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Research Note

An empirical investigation into beliefs about collaborative practice among maternity care providers

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Abstract

Objective. To investigate agreement with the National Health and Medical Research Council (NHMRC) definition of collaboration in maternity care by care providers, and to examine their preferences for models of care in order to shed light on the lack of success in implementing collaborative practice.

Methods. Maternity care providers completed a survey in Queensland. The final sample consisted of 337 participants, including 281 midwives (83.38%), 35 obstetricians (10.39%), and 21 general practitioners (6.23%).

Results. Ninety-one percent of the participants agreed with the NHMRC definition of collaboration: Midwives ($M = 5.97$, s.d. = 1.2) and doctors (obstetricians and general practitioners: $M = 5.7$, s.d. = 1.35) did not differ significantly in their level of agreement with definition (t (332) = –1.8, $P = .068$). However, 72% of doctors endorsed a doctor-led model of care, whereas only 6.8% of midwives indicated agreement with it. Fewer (56%) doctors agreed with the midwife-led model of care, whereas 99.3% of midwives endorsed it.

Conclusion. The concept of collaboration does not recognise the different interpretations by midwives and doctors of its impact on their roles and behaviours. Successful collaborative practice requires the development of guidelines that recognise these differences and specify the communication behaviour that would assist midwives and doctors to practice collaboratively.

What is known about the topic? Across all healthcare contexts effective communication is a critical part of good patient care. Effective communication refers to communication between care providers and patients but also between different interprofessional care providers. In the area of maternity care one aspect of effective communication between maternity care providers is collaborative care. This paper highlights why collaborative care and effective communication between maternity care providers is lacking. We demonstrate that the NHMRC guidelines are interpreted differently according to the different professional role of the maternity care provider.

What does this paper add? This paper empirically investigates the perceptions of maternity care providers. It shows that each maternity care profession has a different understanding about what collaboration means in practice. This paper acknowledges these different perceptions, which are usually not noted, and builds on this fact to improve effective communication and bring about collaborative care.

What are the implications for practitioners? In this paper, we highlight that while maternity care practitioners all aspire to collaborative care, their perceptions of what collaborative care actually means differs according to professional role. For practitioners to move forward they must develop guidelines that take account of the respective philosophies and levels of different expertise each maternity care profession brings to a woman's care. The guidelines will assist obstetricians and midwives to recognise their unique and specific areas of expertise, each of which may be required at different times according to a woman's medical needs. This new approach to interprofessional differences will bring about trust and respect and assist collaborative care.

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Introduction

The complexities around providing maternity care to women have led to recommendations for collaborative models of care internationally.[1–6] Professional associations of maternity care providers recognise that collaborative care ensures the best outcomes for pregnant women.[7,8] Nevertheless, collaboration in practice is the exception rather than the rule.[9,10] Inconsistencies in interpretation and application of collaboration between doctors and midwives may be one reason collaborative practice does not occur.[11,12] Adding further complexity to the application of collaborative practice is the current call for maternity providers to adopt a stronger woman-centred focus[7,8] and the requirement for midwives to obtain the written support of a doctor to indicate collaborative arrangements before women can access Medicare rebates for care from a midwife.[13]

Doctors and midwives occupy different professional roles and subscribe to different philosophies of maternity care.[14–16] The National Health and Medical Research Council (NHMRC)[17] provides a definition of collaboration to promote cooperation between maternity care providers. In this study we investigated how different professions and their philosophies of care affect their interpretation of this definition, and the consequent impact on their ability to provide collaborative care. To this end we put forward two research questions:

(1) To what extent do maternity care providers in Australia agree with a shared definition of collaboration (the NHMRC definition)?
(2) What are professionals' preferences for models of care?

Methods

An online and paper-based survey was developed from a literature review and previous surveys. The data for the survey were collected between February and May 2010. Some items were adapted from Klein *et al*.[16] and Ødegård.[18] Survey items measured experiences of collaboration, preferences for philosophies of care, current collaboration practices in the workplace, and demographic variables. Improved content validity was obtained through a pilot study, interviews, and expert evaluation and critique. Fourteen items in the survey were related to the research questions in this paper. Participants rated their level of agreement with each statement on a seven-point Likert scale.

Participants rated their agreement with the NHMRC definition of collaboration and its relevance as a definition of collaborative maternity care in Queensland. A seven-item scale measured participants' preferences for a doctor-led (usually obstetrician) model of care (example statement: D*octors should review all women in labour*). Internal reliability for this scale was acceptable (Cronbach's $\alpha = 0.84$). Another 6-item scale measured participants' preferences for a midwife-led model of care (example statement: *Obstetricians should care for high-risk or complicated pregnancies only*). Internal reliability for this scale was acceptable ($\alpha = 0.83$).

The main method of data collection was a web-based survey sent through professional association member lists. To improve obstetricians' and general practitioners' (GPs)' response rates, publicly available postal addresses were also used to mail paper surveys.[19,20] Maternity care providers were encouraged to forward the web-based survey link or to photocopy paper surveys for colleagues. The final sample consisted of 281 midwives (83.38%), 35 obstetricians (10.39%), and 21 GPs (6.23%; $n = 337$) practising in Queensland maternity care.

The survey followed normal ethics protocol, and no confidential data were received. No incentive was given to complete the survey. Completion of the survey was taken as an indicator of consent to participate. Ethics approval was granted by the University of Queensland Medical Research Ethics Committee (Consent No. 2009001651).

We used SPSS Statistics version 17.0[21] to conduct all analyses.

Results

Table 1 presents the data for the maternity care providers' agreement with NHMRC definition of collaboration and their views on models of care. As can be seen, the scales for midwife-led and doctor-led care, and the item for agreement with collaboration, were all negatively skewed; all kurtosis levels deviated significantly from zero. Testing the standardised scores (z-scores) of the variable skews and kurtosis revealed that all skews were extreme, and only the kurtosis for a doctor-led model of care fell within the standard deviation parameters of ± 3. To address these issues, logarithmic transformations were performed on these variables. These transformations did not change the pattern of significant results compared with analyses using non-transformed variables. Hence the untransformed variables are presented here.

No significant differences were found between GPs and obstetricians in their responses to any items in this study. Thus, to improve the power of the analyses, these two groups were combined and redefined as doctors. Independent samples t-tests were conducted for the scaled variables.

Definition of collaboration

SPSS Crosstabs was run to identify agreement by participants that the NHMRC definition of collaboration is appropriate for use in Queensland maternity care. Ninety-one percent of the participants agreed with the definition at some level. Midwives ($M = 5.97$, s.d. = 1.2) and doctors ($M = 5.7$, s.d. = 1.35) did not differ significantly in their level of agreement with the definition (t (332) = –1.8, $P = 0.068$)

Table 1. Descriptive statistics of variables

	Agreement with NHMRC definition of collaboration	Midwifery approach to care	Medical approach to care
N for variable	334	334	334
Mean (s.d.)	5.92 (1.19)	3.15 (1.27)	5.93 (1.02)
Median	6	2.86	6.17
Mode	6	2.71	7
Minimum	1	1	1.83
Maximum	7	6.71	7
Range	6	5.71	5.17
Skewness (SE)	–2.73 (0.13)	0.67 (0.13)	–1.39 (0.13)
Kurtosis (SE)	7.11 (0.27)	–0.21 (0.27)	2.01 (0.27)

Doctor-led model of care

Seventy-two percent of doctors agreed at some level with the doctor-led model of care, whereas only 6.8% of midwives indicated some agreement with this model of care. Doctors ($M = 5.0$, s.d. = 0.9) were significantly more likely than were midwives ($M = 2.8$, s.d. = 1.0) to agree with a doctor-led approach to care (t (332) = 15.2, $P = 0.001$). The magnitude of the difference in the means (mean difference = 2.2, 95% CI: 1.9 to 2.5) was large (eta^2 = 0.410).

Midwife-led model of care

Fifty-six percent of doctors agreed at some level with the midwife-led model of care, whereas 99.3% of midwives preferred a midwife-led approach to care. Midwives ($M = 6.3$, s.d. = 0.7) agreed significantly more with this approach than did doctors ($M = 4.3$, s.d. = 1.0) (t (332) = –18.3, $P = 0.001$). Again, the magnitude of the difference in the means (mean difference = 1.96, 95% CI: –2.17 to –1.74) was large (eta^2 = 0.501).

Compared with the midwifery sample (who were clear in their preference for a midwife-led approach to care and their disagreement with a doctor-led approach), doctors were less clear in their endorsement of the models of care. Four doctors (7.4%) agreed at some level with both models of care (Table 2). No doctors disagreed with both models. Two doctors (3.7%) agreed with the midwife-led but disagreed with the doctor-led model, whereas six (11.1%) agreed with the doctor-led but disagreed with the midwife-led model. Thirteen doctors (24.1%) were neutral in their ratings of both models of care.

Discussion

Most of the participants agreed at some level with the NHMRC definition of collaboration, and differences were not found between members of the different maternity care professions in levels of agreement with the definition. Thus in principle, maternity care providers agree with the concept of collaborative care. This finding seems to be at odds with research that has shown that in practice collaboration is the exception rather than the rule.[9,10] In this case, our results indicate that there is a divide between espoused beliefs about collaboration and actual practice.

This difference is clear when one examines the preferences of doctors and midwives for two models of care. Our survey found that while 72% of doctors indicated a preference for a doctor-led approach to care, over 55% also agreed with midwife-led models. Within the medical profession, doctors appear to differ in their preferences about maternity care. In addition, almost a quarter of the surveyed doctors were neutral in their preferences, suggesting that at least some doctors are not strongly aligned with a model of care. This difference may be because of the impact of practising in different health contexts. For example, rural areas depend upon shared responsibilities by GPs and midwives to provide care for women.[22] Exposure to such models of care may result in practice being more conducive to a midwife-led or shared collaborative approach to care than is the case in larger urban centres. Previous research has also suggested that there are differences among doctors according to whether they practice in private-sector or public-sector services.[20] Our study included only public sector health providers because of a very small response from the private sector. Finally, doctors who perceive collaboration as a salient topic may have been more willing to complete the survey and therefore over-represented in this sample. These differences in doctors' views need more investigation in future research, because this understanding is crucial to explaining both the success and the failure of collaborative care.

Interestingly, while Klein and colleagues[16] found that GPs held more neutral views about models of maternity care than did midwives and obstetricians, our study found no such differences. Other factors, therefore, may contribute to previously described differences between the two medical specialties. These factors may include work context, educational experience, and demographic factors including age. The impact of professional associations and similar bodies on GPs' opinions may also be an important influencing factor.

The overwhelming majority of midwives in our study strongly supported a midwife-led model of care. This strong consensus may be perceived by other groups as opposition to obstetrician-led care and support for a model of care that is philosophically different from their medical colleagues. Such disagreements in core beliefs about models of care may be the most powerful deterrent to collaborative care and a source of conflict between midwives and doctors. Future research in health communication and organisational change should examine the impact of these models of care for women in Queensland. This work is particularly important if women are to have choice and a voice about maternity care decisions affecting them.[23]

Implications for maternity services

Collaborative practice is set as the gold standard of care by policy makers and professional governing bodies alike. There was high agreement by our participants on a nationally-endorsed definition of collaboration. Nevertheless, the general nature and large scope of the NHMRC definition of collaborative care may allow for agreement by all care providers, but still leave the

Table 2. Breakdown of doctors' agreement with approaches to care

		Medical approach to care			Total
		Disagree to some degree	Neither disagree nor agree	Agree to some degree	
Midwifery approach to care	Disagree to some degree	0	0	6	6
	Neither disagree nor agree	0	13	18	31
	Agree to some degree	2	11	4	17
Total		2	24	28	54

interpretation of required behaviour up to each provider. The nine NHRMC principles that support the definition of collaboration are ideals (such as woman empowerment, trust and respect between providers of care) but do not specify how collaboration is achieved in practice.[17]

Researchers have suggested an approach to education that encourages inter-professional collaboration, as a way to improve workplace practice.[24] Educators can lead the integration of maternity care through reaffirming collaborative skills and the expertise of both midwives and doctors. To achieve this aim, educators must represent the change to maternity care as a positive development for both groups. Even in such a positive environment, difficulties arise nonetheless when interprofessional education experiences are taken back to pre-existing workplaces.[25] Others in the workplace may not subscribe to (or indeed may vigorously oppose) new approaches, and may reinforce current behaviours in line with their own professional identity.[26] A key but often neglected aspect of interprofessional education involves the role of health professionals in embedding collaborative practices into their workplaces.

Strengths and limitations of this study

We gathered quantitative evidence on the current context of Queensland maternity care. The decision to use a questionnaire meant that we obtained a larger sample than could have been achieved with interviews and consultations. This larger sample also allowed greater representativeness of the population and allowed us to integrate our findings with previous and future research projects. We estimated the response rate of maternity care providers at between 11% and 34% of the employee population, and so acknowledge that this is a small sample, which constrains our ability to generalise the findings. Nevertheless, the results suggest clear directions for future research.

Future directions and conclusion

Agreement about the definition and ideals of collaboration appears non-problematic, but actual collaborative behaviour is much harder to achieve in maternity care. Collaboration appears to mean different things in practice to members of different professions. We found a preference by midwives and (to a lesser extent) doctors for care led by their own profession. Researchers addressing changes towards collaborative practice need to take account of the complexities of the cultural history of maternity care, particularly the ways in which the professional roles of maternity care providers influence their thinking about models of care. The influence of location and type of care (private or public) also needs to be taken into account in future research. Researchers need to understand how these factors shape collaborative practice. Further, framing maternity care as woman-centred care requires a change of education for both professionals and women. Adopting genuinely collaborative care in practice requires a transformation in the way maternity care providers see each other's roles, and their philosophy of care. Reflecting on how each of the professional groups exclude the other from collaborative practice may allow both groups to be more mindful of the role of the other. Only in this way will the common ground be identified that will allow collaboration in practice across different models of care.

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