



Factors influencing the implementation of advanced midwife practitioners in healthcare settings: A qualitative study

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ABSTRACT

Objective: To explore factors influencing the implementation of advanced midwife practitioner roles.

Design: Semi-structured individual face-to-face and focus group interviews were conducted. Data analysis was performed using the Framework Method.

Setting and participants: A purposive sample ($n = 32$) included chief nursing officers, middle managers, head midwives/nurses, primary care team leaders, midwives with and without advanced midwife practitioner roles, heads of midwifery educations, and obstetricians.

Findings: Budgetary constraints on a governmental and healthcare organizational level were mentioned as main barriers for role implementation. The current fee-for-service financing model of healthcare professionals was also seen as an impediment. Obstetricians considered the implementation of advanced midwife practitioner roles as a possible financial and professional threat. Documenting the added value of advanced midwife practitioner roles was regarded a prerequisite for gaining support to implement such roles. Healthcare managers' and midwives' attitudes towards these roles were considered essential. Participants warned against automatically transferring the concept of advanced practice nursing to midwifery. Although participants seldom discussed population healthcare needs as a driver for implementation, healthcare organizations' heightened focus on quality improvement and client safety was seen as an opportunity for implementation. University hospitals were perceived as pioneers regarding advanced midwife practitioner roles.

Key conclusions and implications for practice: Multiple factors influencing role implementation on a governmental, healthcare organizational, and workforce level illustrate the complexity of the implementation process, and highlight the need for a well-thought-out implementation plan involving all relevant stakeholders. Pilot projects for the implementation of advanced midwife practitioners in university hospitals might be useful.

Introduction

In several healthcare disciplines, advanced practice is distinguished from basic practice through specialization and expansion of knowledge, skills, and role autonomy (Bryant-Lukosius et al., 2004; Steer et al., 2015). In midwifery, advanced practice is described as “a level of mid-

wifery practice at which midwives use their expertise, management and clinical leadership skills to provide evidence-based, tailored care for women and their families independently and autonomously. Professional leadership and research skills are used to evaluate practice and advance midwifery as a profession and science” (Goemaes et al., 2016). Several titles are used internationally for referring to midwives with minimum a master's degree

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taking on the following roles besides the role of expert clinical practitioner: clinical and professional leader, educator, researcher, policy advisor, innovator, consultant or facilitator of ethical decision making (Lesia and Roets, 2013; Elliott et al., 2014; Walker et al., 2014). Such titles are (advanced) midwife practitioners, advanced (practice) midwives, and consultant midwives. In this paper, all midwives practicing on an advanced level as described above will be referred to as advanced midwife practitioners (AMPs).

Advanced midwife practitioners are seen as new roles in healthcare and considered essential for high quality healthcare and the development of the profession (Begley et al., 2007). Several studies reporting on clinical outcomes support the desirability of implementation of advanced practitioners in healthcare settings (Begley et al., 2010; Newhouse et al., 2011; American College of Nurse Midwives, 2012; Weitz et al., 2013; Patil et al., 2016; Casey et al., 2017a). Despite limited evidence that supports the contribution to professional (e.g. education of staff) and organizational outcomes (e.g. quality of care, cost and access to services) that can be attributed uniquely to advanced practitioners (Begley et al., 2014; Casey et al., 2017a), Casey et al. (2017b) concluded that the potential positive impact of such roles cannot be doubted (Casey et al., 2017b). In addition, midwives are increasingly confronted with complex care situations as the number of women with pregnancy complications and high risk pregnancies due to pre-existing health conditions are growing (Centers for Disease Control and Prevention, 2015; Qin et al., 2016). Furthermore, advanced midwifery practice could provide midwives with the possibility of a clinical career ‘at the bedside’, in which direct client care is combined with academic and leadership skills. This could prevent midwives educated at master’s level from having to choose between client care and building a career in management, research or educational positions (De Geest et al., 2008).

A limited number of countries have implemented AMP roles (e.g. Ireland, the United Kingdom), despite the elements supporting the desirability of such roles (Department of Health and Social Care, 1999; Begley et al., 2007; National Council for the Professional Development of Nursing and Midwifery, 2008; Robinson, 2012). Furthermore, there is little international literature that discusses implementation processes of AMP roles. Data on the feasibility, barriers and facilitators for the implementation of AMP roles are lacking internationally. These data are also lacking for Belgian healthcare settings, notwithstanding elements that support a discussion on the implementation of AMP roles. Firstly, the extension of legal competences of Belgian midwives since 2006 (e.g. prescription authority) has intensified a discussion on the duration and level of midwifery education in Belgium (Federal Council for Midwives, 2016). This education consists of a three-year direct-entry midwifery programme equivalent to 180 ECTS and leads to a professional bachelor’s degree in Flanders. In the Walloon region, the education consists of a four-year bachelor programme equivalent to 240 ECTS, in which students spend one year on nursing, one year on nursing and midwifery, and two years on midwifery (Emons and Luiten, 2001). Secondly, there is a lack of formally acknowledged discipline specific clinical positions in which master educated midwives can structurally contribute to care innovation, quality improvement and evidence-based practice.

Literature from related healthcare disciplines shows that implementation of advanced practitioner roles is complex. Several frameworks for the development, implementation and evaluation of advanced practice nursing roles have been developed (Bryant-Lukosius et al., 2004; Furlong and Smith, 2005; De Geest et al., 2008). These frameworks recommend the need for a new model of care involving advanced practitioner roles and the identification of role barriers and facilitators as two vital steps in the implementation process (Bryant-Lukosius et al., 2004; Furlong and Smith, 2005; De Geest et al., 2008). As the implementation of AMP roles is still in its infancy in Belgium, therefore, this study aimed to explore the factors influencing the implementation of AMP roles in Flanders, the Dutch-speaking part of Belgium. This will enhance the limited knowledge on AMP role implementation internationally.

Methods

Design

A qualitative study was undertaken using the Framework Method (Gale et al., 2013). Both individual and focus group interviews were held.

Sample

Key stakeholders from Flanders were invited to participate. Participants were selected based on their expertise in (1) the domain of advanced and specialist midwifery practice, (2) healthcare management on an operational or strategic level, (3) midwifery education, (4) healthcare policy, or (5) a medical specialty related to midwifery care domains (e.g. obstetrics and gynecology). Professionals from a variety of healthcare settings, professions, positions, and experience of working with midwives with an AMP profile were selected using purposive sampling. The characteristics of the participants are reported in Table 1.

Participants working in a hospital setting were informed about the study and personally invited to partake by email with permission of or via the chief nursing officers (CNOs). The latter were contacted directly by email. Clinicians working outside of the hospital setting were informed about the study by email and electronic newsletters via their professional associations after consent of the professional organizations’ Board of Directors.

Data collection

Both individual and focus group interviews were conducted. As the implementation of advanced practice roles is seen as complex, within-method triangulation is regarded beneficial for collecting data on a complex theme (Wadsworth, 2000). A combined data collection strategy allows for the comparison of data collected in individual and focus group interviews, which enhances trustworthiness of the findings (Lambert and Loisel, 2008). In addition, the dynamic interaction between participants during focus group interviews stimulates their thoughts as well as debate about the topic and contributes to generating rich data (Holloway and Galvin, 2017). Furthermore, the combined use of individual and focus group interviews facilitates a maximum range of perspectives that can be included within the boundaries of available resources, potentially contributing to a greater depth and breadth of data and “a more nuanced understanding” (Wadsworth, 2000; Lambert and Loisel, 2008).

Individual semi-structured face-to-face interviews were conducted between January 2016 and February 2017. Twenty-two participants were interviewed at a date, time and location of their choice. Each individual interview lasted between 31 and 89 min (average duration 61.4 min). Two focus group interviews were conducted between July and August 2016. The focus groups consisted of three and seven participants, respectively. The focus groups took place at a date, time and location that was most convenient for a maximum number of participants. The focus groups lasted between 64 and 109 min (average duration 86.5 min).

Purposive sampling was used to broaden initial insights and to include participants with and without familiarity with AMP roles, and participants from both university and peripheral hospitals. The latter was done as university and peripheral hospitals provide different contexts for care provision. Besides providing the care of peripheral hospitals, the mission statement of university hospitals includes the provision of expert care in complex care situations, care innovation and development, clinical training for (medical) students and specialists, and research (Royal Decree of 7 June, 2004).

New participants were selected until data saturation was reached, which occurred after the analysis of 20 individual and two focus group

Table 1
Participant characteristics of individual and focus group interviews.

Characteristic	Individual interviews Mean (range)	Focus group interviews Mean (range)
Age (years)	55 (32–65)	48 (30–56)
Experience in position (years)	9.91 (2–35)	20 (7–34)
Characteristic	<i>n</i>	<i>n</i>
Gender		
Male	5	1
Female	17	9
Level of education		
Bachelor degree	5	7
Master degree	14	3
PhD	3	0
Position		
Midwife in primary/secondary care ^a	0	5
Midwife with AMP ^c profile ^a	2	1
Head midwife/head nurse/lead midwife of a primary care team ^a	5	3
Middle manager maternal and child health department ^a	7	0
Chief nursing officer ^a	3	0
Head of bachelor education in midwifery ^a	2	1
Obstetrician ^b	3	0

^a Fourteen participants in these categories had expertise regarding midwifery policy due to board membership of a midwifery association or council.

^b As the term 'obstetrician' refers to medical specialists trained in both obstetrics and gynecology in the Belgian healthcare context, the term obstetrician is used in this paper.

^c AMP: Advanced midwife practitioner.

Table 2
Interview guide.

1. How would you describe midwives working on an advanced practice level?
2. What is your opinion on the appropriateness regarding the implementation of AMP^a roles in the healthcare setting you work in?
3. What is your opinion on the desirability regarding the implementation of AMP roles in Flemish healthcare settings?
4. What is your opinion on/have you experienced in relation to the feasibility regarding the implementation of AMP roles in the healthcare setting you work in?
5. Which barriers do you presume/have you experienced in implementing AMP roles in Flemish healthcare settings?
6. Which enablers/facilitators do you presume/have you experienced in implementing AMP roles in Flemish healthcare settings?
7. To what extent do you see opportunities for the implementation of AMP roles in the healthcare setting you work in?

^a AMP: Advanced midwife practitioner.

interviews. Two additional individual interviews did not uncover any new findings.

Procedure

All interviews commenced by orally informing the participants about the aim of the study. The participants read the information letter and could ask questions before signing the informed consent form. All interviews were audio-taped.

Data were collected using open-ended questions. The interview guide comprised a number of key questions as shown in Table 2. Based on intermediate results, a question to elaborate on the desirable competences of AMPs was added. A question inviting participants to talk about their opinions on the implementation of AMPs from a client population perspective was introduced as few participants mentioned this aspect spontaneously.

After the participants had given their description of AMPs, the interviewer provided a definition to ensure that participants interpreted AMP roles as intended in this study.

All individual and focus group interviews were conducted by the first author. Field notes were taken during and immediately after the interviews. Audio recordings were transcribed verbatim by experienced transcribers. Data identifying the participants or persons mentioned in the interviews were deleted. The first author checked each transcript with the recording for accuracy, allowing to immerse herself in the data.

Data analysis

The process of data collection and data analysis was executed iteratively. Interviews were analyzed using the Framework Method (Ritchie

and Spencer, 1994; Smith and Firth, 2011; Gale et al., 2013). This method was chosen because (1) it provides a systematic approach to the analysis of interview transcripts, (2) it allows for the comparison of data by themes across cases as well as retaining a context perspective of individual data, (3) it is not aligned with a particular epistemological or philosophical approach, and (4) it allows for flexible use along the inductive-deductive continuum (Smith and Firth, 2011; Gale et al., 2013).

The process of data analysis was started by the first author (re)reading the transcripts of the first two interviews to familiarize herself with the data. Subsequently, the first author coded the interviews using NVIVO Pro 11 software (QSR International). The coded transcripts were then read by a co-author [AVH] and discussed with the first author. The same procedure was followed after the fifth interview. A third [SV] and fourth researcher [ED] independently read interviews during the data analysis process. The intermediate data analysis of the individual and focus group interviews was read and discussed by the research team including researchers with extensive experience in qualitative research, general and advanced practice nursing, and midwifery.

Initial codes were constructed inductively and thereafter sorted into inductively emerging subcategories and categories. After 15 individual and two focus group interviews, the inductively developed categories were compared with existing frameworks for the implementation of advanced practice roles (Bryant-Lukosius et al., 2004; Furlong and Smith, 2005; De Geest et al., 2008; Ryley and Middleton, 2016). As the inductively developed categories coincided with the drivers for guiding the introduction and development of advanced practice nursing roles in the framework by De Geest et al. (2008), the broad categories of this framework were used to guide the reporting structure of the results of this study: the legal, policy and economic context, practice patterns, health-

Table 3
Overview of factors influencing AMP role implementation.

	Legal, policy and economic context	Practice patterns	Healthcare needs of the population	Workforce issues	Education
Barriers	<ul style="list-style-type: none"> • Budgetary constraints on a governmental level • Budgetary constraints on the level of healthcare organizations • Outdated and insufficient midwifery staffing levels • A need to demonstrate immediate and direct savings in client care by AMP^a role implementation • Fee-for-service healthcare financing model 	<ul style="list-style-type: none"> • No automatic transfer of the concept of 'Advanced Practice Nursing' to midwifery 	<ul style="list-style-type: none"> • Low perinatal morbidity and mortality • Fear of jeopardizing a holistic approach to clients' care needs due to extensive specialization 	<ul style="list-style-type: none"> • A lack of knowledgeability of AMP roles by obstetricians and other related healthcare disciplines 	<ul style="list-style-type: none"> • Current midwifery education insufficient for practice beyond a basic level • A lack of consensus regarding the educational preparation and level of education of AMPs • A lack of consensus regarding the definition, necessity, and extent of research skills in clinical practice
Facilitators	<ul style="list-style-type: none"> • Structural governmental funding of AMP positions • Legislation changes with extension of legal competences for midwives • Signals from policymakers underlining the necessity of AMP roles (e.g. establishment of care innovation programmes) • Heightened focus on the accreditation of healthcare organizations, quality improvement and patient safety 	<ul style="list-style-type: none"> • Changes in the current healthcare model and delivery (e.g. shorter hospital stay in the postpartum period) • University hospitals taking on the role of pioneers for AMP role implementation 		<ul style="list-style-type: none"> • A positive attitude of middle managers and head midwives towards AMPs • Demand for AMP roles by midwives • Support of obstetricians in clinical managerial positions 	

^a AMP: Advanced midwife practitioner.

care needs of the population, workforce issues, and education (De Geest et al., 2008).

Ethical considerations

Approval by the Ethical Commission of [Ghent University Hospital] was obtained (B670201525825). Written informed consent was given by all participants. Voluntary participation, confidentiality and anonymity were specifically stressed because the interviewer was known to several of the participants.

Rigor

Although the first author had limited experience with conducting qualitative research prior to this study, she was guided and coached by experienced qualitative researchers [AVH, SV, ED]. Several of the co-authors are also familiar with the field of advanced practice nursing and advanced midwifery practice internationally.

As the interviewer [RG] was known to several of the participants, they were aware of the interviewer's background as a midwife and her current profession. To avoid social desirability bias, i.e. participants responding with what they assume is the interviewer's preferred response rather than their personal view (Krefting, 1991), the inductive nature of the data collection without preconceived thoughts on the interviewer's part was stressed to the participants knowing the interviewer. For similar reasons, the first author introduced herself as a researcher without mentioning her background as a midwife to participants that did not know her prior to the interview.

Several strategies were used to increase the trustworthiness of the data. After the first two interviews, the interview style was discussed with a co-author [AVH]. The comparison and discussion of coded data and intermediate results by members of the research team at regular intervals increased the trustworthiness of data analysis. Furthermore, an audit trail was used to document decisions that were made regarding sampling, data collection and data analysis. The COREQ checklist was used as a guideline in reporting this study (Tong et al., 2007).

Findings

Participants elaborated on the following categories: legal, policy and economic context, practice patterns, healthcare needs of the population, workforce issues, and education. An overview of the contents of these categories is shown in Table 3.

Legal, policy and economic context

Economic factors

Budgetary constraints on a governmental level were mentioned by nearly all participants as one of the main barriers for the implementation of AMPs. All participants in a management position stressed the importance of structural governmental funding of AMP positions as a vital prerequisite for the implementation and long-lasting embedment of these roles. If the funding of AMP positions is left to the voluntary willingness of healthcare organizations, the possibility of cutting out these positions in economically challenging times increases (Table 4, Q1). Head midwives and middle managers also indicated that hospital boards used the available means primarily to maintain current staffing levels because of budgetary cuts. They felt that there are not enough financial means to create new roles in healthcare at this moment. Head midwives also pointed out that midwifery staffing levels are outdated and insufficient, which makes it difficult to exempt midwives with a master degree for direct client care activities. In a cost-effectiveness driven healthcare system, participants stressed the importance of being able to document the added value of AMP roles to hospital boards (Table 4, Q2). However, participants felt that it is challenging to demonstrate immediate and direct savings in client care by implementing AMPs as the direct improvements of AMP care are difficult to measure.

Furthermore, the current financing of healthcare professionals such as obstetricians through a fee-for-service model was perceived by participants as an impediment for the implementation of AMPs in healthcare settings. In a fee-for-service system, a predetermined amount is paid to healthcare professionals for each discrete service provided (e.g. consultation, office visit, test, and procedure), regardless of quality or outcomes (Miller, 2009). Obstetricians considered AMP role implementation as a possible financial and professional threat through autonomous midwifery practice. One obstetrician stressed the importance of avoid-

Table 4
Illustrative quotes^a.

Quote no.	Quote
Q1	"My opinion is that you need a legal and financial framework. If this is not established, we talk about goodwill. And look to the advanced nurse practitioners in the United States. Cyclically dozens of practitioners were recruited. Funding stopped and dozens of practitioners were laid off. That is not professional development. We do not want that. So I think you need a framework and financial resources in order for those practitioners to be independent of a fee-for-service model, as this makes everyone wanting a piece of the pie." (P5)
Q2	"From a financial point of view, it is a cost. From a non-financial point of view that person might contribute to a smooth service of the clinic. And there could be a financial gain again. Indirectly, that person will be financially beneficial. But...Everything has to be made into a business case these days. And you can't write revenues, can you. Proving direct revenues is impossible. Process improvements might turn out to be financially beneficial." (P30)
Q3	"Things we now try to fit into the basic midwifery training programme: diabetes, lactation consultancy, ultrasound, pelvic floor rehabilitation... And I think: that could be done by advanced practitioners. [...] Because that is certainly a discussion we are currently having: what do we think should and should not be in basic midwifery education. Ultrasound examinations and pelvic floor rehabilitation are very good examples." (P1)
Q4	"What we do have in Belgium, is that there are a number of legal provisions where a midwife can perform advanced tasks, albeit in good coordination with an obstetrician, and that includes ultrasound examinations. [...] There are still more activities that – based on competence – could be executed by the midwife instead of obstetricians, including medication policy." (P5)
Q5	"On the other hand, accreditation and quality improvement is everywhere, which should stimulate people to reflect on persons with the ability of facilitating quality improvement. And such persons inevitably are. [...] Patient safety as well. Everybody is talking about it but... I think those people could really provide added value." (P2)
Q6	"We are qualified for autonomous practice. In regard to normal birth, we practice without supervision. In that sense I am of the opinion that the concept of advanced midwifery practice is not directly transferrable from the concept of advanced practice nursing." (P1)
Q7	"The fact that scientific research is one of the pillars of university hospitals, which is not limited to medical staff members and is deemed important for all professions, that I think is an opportunity." (P2)
Q8	"Like medical specialists I think specialization is a bit of a trap as they may not treat a patient from a holistic perspective." (P1)
Q9	"The reason why some head midwives might not be positive towards AMP ^b implementation is that they have to relinquish their role as experts. And I think some head midwives struggle with that as they want to keep the expert role in some domains." (P2)
Q10	"I fear master educated midwives in another sense. I do not have a master's degree. And I am afraid that, within about two years' time, my position will be given to a midwife holding a master's degree." (P21)
Q11	"In my opinion we then replace... Then it will not be the obstetrician making the decisions but it will be the AMP ^b deciding over a group of non-AMPs. Then you just shift: you might have a midwife as clinical leader but if you want to enhance your position as a midwife or you want to give more visibility to your professional qualifications, I do not think this should be appointed to the happy few. [...] I think this should be shared by all midwives... It should not be turned into a midwife in the position of an obstetrician." (P27)
Q12	"But is scientific research the core business of hospitals these days? As soon as this is not abundantly clear, should we really put in the effort?" (P13)

^a The illustrative quotes were translated from Dutch into English for publication purposes only. No validation of the translation was performed.

^b AMP: Advanced midwife practitioner.

ing negative financial implications for medical specialists if the implementation of AMPs is considered.

Legal factors

Several participants thought the legislation changes for midwifery practice in Belgium in 2006 (e.g. prescriptive authority and ultrasound skills in pregnancy) have increased the need for differentiation in the educational background and competences of midwives. As these changes lead to an extension of midwives' legal competences, they might pose an opportunity for the implementation of AMP roles (Table 4, Q3 and Q4).

Policy factors

Participants reported that signals from healthcare policymakers underlining the necessity of AMP roles could provide an incentive for hospital boards of directors to develop and implement these roles. Firstly, the government could stimulate this through the establishment of care (innovation) programmes in which AMPs play a crucial part. Secondly, AMP roles and the expertise of AMPs could be formally defined and acknowledged by means of legislation. A clear definition and conceptualization of AMPs, unambiguous goals for these functions, and the availability of a professional, competence and educational profile were considered essential for the implementation of these roles. In addition, one participant believed that a national certification board should monitor the qualifications of all AMPs through (re-)certification. However, a participant warned of labeling midwives as AMPs and assigning them an official professional title. An official title could decrease the flexible deployment of these midwives in a rapidly evolving healthcare system if they hang on to their title.

Several head midwives, middle managers and a CNO pointed out new opportunities due to the heightened focus on the accreditation of healthcare organizations, quality improvement, and client safety in the Belgian healthcare system. They were convinced that AMPs could increase healthcare quality and client safety and improve client care by working as clinical leaders, facilitating the implementation of evidence-based practice, functioning as role models, studying client safety and

formulating recommendations for process improvements in client care (Table 4, Q5).

Practice patterns

Changes in healthcare models and delivery

Several head midwives, middle managers and CNOs pointed out that recent changes in governmental policy leading to a shorter hospital stay in the postpartum period for women and newborns could be an opportunity for AMP role implementation. According to several participants, the new model of care stresses the importance of continuity of care and challenges seamless care [i.e. "the desirable continuity of care delivered to a patient in the healthcare system across the spectrum of caregivers and environments" (Canadian Society of Hospital Pharmacists and Canadian Pharmacists Association, 1999)]. Some stakeholders stated that AMPs could play a vital role in coordinating interdisciplinary and seamless care partnerships of healthcare organizations in primary and secondary care. As midwives in primary care work autonomously and independently, some participants believed AMPs could also play a vital role in developing care protocols and primary care guidelines, and in coaching primary care midwives to deliver evidence-based care.

Moreover, some participants believed the rapidly increasing technological developments in fertility, obstetrical, gynecological and neonatal care, and the growing complexity in healthcare would increase the need for AMPs.

Transferability of the advanced practice nursing model to midwifery

Several (head) midwives and midwifery educators warned against automatically transferring the well-known concept of 'Advanced Practice Nursing' to midwifery without discipline specific adjustments (Table 4, Q6). According to these participants, nursing and midwifery are separate healthcare disciplines, which are reflected in major differences in practice domains, education and professional autonomy. Firstly, nurses have a much broader range of practice domains than midwives, calling for nursing professionals specializing in certain domains. Secondly, advanced practice nurses could be seen as practitioners with

a level of autonomous practice between a regular nurse and a physician. As all midwives have the legal competence to autonomously care for clients with normal pregnancies, labor and birth, and in the postpartum period, the problem of having non-autonomous practitioners as in nursing is non-existent in midwifery.

Pioneers for AMP role implementation

Although some participants regarded the implementation of AMP roles possible in both peripheral and university hospitals, most argued that university hospitals would be most suitable as pioneers in implementing these roles (Table 4, Q7). Firstly, the success rate of AMP role implementation in university hospitals was deemed higher because scientific research is part of the mission statement of university hospitals. Therefore, the appointment of healthcare professionals focusing on research as part of their tasks is more likely in university hospitals. Secondly, participants believed that the more advanced care pathway implementation and the focus on evidence-based care in university hospitals provide opportunities for the creation of AMP roles. Thirdly, the greater need for further specialization of obstetricians in university hospitals due to clients with more complex care needs compared to peripheral hospitals strengthens the call for midwives to expand their practice and develop new roles. However, it was perceived vital by a majority of the participants that such role expansion is carried out in areas of care where the implementation of AMPs is seen as helpful by medical specialists, e.g. by taking over medical tasks with limited complexity in (in)fertility and antenatal care (e.g. routine ultrasound examinations, preconception or genetic counseling).

Healthcare needs of the population

Participants seldom spontaneously discussed the healthcare needs of the population as a driver for AMP role implementation. If addressed, participants' opinions on the necessity of such roles from a client population perspective differed. One participant pointed out that one of the main goals of AMP roles internationally is to decrease maternal and neonatal morbidity and mortality. As perinatal morbidity and mortality are already very low in Belgium, the participant felt the 'sense of urgency' for implementing advanced midwifery practice might not be high enough. Furthermore, several midwives believed that the extensive specialization in one area of client care could jeopardize a holistic approach of clients' care needs (Table 4, Q8).

However, several participants believed that AMPs could have a positive impact on the optimization of client care through improvement of quality of care, client safety, continuity of care and tailoring care. One participant also thought that AMPs are ideally placed to increase client participation.

Workforce issues

Managers' attitudes towards AMP role implementation

Chief nursing officers believed that a positive attitude of middle managers and head midwives towards AMPs and the acknowledgement of their added value are essential for the successful implementation of these roles. Several participants indicated also the support of obstetricians in clinical managerial positions (e.g. heads of medical departments) as a prerequisite.

According to some middle managers, a negative attitude of head midwives towards AMPs could prevent or complicate the development and implementation of these roles. Head midwives could hamper the success of AMP roles out of fear of losing their own authorization as clinical experts for their employees (Table 4, Q9). Some participants believed that this threat to head midwives is larger in comparison with head nurses, explaining that advanced nurse practitioners or clinical nurse specialists often work cross-sectional in several hospital wards. The limited number of midwifery care domains (obstetrical, gynecological, neonatal, and fertility care) and wards where AMPs could be employed increase the

chance of AMPs and head midwives being in competition with each other on clinical issues compared to nursing. A clear division of responsibilities and role delineation was considered essential to overcome such barriers.

Midwives' attitudes towards AMP role implementation

Several head midwives and middle managers believed that the attitude of midwives towards AMP implementation is important. Participants indicated that a bottom-up demand for such roles, e.g. due to a need for expertise and support in complex clinical practice situations, could facilitate implementation. One head midwife stressed that AMPs should be clinical and not hierarchical leaders. As midwives might hesitate to ask a hierarchical leader for advice regarding client care in fear of being perceived as professionally incompetent, AMPs could lower the threshold for midwives seeking advice in complex care situations. Several midwives without a master degree but holding consultant or expert positions, voiced the fear that master educated midwives would be preferred to do their job in the future (Table 4, Q10). One participant also voiced the concern that AMPs could become clinical decision makers in disfavor of the autonomy of other midwives, thus taking on the unwanted role of 'midwifery obstetricians' (Table 4, Q11). Some participants feared that defining some midwives as 'advanced practitioners' could result in non-AMP midwives to feel inferior to AMPs and could lead to a decrease in the competence level of non-AMPs. If care for clients with complex care needs would be provided exclusively by AMPs, non-AMPs could be deprived for opportunities to use their skills in complex care situations.

Knowledgeability regarding AMP roles

Participants mentioned the lack of understanding of related healthcare disciplines such as obstetricians with regard to AMP roles as a barrier. Several stakeholders therefore believed it will be vital to inform other healthcare professionals about role descriptions, education, skills and competences of AMPs, and to create a sense of urgency for the implementation of such roles.

Education

Opinions on the required educational level of AMPs varied. The majority of the participants believed that the current three-year midwifery education in Flanders, which is leading to a professional bachelor's degree, is insufficient to prepare midwives for practice beyond a basic level. Several participants considered master's level preparation as a minimum standard to acquire the necessary competences in leadership, ethical decision making, change management, and research. One midwife with an AMP profile and one middle manager thought a doctoral degree would be the most appropriate level for AMPs if they were expected to innovate care, initiate and conduct research activities. However, no gender related differences in opinions on the preferred educational level of AMPs were found among participants.

According to participants, AMPs should have excellent communication, planning, organizing, coaching, critical thinking, and research competences. However, definitions of research competences differed. These differences in opinion on the required level of research skills for AMPs were not related to gender differences among participants. Some participants argued that AMPs should be able to conduct research themselves and evaluate their own practice by setting up small research projects. Some participants questioned conducting research as the 'core business' of hospitals and they therefore dispute the need for the implementation of midwifery roles in which the initiation and execution of research is part of the job profile (Table 4, Q12). These participants suggested that research in care settings should rather be initiated by researchers at universities or university colleges instead of by clinicians. Others described research skills as the ability to 'handle scientific research' and as transferring research results from the scientific literature into midwifery practice. According to these participants, AMPs should

be able to critically evaluate and improve current practice through the use of research results. From this point of view, education at master's level was not deemed essential by some participants. A master degree was rather seen as one of several possible educations to acquire the necessary basic scientific knowledge by midwives in expert roles. Other participants deemed a master's programme too general in nature to educate midwifery experts. These stakeholders find postgraduate courses, i.e. specialist non-degree courses leading to a diploma, more appropriate for training midwives as experts in one or more domains of midwifery practice.

Several participants experienced that midwives were seen more as experts after finishing a postgraduate course by their colleagues than they did after completion of a master programme. To take on the expert role, the majority of participants believed that AMPs should have some years of practice experience.

Discussion

This study identified multiple barriers and facilitators influencing the implementation of AMPs in healthcare settings. As discussed below, several of these are connected, adding to the complexity of AMP role implementation.

According to nearly all participants, budgetary constraints on a governmental level are one of the main factors hampering the implementation of AMP positions. This finding is in line with the views of policy-makers regarding the implementation of specialist and advanced practitioner roles in Ireland (Begley et al., 2014). Similarly, Sangster-Gormley et al. (2011) mentioned the lack of established funding mechanisms as a barrier to nurse practitioner role implementation (Sangster-Gormley et al., 2011). In line with findings from Doetzel et al. (2016) on barriers and facilitators for implementation of nurse practitioners in the emergency department (Doetzel et al., 2016), the fee-for-service model is perceived as a serious impediment for the implementation of AMPs in Flemish healthcare settings. Our participants reported that AMPs might pose a financial threat to obstetricians. This might hinder the implementation of AMP roles considerably, as participants stressed the importance of support from medical specialists for AMP role implementation. Therefore, it seems paramount that the structural implementation of AMPs on a national level is directed by governmental regulations.

According to several participants, underpinning the impact of AMPs on a clinical and strategic level seems vital for governmental funding of these positions and financing on the level of cost-effectiveness driven healthcare organizations. However, the client perspective as an important driver for AMP role implementation was limitedly discussed in the interviews even when this was introduced specifically. Similar to results of Casey et al. (2017b), participants pointed out that it might be challenging to measure direct outcome improvements of AMP care. Although the amount of evidence illustrating the important part AMPs play in healthcare settings is growing (Begley et al., 2010; Newhouse et al., 2011; Weitz et al., 2013; Begley et al., 2014), quantitative data on the cost-effectiveness of AMP care and on the impact on professional and organizational outcomes uniquely attributable to AMPs are lacking.

Since conducting research is clearly described as part of the competence profile of AMPs internationally (National Council for the Professional Development of Nursing and Midwifery, 2008), participants' varied interpretation of AMPs' research skills might be of concern. Although some participants stated that AMPs should be capable of initiating and conducting research, some questioned the necessity of such skills as research is not one of the core tasks of healthcare organizations. Others described research skills as being competent to translate the scientific literature into midwifery practice. However, besides research skills of AMPs by reviewing the literature and implement evidence-based innovations, clinical research by AMPs could contribute to the advancement of midwifery practice and midwifery as a discipline. According to Begley et al. (2014), advanced practitioners experience challenges finding time for research activities as the large need for their services requires that

they devote the majority of their time to clinical practice and associated activities (Begley et al., 2014). If healthcare managers responsible for defining AMP job contents are not convinced of the importance of AMP research activities, too much focus in the AMP role could be on clinical work. This might threaten the advancement of midwifery as a profession.

Participants mentioned several reasons for the apprehensiveness of head midwives and midwives regarding the implementation of AMPs in Flemish healthcare settings, such as fear of losing recognition as a clinical expert by midwifery staff and of creating another level of 'hierarchy' by midwives. Ayala et al. (2014) shed light on similar tensions in the academization process of nursing in Chile, showing that the individual professional progress of nurses is viewed negatively by their peers (Ayala et al., 2014). The authors suggest two explanations for tensions between nurses with different degrees working next to each other. Firstly, additional qualifications might lead to increasing employability and income, resulting in nurses competing to climb the social ladder (Ayala et al., 2014). Secondly, individual professional progress is perceived incompatible with the socially attributed identity of selflessness in nursing (Ayala et al., 2014). Similarly, Anderson (2018) stated that negative gender expectations have led to nursing been associated with caring rather than leading. Therefore, the author suggested that advanced practice nurses must overcome these gender expectations in order to develop themselves as leaders (Anderson, 2018).

The apprehensiveness of midwives towards advanced practitioner roles might impede implementation, as middle managers and head midwives pointed out the importance of midwives experiencing the need for such roles themselves. As Sangster-Gormley et al. (2011) mentioned, advanced practitioner roles are implemented in established practice settings with a unique culture and already existing relationships. Therefore, the implementation of new roles is challenging (Sangster-Gormley et al., 2011). Given this complexity, it would be useful to understand the underlying psychological and sociological processes associated with the introduction and implementation of advanced practice roles in the specific culture of a healthcare organization and within the midwifery profession.

Study limitations

To our knowledge, this study was the first to uncover factors influencing AMP role implementation in Flemish healthcare settings, thereby enhancing the limited knowledge on AMP role implementation internationally. Nevertheless, some limitations of our findings should be discussed. Firstly, the interviewer was known to several of the participants. To avoid assumptions by the participants on the opinion of the interviewer regarding the topic, the inductive nature of the data collection was stressed. The transcribed interviews indicated that the participants very openly voiced their opinions. This leaves the researchers to believe that the interviewer knowing several of the participants might have contributed to more instead of less openness. Although literature on the methodological implications of interviewing peers is limited (Coar and Sim, 2006), some authors described that interviewing peers might enhance openness of the participants and trust in the researchers (Holloway and Wheeler, 2010). An equal relationship between researchers and participants could enhance co-operation and responsiveness as participants might feel safe enough to allow themselves a form of vulnerability (Chew-Graham et al., 2002). In addition, researcher triangulation was used to ensure dependability and credibility of the findings. Secondly, the interviewer experienced that participants having no or limited experience with advanced practitioner roles had some difficulty grasping the concept of such roles.

Implications for future research and practice

This study identified several factors influencing AMP role implementation on the level of healthcare organizations and hospital departments.

Therefore, CNOs, middle managers and head midwives could take them into account when they are interested in planning AMP role implementation in their healthcare setting. Furthermore, several opportunities for the implementation of such roles have been mentioned. As areas such as quality of care improvement, client safety, and care innovation are high on the policymakers' agenda, pilot projects for AMP role implementation should be considered. Research evaluating AMP attributable impact on clinical, healthcare organizational and professional outcomes should be executed when setting up such projects, since results could substantiate policy decisions regarding structural funding of these roles. In addition, research examining the current level of midwifery advancement in healthcare settings, e.g. the extent to which evidence-based practice is implemented in midwifery practice, might uncover practice areas in which advancement has been sparse. This information could indicate in which areas the implementation of AMPs would be most useful. Furthermore, a questionnaire based quantitative study might cast light on the order of magnitude with which these factors could influence the implementation process in university and peripheral hospitals, and in primary care. Finally, exploration of the psychological and sociological background of factors potentially influencing the implementation of AMPs mentioned in this study (e.g. gender and gender role stereotypes) might deepen our understanding of underlying processes. *The Sex and Gender Equity in Research guidelines might provide valuable guidance in the design, implementation and reporting of such studies (Heidari et al., 2016).*

Conclusion

This study uncovered multiple factors on governmental, healthcare organizational, and workforce level that are perceived to affect AMP role implementation. Results illustrate the complexity of the implementation process for such roles, highlighting the need for a well-thought-out implementation plan with the involvement of all relevant stakeholders. As university hospitals are seen as pioneers for the implementation of AMPs, pilot projects in these hospitals might be useful. Measurement of AMP attributable clinical, organizational and professional outcomes should be undertaken to guide policymakers' decisions on structural funding and embedment of these roles.

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