated with seeing antenatal visits as unhelpful for becoming involved with the baby, and with having mixed or negative feelings towards the pregnancy experience.

Taking our modest findings together with those from the existing studies, we can identify some implications for policy and practice, relevant for involving men in antenatal screening, but also in antenatal care more widely. By giving men extra paternity leave and engaging men in pregnancy, the UK government (DBIS, 2011) and RCM (2011) hope to allow men to support women in antenatal appointments. Mere attendance at appointments seems, however, insufficient for engendering active involvement, especially if men feel unsure of how to support women, and if they feel disengaged from the pregnancy through feeling redundant at appointments (Draper and Ives, 2013).

It would therefore be useful to explore how men and maternity care professionals communicate with each other in antenatal settings, and to design training to help improve communication. This need has been recognised by others in an antenatal education context. Steen et al. (2012) found that men were disappointed antenatal education classes rarely provided information directed at them. May and Fletcher's (2013) evidence-based recommendations for improved communication included suggestions that classes should prepare fathers for relationship and role changes, raise awareness of postnatal depression in men, and improve understanding of women's experiences and types of support they need.

Training has been successfully implemented in the UK with 97 GPs and 30 primary care nurses to help increase the offer and uptake of antenatal haemoglobinopathy screening in primary care (Dormandy et al., 2012). Post-training, HCPs felt greater comfort and confidence in discussing screening, and compared with untrained HCPs, they offered screening more frequently and earlier in pregnancy. In a Swedish intervention, men and women were given screening information in a dedicated appointment by a screening midwife; these men felt more informed and included compared with ordinary midwifery consultations (Wätterbjörk et al., 2012). Findings from interventions like these could help enhance RCM guidelines (2011), for example informing whether and how men should be involved in decision-making and how conflict could be managed. The need for good communication is topical, as novel and more complex non-invasive antenatal tests become used more widely in the NHS (Silcock et al., 2014).

Midwives might consider it particularly important that they communicate well with men and women who have had previous miscarriages, and are anxious and/or at risk of future miscarriages. Engaging these men could be difficult if prior experiences have eroded their trust in screening and have made them reluctant to bond with the fetus. Medical intervention is probably inappropriate to help these men prepare men for fatherhood (Draper and Ives, 2013) and for them, the hopes of the UK government (DBIS, 2011), that seeing an ultrasound scan can elicit bonding and involvement, are likely to be unrealistic. Indeed, bonding may not be beneficial if pregnancy loss is a possibility (Katz-Rothman, 1994; redacted). How such men could be engaged in pregnancy is beyond the scope of this paper, and merits further research.

Conclusion

We aimed to find out what men who attend antenatal appointments wanted from screening and from midwives. Although most of the findings pertained to antenatal screening, some insight has also been gained into what men want from midwives in more general antenatal care. Men wanted to attend antenatal screening appointments, yet were happy to be bystanders and were not eager to seek information about screening. In complicated pregnancies, men wanted to be more actively involved and to have their opinions recognised by midwives. But by voicing opinions, even if they were their partners' opinions, a small minority of men felt they were eyed with suspicion, and viewed as potentially controlling. Others felt hesitant to trust results of screening due to previous pregnancy losses. These are difficult scenarios for midwives, as well as men, to face. Thus future research and training should focus on how to improve communication between midwives, men and women. A larger, prospective study with a cross-section of diverse participants is required, and our research is continuing so that we can expand on some of our assertions.

Conflict of interest

No conflict of interest.

Acknowledgements

Thank you to all the men who participated in this study and the midwives who kindly gave up their time to help with recruitment. Thanks also to the three anonymous reviewers for their incredibly helpful pointers.

References

Åhman, A., Lindgren, P., Sarkadi, A., 2012. Facts first, then reaction – expectant fathers' experiences of an ultrasound screening identifying soft markers. Midwifery 28, e667–675.
Ahmed, S., Bryant, L.D., Cole, P., 2013. Midwives' perceptions of their role as facilitators of informed choice in antenatal screening. Midwifery 29, 745–750.
Ahmed, S., Bryant, L.D., Tizro, Z., Shickle, D., 2012. Is advice incompatible with autonomous informed choice? Women's perceptions of advice in the context of antenatal screening: a qualitative study. Health Expect. 17 (4), 555–564. http://dx.doi.org/10.1111/j.1369-7625.2012.00784.x.
Aune, I., Moller, A., 2012. 'I want a choice, but I don't want to decide': a qualitative study of pregnant women's experiences regarding early ultrasound risk assessment for chromosomal anomalies. Midwifery 28, 14–23.
Barr, O., Skirton, H., 2013. Informed decision making regarding antenatal screening for fetal abnormality in the United Kingdom: a qualitative study of parents and professionals. Nurs. Health Sci. 15, 318–325.
Bjerke, T.N., 2010. When my eyes bring pain to my soul, and vice versa: facing preconceptions in email and face-to-face interviews. Qual. Health Res. 20, 1717–1724.
Bronte-Tinkew, J., Ryan, S., Carrano, J., 2007. Resident fathers' pregnancy intentions, prenatal behaviors, and links to involvement with infants. J. Marriage Fam. 69, 977–990.
Browner, C.H., Preloren, H.M., 1999. Male partners' role in Latinas' amniocentesis decisions. J. Genet. Couns. 8, 85–108.
Butera, K.J., 2006. Manhunt: the challenge of enticing men to participate in a study on friendship. Qual. Inq. 12, 1262–1282.
Cabrera, N.J., Fagan, J., Farrie, D., 2008. Explaining the long reach of fathers' prenatal involvement on later paternal engagement. J. Marriage Fam. 70, 1094–1107.
Carroll, F.E., Owen-Smith, A., Shaw, A., et al., 2012. A qualitative investigation of the decision-making process of couples considering prenatal screening for Down syndrome. Prenat. Diagn. 32, 57–63.
Corbin, J., Strauss, A., 2008. Basics of Qualitative Research, 3rd edn. Sage, London.
Department of Business, Innovation and Skills, 2011. Modern Workplaces Consultation. London, DBIS. ⟨https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31551/11-699-3-consultation-modern-workplaces-parental-leave.pdf⟩ (last accessed 19 March 2014).
Docherty, A., Bugge, C., Watterson, A., 2012. Engagement: an indicator of difference in the perceptions of antenatal care for pregnant women from diverse socio-economic backgrounds. Health Expect. 15, 126–138.

Dormandy, E., Reid, E., Tsianakas, V., et al., 2012. Offering antenatal sickle cell and thalassaemia screening in primary care: a pre-post evaluation of a brief type of communication skills training. Patient Educ. Couns. 89, 129–133.
Draper, J., 2002. 'It's the first scientific evidence': men's experience of pregnancy confirmation. J. Adv. Nurs. 39, 563–570.
Draper, H., Ives, J., 2013. Men's involvement in antenatal care and labour: rethinking a medical model. Midwifery 29, 723–729.
Ekelin, M., Crang-Svalenius, E., Dykes, A.-K., 2004. A qualitative study of mothers' and fathers' experiences of routine ultrasound examination in Sweden. Midwifery 20, 335–344.
Ekelin, M., Crang-Svalenius, E., Nordstrom, B., Dykes, A.-K., 2008. Parents' experiences, reactions and needs regarding a nonviable fetus diagnosed at a second trimester routine ultrasound. J. Obstet. Gynecol. Neonatal Nurs. 37, 446–454.
Fontes, T.O., O'Mahoney, M., 2008. In-depth interviewing by Instant Messaging. Social Research Update 53. ⟨http:/sru.soc.surrey.ac.uk/SRU53.pdf⟩ (last accessed 22nd May 2014).
Fransen, M.P., Schoonen, M.H., Mackenbach, J.P., et al., 2010. Ethnic differences in participation in prenatal screening for Down syndrome: a register-based study. Prenat. Diagn. 30, 988–994.
Genesoni, L., Tallandini, M.A., 2009. Men's psychological transition to fatherhood: an analysis of the literature, 1989–2008. Birth-Issues Perinat. Care 36, 305–318.
Gottfreðsdóttir, H., Sandall, J., Björnsdóttir, K., 2009a. 'This is just what you do when you are pregnant': a qualitative study of prospective parents in Iceland who accept NT screening. Midwifery 6, 711–720.
Gottfreðsdóttir, H., Björnsdóttir, K., Sandall, J., 2009b. How do prospective parents who decline prenatal screening account for their decision? A qualitative study. Soc. Sci. Med. 69, 274–277.
Green, J., 1999. What is this thing called 'control'? Birth-Issues Perinat. Care 26, 51–52.
Guest, G., Bunce, A., Johnson, L., 2006. How many interviews are enough?: An experiment with data saturation and variability. Field Methods 18, 59–82.
Hildingsson, I., Sjöling, M., 2011. Fathers' experiences of support during pregnancy and the first year following childbirth-findings from a Swedish regional survey. J. Mens Health 8, 258–266.
Ivry, T., Teman, E., 2008. Expectant Israeli fathers and the medicalised pregnancy: ambivalent compliance and critical pragmatism. Cult. Med. Psychiatry 32, 358–385.
Jowett, A., Peel, E., Shaw, R., 2011. Online interviewing in psychology: reflections on the process. Qual. Res. Psychol. 8, 354–369.
Katz-Rothman, B., 1994. The Tentative Pregnancy: Amniocentesis and the Sexual Politics of Motherhood. Pandora, New York, NY.
Kazmer, M.M., Xie, B., 2008. Qualitative interviewing in internet studies: playing with the media, playing with the method. Inf. Commun. Soc. 11, 37–41.
Lincoln, Y.S., Guba, E.G., 1985. Naturalistic Inquiry. Sage, Newbury Park, CA.
Locock, L., Alexander, J., 2006. 'Just a bystander'? Men's place in the process of fetal screening and diagnosis. Soc. Sci. Med. 62, 1349–1359.
Mason, M., 2010. Sample size and saturation in PhD studies using qualitative interviews. Forum: Qual. Soc. Res. 11.
May, C., Fletcher, R., 2013. Preparing fathers for the transition to parenthood: recommendations for the content of antenatal education. Midwifery 29, 473–478.
Markens, S., Browner, C.H., Preloran, H.M., 2003. 'I'm not the one they're sticking the needle into': Latino couples, fetal diagnosis, and the discourse of reproductive rights. Gend. Soc. 17, 462–481.
Novick, G., 2008. Is there a bias against telephone interviews in qualitative research? Res. Nurs. Health 31, 391–398.
Opdenakker, R., 2006. Advantages and disadvantages of four interview techniques in qualitative research. Forum: Qual. Soc. Res. 7, 11 (last accessed 22nd May 2013) ⟨http:/www.qualitative-research.net/index.php/fqs/article/view/1428⟩.
Pieters, J.J.P.M., Kooper, A.J.A., Eggink, A.J., et al., 2011. Parents' perspectives on the unforeseen finding of a fetal sex chromosomal aneuploidy. Prenat. Diagn. 31, 286–292.
Pilnick, A., Zayts, O., 2012. 'Let's have it tested first': choice and circumstances in decision-making following positive antenatal screening in Hong Kong. Sociol. Health Illn. 34, 266–282.
Reed, K., 2009a. 'It's them faulty genes again': women, men and the gendered nature of genetic responsibility in prenatal blood screening. Sociol. Health Illn. 31, 343–359.
Reed, K., 2009b. Fathers' involvement in antenatal screening: midwives views. Br. J. Midwifery 17, 218–222.
Reed, K., 2011. Making men matter: exploring gender roles in prenatal blood screening. J. Gend. Stud. 20, 55–66.
Rowe, R., Puddicombe, D., Hockley, C., et al., 2008. Offer and uptake of prenatal screening for Down syndrome in women from different social and ethnic backgrounds. Prenat. Diagn. 28, 1245–1250.
Royal College of Midwives, 2011. Reaching Out: Involving Fathers in Maternity Care. RCM, London.
Sandelowski, M., 1994. Separate, but less unequal: fetal ultrasonography and the transformation of expectant mother/fatherhood. Gend. Soc. 8, 230–245.
Silcock, C., Liao, L.-M., Hill, M., Chitty, L.S., 2014. Will the introduction of non-invasive prenatal testing for Down's syndrome undermine informed choice? Health Expect. , http://dx.doi.org/10.1111/hex.12159.
Skirton, H., Barr, O., 2009. Antenatal screening and informed choice: a cross-sectional survey of parents and professionals. Midwifery 26, 596–602.
Sjögren, B., 1992. Future use and development of prenatal diagnosis. Consumers' attitudes. Prenat. Diagn. 12, 1–8.
Steen, M., Downe, S., Bamford, N., Edozien, L., 2012. Not-patient and not-visitor: a metasynthesis fathers' encounters with pregnancy, birth and maternity care. Midwifery 28, 422–431.
Stenson, K., Sidenvall, B., Heimer, G., 2005. Midwives' experiences of routine antenatal questioning relating to men's violence against women. Midwifery 21, 311–321.
Wätterbjörk, I., Blomberg, K., Nilsson, K., Sahlberg-Blom, E., 2012. Pregnant women's and their partners' perception of an information model on prenatal screening. Prenat. Diagn. 32, 461–466.
Zvara, B.J., Schoppe-Sullivan, S.J., Dush, C.K., 2013. Fathers' involvement in child health care: associations with prenatal involvement, parents' beliefs, and maternal gatekeeping. Fam. Relat. 62, 649–661.