



Health professionals' perceptions of a midwifery model of woman-centred care implemented on a hospital labour ward



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ABSTRACT

Background: Theoretical models as a basis for midwives' care have been developed over recent decades. Although there are similarities between these models, their usefulness in practice needs to be researched in specific cultural contexts.

Aim: To explore whether, when adopted by midwives on labour wards, a midwifery model of woman-centred care (MiMo) was useful in practice from the viewpoint of a variety of health professionals.

Methods: Data were collected from a variety of health professionals before and after an intervention of implementing MiMo at a hospital-based labour ward in Sweden, using nine focus group interviews with a total of 43 participants: midwives (n = 16), obstetricians (n = 8), assistant nurses (n = 11) and managers (n = 8). The text from interviews was analysed using content analysis.

Findings: From expressing no explicit need of a midwifery model of woman-centred care before the intervention, there was a shift in midwives, obstetricians and managers perceptions towards identifying advantages of using the MiMo as it gives words to woman-centred midwifery care. Such shift in perception was not found among the assistant nurses.

Discussion: Clarification of the various roles of health professionals is needed to develop the model. Heavy workloads and stress were barriers to implementing the model. Thus, more support is needed from organisational management.

Conclusions: The model was useful for all professional groups, except for assistant nurses. Further studies are needed in order to clarify the various professional roles and interdisciplinary collaborations in making the MiMo more useful in daily maternity care.

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Statement of significance

Problem or issue

Theoretical midwifery models of care have been developed, but few have been evaluated.

What is already known

The various theoretical models for midwifery care are similar and include dimensions of woman-centredness and

promotion of normality of childbirth. They have been developed and exist in a variety of cultural contexts.

What this paper adds

Knowledge of the usefulness in practice of a midwifery model of woman-centred care (MiMo) implemented in hospital-based labour wards in Sweden, and how it could be further developed and implemented from the viewpoint of a variety of health professionals in the culture in which it was developed.

1. Introduction

Woman-centred care is an important concept in midwifery theory,^{1,2} as well as in international guidelines.³ It focuses on the individual woman's perspectives on care as well as the relationship

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between the woman and the midwife and other healthcare professionals.^{2,4,5} It concerns the structure and professional responsibility towards each woman and family through pregnancy, birth and the postpartum period.^{2,4,5} The concept “woman-centred care”, used in maternity care, has much in common with “person-centred care”,⁶ a concept used in different health care contexts, which in recent years have attracted much attention in research and in the organisation and development of healthcare guidelines at international, national, and local level.

Organisation of midwife-led care in and outside hospitals is woman-centred, and is described as having a few key principles that ensure continuity of care as provided by one or two midwives from the beginning of the pregnancy until after birth. The goal is usually to limit the number of interventions and to provide information enabling women to make their own choice of care⁷ based on the premise that pregnancy and childbirth are normal life events.⁸ These essential evidence-based elements are included in the Midwifery 2030 Pathway, which is designed to facilitate the best midwifery practice for high-, middle- and low-income countries, and which focusses on increasing community-based services and culturally appropriate care.⁹ A review of midwife-led continuity models of care compared to other models of care revealed fewer interventions; higher satisfaction among the women; and at least comparable adverse outcomes for the women and their infants compared to women receiving other models of care.⁷ This has also been found for women with known risk factors and complicated birth processes.¹⁰ Evaluation of continuity and relationship-based midwife-led care in Norway and Australia supports these findings.^{11,12} Continuous support for women during labour and birth is also associated with fewer interventions and improved physical and emotional outcomes.¹³

Midwifery models in hospital care involve midwives supporting women's choices and their various ideas about childbirth while, as employees, they follow the organisational guidelines which are mainly based on a medical and pathological standpoint rather than a salutogenic and midwifery approach.² Because the medical approach is culturally dominant with technocratic, hierarchical and bureaucratic dimensions,¹⁴ the midwives must base their

work on hospital labour wards on conflicting models of care, and differing belief systems.^{15–17} Globally, however, an evidence-informed framework for Quality Maternal and New-born Care (QMNC) has recently been developed with recommendations to change the focus from pathology to one in which midwifery is pivotal in multidisciplinary teamwork across hospital and community settings.⁵

Theoretical models for midwifery care have been developed for education and practice in different countries and maternity care settings; the US,^{18–21} New Zealand and Scotland,^{22,23} Sweden,^{24,25} Iceland,^{15,26} and South Africa.²⁷ These models have similarities by conceptualizing maternity care; by involving the women in the care (woman-centredness), focusing on the aspects of the midwife-woman relationships, and how to support normal birth. However, most of the models have not been tested in maternity care practice, even if some of them have studied care-providers and women's^{20,21} views of the usefulness by Delphi-studies. We have only found one study testing a theoretical model in practice; Lehrman's model¹⁸ used at a birth centre in the USA where women received care by nurse-midwives in pregnancy, labour and birth. The study shows a strong support for the concept of positive presence and the contribution of nurse-midwifery care to women's satisfaction with their labour and birth experiences as well as feelings of enhanced self-concept.¹⁸

Even though there are similarities between the different theoretical models, they exist and are developed in differing cultural contexts with different care structures and professional roles. Therefore, a theoretical midwifery model of woman-centred care (MiMo) has been developed in a Nordic context^{2,p.5} (Fig. 1), where the cultural aspects of childbirth care and professional roles for midwives are similar. The MiMo was developed based on qualitative studies on women's and midwives' experiences of childbirth, and validation through focus group interviews in Sweden and Iceland.² The concept midwifery as used in the MiMo is related to midwives' praxis on labour wards. The concept woman-centred means that the MiMo is based on studies focusing on the labouring and birthing women's needs and perspectives.² The MiMo consists of three central intertwined dimensions; the

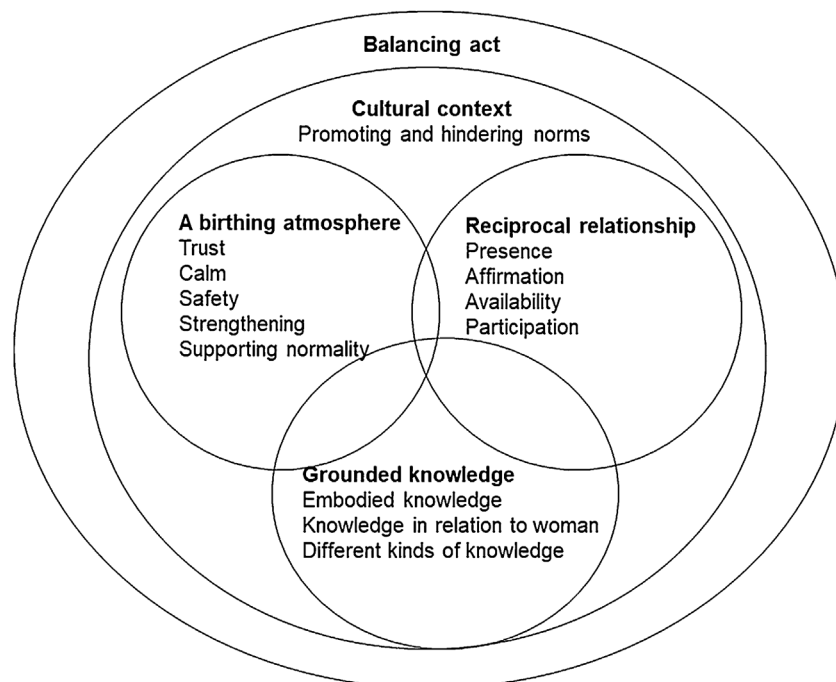


Fig. 1. A Midwifery model of women-centred intrapartum care in Swedish and Icelandic settings.^{2, p.83}

midwife is with the woman using *grounded knowledge*, forms a *reciprocal relationship*, and *creates a birthing atmosphere*. These three central dimensions are conducted by the midwife through a *balancing act* in a *cultural context* with *comprises promoting and hindering norms for conducting a woman-centred care*.²

We have not found any study evaluating different health professionals' views of working with theoretical midwifery models of care. The aim was to explore whether, when adopted by midwives on labour wards, a midwifery model of woman-centred care (MiMo) was useful in practice from the viewpoint of a variety of health professionals.

2. Methods

2.1. Study design and setting

With the overall aim of evaluating and assessing the use of a midwifery model of woman-centred care (MiMo) in Swedish and Icelandic labour wards, this qualitative study is a part of the MiMo research project. Development of guidelines for using such a model is included in said project. The MiMo project is an intervention research, using both quantitative and qualitative methods in a mixed method design.²⁸ The primary outcomes in the quantitative part of the MiMo were whether the MiMo would improve women's satisfaction of birth and reduce interventions during the birth. Furthermore, one study evaluated whether midwives' work satisfaction was improved and stress decreased when using the MiMo. With the exception of the sub study focused on describing and evaluating guidelines for MiMo in practice, all other sub studies were conducted in Sweden and involved two labour wards for normal births at a university hospital in western Sweden. There was an intervention at one of these wards. The other ward, where there was no intervention, acted as a control. The study presented in this paper was based on the research question of whether, when adopted by midwives on labour wards, a midwifery model of woman-centred care (MiMo) was useful in practice from the viewpoint of a variety of health professionals.

Maternity care in Sweden is free of charge and funded by taxes. Midwives have a long tradition in the country; in 1712 the first midwives were educated in Stockholm. In 1829 midwives had the right to use obstetric instruments if no doctor was present. Midwives were the first female occupation with an important role in improving public health in the country with the professional responsibility for normal birth.²⁹ In the 1960s, the opportunity to have a home-birth with a district nurse-midwife was moved out of the public funded health care system. Midwives from then on worked either with births in hospitals or in the primary health care with care during pregnancy without continuity of care. Today, almost all births occur in hospitals; homebirth is only offered in two districts: Stockholm and Västernorrland. Midwives play an independent role related to normal pregnancy and childbirth, which include detecting signs of complications and if so referring to other health professionals. Further teamwork with other health professionals is important.³⁰ In the hospitals, midwives work in shifts together with assistant nurses, who have no regulated profession trained for all areas in health care at secondary school, and obstetricians who are consulted and take over as the leading professionals when complications occur but with midwives still involved in the care. According to national health care laws in Sweden, patients are to be involved in their care and have the right to refuse suggested treatments. However, they have no right to insist on treatment for which there is no medical indication, for example, elective caesarean section.³¹ During the study period in 2015, the national rate of caesarean section (CS) was 17.4% in Sweden; however, the rate varies across regions and hospitals, from 8% to 25%.³²

The hospital for the study has three labour wards; one for normal births and one for women at high-risk during pregnancy situated at one hospital, and another ward for normal births situated at a separate hospital building in another part of the city. In 2015, there were a total of 10,050 births; 17.1% CS, and 4.2% operative vaginal births.

The intervention process started in January 2015 and was performed during one year from March 2015 to March 2016. The intervention ward had 4556 births in 2015. Approximately 80 midwives are employed on the intervention ward, and they do not meet the woman before the birth. Continuity of care is not offered, since care during pregnancy is carried out in primary health care by other midwives. The assistant nurses work together with midwives; one can serve two–three midwives. They assist midwives before and during the birth, clean the rooms, and serve the woman and her partner with practical things. The care does not provide one-to-one care, and quite often midwives care for more than one woman at the same time. The labour wards have 10 birth rooms for normal births; i.e. women with singleton uncomplicated pregnancies and expected uncomplicated births from gestational week 34+0. However, women who needed to be induced were frequently admitted to the ward, as were women with minor complications such as gestational diabetes and gestational hypertension. Women with stillbirths also received care on the ward.

The intervention was comprised of:

1. One-day (8 h) education day for midwives, who should work with the model in practice. First, the researchers (IL, MB, CN, OAA) presented the project, and the various themes of the model with handouts about the model, including a MiMo Card, used for guiding the intervention on the ward, and practical guidelines. The midwives could discuss and ask questions after each presentation of the themes.

Four hours of the education was a group discussion in which the researchers participated, and when the group of midwives could further discuss the model and how it could be used in practice; 75 midwives participated.

2. One-hour meeting to introduce the model to each group of obstetricians, assistant nurses and managers.

3. Regular reflection group meetings with midwives throughout the study period i.e. six occasions/midwife × 1.5 h.

The purpose of the reflection groups was to deepen the midwives' understanding of the MiMo. In the meeting they reflected on actual cases in relation to the themes of the model. The midwives were free to choose cases based on their practice. One or two such cases were discussed during each reflection group. Using discussions, the midwives could help each other to develop an understanding of and skills in using the model as a tool for woman-centred care. The reflection groups were principally led by one of the researchers (CN). However, four "MiMo midwives" who displayed particular interest in the model were recruited as reflection group leaders. They were educated and supervised by CN, and had two additional educational hours with the MiMo research team. The MiMo midwives acted as "ambassadors" and role models for the other midwives in understanding and using the model on the ward, as well as acting as contact persons with the research team. No guidelines for midwives' work were changed during the intervention. The midwives were free to use the model in their ordinary work.

2.2. Data collection and participants

Data were collected from the focus groups before and after the intervention. Each group was comprised either of midwives, managers, obstetricians or assistant nurses. The focus groups met between January and March 2015 and after the interventions

between May and November 2016. In total 43 professionals participated, nearly all either before or after the intervention. The focus group interviews were held locally at the hospital for the convenience of the participants and were led by IL (7) and CN (2) (see Table 1). The MiMo was presented in brief (Fig. 1), and the two opening questions were asked before and after the intervention. Afterwards, there were free focus group discussions.

- What is your opinion of the practical usefulness of midwives adopting a midwifery model of woman-centred care (MiMo)?
- What is your professional role related to woman-centred care?

2.3. Data analysis

Analysis was guided by inductive content analysis as described by Elo and Kyngas.³³ Data analysis was performed in two steps. First, the data from the focus groups before the intervention were analysed and then the data after the intervention. The focus group interviews were transcribed verbatim. The steps during analysis were: selecting the units of analysis; making sense of the data as a whole; conducting open coding; using coding sheets; and grouping, categorizing and abstracting the data. The units of analysis were the sections of the interview texts that answered the two above-stated questions. The first grouping was made for each interview and the codes for the different professionals were marked with different colours. This was done so as to facilitate transferability, to describe contexts and the views of each professional group before and after the intervention.³³ Next, categorizing began with the material as a whole and by carefully re-reviewing all the steps. Finally, the subcategories, main categories and themes were derived. A Table (Table 2) was prepared to facilitate description and presentation of the findings and the analysis process. The analysis was led by the first author (IL), who transcribed the interviews and did the first coding. Then all authors were involved in categorizing and describing themes.

2.4. Ethics

The Ethical Review Board in Gothenburg, Sweden reg. no. 840-14, approved the study the 1th December 2014. All participants received written and oral information about the study,

3. Findings

The findings are based on nine focus group interviews with 43 participants at the intervention ward: 16 midwives, eight obstetricians, 11 assistant nurses, and eight managers. Based on responses to two questions, Table 2 presents findings before and after the MiMo intervention. These questions centred on the

professionals' roles in woman-centred care and the practical usefulness of midwives adopting a midwifery model of woman-centred care (MiMo).

3.1. Before the intervention

Before the intervention two main categories were identified, *various aspects of having the woman in focus* and *working with other professionals is complex*.

3.1.1. Various aspects of having the woman in focus

Various aspects of having the woman in focus consists of three subcategories; different views on presence in the birth room; women's participation and choice: support and limitation; and different strategies in guiding women to give birth.

3.1.1.1. Different views on presence in the birth room. All professionals mentioned the importance of presence in the birth room. For the midwives this meant being present in the room without activity and not taking over. Their goal was to help the woman to feel at home in the room without having to rush in and out. They also stated that a midwife coming in to the birth room could influence the atmosphere and provide new energy to the room, which was supported by obstetricians on the labour ward.

When a woman has a prolonged labour and nothing is happening, a new midwife with new energy enters the room, and suddenly the woman gives birth. (Obstetrician)

The managers pointed out that just being present can be difficult for some professionals; that some activity is always expected when they enter the room. According to assistant nurses, they need to listen, and check what is needed when entering the birth room. Furthermore, they found that just sitting beside the woman in silence was important when the woman was in her own world. According to the managers, all professionals want to work in a woman-centred way. The MiMo could be a potential supportive tool, but its implementation is being hindered by heavy workloads and stress. The hospital does not have the staff and resources necessary for a continuous healthcare provider presence during all births. This was described by the assistant nurses as; that over time everything has been speeded up and that now they feel it is like working in a "baby factory".

3.1.1.2. Women's participation and choice: support and limitation. In relation to woman-centred care, the midwives and obstetricians discussed; helping women to share in the making of care decisions; and, organisations offering different care options. Shared decision-making can be complicated. Obstetricians should not pretend that the woman decides when this is not the case. Instead, they should follow national regulations (for example related to the request for a CS without a medical indication).

Table 1
Characteristics of participants.

		Profession	Work experience on labour wards
Before the intervention ^a	FGI 1	6 assistant nurses	1–30 years ^b
	FGI 2	5 obstetricians	6–27 years
	FGI 3	5 midwives	2–16 years
	FG 4	4 managers	3.5–18 years ^a
After the intervention	FG 1	5 assistant nurses	0.5–30 years ^b
	FG 2	3 obstetricians	5–20 years
	FG 3	7 midwives	2–33 years
	FG 4	4 managers	1–19 years ^a
	FG 5	4 MiMo-midwives	7–21 years

^a Managers at labour wards; first line managers, all midwives.

^b Assistant nurses, educated in health care at upper secondary school or secondary school; no education specifically related to childbirth.

Table 2
Summary of findings before and after the MiMo intervention.

Findings before the intervention			Findings after the intervention		
Subcategories	Main categories	Theme	Subcategories	Main categories	Theme
Different views on presence in the birth room	Various aspects of having the woman in focus	No explicit need for a model although some dimensions of care could be strengthened	MiMo gives words and structure to midwifery	Knowledge and attitudes towards MiMo	MiMo should be visible in daily work involving all professionals with clarification of their roles
Women's participation and choice: support and limitation			The importance of reflection groups		
Different strategies in guiding women to give birth	Working with other professions is complex		MiMo should be more visible as a part of daily work	Aspects of MiMo that should be developed	
The eye on other professions			Other professionals' involvement in MiMo		
Lack of clarity regarding the midwives' responsibility			Awareness of the different roles in the birth room		
Distinct guidelines to be followed by all professionals					

Even if the woman should be involved in decisions you cannot leave your professional responsibility and your knowledge. When you know what the best care is. You cannot pretend that it is the woman who decides when it is not the case. (Obstetrician)

The managers said that women can have needs that can be difficult for them to express. The midwives found that it could be problematic when women's wishes in their view are extreme, exemplified by women who refuse tests that are of importance for the baby. The obstetricians wanted to give an honest opinion if women ask what they should do, especially when answering questions related to complications and risks for the health of the woman and the baby. Lack of a quality relationship between the midwife and the woman also limits women's participation. The assistant nurses commented that they sometimes stay longer in the room, in response to the woman's wishes. The managers stated that it is important for the organisation to focus on opportunities to provide support, and that MiMo could be a tool to enhance supportive care during birth.

3.1.1.3. Different strategies in guiding women to give birth. The midwives described different strategies for guiding the woman to give birth. These strategies are based on the individual woman, the phases of the birth, and individual circumstances. Strategies include confirmation and cooperation between the woman and her partner, focusing on what is important in the moment, and respecting the woman. Because they do not meet the woman before they give birth, the midwives have developed the skill of rapidly establishing good contact at the first encounter. They experience women as individuals and become experts in seeing and meeting their various needs. In order to develop these skills, they need to reflect on themselves both as persons and as professional midwives.

Woman-centred care is central to midwifery. We always use this approach – it makes everything work . . . It means supporting the woman, being with her and understanding her individual needs for her to give birth. (Midwife)

Giving birth is not primarily an intellectual process according to the midwives. Body language is important and they sense how woman giving birth want them to be present (i.e. close or more physically distant). The assistant nurses described similar phenomena. Their approach seems to start from maintaining a certain distance, but potentially becoming closer. They listen to the woman and her wishes. They encourage her by telling her that she is doing well. Obstetricians pointed out the problems of learning

how to give information in the right way. Trust is vital when giving birth. According to the managers, some midwives easily develop this trust with women and these midwives have a lower rate of caesarean sections. Managers said that this was worth studying, and the implementation of MiMo could support developing this kind of care on the ward.

Some midwives have very few caesarean sections . . . they have the strength to stay in the room and give security to the woman . . . this is worth studying. (Manager)

3.1.2. Working with other professions is complex

Working with other professions is complex and consists of three subcategories; the eye on other professions, lack of clarity related to the midwives' responsibility, and distinct guidelines to be followed by all professionals.

3.1.2.1. The eye on other professions. All professionals described shortcomings related to the other professionals. For the midwives, some assistant nurses were very calm and some noisy with no understanding of the importance of a calm environment around the birth; they would also want to interfere with the midwives' work. The midwives wanted to cooperate with obstetricians but if they involved them, there was a risk that obstetricians would start to interfere in a negative way. The assistant nurses described the attitudes of some midwives as not being personally caring when meeting the woman; not communicating in a compassionate manner; focusing on the uterus or the avoidance of anal sphincter tears; and not providing information before vaginal examinations, for example.

Some of the midwives do not communicate with the woman during pushing. They just concentrate on the lower abdomen. They don't talk to the woman. (Assistant nurse)

Experience and safety are important when working with other professionals. According to the managers, senior obstetricians instil safety without even being on the labour ward. The midwives want experienced and confident obstetricians. Insecure obstetricians make unwise decisions that can hinder the birth process. The obstetricians said that experienced and confident midwives are very receptive towards each woman, and work using social and verbal communication. The managers pointed out that the midwife should be the leader in the birth room and that, even if a partner and/or doula is present, a woman needs a midwife.

Insecure junior obstetricians may make decisions that hinder the birth process. Sometimes we don't understand each other, we don't

talk on the same level. They don't understand our work in the birth room. There's a huge difference compared to senior obstetricians. (Midwife)

The obstetricians talked about the midwives' lack of knowledge regarding complications associated with birth, and conflicts with midwives who regard normal births as their own "midwifery patients". This meant that midwives did not contact obstetricians but worked behind "closed doors", even when obstetricians according to them should be involved. They had no control over midwives who never contacted them, and they could not take any work performed by the midwives for granted.

For me, because I'm on the labour ward, I have an impression that the midwives work very differently. I don't have a cohesive impression of the work in the birth room. (Obstetrician)

Multiple skills are required in the birth room and all professionals expressed the need to reflect on the care together, such as the assistant nurses with the midwives. According to the obstetricians, professional skills are developed through deep reflection. The managers saw MiMo as a tool to guide reflections on care on the ward.

3.1.2.2. Lack of clarity regarding the midwives' responsibility. The midwives' professional responsibility was unclear among the groups. The obstetricians appeared to think of midwives as nurse specialists, with no common knowledge other than from the obstetric field, due to their different nursing background. Obstetricians compared to their own similar medical background. The midwives said that obstetricians often thought that they were responsible for everything and needed to check all patients, which must place huge demands on them. In the midwives' experience, obstetricians sometimes interfere and do not acknowledge the midwives' responsibility and knowledge on normal births. Obstetricians need to be continuously informed about women with complications, but not when the birth is proceeding normally. The managers expressed that not all obstetricians know midwives' professional responsibility or that midwifery is an independent profession with special knowledge about the normal childbirth process, with own registry.

Some obstetricians feel responsible for all patients. We have legislated authorisation, and you are responsible for your patient as a midwife. But some obstetricians feel as if they have overall responsibility even for normal births. (Manager)

3.1.2.3. Distinct guidelines to be followed by all professionals. All professionals expressed a need for distinct guidelines to be followed by everyone. But they also agreed on the difficulties of introducing new guidelines due to the many and differing views of the professional groups, complex large organisations, and resistance to changes of routine practice. When reflecting on their midwifery role and boundaries, the midwives said that some guidelines could be a barrier to providing effective care for women and families.

I wish for more steering from the management related to guidelines . . . to decide that we as obstetricians and midwives work like this at our clinic . . . in some cases you can always go against guidelines if motivated but not that you work as you want (do your own thing). (Obstetrician)

According to managers, the obstetricians should have the same approach and guidelines as midwives, such as the goal of keeping CS and operative birth rates low. One question raised by the managers related to the availability of a clear guideline that all women should have a midwife or another healthcare professional present during the birth process. This can be related to patient equity; can one woman receive continuous support while another

not? Therefore, continuous support in birth needs to be defined and included in guidelines. According to the managers, the MiMo can provide the solution to a distinct guideline and awareness of this dimension of woman-centred care.

Woman-centred care can't mean that one woman has support all the time her midwife while another woman is left because her midwife has to be outside the room and do other things that the first midwife can't do. There should be some kind of equity. (Manager)

3.1.3. Theme: no explicit need for a model, although some dimensions of care could be strengthened

Before the intervention, the professionals did not express an explicit need for a midwifery model of woman-centred care. The managers and the midwives expressed that they already worked woman-centred. However, it was noted that heavy workloads and stress are barriers to woman-centred care, and some dimensions could be strengthened by implementing such a model. All wanted better steering from management, and clear guidelines to be followed by all. Opportunities for reflection on care were considered important. Only midwives expressed the view that some guidelines can be a hinder in their professional work. All groups described shortcomings and were critical of each other. Professional responsibility and the independent role of the midwife in the teamwork were unclear. The other professional groups appeared to want to be in control of the midwives or would like to change them. Roles and supportive care of women differ between the health professionals. Working woman-centred was central and self-evident for the midwives and was specifically described by them. Some aspects were described by the other professions. The managers expressed the view that implementation of MiMo could enhance developmental work on the ward, for example in defining continuous support for all women and its inclusion in guidelines.

3.2. After the intervention

After the intervention, two main categories were identified; *Knowledge and attitudes towards MiMo; Aspects of MiMo that should be developed.*

3.2.1. Knowledge and attitudes towards MiMo

This main category consists of two subcategories; MiMo gives words and structure to midwifery, and the importance of reflection groups.

3.2.1.1. MiMo gives words and structure to midwifery. According to the midwives, the obstetricians and the managers, the MiMo gave words and structure to midwifery. This was not the case for the assistant nurses: "We didn't see any change at all". The obstetricians said that it is beneficial for them to know what midwives care is based on, and that it is good for midwives to have words for their work as it is presented in the MiMo. Often when problems arise during the birth such as prolonged labour it is not based on "formal competence" meaning medical, but could for example be in relation to fear of birth presented in the model.

Good that midwives have words for their work (midwifery). It can open up for discussions with us, for example when there is fear of childbirth. It is calmer when the obstetricians have knowledge about what the work in the birth room is based on. (Obstetrician)

According to the midwives, the MiMo showed the complexity of their work grounded in their professional approach and they saw the advantage of this kind of research. The MiMo midwives, "the ambassadors", mentioned that this made midwives' care based on intuition visible. Furthermore, MiMo began to make midwifery

visible and, through reflection based on the model, encouraged the midwives to explore deeper aspects of their work and to process their own reactions to women and upsetting experiences on the ward. Some of the midwives expressed that MiMo was most useful when reflecting with colleagues after the birth, while others said that it was useful in all situations, even acute ones, for reflection on why a birth ended as it did. One of the MiMo midwives described how she used the MiMo Card, explaining the model, during “time out” (a structured form of joint discussion with all professionals and the woman when in prolonged labour), as an explanation and solution to proceed the birth. The midwives found that the MiMo model could help to develop knowledge among midwives and to support each other. During a heavy workload, MiMo could also help the midwives to focus on the important elements of their work. According to the MiMo midwives, the model could also be a tool for supervising midwifery students.

I think that you can use this (points to MiMo) in all situations; when it is a prolonged labour you can reflect more deeply on the reason. (Midwife)

3.2.1.2. The importance of reflection groups. The reflection groups in the intervention were well liked by the midwives who stated that this had been lacking in daily work. According to the midwives, reflection in professional groups is undervalued in childbirth care. Nonetheless, even though the midwives had asked for time for reflection on interesting cases, and the groups were held on meeting time before caring for women, it could be difficult to gather the midwives to the reflection group meetings. When the demands were high on the ward, the midwives had to be motivated and have energy to attend. Both the MiMo midwives and the managers found that the midwives were very positive after taking part in the reflection groups about events at work that day. The MiMo midwives found the model itself to be helpful in guiding the reflections.

The reflection groups are very useful and insightful for midwives. It is a structured way to work and we will continue to use it in the future. It helps midwives to better explain their work. I felt the reflections were very positive. (Manager)

3.2.2. Aspects of MiMo that should be developed

This main category consists of three subcategories; MiMo should be more visible as a part of daily work; other professionals' involvement in MiMo; and awareness of the different roles in the birth room.

3.2.2.1. MiMo should be more visible as a part of daily work. During the study period, the midwives did not talk about the MiMo or refer to it in their daily work. Both obstetricians and assistant nurses expressed that MiMo was invisible to them. Suggestions were made by the midwives that MiMo could be integrated as a tool in the current medical round to report and evaluate a midwifery approach. Currently, midwives report that a woman could give birth before lunch, but not about how and what her birthing plan is. The managers want the model to be more alive in the daily work. In order to use the model in daily work consistency is needed; as according to the midwives, on busy days they forgot about the model. Opinions on the MiMo project differed. The assistant nurses did not experience any change in midwives' work related to woman-centred care. Some of the midwives said that the model was nothing special, just words to reflect upon. One of the managers said it was not necessary to complicate everything that you do not need to study in order to support the woman, that it is just a “woman-to-woman” meeting and that it does not matter who of the professionals attends. Furthermore, some of the midwives said that the model was difficult to understand and that

there was too much focus on the conceptual framework instead of on the practical things that they needed to discuss.

For me, the model was too much in focus and it was problematic to really express my thoughts. You learned to reflect but it was difficult. (Midwife)

During the study period, the midwives said that they learnt to think differently about their work, but that it takes time to explore the deeper aspects of midwifery. More reflection groups would be needed. Both obstetricians and managers described an improvement in the medical outcome during the last year. They wondered whether this improvement could be related to the MiMo intervention. The obstetricians wondered whether MiMo is related to this improvement even though they did not talk about MiMo; they also found it easier to reflect and discuss cases on the ward.

We have not talked about MiMo in our daily work on the ward . . . a lot of other things have happened during the last year and we have very good medical outcomes today. Maybe this is due to the reflection groups even if we have not talked about it. (Obstetrician)

3.2.2.2. Other professionals' involvement in MiMo. If the MiMo is to be implemented on the labour ward, obstetricians and MiMo midwives have asked for joint meetings for all professionals. The obstetricians and the managers had a positive attitude towards reflection groups for midwives. The obstetricians would like to be informed about them but not necessarily included in them. The assistant nurses asked why they did not take part in the reflection meetings for midwives, which they would have liked to do. They were critical towards the MiMo project and they did not see any change in the midwives' approach to woman-centred care. The MiMo midwives agreed that assistant nurses also needed a model or structure for their work, and the managers wanted a model because the assistant nurses care for women with the midwives. Thus, assistant nurses should be involved and their role clarified, based on their practical experience and background. They could learn from the midwives' reflections, even though MiMo is based on midwifery and has dimensions that cannot be replaced by others.

The core of the model should continue to be focused on midwifery because it is the base, but assistant nurses can learn from midwives how to work in a woman-centred way. (Manager)

According to the managers, all professionals need to develop and reflect in their own group as well as in a team of professionals with differing viewpoints, knowledge and roles. The current MiMo study was a starting point, and the managers wanted it to be continued and developed, and involve all professionals. The main concepts of *birthing atmosphere* and *reciprocal relationship* can be shared by all professions, but *grounded knowledge* would be different for each profession. The core of the model should continue to be focused on midwifery, since the model was developed based on a context where midwives have an independent responsibility for normal birth, but cooperation with other professionals should be developed. The midwives discussed how, and whether, with added dimensions, the model could be used to support midwives emotionally, individually and in a group. If MiMo was to be implemented, midwives expressed a need for support in order to enter the dimensions of cultural context of promoting and hindering norms and the balancing act. An example of such a situation was when; according to the MiMo midwives, the obstetricians often order stimulation with oxytocin when labour is prolonged, and the midwife leaves the birthing room. MiMo could be a tool, allowing other suggestions in teamwork. The obstetricians and midwives expressed a wish to discuss not only complications and any problems that arise but also “good births”

and reflections about why a particular birth went so well. Reflecting together develops a sense of belonging to a team, which could lead to a better understanding of the different professional roles. Moreover, it is positive for the women and the birth process if the professionals work together.

Reflection for assistant nurses. Currently, MiMo relates to midwives' work. It is important that there is an offer to assistant nurses otherwise conflicts could arise. How can assistant nurses be part of the care? You don't need something similar for obstetricians – they don't feel pushed aside and threatened. (MiMo midwife)

3.2.2.3. Awareness of the different roles in the birth room. Discussion of experiences with the MiMo intervention brought to light differences between the professionals' roles. According to midwives, obstetricians have a more general approach to woman-centred care, which the midwives related to the fact that the obstetricians are not involved in normal births compared to a more individual approach by the midwives. In general, midwives think that obstetricians are pleased with, and value midwifery work. Both midwives and obstetricians described confidence in their professional role.

I was involved in a situation in a room for several hours and eventually we had to help each other, and did so, and then finished up and got together afterwards, and we should always do that. The obstetrician said I'm satisfied by the fact that I have my work and you have yours. There was cohesion . . . I felt that she respected me for my work. I respected her for her work. It is not always like that. But when it is, it really feels safe – everyone involved. (Midwife)

The role of the assistant nurses in the labour ward was developed to assist midwives in the care of women during childbirth. To them it is unclear whether they are there due to a lack of midwives or in response to a desire for their competence. According to them, they have no clear role during the birth, and as a group they have a splintered base with 70% of their work involving cleaning and practical aspects of care. Their focus should be more on supporting the woman and being involved in the care. This links to the midwives' descriptions of how the assistant nurses do not always know what to do and leave the room within two minutes. The assistant nurses described the importance of learning by doing, how they need to be present in the birthing room in order to develop their skills in assisting midwives and supporting women. Sometimes they have to act very quickly during a birth to help the midwives, for example changing the woman's position. If the midwife according to them does not answer the woman's questions, they have to do it "as they can not see the woman in pain without doing anything". However, women may have complicated needs which are problematic for assistant nurses to meet. At the start of the work shift, assistant nurses asked for joint meetings with midwives to coordinate their work.

Obstetricians said that their educational background and experience from consultations relate to aspects in the model. However, as obstetricians they cannot educate midwives about midwifery. On the labour ward, they enter the room with the intention to do something, but sometimes they do not have to act, just be on the periphery in the room available to act if needed. Midwives said that they themselves are not good at describing what midwifery is. Their independent profession involves more than technical and practical aspects, such as communication. For midwives communication is important, and their presence in the birth room depends on each situation and the individual woman. There is no standard care, exactly the same for each woman; even when following medical guidelines such as for use of CTGs the care should be woman-centred.

We concentrate on CTG, how to repair perineal tears and so on but even these practical aspects of the care need to be reflected upon . . . to interpret these aspects related to woman-centred care . . . we really need to deepen our profession. (Midwife)

The assistant nurse's role is without words and disjointed in the professional group; the managers wanted to develop this area in the MiMo with their involvement. However, the managers state that MiMo is based on midwives' work, with dimensions that cannot be replaced by others. By caring for several women, midwives become splintered. In order to develop professionally midwives need to reflect on the care, and to talk about complex communications such as with assistant nurses and all the challenges they meet on a busy labour ward. The midwives compared their care provision with other healthcare areas where the focus is often on doing or acting. You do not have to have "performance anxiety, you can just be present in the room". Questions like; how am I as a midwife, in this moment, related to this birth, should be reflected upon in line with the MiMo model.

3.2.3. Theme: MiMo should be visible in daily work involving all professionals with clarification of their differing roles

Before the MiMo intervention, there was no expressed explicit need for a *midwifery model of woman-centred care*. Afterwards, suggested adaptations of MiMo included making it more visible in daily work, and grounding it on the ward. All professionals except for the assistant nurses expressed that the model gives words to midwifery and woman-centred care. The assistant nurses did not observe any changes related to woman-centred care. Even though the professionals had different opinions on the effectiveness of MiMo, there was an interest in developing MiMo not just for midwives but to involve all professionals with clarification of roles. Heavy workloads and stress as hindering factors to implementing the model were described both before and after the intervention. It was commented that the dimensions of MiMo and further implementation have to be strongly supported by the organisational management.

4. Discussion

In this study, a theoretical *midwifery model of woman-centred care* (MiMo) has been tested by exploring the views of a variety of health professionals on its usefulness in practice. The findings show that there was a shift in the opinions of midwives, obstetricians, and managers from expressing no explicit need of a model of care before the intervention, towards perceiving the advantages of a model, *giving words to midwifery*, and that it could be used for collaboration and clarification of the different roles of health professionals. However, some midwives said that MiMo was difficult to understand and too theoretical. Therefore, the study in Iceland developing practical guidelines, as part of the overall MiMo research project is of importance.

We have not found any earlier study evaluating different health professionals' views of using midwifery models of woman-centred care at labour wards. The Delphi study by Kennedy shows that a model of midwifery care provides a structure for future research, and involves similar aspects to the MiMo, such as supporting normal birth, and focusing on the midwifery knowledge and the relationship.²¹

The findings from this study indicate that the MiMo is useful for making theoretical concepts behind midwives' work visible. The midwives in the study related to all dimensions of the MiMo,² and after the intervention, they had more words for their work with the woman in the birth room. The MiMo thus helped the midwife to focus on woman-centred care in their daily work. MiMo is present without actively thinking about it (it is "in their unconscious

mind”). Disturbance of the birth was easier to perceive (“easier for them to identify the problem”). However, heavy workloads and stress were a barrier to woman-centred care. This finding is supported by a study of O’Connell and Downe,³⁴ which shows that most midwives in hospitals aimed to provide what they characterized as “real midwifery” but that this intention was often overwhelmed by heavy workloads and the normative pressure to provide equity of care to all women. A study by Hildingsson et al.³⁵ confirms the existence of heavy workloads for midwives; moreover, it reveals that more than one third of midwives in Sweden had considered leaving the profession. Lack of staff and resources and a stressful environment were important variables for burnout. According to the midwives in our study, an individual perspective is key to woman-centred care. According to managers, distinct guidelines to be followed by all should include provision of the same care to all women which, as in a metasynthesis based on 14 studies,³⁴ they relate to equity of care. Basing care on this perspective makes it difficult to achieve individual woman-centred care. Woman-centred care, guidelines and equity of care are questions that should be further studied in relation to hospital-based care during labour and birth.

This study reveals that even though midwives in Sweden have more than a 300-year long tradition, the midwife’s professional responsibility was unclear to the other professions involved. In particular, it was surprising that obstetricians were unaware of the differences between the education, skills and responsibilities of the midwives and nurses. This could relate to the fact that, historically, midwifery knowledge about normal birth is tacit;³⁶ it is founded in previous practical experience, and it has seldom been written down, but transferred from generation to generation.³⁷ The findings from this study demonstrate that midwifery knowledge is still not visible to the other professions, and can be the reason why it is not being implemented in the care. This is supported by Hunter³⁸ who point out the difficulty midwives face when practicing in a dominant medical model that is opposed to midwifery models of care,^{16,17,38} and which does not value the intuitive and grounded knowledge that is essential for midwifery care of women.²

The findings in this study must be related to the context; the study was conducted in a hospital that followed the standard dominant medico-technical model¹⁴ while the midwifery psychosocial model was mainly isolated to the midwife and solely with the woman in the birthing room. Midwife-led care and continuity care models providing continuous support during childbirth,^{7,8} are not used in hospital settings or generally offered in Sweden. However, the findings of this study reveal that these kinds of midwifery-led models with individual support should be developed and be a part of organisational guidelines grounded in midwifery perspectives and women’s own resources. Furthermore, the findings of this study may be relevant: for other maternity care contexts; and, in countries that do not offer midwife continuity of care throughout pregnancy and birth (where midwives first meet the woman when she arrives at the labour ward to give birth).

The lack of recognition of midwifery shown in this study is supported by Healy et al.³⁹ who describe how midwifery in a culture of risk and medicalization is side-lined to a peripheral position. The midwives resign to the situation and, as a profession, they are reluctant to take action to make changes. Implementation of MiMo could not only strengthen care, but could also be an awakening tool for verbalisation and visualisation of midwifery. This could be an advantage for the women, their families and midwives as well as the other health professions in maternity care. This is in line with the QMNC framework of care that takes midwifery, with its skills, attitudes, conduct and professional roles,⁷ and the Midwifery 2030 Pathway⁹ into account.

This study reveals that the other professionals except for assistant nurses expressed that MiMo gives words to midwifery and woman-centred care. Even though all aspects of MiMo were related to midwifery work and were based on midwives’ and women’s experiences of childbirth, many aspects are also mentioned by the other professions. The themes of the *birthing atmosphere* and *reciprocal relationship* could be applied to all professions, but the *grounded knowledge* would be defined in relation to different educational backgrounds and professional roles. Hence, to develop MiMo in practice and for further studies, there is a need to clarify the roles of the various health professionals. This also applies to other multi-faceted models, where little distinction is made between what is done, how it is done, and who does it.⁴⁰

In this study, cooperation between health professions was complex and sometimes lacking as exemplified by ordering oxytocin during labour without prior discussion with midwives. Constraints were also identified between assistant nurses and midwives. The assistant nurses have a different role from the others, and they are not according to them included in the care. Midwives and obstetricians expressed a need for developing professionally, both in their own group and with others. This emphasises the need for further studies on development of MiMo in relation to the roles of the various health professionals.

The study shows that reflection groups were important parts of the use of the MiMo. The “MiMo midwives”, were very important as ambassadors and for encouraging the use of the MiMo in the intervention process. In the reflection groups, problematic cases dominated but also situations when everything went well were discussed. The midwives were encouraged to relate their cases to the model, which seemed as a successful way to integrate the model in the midwives’ daily care of women. More studies are needed to evaluate reflection groups to support midwives in working woman-centred through using the MiMo, both in the studied contexts and elsewhere in other contexts.

4.1. Methodological considerations

A qualitative approach was suitable for this study because of the complexity of the studied phenomena. Use of focus groups enabled collection of information from more people at the same time. However, as is the limitation of focus groups in general, the voices of some may not have been heard because others wield more influence in the group discussions.⁴¹ The study method gives a deeper understanding of the usefulness of MiMo when applying it to professional roles other than that of midwives. One strength of the study was the use of separate focus groups with different groups of professionals, enabling them to discuss together the studied phenomena⁴¹ in the dimensions of care described in the MiMo and the experiences of the intervention itself. The fact that very few took part in the focus groups either before or after the intervention can be viewed as a strength, the groups being little influenced by the earlier interviews. One limitation could be that more in-depth information might have been obtained by meeting the same participants again to continue a dialogue about MiMo, organisation and quality of care on the ward. Another limitation could be that, by including the MiMo-midwives among the study participants, a more positive view of the model may be expressed. Their participation, however, increased the variation related to the subject studied, which is an expressed strength in the method used.³³

5. Conclusion

There are few studies on the usefulness in practice and impact of theoretical models of midwifery care. The findings of this study show that, after expressing no explicit need for a theoretical model

of midwifery care, a variety of health professionals, midwives, obstetricians and managers expressed an interest in using the MiMo, it giving words to midwifery care, involving all professionals with clarified professional roles. Heavy workloads and stress were seen as barriers to using the model, both before and after the intervention. Thus, any implementation and further development will necessitate support from the organization. Further studies are needed on MiMo in order to develop guidelines for use in practice, to make midwifery approach and woman-centred care a priority, and to clarify the different roles and collaborations of health professionals in the relevant maternity care settings.

Authors' contribution

All the authors designed the study. Two of the authors performed the focus groups. One of the authors held the reflection groups with the midwives. All authors were involved in the data-analysis led by one of the authors. Two of the authors performed the draft manuscript and all authors contributed to the manuscript and approved it to be submitted.

Ethics

The Ethical Review Board in Gothenburg, Sweden reg. no. 840-14, approved the study the 1th December 2014.

Conflict of interest

All authors declare that there is no conflict of interest.

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