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MIDWIVES' PERCEPTION OF THEIR ROLE IN PROVIDING ANTENATAL ASTHMA MANAGEMENT IN AUSTRALIA – A QUALITATIVE STUDY.

Abstract

International guidelines recommend a collaborative approach to the care of pregnant women with asthma. Midwives, as the primary health care provider for childbearing women should be viewed as collaborative partners in the provision of antenatal asthma management. However, the role of the midwife in providing antenatal asthma management has not been widely reported.

Method: Australian midwives' perceived role in antenatal asthma management was studied using a qualitative descriptive method. Semi-structured in-depth interviews were conducted with 13 midwives working in a regional tertiary hospital. Morse and Field's four-stage process was used to analyse the data.

Findings: The perceived role of the midwife in antenatal asthma management varied among participants. Some midwives stated their role was to refer women on to other health professionals. Other midwives stated that they should provide education to the women regarding their asthma management during their pregnancy.

Conclusion: Participants were uncertain about their role and lacked confidence in antenatal asthma management. The model of care the midwife was working in and the resources available to them at this health care facility appeared to influence the perception of their role.

Introduction

In Australia the midwife is defined as a health professional who, “works in partnership with women and their families to give the necessary support, care and advice during pregnancy” (Australian College of Midwives, 2004, p.1). Scientific evidence, experience and intuition form the basis of midwifery practice and collaboration and consultation with other health professionals is considered to be part of the midwife’s role.

The philosophical underpinnings and definition of the midwife’s role is clearly described by professional bodies (Australian College of Midwives, 2004; International Confederation of Midwives, 2011; The Royal College of Midwives, 2001). National competency standards, codes of professional conduct and ethics, and various position statements and guidelines are also published for midwives in Australia and these documents form the framework for assessing competence and practice of the midwife (Australian Nursing and Midwifery Accreditation Council, 2010).

The extension and enhancement of the provision of primary care by midwives in Australia is being examined due to research reporting that women are requesting more choices in primary care and this includes continuity of carer and an individualised approach to care (Lumley, 2000). There is also evidence that midwifery-led continuity of care models are cost effective and safe options for women of all-risk during pregnancy (Sandall et al., 2013). Advanced practice levels in the midwifery workforce that allow midwives to work autonomously, and critical workforce shortages which demand the efficient utilisation of skilled maternity care providers whilst matching the needs of the women and families requiring antenatal care, are also leading to an expansion of the midwife’s role (Australian Health Ministers’ Advisory Council, 2008).

In the Australian Nursing and Midwifery Accreditation Council’s National Competency Standards for the Midwife (2010), there is an emphasis on primary health care and consequently it is necessary for the midwifery profession to view itself as a public health strategy and resource. Bradley (2010) states that midwives are well placed to influence the health and wellbeing of women and children and should therefore see their role in the context of public health in the UK. Biro (2011) also states that midwives regularly provide public health interventions and health promotion messages to pregnant women. Johnson (2007) reports that midwives in the UK are aware of the need for further public health screening and attention to particular social problems, but identify barriers such as the lack of time and resources available to midwives in order for them to effectively address these issues.

The public health issue of asthma in pregnancy has not previously been reported in regard to the role of the midwife. Asthma continues to be one of the most common potentially serious conditions that complicates pregnancy with approximately 12.7% of pregnant women in Australia affected by it (Sawicki et al., 2011). Evidence emerging in the literature demonstrates that if asthma is well managed throughout pregnancy, adverse maternal and foetal outcomes such as maternal hypertension, pre-term birth and low infant birth weight can be reduced (Schatz 1995; Murphy et al., 2006; Murphy et al., 2011). The clinical course of asthma during pregnancy is unpredictable, making management challenging (Kircher et al., 2002). The goal of effective asthma management during pregnancy is the prevention of exacerbations, which can cause hypoxic episodes in the mother and reduce oxygen to the foetus.

The recommended management of asthma during pregnancy is outlined in the guidelines developed by the National Asthma Education and Prevention Program [NAEPP] (National Heart Lung and Blood Institute, 2007). The National Asthma Council of Australia [NAC] (2014) has also produced evidence-based guidelines addressing antenatal asthma management. These guidelines recommend a holistic and collaborative approach to management, suggesting cooperation between all health professionals involved in the pregnant woman's care. Women with asthma should be offered regular asthma review every 4-6 weeks. Pharmacological treatment of asthma should be the same as treatment for the non-pregnant woman. Women should be educated to minimise exposure to their asthma triggers and seek prompt management of exacerbations during pregnancy (NAEPP 2007; NAC 2014).

Recently, Lim et al. (2014) evaluated a multidisciplinary approach to the management of maternal asthma in Australia, focusing on management by general practitioners (GP's), pharmacists and asthma educators. Midwives were not included in this study. Other public health issues have been examined in relation to midwives' provision of antenatal management, including provision of listeria education (Bodarianzadeh et al., 2011) and oral health education (George et al., 2011). The perceived role of the midwife in relation to these health issues varied between midwives with some stating their role was to educate women regarding the health issue and others who felt their role was to refer women to other health professionals.

The importance of effective antenatal asthma management for the mother and baby and the limited research addressing antenatal asthma management by midwives and their perceived role and

responsibilities when working with women with asthma, resulted in this study to examine midwives' knowledge about asthma in pregnancy and their perceived role in antenatal asthma management. The data from this study about midwives knowledge about asthma in pregnancy has been reported in a separate paper (McLaughlin, Kable, Ebert & Murphy 2015).

Aim

The aim of this paper is to examine midwives perceived role in antenatal asthma management.

Method

A qualitative descriptive study design was used. The study was conducted in the antenatal clinic of a large tertiary referral public hospital in regional NSW, Australia. The antenatal clinic is managed by a midwifery unit manager and a midwifery team leader who co-ordinate the various clinics on a daily basis. Approximately 50 women per day are provided with care in the antenatal clinic at the hospital where this study was conducted. Many more are seen in community outreach clinics, which are available to women who live some distance from the facility and require antenatal care in their community. Various midwifery and obstetric models of care are coordinated from this clinic setting.

A purposive maximum variation sampling technique was used in order recruit midwives in the clinical setting. The use of this sampling technique allowed the recruitment of midwives engaged in antenatal care provision from various models of practice. Data were collected through a series of individual semi-structured interviews. These interviews occurred in 2012 over a 6 month period. Data were collected from a total of 13 consenting participant midwives. During the interviews the researcher also documented field notes. Interviews were digitally recorded and subsequently transcribed and de-identified using participant identification numbers. Member-checking occurred when the interview transcripts were returned to the participants to confirm their accuracy.

The data analysis process described by Morse and Field (1996) was used. This process allows the researcher to become immersed in the data and continually work through four stages in order to maximise understanding of the data. The stages of this process include: *Comprehending* or 'making sense' of the data; *Synthesising* or further exploring the data in order to identify recurrent words and comments; *Theorising*, whereby the relationships between the words and comments are identified and categories and sub-categories are emergent from the data, and *Recontextualising*, which further develops the emergent categories and sub-categories and considers these in relation to the established knowledge of the topic. A more detailed description of this data analysis process is

reported in the previous publication discussing midwives knowledge about asthma in pregnancy (McLaughlin et al 2015).

To ensure rigour, various strategies to maintain trustworthiness were used. An audit trail was documented and transferability was supported by the provision of a rich description of the study setting. To demonstrate that the research findings are grounded in the data, quotes from the interviews are used. Analyses of these data were also peer reviewed by qualitative experts.

The Hunter New England Area Health Service Human Research Ethics Committee (HREC) and the University of Newcastle HREC granted ethical approval for this study.

Findings

Analysis of these data resulted in identifying four main categories and 12 sub-categories. One of the main categories was the perceived role of the midwife in antenatal asthma management. The associated sub-categories identified were *Midwives' role as educator in asthma management* and *Midwives' role as referrer of pregnant women with asthma to other health professionals*. Additional findings are reported in other papers (McLaughlin et al 2015).

Midwives' perceived role in antenatal asthma management

Initially interview participants were asked, **"What do you perceive your role to be in antenatal asthma management?"** Their responses indicated a lack of clarity about their perceived role. Some participants found it difficult to state specifically what they felt their role was in antenatal asthma management. Participant 9 stated,

"I don't think we have one [a role]...I really don't think we have one...because we don't know what we need to do." Participant 12 suggested that, "I don't think it [our role] is a lot at the moment but I think it should be more, it could be more."

Confusion and frustration regarding the midwives' perceived role was evident as participants made comments such as,

"our role is to educate...it is our role to educate women in regards to all aspects of their pregnancy and asthma being one of those [aspects]" (Participant 4), but then she continued by saying, "I don't have enough knowledge to educate [regarding asthma]...I would not put myself in that role to even pretend to educate. I would just immediately refer on."

Other participants acknowledged that their role included elements of educating women about asthma in pregnancy and referring women to other health professionals for further asthma management. Participant 7 demonstrated this when she stated that she would “*educate, refer and maintain that they [the women] are doing the right thing.*” Participant 5 also felt that her role included “*Educating, hopefully helping them [the women] and referring on if needed.*”

Participant 13 considered that her role included,

Health promotion, referral and education about their [the woman's] asthma and their asthma management and ensuring that they've had recent reviews of the medications they might be on...and so it would be a referral role for me if I identified someone who seemed to be having exacerbation of their asthma at the time...but other than that, providing information and education and encouragement to go to the GP and have an asthma plan made for their pregnancy.

Another role mentioned by one participant was that of advocacy. Participant 6 stated that,

My role is to try to make sure that whatever- um-...medication regime she's [the pregnant woman] on that she's doing it, and if she is, then is it adequate and if it's not then to seek medical advice to change it, or to do whatever to improve her treatment...basically be the advocate for her to just make sure that things are going along as best they can and then getting...more advice if it's not.

Midwives' role as educator in asthma management

A number of participants mentioned that they perceived their role in antenatal asthma management to be a provider of asthma management education to pregnant women with asthma. Some of these participants' comments were more definite than others about whether or not midwives had a role as educators about asthma management. Participant 1, for example was emphatic when she stated that,

“The role is to educate them [the women] as much as I know and if not, seek knowledge [to enable me] to educate ‘em (sic).”

Another participant appeared less clear about what this role in asthma management was, stating that the midwives' role was

“not a specific one but I think generally if someone identifies [as having] asthma my duty of care is to tell them that...you know, it might be exacerbated by the pregnancy and to make sure they don’t overlook it” (Participant 3).

While also stating that midwives have a role as educators about asthma two participants related this specifically to education concerning the use of asthma medications. For example, Participant 5 stated that her current perceived role was to educate;

“Hopefully helping them, helping just basically maintain [their current asthma management, if adequate] and educate. Let them know it’s safe to be on medication and it’s better for them [to be on medication if required].”

A second participant, when suggesting her role was to ensure that women had a general awareness of the possible significance of asthma during their pregnancy, also connected her comments with the need for women to be discerning about what medication they can take during pregnancy. Thus, Participant 1 stated that she would,

“try and make them [the women] aware about exacerbation of asthma...put ‘em in tune with it...if the exacerbation comes... and what medications they [the women] can take when they’re pregnant and the people they need to be linked in to...so not particularly treating them but being aware of the treatments.”

Although some midwives identified that they had a role as educators about asthma in pregnancy, they also expressed a lack of confidence about whether they had enough knowledge to carry out this role. Illustrating this, one midwife, Participant 4, said,

“Definitely it is our role to educate women in regards to all aspects of their pregnancy and asthma...I don’t think I have enough knowledge to educate...I would not put myself in that role to even pretend to educate. I would just immediately refer on.”

Participant 8 also suggested,

“You are just going to refer them on because you don’t want to give them the wrong advice.”

Midwives’ role as referrer of pregnant women with asthma to other health professionals.

Overwhelmingly the participants stated that their role was to refer the women they encountered in the antenatal clinic, who identified as having asthma, on to a medical practitioner or “other people that are cleverer and know far more about it [asthma]” (Participant 8).

Lack of knowledge was cited as the main catalyst for the midwives’ referral role in the management of asthma in pregnant women, which was illustrated in one Participant’s comment that:

I don’t think I’ve had enough asthma education training as a health provider to give out education as far as asthma’s concerned. I would explain to them [the woman] that...you know, the reasons why I’m referring them and talk to them about their asthma and perhaps talk to their GP in regards to a management plan and things like that but as far as actually initiating anything I don’t think that’s my position (Participant 11).

Other participants simply stated that they would

“automatically refer...maybe identify it [asthma] and then refer because I don’t know enough about it [asthma] to manage it” (Participant 4) and *“I have to refer ‘em (sic) on”* (Participant 9).

Participant 4 also commented that she would,

“Identify, refer and then go onto the next one [woman]” implying that there may also be a lack of time to deal with women with a potential complication of pregnancy such as asthma.

Participant 12 discussed her perceived role in the management of asthma in pregnant women, to be that of

“referral and just picking up those people that have fallen along the wayside [i.e that may not have had adequate asthma management prior to seeing this midwife].”

Participant 8 stated,

I feel my role is to find out how her [the woman’s] asthma is, what her medications are, find out who she actually sees for her asthma, does she have an asthma management plan and if she doesn’t have those things either get her to see a consultant or get her referred onto the respiratory people so they can link her up to have some sort of asthma management plan.

When prompted further in the interview about whether or not the provision of asthma education for staff would influence the midwives' role, one participant stated that

"I still think it's a referral system for us [the midwife] because it [asthma] does put them [the women] at a high risk for their pregnancy...so they would still need to have a consultation with one of the registrars or a doctor at least" (Participant 11).

The issue of model of care was raised when participants were asked, **"Do you feel that you're able to give good asthma care?"** Participant 9 responded,

No! Because I have to refer 'em [sic] [the women] on and that's not the whole idea of midwifery at this moment in time. I mean you want to be keeping it [pregnancy management] with the midwifery care providers and give that continuity and I think you've got to be able to do that with asthma as well. It's a lack of knowledge on my part –um- and you hope to be able to support all women.

Discussion

The role of the midwife was discussed in the literature (Brodie 2002; Homer et al., 2007), where midwives in Australia recognised the need for evidence-based and up-to-date information to be given to women in the antenatal period. They concluded that the midwifery role included building a respectful relationship with the woman and her family, providing continuity of carer and also undertaking effective referral and consultation when required.

The midwives participating in this study indicated an awareness of the philosophy underpinning their professional practice. This is evident in responses about the role including comments about, *"Health promotion, referral and education."* They also mentioned the need to maintain an up-to-date knowledge base on all aspects of pregnancy and birth and factors that may influence women and their families. Some participants expressed the need for continuity of carer to facilitate a more holistic approach to the women's antenatal care.

The majority of study participants were not currently working in a continuity of carer midwifery model. They were working in a model of care where they would meet the woman for the first time at a 'booking in' visit and then may not meet that woman again during her pregnancy. The role of the midwife in this instance should be to identify and address any health issues which may be affecting the woman and her family during this pregnancy. If asthma was identified as an issue for the pregnant woman the midwife should be able to educate the woman about the need to

acknowledge asthma as a potential complication of her pregnancy and offer referral to appropriate services.

Seeing the woman regularly throughout her pregnancy, rather than a one off visit, would allow the midwife to build a greater rapport with the woman and her family. The midwife would also have more time to educate the woman regarding her asthma and could observe any changes in the woman's symptoms throughout the pregnancy. A continuity of carer model would also allow the midwife time to correct any knowledge deficit she may have in regard to asthma management during pregnancy and to consult with other health professionals if required.

There appeared, however, to be internal conflict for some midwives when discussing the role midwives should adopt in the care of women antenatally. The conflict involved the midwives having the perception that their midwifery role should include provision of continuity of carer, health promotion, education and referral to, or consultation with other health professionals if necessary. However, the participants felt unable to fulfil their perceived role due to not having enough knowledge about asthma in pregnancy; having limited time to spend with women and not having clear referral pathways. Many of the barriers midwives identify are associated with the institutional context in which they work (McLaughlin et al 2015). These findings were similar to those expressed by Johnson (2007) when discussing midwives' public health role in the UK and it was found that midwives expressed their awareness of the need for further public health screening and attention to particular social problems, but also raised the problem of the lack of time and resources with which to effectively address these issues.

The National asthma Council [NAC] produced the Australian Asthma Handbook (available online <http://www.nationalasthma.org.au/handbook>.) in 2014 which outlines clearly the recommended advice to be given to pregnant women with asthma. This advice is presented in figure 1 below:

Figure 1. National Asthma Council recommendations for antenatal asthma management.

<ul style="list-style-type: none">• Offering regular asthma review and advice about asthma control during pregnancy
<ul style="list-style-type: none">• Arranging vaccinations (influenza, pertussis) according to current national recommendations for pregnant women
<ul style="list-style-type: none">• Advising women who smoke to quit, and offer support
<ul style="list-style-type: none">• Providing an individualised written asthma action plan
<ul style="list-style-type: none">• Advising pregnant women that:
- asthma control and severity can change during pregnancy

- good asthma control during pregnancy is a high priority
- treatment may need to change from time to time to maintain good asthma control
<ul style="list-style-type: none"> • Encouraging women to remain on prescribed asthma medications
<ul style="list-style-type: none"> • Providing reliable information about asthma and health during pregnancy
<ul style="list-style-type: none"> • Reassuring women that acute asthma rarely occurs during labour and delivery

Lack of midwife confidence in providing asthma education and/or referral to other health professionals was identified in this study and needs to be addressed. A recent UK study that examined pregnant women's experiences of asthma care, also suggested that the women felt that the midwives concentrated more on the pregnancy and areas they were confident about and lacked knowledge regarding asthma in pregnancy (Chamberlain, Williamson, Knight, Daly & Halpin 2014). There is a need for role clarity and for midwives to articulate their role in contributing to the adoption of the NAC guidelines (NAC 2014).

Implications for education

The need for asthma management education in undergraduate midwifery programs and ongoing education of midwives is evident from the study findings. Examining the content of undergraduate midwifery programs such as the Bachelor of Midwifery would be important in ensuring that student midwives acknowledge public health care as part of their role and that specific health topics such as asthma in pregnancy are being addressed in the curriculum.

Facilitation of education and discussion surrounding the ability for all midwives to provide public health care and what this could look like in various models of care or institutions is required.

Further education to increase awareness of resources available to all health professionals such as the NAC Australian Asthma Handbook (2014) and information pamphlets produced by the Asthma Foundation of NSW (2006) would also potentially increase midwives' confidence in educating pregnant women about asthma in pregnancy.

Implications for clinical practice

An improved awareness of the midwife's role in the provision of antenatal asthma management would lead to a change in the 'booking in' process. Public health issues could be identified through information gathered prior to the 'booking in' visit. If asthma was identified as an issue for this woman prior to the first antenatal visit then the midwife or health professional caring for the woman could make sure the appropriate resources are available. The identification of any other

public health issues such as obesity, mental health or smoking could also prepare the midwife to provide health promotion for these issues. This approach of identifying health issues prior to the first antenatal visit could reduce the time taken identifying issues and then searching for resources.

One resource that needs to be available is a clear referral pathway. This pathway would need to be transferable or adapted to the varying models of care that the woman may encounter. Establishing a lead carer could ensure consistency of asthma management. Availability of educational resources such as pamphlets for health professionals and pregnant women would also be important to ensure ongoing evidence-based information and education was being disseminated.

Implications for future research

Further examination of the midwives' role in regard to asthma and other public health issues would help address a possible deficit in the midwives' perception of their role in the area of public health.

Examining more thoroughly the perceived role of the midwife in antenatal asthma management from the pregnant woman's perspective would also be interesting. Examining if this perception differed depending on the model of care the woman and midwife were involved in would also add to the body of knowledge about the role of the midwife working in various models of care.

Study limitations

Participants were recruited from one regional, tertiary health-care facility and the sample size was relatively small. Transferability of results to urban or remote rural settings may be limited.

Study strengths

The perceived role of midwives in antenatal asthma management has not been previously reported therefore this study highlights the need for further development of the midwives' role in public health issues.

All midwives providing antenatal asthma management in the health care facility were given the opportunity to participate in this study. Documenting an audit trail, ensuring peer review of data and member-checking ensured rigour was maintained in this study.

Conclusion.

Some midwives providing antenatal care to women with asthma are unsure about their role. A number of midwives perceive their role is to address the public health issues and educate the woman and her family appropriately. Other midwives perceive that their role is to refer women to

other health professionals so that the issue of asthma can be addressed. Further resources such as improved education about the role of the midwife, and also about asthma in pregnancy; availability of educational resources and the development of a transferable referral pathway would help clarify the midwives role in antenatal asthma management and potentially contribute to better outcomes for pregnant women.

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