

The state of professionalisation of midwifery in Belgium: A discussion paper



Joeri Vermeulen^{a,b,*}, Ans Luyben^{c,d}, Ronald Buyl^b, Serena Debonnet^{e,f},
Geneviève Castiaux^g, Anne Niset^{e,h,i}, Joke Muyldermans^{a,j,k,l}, Valerie Fleming^m,
Maaïke Fobelets^{a,b}

^a Department Health Care, Knowledge Centre Brussels Integrated Care, Erasmus Brussels University of Applied Sciences and Arts, Brussels, Belgium

^b Faculty of Medicine and Pharmacy, Department of Public Health, Biostatistics and Medical Informatics Research Group, Vrije Universiteit Brussel (VUB), Brussels, Belgium

^c Centre for Midwifery, Maternal and Perinatal Health, Faculty of Health & Social Sciences, Bournemouth University, Bournemouth, UK

^d Department of Health Services Research, University of Liverpool, Liverpool, UK

^e Federal Public Service, Health, Food Chain Safety and Environment, Brussels, Belgium

^f Clinique Saint-Jean, Brussels, Belgium

^g Paramedical Department Sainte-Elisabeth, University College of Namur-Liège-Luxembourg, Namur, Belgium

^h Centre Hospitalier du Bois de l'Abbaye, Seraing, Belgium

ⁱ Belgian Midwives Association, Antwerp, Belgium

^j Midwifery Practice InTeam, Hoeilaart, Belgium

^k Flemish Professional Association of Midwives, Antwerp, Belgium

^l Care4Education, Boortmeerbeek, Belgium

^m School of Nursing and Allied Health, Liverpool John Moores University, Liverpool, UK

ARTICLE INFO

Article history:

Received 28 April 2020

Received in revised form 16 September 2020

Accepted 17 September 2020

Keywords:

Midwifery

Midwives

Professionalisation

Profession

Health care

Maternity care

ABSTRACT

Aim: To describe the state of the professionalisation of midwifery in Belgium, and to formulate recommendations for advancing the midwifery profession.

Methods: A descriptive overview of maternity care in Belgium and the professionalisation of midwifery through an analysis of relevant policy and academic texts, underpinned by Greenwood's sociological criteria for a profession: (1) own body of knowledge, (2) recognised authority, (3) broader community sanctions, (4) own code of ethics and (5) professional culture sustained by formal professional associations. From these insights, recommendations for advancing the midwifery profession in Belgium are formulated.

Findings: Current strengths of the professionalisation of midwifery in Belgium included unified midwifery education programmes, progress in midwifery research and overarching national documents for guiding midwifery education, practice and regulation. In contrast however challenges, such as the limited recognition of midwives' roles by its clientele, limitations of midwives' competencies and autonomy, lacking development of advanced roles in maternity care practice and a lack of unity of the organisation and its members, were also identified. Based on these, recommendations are made to strengthen Belgian midwifery.

Conclusions: Recommendations for advancing the midwifery profession in Belgium includes in particular increasing public awareness of midwives' roles and competencies, implementing the full scope of midwifery practice and monitoring and advancing this practice. Thus, professional autonomy over both midwifery practice and working conditions should be enhanced. United midwifery organisations, together with women's groups, other maternity care professionals and policy-makers as equal partners are key to bring about changes in the Belgian maternity care landscape.

© 2020 Australian College of Midwives. Published by Elsevier Ltd. All rights reserved.

Statement of significance

Problem

Most midwives in Belgium work in hospitals, which are obstetrician led. Midwives face limitations to their autonomy

* Corresponding author at: Erasmus Brussels University of Applied Sciences and Arts, Knowledge Centre Brussels Integrated Care, Laarbeeklaan 121, 1090 Brussels, Belgium.

E-mail address: joeri.vermeulen@ehb.be (J. Vermeulen).

as well as their comprehensive scope of midwifery practice, as legally defined.

What is already known

There is a growing body of evidence about the positive outcomes and cost containment of midwife led care, and an increasing international call for advancing the midwifery profession in the public health care field.

What this paper adds

This paper provides structural insights in the current state of the professionalisation of midwifery in Belgium. Based on these strengths and challenges, recommendations for the future of the profession in Belgium are provided.

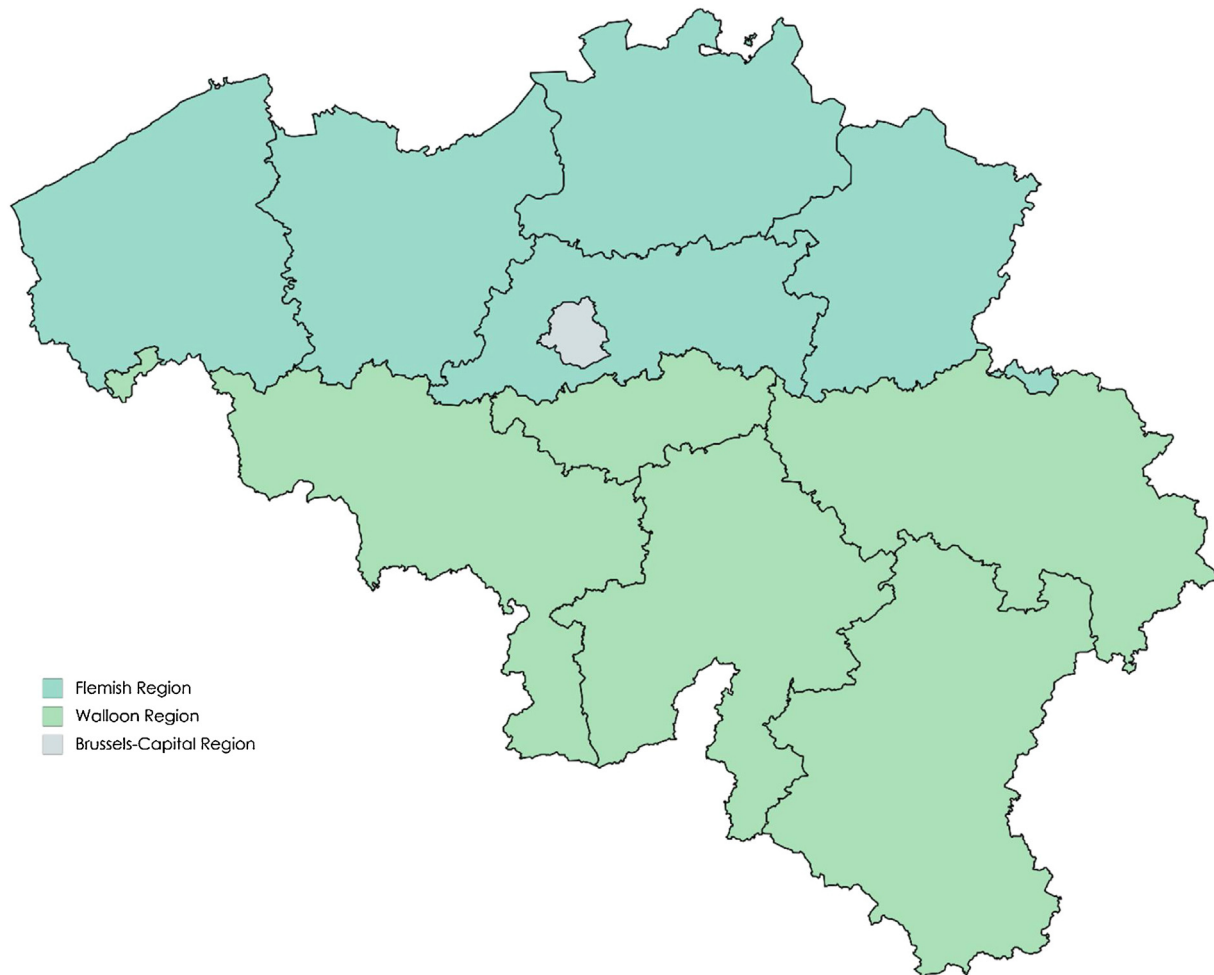
1. Introduction

Evidence suggests that well-educated, licensed midwives trained to meet international standards in midwifery positively contribute to the health of women, newborns and their families [1,2]. The skilled, knowledgeable and compassionate care of midwives for childbearing women and their families ideally encompasses a continuum of care during pregnancy, labour and the postpartum period, as well as care of the newborn, family planning and reproductive health services [1]. As a result, it has been demonstrated that midwife-led care leads to reduced rates of

preterm birth and medical interventions [3]. Internationally however, there are considerable differences in midwives' status and roles, their autonomy, the scope of their responsibilities, and the financial rewards for their work [4]. Even in countries with public health systems, the role and scope of midwives vary far more than that of other health professionals in the health care landscape [5].

In order to improve their status, midwives in Europe called for increased professionalisation of midwifery during the 1980s and 1990s [6,7]. While there are many definitions of professionalisation, it is generally understood as a process by which an occupation develops the characteristics of a profession [6,7]. An essential aspect of the European midwives' drive for professionalisation was the wish for more political influence, in which midwifery would be recognised as an important partner in the decision-making process in health care settings [8]. Amongst the midwives surveyed, it was expected that this would be coupled with an increased differentiation of professional structures [6]. Midwifery leaders believed that increasing professionalisation of midwifery would also strengthen its professional autonomy and control, and so increase its recognition and prestige as well as political influence [8].

A recent study (2019) explored the current state of professionalisation of midwifery in 29 European countries, using Greenwood's criteria for a profession [9]: (1) own body of knowledge, (2) recognised authority, (3) broader community sanctions, (4) own



Created with mapchart.net ©

Fig. 1. Belgium regions.

code of ethics and (5) professional culture sustained by formal professional associations. The authors identified that whereas initial progress in midwifery education had taken place, midwives' status and roles in practice as well as their influence on the health care systems, culture and politics in various countries were matters of concern [8]. More in-depth study on midwives' practice, autonomy and maternity care culture in individual countries was therefore recommended. Belgium was included in this analysis and the present discursive article builds on the situation in this country by giving an in-depth consideration of the factors of relevance in this country.

1.1. An overview of maternity services in Belgium

Belgium, is a country in Western Europe, bordered by the Netherlands, Germany, Luxembourg and France. Its political organization is complex and structured on both regional and linguistic grounds. It is divided into three highly autonomous communities and regions: Flemish Region (Dutch-speaking), Walloon Region (French-speaking) and the Brussels-Capital Region (bilingual) (Fig. 1).

Belgium has a population of 11,431,406 (2019), with 117,800 births in 2018 [10]. Maternity services in Belgium thus play a vital role in the hospital landscape with 98.8% of births taking place in hospital [11,12]. The number of births per service ranges from 120 to 3,500. The number also varies between regions: the median number of births per maternity service is 2172 in Brussels against 790 in Flanders and 786 in Wallonia [13]. The average length of postnatal hospital stay after vaginal birth has decreased from 5 days in 2000 to 3.1 days in 2016. This reduction had an impact on the midwifery workforce, and recently a shift to primary care has been noted [14].

In Belgium, midwives are specialists in the field of physiology, and provide services both in hospitals and in primary care. They counsel and supervise healthy women and newborns, from preconception, during the pre-, intra, and postnatal period [15]. In addition, midwives practising in Belgium have responsibilities in four major practice domains: obstetrics, reproductive medicine, gynaecology and neonatology, and they have prescribing rights [15]. Those who graduated before 2018 are also allowed to work as nurses. In 2014, 8671 midwives were professionally active; 90% of whom work in hospitals either in the four major practice domains [15] or as nurses, while 7% work in primary care [14]. The final 3% are employed in educational or management positions. In primary care, midwives work independently, in group practices or in public health organisations [16]. It is estimated that the demand for midwifery care in Belgium will increase from 11.4%, to 17.4%, between 2016 and 2026. This increase is mainly due to the expected raise in postnatal outpatient care activities. The status of the midwives employed at a hospital or in primary care will depend on the whether the service is obstetrician led, midwife led or primarily organised through primary care professionals. Based on observation of past developments in other countries (e.g. the Netherlands, the United Kingdom, Sweden and Canada), and on the assumption that similar developments are highly probable in Belgium, it is anticipated that future Belgian maternity care will be marked by increased involvement of midwives in postnatal care [17].

Today, most midwives work in obstetrician led hospitals and thus their autonomy is limited. The historical value given to specialist medical services impact on the role of midwives, who face limitations to fulfilling their legally defined comprehensive role [18,21]. This situation builds a sharp contrast to the growing body of evidence about the positive outcomes and cost containment of midwife led care, and the increasing international call for strengthening the contribution of midwifery in the public health

care field [3,19]. Thus the current article firstly explores the state of professionalisation of midwifery in Belgium, through an analysis of relevant policy and academic texts. This is underpinned by Greenwood's sociological criteria [9]. Secondly, from these insights, recommendations for advancing the midwifery profession in Belgium will be formulated.

2. Professionalisation of midwifery in Belgium

2.1. A defined and distinctive body of knowledge

In Belgium, midwifery education is a direct-entry programme at bachelor's level, based on the European Directives (Directive 2013/55/EU) [20]. Midwifery education is provided in 12 Higher Education Institutions in Flanders and in nine in the French Community [21]. However, the length of the Flemish (180 ECTS, 3 years) and French Community (Walloon and Brussels-Capital Region, 240 ECTS, 4 years) programmes differ [14], although students need to acquire the same competencies [15]. Nevertheless an agreement exists to harmonise the length of midwifery education between the communities. Despite differences in the length of the programmes, all Belgian midwifery students are educated to be autonomous practitioners of childbearing women with uncomplicated pregnancies and they are still expected to acquire competences in all fields of midwifery, according to both national and European legislation, and in accordance with the ICM Global Standards for Midwifery Education [22]. However, this is challenging in the current maternity care context, as clinical placements are mainly set in hospitals where most births are undertaken by obstetricians. As a consequence, students might not be able to experience the full scope of midwifery practice as defined in the European Directives [18].

Various Master's programmes, such as a Master of Science in Nursing and Midwifery, a Master in Healthcare Management, a Master in Public Health or a Master in Health Education and Health Promotion, are accessible for midwives, but are not restricted to midwives only. Specific advanced midwife practitioner master's programmes are being planned in the near future [23]. PhD programmes for midwives are available, though not exclusively in the field of midwifery, but more likely in social health sciences, psychology and education. Several midwives are employed in academic settings where they carry out research; thus the scientific midwifery body of knowledge is growing in Belgium. Recently the first professors in midwifery were appointed.

2.2. Authority recognised by its clientele

As in most other Western European countries, there has been an important shift in midwifery care after World War II, when childbirth moved from home to hospital. The reason for this shift was the introduction of a compulsory health- and disablement insurance scheme, which specified that births in hospital and all specialist medical care would be reimbursed by health insurance, regardless of whether they were complicated or uncomplicated [24]. This decision was followed by an increase in the number of obstetricians and hospital capacity. Even today, the current organisation of the health care system provides financial incentives in support of a medical led system [18].

When a woman suspects she is pregnant, she can either consult a midwife, general practitioner (GP) or an obstetrician. Usually a woman will choose an obstetrician as her main maternity care professional, often in cooperation with a GP or midwife, while it is rather exceptional to opt for a midwife only. The number of births supervised by midwives in Belgium hospitals is not known, as those are not registered. Independent midwives and GPs have very limited access to hospitals, when complications arises hospital

staff take over responsibility thus differentiation is complicated [24]. Collaboration between midwives and hospitals is generally limited to postpartum care. Home births are rare, numbering less than 1 percent in 2017 [25] and are supervised by midwives working in primary care settings. There are 13 birth centres and two midwifery led units attached to maternity hospitals in Belgium. Specialist or advanced roles for midwives are limited to management functions or lactation consultants.

Midwives' degree of autonomy varies; in hospitals most midwives work under the authority of the obstetrician, although this might vary across hospitals and regions. Midwives in hospitals have limited control over their working conditions such as one to one care, continuity of care, or working hours, most of which is determined by hospital management. Primary care midwives tend to have more autonomy in the organisation of their work.

2.3. Broader community sanctions

The national government is responsible for regulating the midwifery profession, through the Ministry of Health. Self-registration for a visa in a standalone register for midwives, a license to practise and accreditation happens automatically online, whenever one graduates in Belgium though different processes are employed for those who graduated from institutions outside of Belgium [26]. Continuous Professional Development (CPD) education is mandatory by law, a minimum of 75 h of CPD activities in 5 years is compulsory to retain the visa, though compliance is not currently verified. Midwifery disciplinary matters are dealt with by health authorities and midwives appointed by the professional organisations. Midwifery practice in Belgium is determined by the European Directives, outlining 11 midwifery particular competencies, which are specified in national legislation [14]. Specifically, in the Royal Decree of 1 February 1991, it is stated that Belgian midwives are autonomous and competent to practice independently in uncomplicated pregnancy, labour and childbirth [27]. This Decree also determines which competencies are permitted or forbidden for midwives [28].

2.4. A code of ethics

The Belgian Midwives Association (BMA) adopted the International Code of Ethics for midwives of ICM [29]. The code addresses the midwife's ethical mandate to promote the health and wellbeing of women and newborns within their families and communities [30]. These mandates include how midwives relate to others, how they practise midwifery, how they uphold professional

responsibilities and duties, and how they are to work to assure the integrity of the profession of midwifery. Recently the Flemish Professional Association of Midwives introduced the 'Good Practice Logo' (GPL) for midwives in primary care settings, which is a quality label for midwifery practice. To comply with the GPL midwives have to meet several prerequisites such as evidence based and family centred care, compliance with the ICM code of ethics is an additional requirement. However, it remains unclear how the code of ethics is operationalised in midwives' daily practice throughout Belgium.

2.5. A professional culture sustained by a formal professional organisation

The recognition of midwifery as a separate profession has increased during the last decades, while gaining momentum after midwifery education became a direct entry programme in 1995 to be compliant with the EU Directives EEC/80/154 and EEC/80/155. Midwives nowadays are structurally involved in governmental bodies, together with other stakeholders in maternity services. Since 1999 a National Council of Midwives has been established to advise the Minister of Public Health on midwifery related matters, such as qualifications, practices and competencies of midwives. The Council, consists of midwives from professional associations, doctors, policymakers and nurses, has a significant political impact on decisions related to maternity care. Midwifery educators are involved in official committees to advise the Ministers of Education in both communities about midwifery education; in Flanders through the Vlaamse Hogescholenraad (Flemish Council for Higher Education), and in the French Community (Walloon and Brussels-Capital Region) via Académie de recherche et d'enseignement supérieur (Research and Higher Education Council of the French Community).

The BMA is an umbrella organisation comprising 3 professional midwifery associations unique for midwives; the Vlaamse Beroepsorganisatie van Vroedvrouwen (Flemish Professional Association of Midwives), the Union Professionnelle des Sages-femmes Belges (Professional Union of Belgian Midwives) and the Association Francophone des Sages-femmes Catholiques (French speaking Association of Catholic Midwives). BMA represents a total of 2100 members, about 24% of professionally active midwives. Membership to a professional association however is not mandatory for midwives, and not linked to their licence to practise. BMA represents Belgian midwives in the ICM and European Midwives Association. The respective midwifery organisations are represented in various consultative bodies for

Table 1
Overview of the professionalisation of midwifery in Belgium.

Greenwood's sociological criteria for a profession adapted for the midwifery profession [8]	State of the professionalisation of midwifery in Belgium
A defined and distinctive body of knowledge e.g. outcome level of midwifery education, direct-entry, impact of EU Directives on midwifery education, opportunities for postgraduate education, midwifery research	Bachelor degree, Direct entry, postgraduate study is available, growing scientific midwifery body of knowledge
Authority recognised by its clientele e.g. can midwives provide autonomous care for women and their babies in the postnatal period, can midwives decide how they work in practice, are nurses involved in providing aspects of care to low risk women, do midwives work in birth centres, are midwives organised in independent practices	Limited authority by organisation of health care, obstetrician-led maternity care, women's preferences More autonomy in primary care
Broader community sanctions e.g. is the role of a midwife protected by legislation, is midwifery practice regulated, do midwives need to register to be allowed to practice as a midwife, is there a lead midwife in the Government/Health Department/Education Department	Profession is legislated and regulated and in line with EU Directives, midwives need to register to practise
A code of ethics e.g. is there a code of ethics for midwives, is this code based on the ICM code of ethics for midwives or other, is this code for midwives only or is it shared with other professional groups	A code unique for midwives (ICM) is adopted
A professional culture sustained by a formal professional association e.g. is there a separate midwifery association, is the midwifery association part of a nursing association, does the midwifery association have an impact on the government with regard to midwifery	Influential, not being united as midwives and the fragmentation of political landscape is a threat

maternity care, such as the Belgian Health Care Knowledge Centre, Planning Commission for midwifery workforce forecasting, Centre for the Study of Perinatal Epidemiology (Table 1).

3. Discussion

This is the first paper to analyse the professionalisation of midwifery in Belgium using a structured framework. As such, it offers the first structural insights in the current state of the professionalisation of midwifery in Belgium. Although similar analyses from other countries have been carried out, they appear to lack a recognised framework and so comparisons have not been possible [9]. We now highlight strengths and opportunities as well as challenges, and generate recommendations for the future of the profession in Belgium.

3.1. Midwifery education

A strength of the midwifery profession in Belgium is its education, which, since 1995, has been a direct-entry programme at Bachelor's level. This is based on recognised national guidelines for practice and education, and complies with the Bologna Declaration and the relevant European Directives [31]. With a strong focus on evidence-based practice, the programmes equip midwives to meet the demands of modern maternity care [32].

The limited recognition of midwives by their clientele as a primary professional group to provide antenatal and intrapartum care poses a major challenge to their professionalisation both in Belgium and worldwide [33]. Traditionally in Belgium the majority of women access care through an obstetrician and so establish a doctor-client relationship during the entire pregnancy. A study in Brussels found that women do not recognise midwives as the primary preferred health professional for uncomplicated labour or childbirth, and they do not consider midwives to play a central role in uncomplicated pregnancies [34]. A better understanding of the roles of midwives within the health system is desirable as they are a key component in the provision of safe and effective maternity care [35].

Midwives in Belgium need to become more visible and communicate their roles more clearly. In addition, they need to consider an expanded role, especially in the provision of antenatal and intrapartum care [36]. Research, however is warranted to monitor the further progression of the midwifery profession, and explore Belgian midwives' self-perceived autonomy in all settings in Belgium. Coupled with this, the concept of further education (MSc, PhD), leading to advanced midwife practitioners still needs to be clarified in Belgium. There is also international consensus that a debate on the defining elements of advanced midwifery practice would contribute to advancing the professionalisation of midwifery globally [37].

3.2. Midwifery regulation

A 2020 study identified that in several European countries, especially the lack of legislation to support regulatory activities limit the recognition and scope and the ability for midwives to practise as an autonomous profession [38]. At a national level, as a strength, the midwifery profession is protected by legislation and regulation, and in line with the European Directives. In reality, however, as in most European countries, midwives often work in an obstetrician led system of care [39], where autonomy varies and scope of practice is limited [40].

The recent shift toward primary care for postnatal care in Belgium has resulted in a pivotal role for the midwife in this area. Belgian primary care midwives gained more competencies and autonomy, which consistent with the findings of a recent European

study [8]. An expansion of this development in other domains of midwifery would support the professionalisation of midwifery in Belgium. Other countries, however, have gone further and the backlash against medicalisation of birth in New Zealand in the late 1980s led to midwives regaining a prominent position as primary maternity care providers through a legislative change in 1990 [41].

3.3. Professional midwifery organisations

The national Belgian professional midwifery organisation takes the form of an umbrella organisation with three regional midwifery organisations. Each of the organisations has a strong role in providing information by lobbying and directly communicating with policy makers at all levels [8,42]. However, the status of each of the organisation differs in that each has a different agenda and focus.

Belgium is an administratively complex country which impacts on the development of the midwifery profession [21]. A critical interpretive synthesis of the roles of midwives concluded that health systems that have many political and health system challenges will in turn have a midwifery workforce where midwives lack an institutional voice and representation [38]. As a result of the varying responsibilities between regions and departments in Belgium, there are different interlocutors at different decision-making levels, which may lead to fragmentation in what midwifery organisations are advocating thus their voices may not be as powerful when midwives themselves are not united.

As membership to a professional organisation is not mandatory for midwives, not every midwife may have professional representation. To be able to represent all midwives and to sustain a professional culture, membership to a professional organisation should be considered as an essential part of midwives' licence to practise. There are also differing needs in each region, despite a common vision of the profession and role of the midwife making it difficult for the different organisations to collaborate.

3.4. Scope of practice

Significant challenges for Belgian maternity care are implementing the full scope of midwifery, facilitating midwifery led models of care and increasing autonomous practice. Recently the Belgian Health Care Knowledge Centre developed scenarios for the future of maternity care in Belgium based on observation of past trends and developments in other countries [17]. The stakeholders involved, representing different professional affiliations and levels of decision-making, were overall convinced of the new, different scenarios, which will include a greater participation of midwives in maternity care. The feasibility of the future scenarios however depends on numerous factors, including the political will to reorganise maternity care, a more intensive and faster shift to outpatient care and access to specialists reserved for at-risk clinical situations [17].

Any change in current maternity care is expected to be coupled with concrete structural changes as well as cultural changes [43]. Even when breaking traditions takes a considerable time, the reorganisation of maternity care should be accompanied with strategies to increase public awareness of the particular role of midwives in the continuum of care for both women and their families. Involvement of all concerned, women's groups, other maternity care professionals and policymakers, is key to initiate this structural change.

4. Conclusions

Evidence does suggest that well-educated, skilled and supported midwives educated to meet international standards in

midwifery have a vital role in caring for the health of both women and their families. To be autonomous partners in maternity care, however, midwives need a strong profession. This paper has highlighted the main strengths of the profession such as its unified midwifery education programmes, progress in research and overarching national policies for guiding midwifery education, practice and regulation. However, it also shows multiple flaws, such as the limited recognition of midwives' roles by its clientele, restrictions of midwives' competencies and autonomy in practice, lacking development of advanced roles in maternity care practice and the lacking unity of the organisation and its members. Significant challenges for Belgian maternity care in the near future therefore include increasing the public's awareness of midwives' roles and competencies, implementing full scope of midwifery practice, including midwifery led models of care, and monitoring and advancing this practice. Increased professionalisation should lead to more professional autonomy over midwifery practice as well as related working conditions, all of which support midwives to be adequately equipped as an equal partner in a changing maternity care landscape. A focus on women and their families as a centre of care is required to achieve optimal results in terms of health and cost, not only for the health system but for the whole society.

Author Agreement

The article is the authors original work. The article is not previously been published elsewhere (either partly or totally), and is not in the process of being considered for publication in another journal. All authors meet the criteria for authorship (Women and Birth Guide for Authors, 2020), have seen and approved the manuscript being submitted and that all those entitled to authorship are listed as authors. The authors abide by the copyright terms and conditions of Elsevier and the Australian College of Midwives.

Ethical Statement

N/A, as our study does not involves the use of human or animal subjects nor patient records or research participants databases (Ethical standards of the Declaration of Helsinki, World Medical Association, 2013).

Conflict of interest

None declared. All authors declare no conflict of interest associated with this publication and there has been no financial support for this work.

Funding

None declared.

CRediT authorship contribution statement

Joeri Vermeulen: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Ans Luyben:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Ronald Buyl:** Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Serena Debonnet:** Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Geneviève Castiaux:** Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing.

Anne Niset: Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Joke Muyldermans:** Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing. **Valerie Fleming:** Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - review & editing. **Maaïke Fobelets:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing - original draft, Writing - review & editing.

References

- [1] WHO Health Topics: Midwifery. 2019. <https://www.who.int/topics/midwifery/en/>.
- [2] M.J. Renfrew, C. Homer, S. Downe, et al., Midwifery: an executive summary for the Lancet's series, *Lancet* 384 (1) (2014) 8.
- [3] J. Sandall, H. Soltani, S. Gates, A. Shennan, D. Devane, Midwife-led continuity models versus other models of care for childbearing women, *Cochrane Database Syst. Rev.* (2016)CD004667.
- [4] The Lancet. The status of nursing and midwifery in the world. 2020. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30821-7/full-text](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30821-7/full-text).
- [5] J. Sandall, Place of Birth in Europe, (2015). https://www.euro.who.int/__data/assets/pdf_file/0010/277741/Place-of-birth-in-Europe.pdf?ua=1.
- [6] M. Zoega, Die Professionalisierung Des Hebammenberufs: Anforderungen an die Ausbildung, Hans Huber, Bern, 2004.
- [7] P.M. Hamilton, Realities of Contemporary Nursing, Addison-Wesley Nursing, New York, 1996.
- [8] J. Vermeulen, A. Luyben, R. O'Connell, P. Gillen, R. Escuriet, V. Fleming, Failure or progress?: The current state of the professionalisation of midwifery in Europe, *Eur. J. Midwifery* 3 (2019).
- [9] E. Greenwood, Attributes of a profession, *Soc. Work* 2 (3) (1957) 45–55.
- [10] Statbel: België in cijfers. 2019. <https://statbel.fgov.be/nl/themas/bevolking/structuur-van-de-bevolking2020>.
- [11] N. Benahmed, C. Devos, L. San Miguel, et al., Caring for mothers and newborns after uncomplicated delivery: towards integrated postnatal care, Belgian Health Care Knowledge Centre (KCE) (2014). Retrieved from http://kce.fgov.be/sites/default/files/page_documents/KCE_232_Postnatal_care_Report_0.pdf.
- [12] C. Van de Voorde, K. Van den Heede, C. Beguin, et al., Required Hospital Capacity in 2025 and Criteria for Rationalisation of Complex Cancer Surgery, Radiotherapy and Maternity Services, Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE), 2017 KCE Reports 289 D/2017/10273/45 2017.
- [13] M. Lefèvre, N. Bouckaert, C. Camberlin, et al., Organisation of Maternity Services in Belgium, Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE), 2019 KCE Reports 323 D/2019/10273/68 2020.
- [14] N. Benahmed, E. Hendrickx, J. Adriaenssens, S. Stordeer, Planning Van Gezondheidszorgpersoneel En Gegevens Over Vroedvrouwen, Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE), 2016 KCE Reports 278A D/2016/10273/95 2016.
- [15] Federal Government of Health, 2015, The Professional and Competency Profile of the Belgian Midwife [Het beroeps- en competentieprofiel van de Belgische vroedvrouw]. Retrieved from, (2015) . <http://www.vroedvrouwen.be/sites/default/files/Beroepsprofiel%2012%2005-1.pdf>.
- [16] PlanKad Vroedvrouwen 2004–2014, Cel Planning Van Het Aanbod Van De Gezondheidszorgberoepen, Dienst Gezondheidszorgberoepen En Beroepsuitoefening, Directoraat-generaal Gezondheidszorg, FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, 2018.
- [17] N. Benahmed, M. Lefèvre, I. Vinck, S. Stordeer, Alternative Scenarios for the Forecasting of the Midwifery Workforce: Horizon Scanning and Quantification Model, Health Services Research (HSR) Brussels: Belgian Health Care Knowledge Centre (KCE), 2019 KCE Reports 312C 2019.
- [18] M. Mead, A. Bogaerts, M. Reyns, Midwives' Perception of the Intrapartum Risk of Healthy Nulliparae in Spontaneous Labour, *Midwifery, The Flanders, Belgium*, 2007, pp. 361–371 23.
- [19] J. Sandall, Every woman needs a midwife, and some women need a doctor too, *Birth: Issues Perinatal Care* 39 (4) (2012) 323–326.
- [20] European Parliament Council of the European Union, Amending Directive 2005/36/EC on the Recognition of Professional Qualifications and Regulation (EU) No 1024/2012 on Administrative Cooperation Through the Internal Market Information System ('the IMI Regulation'), Official Journal of the European Union, 2013 Retrieved from <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013L0055>. 2013.
- [21] M. Embo, M. Valcke, Workplace learning in midwifery education in Flanders (Belgium), *Midwifery* 33 (2016) 24–27.
- [22] L. Van kelst, B. Spitz, W. Sermeus, A. Thomson, Student midwives' views on maternity care just before their graduation, *J. Adv. Nurs.* 69 (3) (2013) 600–609.
- [23] R. Goemaes, D. Beeckman, S. Verhaeghe, A. Van Hecke, Sustaining the quality of midwifery practice in Belgium: challenges and opportunities for advanced midwife practitioners, *Midwifery* 89 (2020)102792.
- [24] J. Emons, M. Luiten, Midwifery in Europe: an Inventory in Fifteen EU-member States: Deloitte & Touche, (2001) .

- [25] R. Devlieger, E. Martens, R. Goemaes, H. Cammu, *Perinatale Activiteiten in Vlaanderen 2017*, Vzw Studiecentrum voor Perinatale Epidemiologie (SPE), 2018.
- [26] M. Gray, E. Kitson-Reynolds, A. Cummins, *Starting Life As a Midwife. An International Review of Transition from Student to Practitioner*, Springer, Cham, Switzerland, 2019.
- [27] Federal Government of Belgium, *Royal Decree Concerning the Practice of the Profession of Midwife*, Koninklijk Besluit betreffende de uitoefening van het beroep van vroedvrouw, 1991 1991.
- [28] M. Eggermont, The choice of child delivery is a European human right, *Eur. J. Health Law* 19 (3) (2012) 257–269.
- [29] International Code of Ethics for Midwives, (2014) . <https://www.internationalmidwives.org/assets/files/general-files/2019/10/eng-international-code-of-ethics-for-midwives.pdf2020>.
- [30] I.R. Foster, J. Lasser, *Professional Ethics in Midwifery Practice*, Jones & Bartlett Publishers, 2010.
- [31] Vlaamse Universiteiten en Hogescholen Raad, *De Onderwijsvisitatie Vroedkunde*, (2014) . http://www.vluhr.be/media/docs/Visitatierapporten/VLUHR_Rap1_Vroedkunde%20web.pdf.
- [32] C. Plappert, J. Graf, E. Simoes, S. Schönhardt, H. Abele, The academization of midwifery in the context of the amendment of the german midwifery law: current developments and challenges, *Geburtshilfe* 79 (08) (2019) 854–862.
- [33] M.J. Renfrew, A. McFadden, M.H. Bastos, et al., Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care, *Lancet* 384 (9948) (2014) 1129–1145.
- [34] J. Vermeulen, E. Swinnen, F. D'haenens, R. Buyl, K. Beeckman, Women's preferences and knowledge about the legal competences of midwives in Brussels, Belgium. A descriptive observational study, *Midwifery* 40 (2016) 177–186.
- [35] D. Reinharz, R. Blais, W.D. Fraser, et al., Cost-effectiveness of midwifery services vs. Medical services in Quebec, *Can. J. Public Health* 91 (1) (2000) 112–115.
- [36] W. Christiaens, P. Bracke, Place of birth and satisfaction with childbirth in Belgium and the Netherlands, *Midwifery* 25 (2009) e11–e19.
- [37] R. Goemaes, D. Beeckman, J. Goossens, J. Shawe, S. Verhaeghe, A. Van Hecke, Advanced midwifery practice: an evolutionary concept analysis, *Midwifery* 42 (2016) 29–37.
- [38] C.A. Mattison, J.N. Lavis, M.G. Wilson, E.K. Hutton, M.L. Dion, A critical interpretive synthesis of the roles of midwives in health systems, *Health Res. Policy Syst.* 18 (1) (2020) 1–16.
- [39] R. Escuriet-Peiró, J. Goberna-Tricas, M.J. Pueyo-Sanchez, et al., Impact of maternity care policy in Catalonia: a retrospective cross-sectional study of service delivery in public and private hospitals, *BMC Pregnancy Childbirth* 15 (1) (2015) 1–10.
- [40] R. Escuriet, L. García-Lausin, I. Salgado-Poveda, et al., Midwives' contribution to normal childbirth care: cross-sectional study in public health settings, the MidconBirth Study protocol, *Eur. J. Midwifery* 4 (2017) 1–5.
- [41] V.E. Fleming, Autonomous or automatons? An exploration through history of the concept of autonomy in midwifery in Scotland and New Zealand, *Nurs. Ethics* 5 (1) (1998) 43–51.
- [42] J. Vermeulen, A. Luyben, M. Jokinen, E. Matintupa, R. O'Connell, D. Bick, Establishing a Europe-wide foundation for high quality midwifery education: the role of the European Midwives Association (EMA), *Midwifery* 64 (2018) 128–131.
- [43] W. Christiaens, M. Nieuwenhuijze, R. de Vries, Trends in the medicalisation of childbirth in Flanders and the Netherlands, *Midwifery* 29 (2013) e1–e8.