# Belgian midwives' professional autonomy under the lens

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# BELGIAN MIDWIVES' PROFESSIONAL AUTONOMY UNDER THE LENS

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“So long as we are divided because of our particular identities
we cannot join together in effective political action”

Audre Lorde, 1983

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## Abbreviations

| | |
|---|---|
| AFSfC | Association Francophone des Sages-femmes Catholiques [French speaking Association of Catholic Midwives] |
| ANOVA | Analysis of Variance |
| ARES | Académie de recherche et d' enseignement supérieur [Academy of research and higher education] |
| BMA | Belgian Midwives Association |
| CEPIP | Centre d'Épidémiologie Périnatale [Center for Perinatal Epidemiology] |
| CPD | Continuous Professional Development |
| CFA | Confirmatory Factor Analyses |
| COREQ | Consolidated criteria for reporting qualitative research |
| CROSS | Consensus-Based Checklist for Reporting of Survey Studies |
| CVI | Content Validity Index |
| DWLS estimator | Diagonally Weighted Least Squares estimator |
| ECTS | European Credit Transfer and Accumulation System |
| EG | Exempli gratia [For example] |
| EMA | European Midwives Association |
| EU | European Union |
| FG | Focus group |

| | |
|---|---|
| GP | General Practitioner |
| GPL | Good Practice Logo |
| HP | Health Professional |
| ICM | International Confederation of Midwives |
| I-CVI | Item Content Validity Index |
| KCE | Federaal Kenniscentrum voor de Gezondheidszorg [Belgian Health Care Knowledge Centre] |
| KNOV | Koninklijke Nederlandse Organisatie van Verloskundigen [Royal Dutch Organisation of Midwives] |
| KU Leuven | Katholieke Universiteit Leuven [Catholic University of Leuven] |
| ML estimator | Maximum Likelihood estimator |
| MSc | Master of Science |
| NLS | Newborn Life Support |
| QR | Quick Response |
| RCM | Royal College of Midwives |
| S-CVI | Scale Content Validity Index |
| SPE | Studiecentrum voor Perinatale Epidemiologie [Center for Perinatal Epidemiology] |
| SPSS | Statistical Package for the Social Sciences |
| Tukey's HSD test | Tukey's Honestly Significant Difference test |

| | |
|---|---|
| UPSfB | Union Professionnelle des Sages-femmes Belges [Professional Union of Belgian Midwives] |
| VBOV | Vlaamse Beroepsorganisatie van Vroedvrouwen [Flemish Professional Association of Midwives] |
| VLHORA | Vlaamse Hogescholenraad [Flemish Higher Education Council] |
| WHO | World Health Organisation |

# Contents

# Chapter 1: Introduction

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### 1.1. Midwifery defined

Midwifery encompasses care of women during pregnancy, labour and postpartum period, as well as care of the new-born. Midwifery includes measures aiming at preventing health problems in pregnancy, detection of abnormal conditions, procurement of medical assistance when necessary, and execution of emergency measures in the absence of medical help [1]. The Lancet series defines midwifery as skilled, knowledgeable and compassionate care for childbearing women, new-borns and families across the continuum throughout pre-pregnancy, pregnancy, birth, postpartum and the early weeks of life [2].

The International Labour Organisation acknowledges midwives as the primary, but not the only, professional group providing maternity care [3]. Conversely, the International Confederation of Midwives (ICM) defines a midwife as a person who has successfully completed midwifery education programme based on the ICMs Essential Competencies for Basic Midwifery Practice and the framework of the ICMs Global Standards for Midwifery Education. Midwives have acquired the requisite qualifications to be licensed to practice midwifery and use the title 'midwife', and demonstrates competence in the practice of midwifery [4]. The scope of practice of midwives is to 'be with women' throughout the life cycle [5].

International recognition of the midwifery contribution to improve the health and wellbeing of women, new-borns, and their families is substantiated by evidence [2]. Evidence suggests that well-educated, licensed and supported midwives educated to meet international standards in midwifery, can positively contribute to the continuum of care for both women and new-borns [2]. However, internationally there are considerable differences in midwives' roles and the scope of their responsibilities [6]. In some countries midwifery is threatened by low staffing levels, inadequate financing, legislative constraints and insurance issues [7]. A supportive environment is vital for effective midwifery. Midwifery is a respected profession that evolves through continuous learning, adhering to competences and ethics. Aligning regulation and education with international standards, like ICMs, enhances midwives' professional autonomy [8].

In summary, midwifery plays a crucial role in providing skilled, compassionate care to women, new-borns, and families across the continuum of childbirth. While international recognition highlights its positive impact on maternal and infant health, challenges and variations in roles

persist due to staffing, financial, and regulatory issues. Upholding midwifery's effectiveness requires a supportive environment, continuous learning, and adherence to global standards.

### 1.2. History of Belgian midwifery

The historical evolution of the legal competences of Belgian midwives has been described as a process of ups and downs, but ultimately a progressive upgrade [9]. The most important historical milestone for the midwife was undoubtedly the law of 1818 on the practice of medicine, whereby the midwife became the practitioner of normal obstetrics, alongside the medical doctor. This law was followed by the establishment of midwifery schools throughout Belgium. A Royal Decree of 1924 determined that a midwife could only assist a 'natural childbirth', forbidding her to accelerate the birthing process with 'instruments or by hand'. Additionally, she was allowed to prescribe medication and perform an episiotomy, while the suture of the perineum remained a task of the doctor. Situations in which the midwife had to refer to a doctor were expanded in 1924, which somehow limited her autonomy [10].

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 specialist medical care became reimbursed by health insurance, regardless of whether they were complicated or uncomplicated [11]. This decision led to an increase in the number of hospital births, obstetricians and maternity hospital capacity. Additionally, the midwifery profession became financially unattractive due to a change in the law in 1945. This affected the activities of the midwife in the 20$^{th}$ century and the number of midwives declined drastically [9].

On the national midwifery congress in 1946 the following three requirements were imposed to professionalise midwifery: (1) the status of a professional health care provider - not a 'compliant assistant' -, (2) a full-fledged remuneration and (3) a solid education focusing on medical, emotional and social aspects of pregnancy and childbirth. In 1962, a new legal framework provided for a wage increase, and in 1964 standards for the recognition of hospitals were established and the presence of one midwife per 30 maternity beds became mandatory. In 1967, the comprehensive Royal Decree No. 78 on the exercise of medicine,

nursing, paramedical professions and medical committees declared the midwife a practitioner of medicine [9].

The Royal Decree of 1991 laid down the conditions for professional practice. The decision to revise the Royal Decree of 1967 was made because of progresses in medicine, the free movement of the diploma's accordance with European Directive 80/154/EEC and the changed reality of midwifery practice. The minimal activities listed in Article 4 of the European Directive 80/155/EEC additionally required a review of Belgian legislation. The law of 13 December 2006 amended the Royal Decree No. 78 thoroughly and added a chapter 'the pursuit of the profession of midwife'. This legislation provided for a clear demarcation between acts which fall within the autonomous competence of the midwife and acts that midwives may impose in a pathological situation under the responsibility of a doctor. Ground-breaking in this legislation was the possibility for the midwife to prescribe medication, to perform pelvic floor re-education and functional ultrasounds. Except as regards prescribing medication, implementing decisions regarding pelvic floor re-education and functional ultrasounds are still lacking in 2023. The Royal Decree of 15 December 2013 defines the qualification criteria to be met by midwives in order to prescribe medicines. In addition, it is legally determined which medication they are allowed to prescribe in the context of the follow-up of normal pregnancies, the practice of normal childbirth and the care of healthy neonates.

The law of 10 May 2015 substitutes Royal Decree No. 78 of 1967 on the exercise of health care professions. This law lists the conditions under which a person in Belgium may exercise a health care profession and the titles for those professions. It concerns the professions of doctor, dentist, pharmacist, nurse, physiotherapist, midwife, nursing assistant and the paramedical professions. The Royal Decree of 31 January 2018 states that the midwife in person is responsible for her continuous education relevant to her professional activities. The permanent training ensures that midwives are kept informed about evolutions in the different domains of midwifery practice. A midwife is obliged to attend a permanent training of 75 hours over five years' time. Failure to comply with this obligation may result in the withdrawal of the professional title as a midwife. Another significant guarantor of the quality of the care in Belgium provided is the Health Care Quality of Practice Act of 22 April 2019, implemented in 2022. This implementation entails various measures, such as the requirement for all health professionals to maintain a portfolio demonstrating their competence to practice, the

meticulous maintenance and secure storage of patient records, and the supervision of healthcare practitioners' practice by a Supervisory Committee, which ensures their physical and mental fitness [12].

Belgian midwives who have graduated after October 2018 are only allowed to practice nursing within the field of obstetrics, fertility, gynaecology and neonatology. This is considered by some as a further step in the profiling of the profession [9]. For others this decision limits midwives' access to other professional domains.

### 1.3. Professional midwifery associations in Belgium

Belgium has three professional midwifery associations unique for midwives; the Vlaamse Beroepsorganisatie van Vroedvrouwen (Flemish Professional Association of Midwives, 1.841 members in 2022), the Union Professionnelle des Sages-femmes Belges (Professional Union of Belgian Midwives, 863 members in 2022) and the Association Francophone des Sages-femmes Catholiques (French speaking Association of Catholic Midwives, 122 members in 2022). These organisations are associated in the Belgian Midwives Association (BMA) representing 26.9% of the professionally active midwives (2.826 members). Membership to a professional association is not mandatory for midwives, and does not affect their licence to practise. However, the limited number of members may restrict the impact of the professional organisations. BMA represents Belgian midwives in the European Midwives Association (EMA) and the International Confederation of Midwives (ICM). Additionally, the respective midwifery associations are involved in various consultative bodies for maternity care in Belgium, such as the Planning Commission for midwifery workforce forecasting, Centre for the Study of Perinatal Epidemiology, Belgian Health Care Knowledge Centre, etc. [13].

The midwifery associations are, together with doctors and policy advisors, represented in the Federal Council of Midwifery, with advisory powers. Their mission is to give the Minister of Public Health, at the Minister's request or on its own initiative, advice on the practice of the midwifery profession and, advice on the accreditation criteria for these practitioners [12]. The legislation on proportionality has impacted the work of advisory bodies since 2021. In accordance with the 2018 European Directive, the legislator must justify the proportionality of measures when they have a restrictive impact on access to or the exercise of any profession. Where this is the case, the Federal Council now has to demonstrate that they have an

objective of general interest and are well justified. For example, the extending of the years of study and training hours or making the practice of a profession conditional on membership in a professional association falls under this proportionality law.

Both the Flemish Professional Association of Midwives and the Professional Union of Belgian Midwives publish a professional journal, respectively the Tijdschrift voor Vroedvrouwen (Journal for Midwives) and Actualités Sage-Femme (News for Midwives).

### 1.4. Midwifery education in Belgium

Midwifery education is the foundation of high-quality, safe and evidence-based care for women and their new-borns [14]. Quality midwifery education is vital to equip midwifery students with appropriate competences [15], and improving maternal and new-born health [14]. Midwifery education in Belgium, has undergone numerous changes in the past. The Royal Decree of 1 July 1908 on the education program raised the final examination to a higher level and extended the contents of the study on anatomy, biology, obstetrics, hygiene and deontology. Midwifery education evolved from a two-year education in 1924 to three-year education in 1951. In 1957 midwifery education became a specialisation of nursing education, a three-year education with one year specialisation in midwifery. Midwives graduated from that time obtained both the diplomas of nurse and midwife [9]. Since 1994 midwifery education in Belgium is a direct-entry programme at bachelor's level and complies with the Bologna Declaration and the relevant European Directives [16]. With a strong focus on evidence-based practice, the programmes equips midwives to meet the demands of modern midwifery care [13]. A recent study (2022) found that Belgian midwives showed a positive attitude towards evidence based practice. Nevertheless, postgraduate education to improve evidence based competences in midwives without a Master's degree or who graduated more than 15 years ago are suggested [17]. Healthcare education is considered a continuum with continuous professional development and lifelong learning as essential components. Permanent learning has always been important in healthcare, but the necessity for it will only increase with the demand for versatility and adaptation to an everchanging environment [18].

Midwifery education is provided in 12 Higher Education Institutions in Flanders and 9 in the French Community [19]. However, the length of the Flemish (180 ECTS, 3 years) and French Community (Wallonia and Brussels Capital Region, 240 ECTS, 4 years) programmes differ [20].

To the best of our knowledge, substantive differences between the Walloon and Flemish midwifery education programs have not been examined. Nevertheless, all students need to acquire the same competences [21]. Despite differences in the length of the programmes, Belgian midwives are educated to be autonomous practitioners in uncomplicated pregnancies and are expected to be competent for all midwifery domains, in line with national and European legislation, and ICM Global Standards for Midwifery Education [22].

Once the diploma has been obtained, the next step is the application for a licence to practice. In the area of healthcare, access to the profession is conditional on holding a licence. For professions without recognition of the basic qualifications as physicians, dentists, pharmacists, nurses and midwives, a licence to practice is issued on the basis of an exchange with the universities and university colleges through a portal developed for this purpose. Each proclamation period, institutions provide lists of students with a basic diploma. The access to the profession unit uses these lists to send licence to practice automatically (email or mail) [12]. Continuous Professional Development (CPD) education is mandatory by law for all Belgian midwives, namely 75 hours of CPD activities in 5 years, to keep their license to practise.

Various Master's programmes, such as a Master of Science (MSc) in Nursing and Midwifery, a MSc in Healthcare Management, a MSc in Public Health or a MSc in Health Education and Health Promotion, are accessible for midwives but not restricted to midwives only [13]. Specialist or advanced roles for midwives are limited to management, research and educational functions. Advanced roles may include lactation consultants. The concept of further education (Masters and Doctorates), leading to advanced midwife practitioners still needs to be clarified. There is international consensus that a debate on the defining elements of advanced midwifery practice would contribute to advancing the professionalisation of midwifery globally [23]. However, advanced midwife practitioner specific master programmes are only recently introduced in Belgium [24].

In 2023, Metaforum KU Leuven, an interdisciplinary think tank for social debate determined a long-term vision for the health and care professions of 2040 [18]. This vision is independent from current legal, educational or organisational constraints. The long-term vision is that every healthcare curriculum should start with a basecamp module. In this one semester module students, who are starting their healthcare education, will be immersed in a common way of thinking and acting according to shared principles for healthcare. Additionally the aim of the

basecamp module is to familiarise students with the concept of interprofessional collaboration and encourage them to reflect on their role as future healthcare professionals. A return to the basecamp would provide advanced students and active professionals an opportunity to integrate their learning process and activities into the interdisciplinary and interprofessional context of healthcare delivery. In extension, the learning process could become even more authentic by incorporating patients into these mixed student teams.

A basecamp is seen as the perfect setting for interdisciplinary and interprofessional learning, to prepare students for the required collaboration in healthcare.

### 1.5. Maternity care in Belgium

Belgium has a population of 11.697.557 (2023), with 113.593 births in 2021 [25], with a perinatal mortality rate of 6.0‰ in 2015 [26] and a maternal mortality rate of 6.2 deaths per 100.000 live births in 2017 [27]. In 2019, 10.501 midwives were professionally active in Belgium, 70% (n=7.357 in Flanders), 23% (n=2.400) in Wallonia and 6% (n=625) in the Brussels Capital Region [12]. Of the total of all professionally active midwives, 78% (n=8.243) work in a hospital setting, 9% (n=990) in primary care and 12% (n=1.268) combine both [28]. In primary care, midwives work independently on their own, in group practices or in public health organisations. Nearly all Belgian midwives are women (99%) [12].

Maternity services in Belgium occupy an important place in the hospital landscape given their vital role as about 98% of births in Belgium takes place in the hospital [29,30]. The number of births per maternity service ranges from 120 to 3.500. The number also varies between regions: the median number of deliveries per maternity service is 2.172 in Brussels against 790 in Flanders and 786 in Wallonia (2019) [31]. In Belgium a large variability in caseload in maternity services is observed between regions, per year a median of 2.236 births in Brussels versus 865 in Wallonia and 800 in Flanders. In 2020, the Belgian Health Care Knowledge Centre (KCE) determined that maternity services with a minimum of 557 births annually can reduce costs without compromising care quality. Consequently, 17 maternity units, 9 in Flanders and 8 in Wallonia may be closed, following the international trend of scaling up maternity units for more efficient healthcare resource allocation [31]. Moreover, the annual average occupancy rate of maternity services in Brussels (69.3%) is higher compared to Flanders (45.1%) and Wallonia (48.0%) [30]. The average length of postnatal hospital stay after vaginal birth has

decreased from 4.04 days in 2010 to 2.38 days in 2019 [32]. This reduction had an impact on the midwifery workforce [20], additional recently a shift to primary care has been noted [28].

Independent midwives practitioners have very limited access to hospitals [11]. Collaboration between midwives and hospitals is generally restricted to postpartum care [33]. Recently (2023), however, a model was published where midwife-led birth guidance becomes a full-fledged option within the current traditional maternity care in Belgium. This publication provides a well-founded basis for successful collaboration between primary care midwives who want to independently assist births in the hospital and the hospital itself [34]. Giving birth in a birth centre or at home is rather exceptional, numbering 2.3 percent in 2021; in Flanders n=484, 0.8% [35], in the Brussels Capital Region n=147, 0.7% [36] and in Wallonia n=283 0.8% [37]. Homebirths are in general supervised by midwives working in primary care settings. To our knowledge, there are 13 birth centres and one alongside midwifery-led birth centre in Belgium [13]. The effective figures of midwifery-led care in labour and childbirth is uncertain. The second annual report on midwife-led care in Belgium notes that 1.67% of the total number of births in 2021 were midwifery-led [38]. However, underreporting is suspected as data are from self-registration and Walloon data are partly missing. As in 2020, the registered midwifery-led births are characterized by the use of vertical birthing positions, water births, intermittent monitoring of foetal heart rate, a low number of episiotomies and severe perineal tears. Women giving birth in the only alongside midwifery-led unit in Belgium are more often higher educated with higher incomes, than those who opted for conventional care. Additionally, these women experienced fewer interventions e.g. epidural analgesia, artificial rupture of the membranes, instrumental birth and episiotomy [39].

Midwifery practice in Belgium is determined by the European Directives, outlining 11 midwifery particular competences, which are specified in national legislation [20]. Belgian midwives are legally autonomous and competent to practice independently in uncomplicated pregnancy, labour and childbirth [40,41]. In Belgium, midwives are specialists in the field of physiology, and provide services both in hospitals and in primary care. They support, counsel and supervise healthy women, newborns and their families, from preconception, during the pre-, intra, and postnatal period [21]. In addition, midwives practising in Belgium have responsibilities in obstetrics, reproductive medicine, gynaecology and neonatology [21].

Most midwives work in obstetrician-led hospitals. Despite the medicalised care, Belgian midwives still hold a woman-centred ideology. However, a study of Belgian midwives' views on maternity care revealed that neither medicalised or women-centred care can be linked to a profession. Maternity care ideology is rather attributed to a person, not a profession. Both Belgian obstetricians and midwives can either hold a 'medical' or 'woman-centred' ideology [42]. 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 [13].

Intervention rates in the different regions in Belgium are comparable: induction of labour 27.0%, 30.7% and 32.0%, caesarean section 22.1%, 22.4% and 20.1% in the Flanders, Walloon and Brussels region respectively in 2021 [35-37]. The epidural analgesia ratio is 80.0% in Wallonia and about 75% in both other regions. What is most striking is the episiotomy rate of 34.9% of all vaginal births in Flanders, which is three times higher than in the Brussels region (11.8%) and more than double when compared to Wallonia (15.6%) [35].

### 1.6. Challenges and prospects in maternity care

Midwifery in Belgium has increasingly been recognised as a separate profession, since education became direct entry in 1995. In 2016, the Flemish Professional Association of Midwives introduced the GPL, Good Practice Logo, for primary care midwives. The GPL is a quality label for primary care midwifery practice which encompasses that midwives in primary care need to meet several prerequisites, e.g. compliance with the ICM code of ethics and evidence based, family centred care [13].

The importance attributed to specialist medical services has an important effect on the role that midwives play [43]. As such they face challenges to fulfil their role as legally defined. The Belgian medical maternity care model may entail an over-reliance on technology and preference for medical interventions. This contrasts sharply with the increasing international attention to the contribution of midwifery in the public health care field, supported by a growing body of evidence about the positive outcomes and cost containment of the midwife-led care model. Midwife-led care significantly enhances the continuity of care, empowers a

greater sense of control, reduces medical interventions, and fosters higher breastfeeding rates [6,44]. Midwife-led care is defined as care provided by a midwife who is, in partnership with the pregnant women, the main healthcare professional responsible for evaluating their needs, planning care, referral to other professionals if necessary and provision of services related to maternity, from the first appointment during pregnancy to the postnatal period [44]. Midwife-led continuity models provide care from the same midwife or team of midwives during the pregnancy, birth and the early parenting period, and many women value this [6].

As the organisation of care has an impact on women's preferences [45,46], it is safe to assume that it might also affect their knowledge of midwives' and other maternity care professionals' legal competences. Insight into women's preferences and knowledge about the legal competences of midwives can help to understand maternity care culture. This has become important since the shift toward home care with a more central role for the midwife in Belgium [47]. The recent shift toward primary care for postnatal care in Belgium has conversely resulted in a pivotal role for the midwife in this area. Belgian primary care midwives gained more competences and autonomy, which is consistent with the findings of a recent European study [48].

In 2019 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 [49]. The stakeholders involved, representing different professional associations and levels of decision-making, were overall convinced that the respective scenarios all will include an increased participation of midwives in maternity care. 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 [50]. However, a midwifery supply and demand projection exercise from the Planning Commission of the Belgian Federal Public Service Public Health, Food Chain Safety and Environment, concluded that the need for midwifery care by 2037 is expected to remain stable while the number of midwives active in health care is projected to increase by just over 30% between 2020 and 2037 in individuals and full-time equivalents [12].

The status of the midwives employed at a hospital or in primary care will depend on whether future maternity care will be 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, especially in postnatal care [49].

The employment status of the midwives (employed at the hospital or in primary care) would also be influenced by the dominant care model (obstetrician-led, midwife-led or care primarily organised through primary care professionals) in the future [49]. Extending midwife-led models of care in Belgium could strongly contribute to shared responsibility and autonomy and a healthy interprofessional collaboration in maternity care [51].

### 1.7. Midwives' professionalisation and autonomy

Increased professionalisation is a central aim of multiple health professionals groups such as, nurses, physiotherapists, dieticians [52,53]. The interest in professionalisation of an occupational group is mostly inspired by concerns about issues of control and autonomy [54,55]. Health professions, other than medical, are often referred to as occupations, semi- professions and callings or charity [56,57]. While there are many definitions available, professionalisation is commonly understood as a process by which an occupation develops the characteristics of a profession [55,58]. Greenwood's (1957) taxonomy distinguishes between an occupation and a profession, which remains valid until today [53,55]. The defining differences include: 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.

To be autonomous partners in maternity care, midwives need a strong profession. A strong midwifery profession is additionally needed to achieve optimal results in terms of health and costs, not only for the health system, but for the whole society [13]. Professionalisation of midwifery is acknowledged to strengthen midwives' recognition, prestige, income and political influence [48]. Increased professionalisation is assumed to lead to more professional autonomy, supporting midwives to be adequately equipped as equal partners in maternity care [13].

Professional autonomy is a central concept in the professionalisation of midwifery. Moreover, autonomy is a catalyst for midwifery professionalisation [59]. Through autonomy, a profession is entrusted with safeguarding the public from those who, for any reason, lack the necessary competence to work within the relevant profession [60]. Professional autonomy has a positive

effect on job satisfaction [61-63]. Additionally, professional autonomy has a positive effect on health professionals' sense of belonging [64] and subjective wellbeing at the job [65]. Conversely, failure to address the needs of individuals for professional autonomy may have a negative impact on staff retention, because of job dissatisfaction [66].

The definition and description of professional midwifery autonomy remains unclear [67], while there is a substantial body of literature on autonomy though. Not all maternity care professionals and other stakeholders comprehend fully what midwifery autonomy entails [68]. Autonomy is usually linked to shared decision-making and power to control over a situation [69]. The most frequently documented element of autonomy in literature is the capacity for decision-making [67,69,70]. Moreover, a midwife should have the knowledge, skills and expertise for making decisions [69,71]. Competence therefore is a prerequisite for autonomy. Autonomy may include a state of independence and self-direction from the control of another health professional [72]. Autonomy has been identified as being at odds with the routine-based and hierarchical culture of hospitals [71,73]. Autonomy has been almost completely relinquished within obstetric-led care in some countries [74]. Internationally, primary care midwives tend to have more professional autonomy for example in taking decisions independently [13,48,71,75]. However, the context of healthcare settings might be politically and sociocultural influenced which may impacts midwives' autonomy [69]. Some believe that midwifery autonomy is not possible when practising with other professionals [76]. Interprofessional collaboration is only possible when the different professionals respect each other and are in equal positions. In some countries maternity care professionals are poorly aware of each other's roles and competences. However, it has been acknowledged that when different professional groups know each other, this results in mutual respect and constructive collaboration [77]. Some maternity care professionals do not recognise midwives as autonomous professionals for normal pregnancy, birth and postpartum [78]. Midwives in the Netherlands emphasised that satisfaction with collaboration with other health professionals in maternity care varies within regions and echelons of care [79]. Recently, midwives in Flanders indicated the need for shifting towards more autonomy, shared responsibility and a healthy interprofessional cooperation [51].

While midwives are educated to be autonomous practitioners, in line with ICM's Global Standards for Midwifery Education, British midwifery students believed that professional autonomy had not been adequately addressed in their education [80]. Many midwifery students

found that midwifery autonomy was almost invisible in obstetric led units. Most students only witnessed professional autonomy in midwife-led birthing settings. Consequently, newly-graduated midwives did not feel prepared for professional autonomy [67,80]. Australian midwifery students' experiences within a student led clinic confirmed that this learning experience promoted a sense of autonomy and prepared them to practice autonomous [81]. Conversely in Flanders and the Netherlands, midwifery education has identified professional autonomy as an essential part of additional advanced professional skills [51]. Given that maternity care professionals may have limited awareness of each other's competences, it is recommended to provide interprofessional education that promotes interdisciplinary collaboration, while still allowing for autonomy within each profession [78].

The literature is inconclusive about whether midwives want to be more autonomous. A World Health Organisation (WHO) report demonstrated that midwives worldwide are requesting more recognition and autonomy [82]. Nevertheless, the fear of being held liable for professional choices is an important reason for some midwives' reluctance for increased autonomy [83]. Midwives' loss of autonomy may become a self-fulfilling prophecy – i.e., if midwives are resigning from their professional autonomy– other professions will fill the gaps if the profession does not step up to the challenges it faces [74]. To be autonomous partners in maternity care, and a valuable resource for achieving optimum results, midwives need a strong profession.

In summary, significant knowledge gaps exist regarding the professional autonomy of Belgian midwives. While increased professionalisation is pursued across various health professions, there is an evident lack of comprehensive understanding and clear definition of midwifery autonomy. Additionally, the current state of professional autonomy among Belgian midwives remains undisclosed and insights from pertinent maternity care stakeholders regarding their professional autonomy are lacking. This ambiguity may hinder the realisation of midwives' full potential as autonomous partners in maternity care. By shedding light on these gaps, this thesis aims to contribute to a more nuanced comprehension of the concept of midwifery autonomy and its pivotal role in enhancing the midwifery profession and achieving optimal health outcomes.

## 1.8. Thesis: Belgian midwives' professional autonomy under the lens.

### 1.8.1. Outline of the thesis

The main objective of this thesis is to explore Belgian midwives' professional autonomy.

Methodology

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. (Chapter 2)

A modified Delphi survey with content experts. (Chapter 3)

A descriptive observational survey using a quantitative approach. (Chapter 4)

A qualitative exploratory study using online synchronous heterogeneous focus group interviews. (Chapter 5)

A qualitative exploratory study using focus group interviews. (Chapter 6)

### 1.8.2. Research questions

Following questions were addressed in this thesis:

1. What is the state of the professionalisation of midwifery in Belgium? (Chapter 2)
2. How can midwifery autonomy in Belgium be defined? (Chapter 3)
3. How do midwives view their professional autonomy, now and in future? (Chapter 4)
4. How do multiple key maternity care stakeholders view midwives' professional autonomy? (Chapter 5)
5. How do final year midwifery students understand midwifery autonomy and how did they experienced midwifery autonomy during their education? (Chapter 6)

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# Chapter 2: The state of professionalisation of midwifery in Belgium: A discussion paper

Based on: Vermeulen J, Luyben A, Buyl R, Debonnet S, Castiaux G, Niset A, Muyldermans J, Fleming V, Fobelets M, The state of professionalisation of midwifery in Belgium: A discussion paper, Women and Birth, February 2021, doi: 10.1016/j.wombi.2020.09.012

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


## 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' competences 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 competences, 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.

**Keywords:** midwifery; midwives; professionalisation; profession; health care; maternity care

**Summary of relevance**

**Problem**

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

## 2.1. 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. 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 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.

**An overview of maternity services in Belgium**

Belgium, is a country in Western Europe, bordered by the Netherlands, Germany, Luxembourg and France. Its political organisation 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).

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 2.172 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, 8.671 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]. 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.

**Professionalisation of midwifery in Belgium**

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 competences [15]. 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. 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 arise 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.

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 hours 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 competences, 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 competences are permitted or forbidden for midwives [28].

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.

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 competences of midwives. The Council consists of midwives from professional associations, doctors, policymakers and nurses, and 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 2.100 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 maternity care, such as the Belgian Health Care Knowledge Centre, Planning Commission for midwifery workforce forecasting, Centre for the Study of Perinatal Epidemiology.

Table 2.1.: Overview of the professionalisation of midwifery in Belgium

## 2.2. 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.

## 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 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].

## 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 competences and autonomy, which is 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].

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.

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.

## 2.3. 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' competences 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 competences, 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.

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**Table 2.1.: 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<br>*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<br>*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<br>More autonomy in primary care |
| Broader community sanctions<br>*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<br>*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<br>*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 |

# Chapter 3: Defining midwifery autonomy in Belgium: Consensus of a modified Delphi study

Based on: Vermeulen J, Buyl R, Luyben A, Fleming V, Fobelets M, Defining midwifery autonomy in Belgium: Consensus of a modified Delphi study, Journal of Advanced Nursing, March 2022, doi: 10.1111/jan.15209

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# Defining midwifery autonomy in Belgium: consensus of a modified Delphi study


## Abstract

### Aims

Although there is substantial literature on autonomy of midwifery, the concept remains vague, and what it exactly constitutes is little clear. Attempts to define this have been carried out, but did not result in a communal understanding. The aim of this study therefore is to define a consistent definition of midwifery autonomy in Belgium.

### Design

A modified Delphi survey with content experts.

### Methods

Critical components of the available definitions on midwifery autonomy were retrieved from the literature, and translated into Dutch and French. An online Delphi panel of content expert assessed components of autonomy in midwifery on clarity and relevance between June and October 2021. From the validated components, a preliminary consolidated definition was generated, which was validated in a final Delphi round.

### Results

After round one, experts (n=27) evaluated ten out of 17 components to be clear and relevant. Two components were judged inappropriate and therefore removed. After further adaptation four additional components were identified appropriate after the second round, and one component after a third Delphi round. Experts' suggestions for improving the clarity and relevance were taken into account. Finally, experts assessed the preliminary definition. After minor modifications the definition of midwifery autonomy in Belgium was confirmed valid.

### Conclusion

We established a communal definition of midwifery autonomy in Belgium, the creation of such a definition results in a joint understanding of the concept of midwifery autonomy.

**Impact**

If midwives internationally want to successfully achieve autonomy, a clear understanding of the concept of midwifery autonomy is needed. The consensus definition of midwifery autonomy in Belgium comprises 15 components related to midwives' work content, professionalism and relationship with others. Our definition of midwifery autonomy has the potential to encourage an international dialogue, grounded in a common understanding of autonomy, enabling stakeholders in maternity care to strengthen professional midwifery autonomy.

**Key words:** midwives; midwifery; midwifery autonomy; autonomy; professionalisation; consensus; definition; Delphi study; nursing; content experts

## 3.1. Introduction

An essential aspect of midwives' drive for professionalisation is the need for increased involvement in national policy development, in which the midwifery profession is recognised as an important partner in decision-making. Internationally however, considerable differences in midwives' status and roles, autonomy and responsibilities have been identified. A recent study on professionalisation of midwifery in Europe [1] showed that whereas progress in initial 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 are matters of concern. In particular, midwives' autonomy is limited, because they face restrictions to fulfilling a comprehensive role as defined by the International Confederation of Midwives and the EU Directives [2]. Therefore, a more in-depth study of relevant influencing factors, such as professional autonomy in individual countries, has been recommended [1].

## 3.2. Background

Defining professional autonomy of midwifery is difficult [3], as while there is a substantial body of literature on autonomy, the definition and its description remains unclear. A recent literature review revealed that autonomy is a central element in midwifery. It is usually linked to informed choices, decision-making and power to control over a situation [4]. However, the central element that is most frequently documented in the literature is the capacity for decision-making [3-5] in which the midwife is responsible and accountable for her decisions [3]. Hence, a midwife should have the expertise [6], knowledge and skills required for making decisions [4]. A recent study strongly links midwifery autonomy with the provision of expertise, individualised maternity care for women and families [6]. Competence therefore is considered a prerequisite for autonomy.

In a number of articles, autonomy is used interchangeably with the term 'independence' [4,5]. Job autonomy thus has been defined as the degree of control a worker has over his or her own immediate scheduling and tasks [3,5,6]. Perdok et al. (2017) used the Leiden Quality of Work Life Questionnaire for Nurses [7], to measure job autonomy experienced among maternity care professionals in the Netherlands [5]. The job autonomy experienced was highest for primary care midwives, followed by obstetricians, clinical midwives and obstetric nurses. Thompson highlights that midwifery in the Netherlands is considered an autonomous profession, as midwives are not supervised by doctors or any other health professionals (HPs) [8]. Autonomy

may thus include, a state of being independent and self-directing from the control or power of another [9]. When midwifery decisions are challenged by other HPs, these challenges might obstruct professional debate, e.g. in situations where midwives experience difficulties to question a decision for fear of repercussions, job autonomy is hindered [6]. In addition, it is Clemons et al.'s (2020) opinion that an autonomous midwifery profession must be self-governing and self-regulating [6].

While high levels of job autonomy are found to be beneficial for midwives [5,10] and for the relationship with their patients [5], autonomy has been identified as being at odds with the hierarchical and routine-based culture of hospitals [6,8]. Internationally, it is suggested that medicalisation of birth limits midwifery autonomy [11]. Therefore, infrastructure and culture at work impacts on autonomy in midwifery practice [4], while collegial relationships could support or hinder midwives' autonomy [6].

In the early 2000s, midwifery students in the United Kingdom believed that working towards midwifery autonomy had not been explicit enough in their educational programme [12]. Many midwifery students considered that they had only witnessed professional autonomy in midwifery-led birthing units and that it was almost invisible in obstetric-led units. Consequently, newly-graduated midwives did not feel prepared for professional autonomy [3,12]. Australian midwifery students' experiences within a student-led clinic confirmed that this learning experience promoted a sense of autonomy and prepared them to practice autonomous [13]. Conversely in Flanders and the Netherlands, midwifery education have identified professional autonomy as an essential part of additional advanced professional skills [14]. As maternity care HPs are poorly aware of each other's competences [15], interprofessional education to promote interdisciplinary collaboration in maternity care is recommended while retaining autonomy within each profession.

In Belgium, midwives' degrees of autonomy strongly vary; in hospitals most midwives work under the authority of an obstetrician. Midwives in hospitals have limited control over the organisation of their work such as one to one care, continuity of care, or working hours, most of which is determined by hospital management [16]. As in other countries, Belgian primary care midwives, however, tend to have more autonomy in the organisation of their work than midwives in a hospital for example taking decisions independently [1,6,10,16].

In the current Belgian maternity care context, midwives experience some difficulties in practising the full scope of midwifery practice according to the International Confederation of Midwives' definition [2]. The historical value that society gives to specialist medical services has an impact on midwives' autonomy, for example, most obstetricians conduct births in Belgium. Consequently, Belgian midwives' autonomy is limited. This situation is in contrast with the country's legal framework, the growing body of evidence about the positive outcomes and cost effectiveness of midwife-led care [17] as well as the increasing international calls for strengthening the contribution of midwifery in the public health field [1].

Lack of discussion on midwifery autonomy has come about because, according to the World Health Organisation, midwives are, by definition, autonomous practitioners [18]. The study of Perdok et al. demonstrated that especially primary care midwives scored highest in expecting to lose their job autonomy in an interprofessional care system in the Netherlands [5]. As many midwives continue to practise in a setting that is often dominated by the medical and nursing profession, it is time to open the issue of midwifery autonomy for debate. However, it remains unclear if midwives in Belgium themselves want to be autonomous practitioners. Pollard's study suggests that this is open for debate [3]. She identified mixed views among midwives about whether they practise autonomously, the central issue appearing to be if midwives actually want to be autonomous practitioners and take on more responsibility. Midwives' attitudes to their working environment and their basic understanding of the concept of autonomy in midwifery may help researchers in identifying this uncertainty.

Although there is substantial literature on autonomy, it remains a vague concept and lacks a pragmatic understanding of how professional autonomy is translated into daily midwifery practice [6]. In literature, attempts to define autonomy have been made, but definitions vary and no consolidated definition has been made. If Belgian midwives want to obtain an autonomous position in health care, they must have clear understanding of its meaning. Thus, a valid and consistent definition of the professional autonomy of midwives in Belgium is needed.

## 3.3. The study

### 3.3.1. Aims

The aim of this study is to develop a consolidated definition of midwifery autonomy in Belgium.

### 3.3.2. Design

A modified Delphi survey with content experts in Belgium.

### 3.3.3. Data collection

For the creation of the consensus definition we included content experts [19]. Content experts were defined as professionals with research or work experience in the field of interest [20], Belgian midwives with work or research experience from all identified domains: obstetrics, reproductive medicine, gynaecology and neonatology were invited. Additionally we included midwives practising in primary care, research and education. In order to include representation of professional associations, board members of the Flemish Organisation of Midwives, Professional Union of Belgian Midwives and the French speaking Association of Catholic Midwives, were invited to participate. We aimed for a participation of at least 20 experts representing all Belgian regions, namely the Flanders (Dutch-speaking), Walloon (French-speaking) and Brussels-Capital (bilingual) regions.

To incorporate the content experts in this study, a modified Delphi method was chosen. In choosing the Delphi method, we considered alternative research designs, including concept analysis, and ultimately determined that the Delphi method was the most appropriate because it offers the best balance of anonymity, expertise aggregation, and structured consensus-building. The Delphi method is a structured process that gathers information in a series of rounds which are continued until agreement is reached. The Delphi methodology is an important method for achieving consensus on issues where none previously existed [20]. A classical Delphi is defined as the process wherein panel experts initiate the alternatives in response to the researcher's questions. A modified Delphi indicates the process whereby the initial alternatives in response to the researcher's questions are carefully selected before being provided to the panel [21].

Content experts were invited in June 2021 by e-mail to participate in this online survey. Initial participants were identified through personal contacts of one researcher (JV) and thereafter by snowball sampling. The invitation included information about the study, an informed consent form and a link to the survey site (Qualtrics$^{XM}$). Only respondents who received a

personal link by e-mail could access the survey, additional settings were set to prevent multiple submissions. A reminder was sent two weeks after the first invitation.

### 3.3.4. Ethical considerations

All data were stored in a secured and locked server of the Vrije Universiteit Brussel (VUB), only accessible to the researchers. No data were shared or discussed with other colleagues, to maintain anonymity all identifying information was removed by a researcher (JV). Participants were informed by an information letter. After reading the informed consent form, participants informed consent was asked by indicating 'yes' before starting the survey. Ethical approval was obtained from the University Hospital Brussels/Vrije Universiteit Brussel (VUB), Belgium in May 2021 (registration number: B.U.N. 143/202/100/0490).

### 3.3.5. Validity and reliability/rigor

Critical components of the available definitions located in the literature were translated and adapted for assessment by content experts to create a consolidated definition [22]. After identification, the critical components of midwifery autonomy were translated into Dutch (JV) and French (RG). The Dutch version was reviewed by another researcher (MF), likewise the French version was checked (JV).

Every critical component's clarity was assessed [23]. Additionally, every critical component's relevance was evaluated on its relevance to a definition of midwifery autonomy in Belgium. As suggested by the literature, a 4 point Likert type scale was used with responses ranging from: 1=not clear/relevant, 2=somewhat clear/relevant, 3=quite clear/relevant, 4=very clear/relevant [19]. By using open questions, the experts were also invited to suggest additional items and make comments. The content validity was quantitatively measured by establishing the proportion of experts agreeing on the clarity and relevance of the selected critical component. The selected methodology was adapted from Zamanzadeh et al. [19] and has also been used in earlier validation studies [24,25].

### 3.3.6. Data analysis

The content validity index (CVI) of individual critical components was calculated as suggested in literature [26]. To determine the CVI for each critical component's clarity and relevance (I-CVI), the number of experts assessing it as relevant or clear (rating 3 or 4) was divided by the total numbers of experts. The I-CVI expresses thus the degree of consensus between experts,

with a value between 0 and 1.00. These values were interpreted as recommended [19]: if the I-CVI is higher than 0.79, the critical component was considered appropriate, and if the I-CVI is between 0.70 and 0.79 needed revision. In the latter case the critical component was adapted based on the content experts' advice and subsequently included in a next Delphi round. Components with an I-CVI is below 0.70 were removed.

In the final stage, an initial consolidated definition of midwifery autonomy in Belgium was created by the research team based on the critical components that reached content validity. As suggested in literature [23] we asked if the definition:

1. captures the main components of autonomy;
2. is complete or missing a crucial component;
3. is understandable by midwives from all identified domains and;
4. if it should be changed in any way.

Participants were asked to provide a yes/no response to each question and space was given to add free-text comments. The free text responses were analysed independently by two researchers (JV, MF) focusing on frequently recurring themes in experts' feedback. The definition was refined following a discussion with the research team.

## 3.4. Findings

### 3.4.1. Delphi round one

#### 3.4.1.1. Characteristics of participants

From the 37 invited content experts, 27 (n=73%) agreed to participate in the validation process. Participants, all female but one, from the age group 41-50 years were the most represented (n=11), the age groups 20-30 years (n=2) and 61-65 years (n=1) were the least represented. Maximum variation sampling was exerted as defined in the professional and competence profile of Belgian midwives, meaning the inclusion of experts from clinical midwifery (n=8), primary care (n=7), both clinical midwifery and primary care (n=5), education (n=9) and research (n=6). Most participants had many years of relevant work experience, between 21-30 years (n=9) and between 11-20 years (n=5). Seven midwives working in

Flanders, seven midwives working in Wallonia and 13 from the Brussels-Capital Region participated.

Table 3.1.: Area of expertise of the content experts

#### 3.4.1.2. Item Content Validity Index I-CVI (Relevance and clarity)

The first Delphi round resulted in the content validity (I-CVI ≥ 0.80) of 10 components out of the 17 components for both clarity and relevance. The component regarding having political influence as midwives did not reach the cut off value of 0.70 for clarity (0.67). The component addressing that women respect the competences of the midwife did not reach the cut off value of 0.70 for both clarity (0.67) or relevance (0.63), both inappropriate components were removed. Three components scored I-CVI between 0.70-0.79 on both clarity and relevance, while respectively one component was inappropriate for clarity (0.78) only and another one for relevance (0.78) only.

Table 3.2.: Item-Content Validity Index I-CVI after round one

The five components with an I-CVI between 0.70-0.79 were revised by two researchers (JV, MF) based on experts' comments and suggestions received. Several content experts explicitly suggested changing the scope of the definition of midwifery autonomy in Belgium to the practice domains were the midwife is legally entitled to work autonomously, namely uncomplicated pregnancy, childbirth and postpartum [16,27]. As most experts' additional comments were related to unclear or confusing wording, in four components a clarification of terms was added. More specifically, the following words were explained: 'work method', 'competent', 'recognised by society' and 'authority'. One component needed a minor linguistic adjustment as advised by the experts. Five components required a second validation round.

### 3.4.2. Delphi round two

In the second round (July-August 2021), we received responses from 15 (56%) of the 27 content experts who participated in the first round (table 3.1.).

From the five components revised by the Delphi panel in the second round, four components reached content validity for both clarity (0.93-1.00) and relevance (0.80-1.00). The component 'the professional group of midwives can regulate their own profession' (Regulate: subject to

rules), reached an acceptable item content validity for relevance (0.87), but remained inappropriate for clarity (0.73) in this second validation round.

Table 3.3.: Item-Content Validity Index I-CVI after round two

Based on the suggestion of the experts, the word 'regulation' was substituted as considered confusing and not well known by Belgian midwives. Therefore, this component was rephrased and it was specified that in fact a professional association of midwives, in consultation with the competent authorities, defines the rules governing the exercise of their profession and send for a third Delphi round.

### 3.4.3. Delphi round three

From the 15 content experts who participated in the two previous rounds, 11 experts (73%) assessed the component regarding a legitimately established professional association of midwives defining the rules governing the exercise of their profession, in a third round. Those experts still represented each of the identified midwifery domains, namely four clinical midwives, three primary care midwives, three midwives from education and two midwives involved in research. Four midwives were professionally active in Flanders, two in Wallonia and five in the Brussels-Capital Region.

The component reached validity both for clarity (0.91) and relevance (0.91), and was thus included in the preliminary consolidated definition of midwifery autonomy.

### 3.4.4. Delphi round four

From the 15 validated components, the research team generated a preliminary consensus definition of midwifery autonomy in Belgium.

Table 3.4.: The validated components of midwifery autonomy

The preliminary consolidated definition was send for a fourth Delphi round, with only the 11 experts who participated in all three Delphi rounds included. Ten experts (91%) participated in this round, two adjustments were brought forward. Firstly, it was suggested clarifying that the definition of midwifery autonomy is independent of the place of employment of the midwife. The second suggestion was to modify a sentence that a midwife 'gets more responsibility in the course of her duties' instead of the midwife 'getting more responsibility

when performing her tasks'. Consequently, after these modifications the definition of midwifery autonomy in Belgium was confirmed valid and consolidated by the research team.

Table 3.5.: Consolidated definition of midwifery autonomy

## 3.5. Discussion

In this paper we established a communal definition of midwifery autonomy in Belgium, the creation of such a definition results in a joint understanding of the concept of midwifery autonomy. The definition comprises 15 critical components related to midwifery autonomy in Belgium, together they encompass the essentials of midwifery autonomy as indicated by content experts. These 15 components are related to the work content, professionalism of the midwife and relationship with others. In our definition we identified work related content as one in which the midwife is responsible, can independently take decisions and control her work. Likewise, identified components related to the professionalism of the midwife such as expertise, authority and competence were included in our consensus definition. In regard to the relationship with others, our definition comprises components concerning respect for the independence of midwives, their recognition and respect by other health professionals in maternity care. While throughout the literature, accountability, responsibility and autonomy are used interchangeably [4], some aspects of our definition are in line with a suggested definition of midwifery autonomy in New Zealand [6]. More specifically the right and responsibility to practice within the midwifery scope of practice in accordance within a professional framework is closely related to our consented definition.

From the 17 identified critical components in literature, related to midwifery autonomy, two components were inappropriate, namely the component regarding having political influence as midwives and the component addressing women's respect for the competences of the midwife. It may be that the component 'political influence' is not considered as relevant for midwives and their autonomy in Belgium. The suggestion that midwives should have more political influence was not clear to all participants, and thus interpreted differently. Some experts interpreted this component as midwives being actively engaged in politics rather than having policy making influence. Nevertheless, while professional midwifery associations are important key stakeholders and can play an important role in policy discussions related to education, regulation and professionalisation of midwifery, there is a scarcity of data that

describe the involvement of midwives in national policy development currently [28]. The component, related to the professional association of midwives being able to regulate their own profession only reached validity after a third round. The component was rephrased and as suggested. We defined 'regulation' as the defining of the rules governing the exercise of the midwifery profession.

That women respect midwives' competence was considered as obvious by most experts who therefore advised against linking this component to midwifery autonomy. Conversely, several experts highlighted that midwives' competences are not well known by public. Indeed, this point was also raised is in another Belgian study which concluded that the knowledge of Brussels women about midwives' legal competences during pregnancy, labour and childbirth is poor, especially in women between 15-20 years and women who have never given birth [29]. As midwives' competences are not well known by the public, content experts questioned the relevance of the component relating women's respect for midwives with midwifery autonomy.

This is the first study to elicit a valid consolidated definition of midwifery autonomy in Belgium, nevertheless attention should be drawn to the limits of our study. Despite the fact that a Delphi survey with content experts is widely accepted in validation studies in health research [30], our study may be considered vulnerable to potential bias due to the selection of the content experts and thus their input prejudiced. From the 27 participants who participated in the first Delphi round, 15 experts participated in the second round. The reasons for this drop out was not further explored. Due to the anonymity, the researchers could not personally approach nonrespondents, which made it difficult to maintain connection and involve them in the consecutive rounds. Experts dropping out of a Delphi study may however affect the final results of the study, as the resultant consensus may not be representative of all the experts in the domain of interest [31]. However, despite the drop-out an acceptable variation sampling was achieved with participation from experts within all identified domains.

Critical components related to midwifery were selected from the identified literature. The basis of our search was a recent systematic literature review aiming to explore midwifery autonomy and its impact on midwifery practice [4]. The available information was supplemented by an additional literature search. It may be that we have overlooked other components. As a Delphi survey does not necessarily identify components that might have

been overlooked, content experts were able to suggest other items and adjustments to minimise this limitation [20]. We also recognise the limitations of a Delphi survey, as a group consensus represents expert opinion rather than indisputable fact [32]. Nonetheless, we rigorously applied our chosen methodology throughout our research to make sure that the entire process was robust and we estimate that our findings to be accurate. Additionally, the researchers followed the Consensus-Based Checklist for Reporting of Survey Studies (CROSS) while designing and conducting the Delphi survey to ensure our study was sufficiently reliable, reproducible and transparent [33].

The potential impact of the agreed definition of autonomy on the culture of midwifery practice is unclear. Literature is inconclusive about the question as to whether midwives want to be more autonomous. The WHO report 'Midwives' Voices - Midwives' Realities' [18] showed that midwives worldwide are asking for more autonomy and recognition, especially from obstetricians. Although, as midwifery autonomy is associated with increased job satisfaction [34] and proactive behaviour [14] the fear of being held responsible for professional choices is an important reason for some midwives' reluctance for increased autonomy [35]. Likewise in Ireland, the perception amongst both midwives and obstetricians is that many midwives do not want more autonomy, because they are fearful of being accountable for decisions [36]. Nevertheless, midwives in Flanders and the Netherlands recently indicated the need for shifting towards shared responsibility, autonomy and healthy interprofessional cooperation [14]. A study to explore Belgian midwives' desired professional autonomy using present consented definition of midwifery autonomy is planned for the near future.

An area for future research includes the exploration of stakeholders in maternity care views and their own understanding of midwifery autonomy. As suggested in literature [23], the comprehensiveness of a definition of midwives' autonomy may be subject of debate with other health professionals providing maternity care, researchers, women, students and policymakers. In order to explore midwives' wishes regarding their own autonomy, further research in the different midwifery settings is recommended. Our consolidated definition of midwifery autonomy in Belgium has the potential to guide this type of research, not only in Belgium but also throughout Europe where initial education programmes all have to meet the same standard. There is also the potential to apply it internationally as its contents are based on the literature in this field.

### 3.6. Conclusions

The definition of midwifery autonomy in Belgium presented in this article has the potential to encourage an international dialogue, grounded in a common understanding of autonomy, enabling stakeholders in maternity care to strengthen professional midwifery autonomy. It is also important that worldwide other health professionals in maternity care comprehend fully what midwifery autonomy entails, both for maternity care and the midwifery profession. A challenge lies in finding the balance between maintaining a high level of professional autonomy amongst health professionals and good collaboration between them [5]. A clear and consolidated definition of midwifery autonomy contributes to understanding how autonomy exactly translates to maternity care, daily midwifery practice and has the potential to pave the way to a stronger professionalisation of midwifery.

**Contributions, approvals, and acknowledgments**

Author contributions: Joeri Vermeulen: 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, Ans Luyben: 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, Maaike Fobelets: conceptualization; data curation; formal analysis; investigation; methodology; visualization; writing - original draft; writing - review & editing.

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| **Table 3.1.: Area of expertise of the content experts (n=27)** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Length of service in the area of expertise | Area of expertise | | | | | | Region | | |
| Content expert ID | Years | Clinical midwifery (n=8) | Primary care (n=7) | Both clinical midwifery and primary care (n=5) | Education (n=9) | Research (n=6) | Regulation-professional association (n= 6) | Flanders (n=7) | Brussels (n=13) | Walloon (n=7) |
| 1 ‡ | 21-30 | | X | | | | | X | | |
| 2 | 11-20 | | | | X | X | | X | | |
| 3 † | 5-10 | | | X | | | | | X | |
| 4 ‡ | 5-10 | | X | | | | | | X | |
| 5 ‡ | >30 | | | | | | X | | | X |
| 6 † | >30 | X | | | | | X | X | | |
| 7 | >30 | | | X | X | | X | X | | |
| 8 | 5-10 | X | | | X | X | | | X | |
| 9 ‡ | 21-30 | | X | | | | X | X | | |
| 10 ‡ | >30 | X | | | X | X | | | X | |
| 11 † | 11-20 | X | | | X | | | | X | |
| 12 | 21-30 | | | | X | X | X | X | | |
| 13 ‡ | 5-10 | X | | | | | | | X | |
| 14 ‡ | 21-30 | | | | X | X | | X | | |
| 15 | 21-30 | | | | X | | | | | X |
| 16 | 11-20 | | X | | | | | | | X |
| 17 | 21-30 | | X | | | | | | | X |
| 18 | 5-10 | | | X | | | | | | X |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 19 | <5 | | | X | | | | | X | |
| 20 | 21-30 | | | X | | | | | X | |
| 21 ‡ | 21-30 | | X | | | | | | | X |
| 22 † | <5 | | X | | | | | | X | |
| 23 | 21-30 | | | | | X | | | X | |
| 24 † | 11-20 | X | | | | | | | X | |
| 25 ‡ | 5-10 | | | | X | | | | | X |
| 26 ‡ | 11-20 | X | | | | | | | X | |
| 27 ‡ | 5-10 | X | | | | | X | | X | |
| Legend table 1: | | | | | | | | | | |
| † Participated in the second Delphi round | | | | | | | | | | |
| ‡ Participated in the second and third Delphi round | | | | | | | | | | |

| **Table 3.2.: Item-Content Validity Index I-CVI after Delphi round one** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Clarity | | | | | Relevance | | | | |
| Components | Received answers n | Clear (rating 3 or 4) n | Not clear (rating 1 or 2) n | I-CVI Clarity | Interpretation | Received answers n | Relevant (rating 3 or 4) n | Not relevant (rating 1 or 2) n | I-CVI Relevance | Interpretation |
| For me, autonomy in midwifery means that a midwife can independently take decisions | 27 | 25 | 2 | 0.93 | Appropriate component | 27 | 26 | 1 | 0.96 | Appropriate component |
| For me, autonomy in midwifery means that a midwife has control over her own work | 27 | 21 | 6 | 0.78 † | Inappropriate component | 27 | 23 | 4 | 0.85 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is given more responsibility when | 27 | 22 | 5 | 0.81 | Appropriate component | 27 | 23 | 4 | 0.85 | Appropriate component |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| performing her tasks | | | | | | | | | | |
| For me, autonomy in midwifery means that a midwife takes responsibility for her own tasks and decisions | 27 | 26 | 1 | 0.96 | Appropriate component | 27 | 27 | 0 | 1.00 | Appropriate component |
| For me, autonomy in midwifery means me that a midwife can do her work according to the professional profile and relevant legislation | 27 | 24 | 3 | 0.89 | Appropriate component | 27 | 25 | 2 | 0.93 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is responsible | 27 | 24 | 3 | 0.89 | Appropriate component | 27 | 26 | 1 | 0.96 | Appropriate component |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| and liable for her actions and decisions | | | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has expertise | 27 | 24 | 3 | 0.89 | Appropriate component | 27 | 23 | 4 | 0.85 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is competent | 27 | 23 | 4 | 0.85 | Appropriate component | 27 | 21 | 6 | 0.78 † | Inappropriate component |
| For me, autonomy in midwifery means that midwives can regulate their own profession | 27 | 20 | 7 | 0.74 † | Inappropriate component | 27 | 20 | 7 | 0.74 † | Inappropriate component |
| For me, autonomy in midwifery means that a midwife is not supervised by | 27 | 23 | 4 | 0.85 | Appropriate component | 27 | 22 | 5 | 0.81 | Appropriate component |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| doctors or other HPs | | | | | | | | | | |
| For me, autonomy in midwifery means that a midwife can act independently | 27 | 26 | 1 | 0.96 | Appropriate component | 27 | 25 | 2 | 0.93 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is recognised by society | 27 | 19 | 8 | 0.70 † | Inappropriate component | 27 | 20 | 7 | 0.74 † | Inappropriate component |
| For me, autonomy in midwifery means that a midwife is professionally recognised | 27 | 22 | 5 | 0.81 | Appropriate component | 27 | 22 | 5 | 0.81 | Appropriate component |
| For me, autonomy in midwifery means that the professional | 27 | 18 | 9 | 0.67 ‡ | Inappropriate component | 27 | 19 | 8 | 0.70 † | Inappropriate component |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| group of midwives has more political influence | | | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has authority | 27 | 21 | 6 | 0.78 † | Inappropriate component | 27 | 19 | 8 | 0.70 † | Inappropriate component |
| For me, autonomy in midwifery means that women respect the competences of the midwife | 27 | 18 | 9 | 0.67 ‡ | Inappropriate component | 27 | 17 | 10 | 0.63 ‡ | Inappropriate component |
| Autonomy in midwifery means to me that other HPs in maternity care respect the competences of the midwife | 27 | 24 | 3 | 0.89 | Appropriate component | 27 | 25 | 2 | 0.93 | Appropriate component |
| Legend Table: | | | | | | | | | | |

†: I-CVI between 0.70-0.79
‡: I-CVI <0.70

| Table 3.3.: Item-Content Validity Index I-CVI after Delphi round two | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Clarity | | | | | Relevance | | | | |
| Components | Received answers n | Clear (rating 3 or 4) n | Not clear (rating 1 or 2) n | I-CVI Clarity | Interpretation | Received answers n | Relevant (rating 3 or 4) n | Not relevant (rating 1 or 2) n | I-CVI Relevance | Interpretation |
| For me, autonomy in midwifery means that a midwife has control over her own work (Work: organisation, planning and execution of the work) | 15 | 14 | 1 | 0.93 | Appropriate component | 15 | 15 | 0 | 1.00 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is competent (Competent: skilled, capable, responsible) | 15 | 14 | 1 | 0.93 | Appropriate component | 15 | 15 | 0 | 1.00 | Appropriate component |
| For me, autonomy in midwifery means that the professional group of midwives can regulate their own profession (Regulate: subject to rules) | 15 | 11 | 4 | 0.73 † | Inappropriate component | 15 | 13 | 2 | 0.87 | Appropriate component |
| For me, autonomy in midwifery means that a midwife is recognised by society (Recognised by | 15 | 14 | 1 | 0.93 | Appropriate component | 15 | 12 | 3 | 0.80 | Appropriate component |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| society: appreciation/respect/the awareness of the importance of something for society) | | | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has authority (Authority: who knows a lot about it, competent, skilled, capable, recognised in her expertise) | 15 | 15 | 0 | 1.00 | Appropriate component | 15 | 15 | 0 | 1.00 | Appropriate component |
| Legend Table:<br>†: I-CVI between 0.70-0.79 | | | | | | | | | | |

**Table 3.4.: The validated components of midwifery autonomy†**

| **Components related to the work content** |
|---|
| Can independently take decisions |
| Can act independently |
| Control over her own work‡ |
| Gets more responsibility in the course of her duties |
| Can do her work according to the professional profile and the relevant legislation |
| **Components related to the professionalism of the midwife** |
| Takes responsibility for her own tasks and decisions |
| Responsible and liable for her actions and decisions |
| Has expertise |
| Is competent§ |
| Has authority¶ |
| **Components related to the relationship with others** |
| Not supervised by doctors or other HPs |
| Is recognised by society†† |
| Is professionally recognised |
| Other HPs in maternity care respect the competencies of the midwife |
| That a legitimately established professional association of midwives defines the rules governing the exercise of their profession. This in consultation with the competent authorities. |
| *†This definition is limited to the practice domain were the midwife is legally entitled to work autonomous, namely uncomplicated pregnancy, childbirth and postpartum*<br>‡*Work content: organization, planning and execution of the work*<br>§*Competent: skilled, capable, responsible*<br>¶*Authority: who knows a lot about it, competent, skilled, capable, recognised in her expertise*<br>††*Recognised by society: appreciation/respect/the awareness of the importance of something for society* |

**Table 3.5.: Consolidated definition of midwifery autonomy.**

| |
|---|
| Midwifery autonomy in Belgium† means:<br><br>That the midwife (m/f/x):<br><br>Can do her work according to the professional profile and relevant legislation, can independently take decisions and has control over her own work‡.<br><br>Is competent§, has expertise and authority¶ and takes responsibility and is liable for her actions and decisions.<br><br>Is not supervised by other HPs and can take on more responsibility when performing her tasks.<br><br>Is recognised by society†† and professionally and that other HPs in maternity care respect her competences.<br><br>That a legitimately established professional association of midwives, in consultation with the competent authorities, defines the rules governing the exercise of their profession. |
| *†This definition is limited to the practice domain were the midwife is legally entitled to work autonomous, namely uncomplicated pregnancy, childbirth and postpartum. This definition is independent of the place of employment*<br><br>‡*Work content: organisation, planning and execution of the work*<br><br>§*Competent: skilled, capable, responsible*<br><br>¶*Authority: who knows a lot about it, competent, skilled, capable, recognised in her expertise*<br><br>††*Recognised by society: appreciation/respect/the awareness of the importance of something for society* |

# Chapter 4: How do midwives view their professional autonomy, now and in future?

Based on: Vermeulen J, Fobelets M, Fleming V, Luyben A, Buyl R, How do midwives view their professional autonomy, now and in future?, Healthcare, June 2023, doi: 10.3390/healthcare11121800

$JIF_{2022}$: 2.8, Q2

# How do midwives view their professional autonomy, now and in future?


## Abstract

### Background

Internationally, midwives' professional autonomy is challenged resulting in them not being able to practice to their full scope of practice. This situation contrasts with the increasing international calls for strengthening the midwifery profession. The aim of this study therefore is to explore Belgian midwives' views on their current and future autonomy.

### Methods

An online survey among Belgian midwives was performed. Data were collected and analysed using a quantitative approach, while quotes from respondents were used to contextualise the quantitative data.

### Results

Three hundred and twelve midwives from different regions and professional settings in Belgium completed the questionnaire. Eighty-five percent of respondents think that they are mostly or completely autonomous. Brussels' midwives feel the most autonomous, while those in Wallonia the least. Primary care midwives feel more autonomous than hospital-based midwives. Older midwives and primary care midwives feel less recognised and respected by other professionals in maternity care. The majority of our respondents think that in future midwives should be able to work more autonomously in constructive collaboration with other professionals.

### Conclusion

While Belgian midwives generally rated their own professional autonomy as high, a significant majority of respondents desire more autonomy in future. In addition, our respondents want to be recognised and respected by society and other health professionals in maternity care. It is recommended to prioritise efforts in enhancing midwives' autonomy, while also addressing the need for increased recognition and respect from society and other maternity care professionals.

**Keywords:** midwives; midwifery; midwifery autonomy; autonomy; professionalisation; maternity care; hospital-based practice; primary care; midwife-led care; sexual and reproductive health

## 4.1. Introduction

To be autonomous practitioners in maternity care, and thus a valuable resource for achieving optimum results, midwives need a strong profession worldwide [1]. A systematic literature review exploring factors influencing midwifery professionalisation identified professional autonomy as a catalyst for advancing this process [2]. Autonomy grants a profession the responsibility of safeguarding the public from individuals who, for any reason, lack the requisite competence to work within the respective field [3]. Job autonomy has a positive effect on job satisfaction [4]. A positive association was found between Greek nurses' professional autonomy and job satisfaction [5]. Furthermore, Filipino nurses with higher levels of professional autonomy were more satisfied and committed in their job than less autonomous nurses [6]. Additionally, professional autonomy positively effects employees subjective well-being [7]. Conversely, failure to address the needs of individuals for professional autonomy may have a negative impact on staff retention, because of job dissatisfaction [5].

A study on professionalisation of midwifery in Europe revealed concerns regarding midwives' status and roles in practice. Additionally, their influence on healthcare systems and policymaking raised further considerations [8]. Midwives' professional autonomy seems to be particularly limited and they face barriers in fulfilling a comprehensive role as legally defined by the European Directives on the scope of midwifery in Europe [9]. Midwifery autonomy, a cornerstone of professional practice, has been almost completely relinquished within obstetric-led care in some countries [10]. In the developed world, medicalisation of birth has been suggested as an important factor in constraining midwifery autonomy [11]. Midwives working in medicalised settings have been socialized towards increased perceptions of birth as high-risk and in need of intervention. While working within strict protocols, little room might be left for individual decision-making and midwives working in hospital-based settings felt they should always be able to justify their professional decisions [12]. Midwives who do not feel autonomous and experience high work pressure in an intra-partum care setting, did not feel confident even when caring for women with uncomplicated births [13].

In Belgium, midwives' degrees of autonomy vary, in hospital-based settings most midwives work under the authority of the obstetrician, although this can vary across hospitals and regions [14]. The organisation of health care provides a financial incentive that encourages obstetricians to undertake activities that could be carried out by midwives. Internationally, midwives in primary care settings tend to experience increased autonomy in the organisation

of their work [11,15,16]. In the Netherlands, midwives reported that they were more autonomous in primary care, where colleagues or obstetricians had no influence on their decisions [12]. A recent study also found that primary care midwives in Belgium felt more autonomous when compared with hospital-based working midwives [17]. In addition, primary care midwives were more satisfied with their job and work-life balance [17]. These results are in line with a literature review highlighting that midwives associated job satisfaction with autonomy, supervision and salary [18]. However, Pollard identified a range of perspectives among midwives regarding autonomous practice in the United Kingdom. The study highlighted the central issue of midwives wanting to be autonomous practitioners and, as a result, take on increased responsibility [19]. Another study in three maternity settings in Ireland revealed that the perception amongst both midwives and obstetricians was that many midwives neither wanted to be autonomous, nor take on the role of lead professional for low-risk women because they were fearful of being accountable for decisions and implicated in adverse outcomes [20]. These authors suggest that midwives' loss of autonomy may be a self-fulfilling prophecy – i.e., midwives are resigning – and other professions will fill the gaps if the profession does not step up to the challenges it faces. Some believe that midwifery autonomy is not possible when practicing with other professionals because of historical hierarchies and power dynamics [21]. Interprofessional collaboration is only possible when the different professionals respect each other and are in equal positions. In Slovenia for example, midwives, nurses and obstetricians are poorly aware of each other's roles and competences, and obstetricians do not recognise midwives as autonomous professionals for normal pregnancy, birth and postpartum [9]. A study exploring interprofessional collaboration between midwives and obstetricians in hospitals in Canada demonstrated willingness from the obstetricians to work collaboratively with midwives. The midwives, however, believed that in midwife-led settings, this collaboration would most likely restrict the power and autonomy of midwifery practice [22]. Midwives in Flanders and the Netherlands recently indicated, however, the need for a shift towards shared responsibility and autonomy concerning reproductive health care and a healthy multidisciplinary cooperation of all health workers [17].

In the current Belgian maternity care context, midwives might not be able to practice to the full extent of the profession's scope of practice [14]. This situation contrasts with the growing body of evidence about the positive outcomes and cost containment of midwife-led care, and the increasing international calls for strengthening the contribution of midwifery in the public

health care field [23]. Recently a research-derived definition of midwifery autonomy in Belgium has been established, resulting in a joint understanding of the concept of midwifery autonomy. This definition of midwifery autonomy has the potential to encourage a dialogue enabling to strengthen the midwifery profession in Belgium [24]. In order to explore midwives' opinion regarding their current and future autonomy, further research in the different midwifery settings was recommended. The aim of this study therefore is to explore the current state of Belgian midwives' autonomy and their views on their autonomy in the future.

## 4.2. Methods

### Design

A descriptive observational study, using an online questionnaire. Quotes from respondents were used to contextualise the quantitative data. The study is reported following the Consensus-Based Checklist for Reporting of Survey Studies (CROSS) as advocated by Sharma et al. [25].

### Participants

A non-probability convenience sampling was used. We aimed for a representative participation of midwives working in the different regions in Belgium. To achieve representativeness we included midwives working in all areas of professional practice: maternity care, reproductive medicine, gynecology and neonatology. Additionally we targeted midwives working in primary care and those working in research and education [26].

In December 2021 a hard copy information letter with a Quick Response (QR) code to the survey link (QualtricsXM) was send by posts to all maternity services in Belgium (n=104, 59 in Flanders, 34 in Wallonia and 11 in Brussels) [27]. Additionally, the presidents of the Flemish Organisation of Midwives (1.829 members in 2021), Professional Union of Belgian Midwives (800 members in 2021) and the French speaking Association of Catholic Midwives (105 members in 2021) were asked to distribute the call for participation to their members via newsletters and social media. Lastly, potential participants were contacted through personal contacts of two researchers (JV and MF) and invited by e-mail to participate in this online survey between December 2021 and February 2022. The invitation included information about the study, an participant information sheet and a link to the survey site. A reminder was sent three weeks after the first invitation (January 2022).

### Data collection

To achieve to the aims of this study, a questionnaire was developed based on 15 items related to midwifery autonomy [24]. These items were retrieved from literature in 2021 and forward-backward translated in Dutch and French in the context of a study on the development of a consented definition of midwifery autonomy in Belgium. An online Delphi panel of 27 content experts was engaged to evaluate the clarity and relevance of the items, leading to the validation of 15 items following three rounds of the Delphi process. The items were related to the dimensions 'work content', 'professionalism of the midwife' and 'relationship with others'. The work-content related dimension of autonomy was identified as one in which the midwife is responsible, can independently take decisions and control her work. Likewise, identified items related to the autonomy dimension professionalism of the midwife were expertise, authority and competence regard to the relationship with others, this dimension comprised items concerning respect for the independence of midwives, their recognition and respect by other health professionals in maternity care. Together these items encompassed the essentials of midwifery autonomy as indicated by content experts.

The 15 items were adapted into both Dutch and French statements by two researchers (JV, MF). The statements were externally linguistically checked (RG) and discrepancies that had been identified were discussed and adjusted (MF, JV, RG). The questionnaire was delivered with the dimensions 'work content', 'professionalism of the midwife' and 'relationship with others' stated prior to the statements. Participants were asked to evaluate the statements on a 4-level Likert scale (1=strongly disagree, 2=disagree, 3=agree and 4=strongly agree). This scale overcame the limitations of the proportion agreement procedure, because a neutral and ambivalent midpoint was avoided [28]. When respondents indicated 1=strongly disagree, they were invited to explain why they strongly disagreed with the statement. Respondents could freely comment on each of the 15 statements if they wished. At the end of the questionnaire, respondents were invited to rate their own autonomy and indicate to which extent they believe that a midwife in Belgium should be able to work autonomously in the nearby future. In addition, respondents could make further comments on this study. Finally, professional and socio-demographic data were gathered (gender, age, professional experience, professional setting and work region), see Annex 1.: Autonomy questionnaire: midwives' views.

Participation in this survey was voluntary and anonymous. Consent was obtained by a cover letter explaining that completion of the questionnaire implied participants' willingness to

participate. Data were obtained in compliance with General Data Protection Regulation (European Union 2016/679). The data were stored in a secured and locked server of the Vrije Universiteit Brussel (VUB), only accessible to the researchers.

**Data analysis**

To evaluate the effect of the different independent factors (age, years of professional experience, professional setting and region) on the two internal consistent and valid dimensions of autonomy, 'work content' and 'professionalism of the midwife', a stepwise model building approach for a multi-way ANOVA was used. Variables showing a significant effect using a one-way approach, were considered in a full factorial (including all interactions). In a final model all non-significant interactions were omitted. Post-hoc analysis using a Tukey Honestly Significant Difference (HSD) test was performed for multiple comparisons. Prior to conducting the Tukey HSD test, a Levene's test of equality of error variances was performed, which indicated that the assumption of equal variances across groups was met ($p>0.05$), justifying the use of the Tukey test for post-hoc pairwise comparisons.The reported means are in between 5-20, as the sum that was calculated for each dimension exists of 5 items and each item could be rated on a 4-level Likert scale.

Outcome variables concerning the dimension 'relationship with others' (items concerning respect for the independence of midwives, their societal and professional recognition and respect by other health professionals in maternity care) were given as frequencies (percentages). We combined responses in two subgroups, the positive answers (agree and strongly agree) and negative answers (disagree and rather strongly disagree), and thereafter broke them down by age, years of professional experience, professional setting and region.

To test the relationship between the discrete outcomes (midwives' views on their autonomy and their views on their autonomy in the future) and the professional setting and region a Chi-square test was used. Analyses were performed using SPSS Statistics for Windows, version 28.0. P-values $\leq 0.05$ were considered significant.

Some comments given by the participants in the survey have been used in this article to support the understanding of the research findings. Two researchers (JV and MF) selected narrative quotes from the transcripts and translated them into English.

**Validity, reliability and rigor**

The R programming environment (R Development Core Team 2004) was used to assess item properties, reliability and validity of the scales. First, a visual inspection of the distribution of the items revealed that some items did not follow a normal distribution. Next, reliability of each scale's dimension was checked using Cronbach's Alpha coefficient (α) and Omega (ω, based on the model using polychoric correlations). The reliability measures of both 'work content' and 'professionalism of the midwife' were considered good (work content: α= 0.80, ω=0.81; professionalism: α=0.81, ω=0.82), while the dimension 'relationship to others' was suboptimal (α=0.50, ω=0.55). An item inspection revealed that the items of this dimension are too heterogeneous. In a third step, construct validity of the scale was inspected by constructing Confirmatory Factor Analyses (CFA) models using the R-package lavaan. Models using a Maximum Likelihood (ML) estimator resulted in a suboptimal model fit, due to the fact that data were non-normally distributed and assessed on only a 4-point Likert scale. Therefore, we opted to use the Diagonally Weighted Least Squares (DWLS) estimator. Different fit indices were inspected to evaluate how well the model fits the data. It was also verified if the standardised factor loadings exceed .50. The CFA models resulted in good model fits when the dimension 'relationship with others' was omitted from the model. For details on the statistical procedure, results and CFA models, see Annex 2.: Reliability and construct validity of the autonomy questionnaire.

In conclusion, the scales of both dimensions 'work content' and 'professionalism of the midwife' are internally consistent, which is a measure of scale reliability. The dimension 'relationship with others' is not internally consistent as its items are too heterogeneous. Regarding construct validity, good model fits were obtained when we omit the dimension 'relationship with others' items from the model.

## 4.3. Results

**Sociodemographic and professional characteristics of participants**

We received responses from 415 respondents, of which 312 (75.2%) were complete. Participants were all female except for 3 male midwives, the age group 31-40 years was the most represented (n=96, 30.8%). Most participants had between 11-20 years (n=81, 26%) of professional experience as a midwife. The respondents in our study encompassed various

professional backgrounds, including hospital-based midwifery (n=185, 59.3%), primary care (n=66, 21.2%), education (n=45, 14.4%) and research (n=9, 2.9%). About 10% of respondents combined different domains or were professionally practicing in a Maternal Intensive Care setting. In the hospital-based setting, the labour (n=153, 49%) and postnatal ward (n=148, 47.4%) was most represented amongst participants. Nearly half of the respondents were professionally active in Flanders (n= 154, 49.3%). Of the remainder, 61 (19.7%) midwives working in Wallonia and 95 (30.4%) in the Brussels Capital Region participated (Table 4.1.: Sociodemographic and professional characteristics of respondents).

**Midwives' views about their autonomy**

On the query of how midwives generally rate their own autonomy, most respondents answered that they view themselves as mostly or completely autonomous (n=262, 84%). About 15% of respondents feel they are mostly not (n=45, 14.4%) or not at all autonomous (n=5, 1.6%). Ninety-five percent of midwives working in primary care stated that they are mostly or completely autonomous compared with midwives from hospital-based care (81.6%), this difference is statistically significant (p=<.001). Table 4.2. outlines midwives' views about their autonomy and their views on autonomy in the future. The older midwives get, and the more professional experience they gain, the higher they rate their autonomy. Conversely, there is a decrease in the self-perceived autonomy of midwives who are aged over 50 and those with more than 21 years of experience. Midwives from the Brussels Capital region feel more autonomous (92.6%) than midwives from the Flanders (81.8%) and the Walloon region (73.01%). One midwife highlighted the difference between workplaces:

*"After working in four different hospitals in Brussels and in the Walloon region, I think that autonomy is truly dependent on the workplace …. and depends on the leading midwives and obstetricians of the team". (item 17_participant 161)*

Table 4.2.: Midwives' views about their autonomy and their views on autonomy in the future

**Midwives' views about their autonomy related to work content**

The autonomy items related to the content of their work involves independently taking decisions, acting independently, having control over their own work, taking responsibility over the duties and being able to work according to professional regulations. For each item in this dimension the majority of midwives scored 'agree' or 'strongly agree' (81.7%-93.5%). When

comparing the mean sum scores of the items related to the work content dimension, a post hoc-comparison using the Tukey HSD test showed that the result for the Brussels Capital region, $\overline{x}$=16.27 was significantly different from Flanders, $\overline{x}$=15.56 (p=0.04) and the Walloon region $\overline{x}$=14.69 (p<.01). The mean score for primary care midwives was significantly different from midwives from both hospital-based and primary care ($\overline{x}$=17.31 versus $\overline{x}$=15.41, p=<.01), hospital-based midwives ($\overline{x}$=17.31 versus $\overline{x}$=15.18, p=<.01) and midwives from other professional settings e.g. education and research ($\overline{x}$=17.31 versus $\overline{x}$=14.89, p=<.01), which was also pointed out by one of the participants:

*"In the hospital I work under the supervision of the obstetrician, which limits my ability to take independent decisions. Approval from the obstetrician is always required. In primary care I work independently according to the guidelines …, I can also prescribe medication, ... primary and hospital care vary day and night". (item 1_participant 273)*

No statistically significant difference was found in relation to age (p=0.58) and years of professional experience of respondents (p=0.07) regarding midwives perception about their autonomy related to work content. Table 4.3. outlines midwives' views about their autonomy related to work content and the professionalism of the midwife.

Table 4.3.: Midwives' views about their autonomy related to work content and the professionalism of the midwife

**Midwives' views about their autonomy related to the professionalism of the midwife**

The autonomy items related to the professionalism of the midwife includes; taking responsibility and being responsible for own decisions, having expertise, feeling competent and having authority. For each item of this dimension majority of respondents agreed or strongly agreed with the statements (88.1-96.8%). When comparing the mean sum scores of the items related to the professionalism of the midwife dimension, a post hoc-comparison using the Tukey HSD test showed that the result for the Brussels Capital region, $\overline{x}$=16.85 was significantly different from Wallonia, $\overline{x}$=15.77 (p<.01). Two respondents expressed this as follows:

*"Specifically at X (Brussels hospital): no hierarchy between doctors and midwives, but complementarity +++ and teamwork". (item 11_participant 177)*

*"As the advocate of physiology an active collaboration with the team of doctors in X (Brussels hospital) is pursued". (item 9_participant 11)*

Midwives working in Flanders scored higher on this autonomy dimension than midwives working in Wallonia but the difference was not statistically significant (p=0.06). Mean scores of primary care midwives were significantly higher compared to hospital-based midwives ($\overline{x}$=17.23 versus $\overline{x}$=16.24, p=<.01) and those from other professional settings ($\overline{x}$=17.23 versus $\overline{x}$=15.97, p=0.02). The mean score of midwives with a professional experience of less than 5 years scored significantly less on this dimension than for midwives with more professional experience ($\overline{x}$=15.23 versus more than $\overline{x}$=16.60 for the other age categories, p=<.01). A midwife with less than 5 years of professional experience pointed this out:

*"I still lack a bit of experience. This is a job we learn every day. The more experience we acquire, the more comfortable we will be in the job". (item 8_participant 309)*

**Midwives' views about their autonomy in relationship with others**

The dimension of autonomy related to the relationship with others involves not being supervised, being socially and professionally recognised and being respected by other health professionals and a professional association of midwives which defines the professional rules. The older midwives are and the more professional experience they have, the more they feel recognised by society and professionally, table 4.4.: Midwives' views about their autonomy in relationship with others. Nevertheless, a decline in this self-perceived societal and professional recognition is observed after more than 30 years of professional experience, which was highlighted by one of the midwives:

*"We are often supervised by assistants who respond very medically and do not consider our experience or expertise, which often leads to frustration …". (item 11_participant 297)*

Primary care midwives feel less supervised by doctors or other health professionals (84.4%) than hospital-based midwives (31.8%). Considerably fewer midwives from primary care feel recognised by society (50.0% versus 63.7% hospital-based midwives) and professionally (57.8% versus 68.6% hospital-based midwives). Several midwives reflected on their feelings in this regard in their comments:

*“Despite my proven competences, I am not rewarded by the government, which is inexcusable. No extra fee for me as an accredited lactation consultant, no additional fee if you have a Master’s degree, …”. (item 9_participant 174)*

*“Not every woman or doctor accepts the expertise of a midwife. I think this is the most difficult thing in my profession, the daily struggle to prove that what we do is responsible, safe and qualitative care”. (item 10_participant 2)*

*“I often get comments like 'Is a midwife allowed to perform a childbirth?' 'Isn't that dangerous?' or 'I would prefer to give birth with an obstetrician anyway’ …”. (item 12_participant 9)*

Additionally, primary care midwives feel less respected by other health professionals in maternity care (54.7% versus 82.9% hospital-based midwives); this lack of respect was expressed by several primary care midwives:

*“When one does not know primary care, many health professionals are suspicious about my professional functioning, this is due to a lack of information and understanding of primary care”. (item 13_participant 287)*

*“You are not always considered as an authority in maternity care, rather as someone with an alternative, not evidence-based vision”. (item 10_participant 286)*

Midwives working in Wallonia feel considerably less recognised by society (39.4% versus 69.8% midwives from Flanders) and professionally (29.5% versus 81.4% midwives from Flanders) and less respected by other health professionals in maternity care (65.6% versus 86.3% of midwives from Brussels Capital). Midwives working in Flanders, among other regions, feel the most recognised by society and professionally, while midwives from Brussels feel most respected by other health professionals in maternity care.

*“Respect and trust are not self-evident, but are built up by good and constructive cooperation”. (item 14_participant 122)*

Primary care midwives are less in agreement with the statement that a professional association of midwives defines the rules governing the exercise of their profession, and pointed this out:

*"There is little support from the professional organisation towards primary care midwives, the organisation is almost exclusively governed by hospital-based midwives". (item 15_participant 71)*

The majority of Walloon midwives (80.3%) agrees that a professional association of midwives defines the rules governing the exercise of their profession compared to about 70% (69.9%) in Flanders. Some compared this situation in Belgium with what they knew from other countries;

*"We need a professional organisation such as in the United Kingdom (RCM [Royal College of Midwives]) or the Netherlands (KNOV, [Royal Dutch Organisation of Midwives]), where most staff is professionally involved in policy, vision, research, ….". (item 15_participant 174)*

*"There should be mandatory membership, as in France, so that they [professional association] have more means to defend and develop our profession". (item 15_participant 129)*

Table 4.4.: Midwives' views about their autonomy in relationship with others

**Midwives' views about their autonomy in the future.**

Most midwives feel that a midwife should be able to work completely autonomously (n=156, 50%) or mostly autonomously (n=148, 47.4%) in future. Primary care midwives are significantly more convinced than hospital-based midwives and those who combine primary and hospital-based care (p=<.01) that midwives in the future should be able to work more autonomously:

*"I believe that midwifery autonomy can be improved, such as midwifery-led care units or midwife-led care, where we can take autonomous decisions, of course in the event of a low risk pregnancy/childbirth. However, this also requires a different view on the financing of maternity care". (item 16_participant 22)*

Many respondents highlighted that the call for more professional autonomy does not exclude collaboration with other health professionals in maternity care:

*"For me autonomy means 'on my own responsibility, without supervision of a doctor', but that does not mean that there should be no good cooperation with other disciplines". (item 9_participant 122)*

*"Good cooperation and agreements with other health professionals disciplines does not exclude autonomy". (item 17_participant 122)*

### 4.4. Discussion

This is the first study to explore the current state of Belgian midwives' autonomy and their views on their autonomy in the future. Belgian midwives are cohesive regarding their self-perceived autonomy, with about 85% of respondents stating that they are mostly or completely autonomous. Primary care midwives feel more autonomous than midwives from hospital-based care and those combining both domains. These findings are echoed in international literature, where commonly primary care midwives experience more professional autonomy than hospital-based midwives [12,15,16]. Primary care midwives in particular are accustomed to decide about their practice and how to organize their work. Autonomy is embedded in their daily work, e.g. for primary care midwives in New Zealand professional autonomy is seen as self-evident [15]. As in the Netherlands, primary care respondents felt significantly less supervised by doctors or other health professionals than hospital-based midwives [12]. Most Belgian primary care midwives work in a model of care whereby maternity care is provided by the same midwife [10], which leads to experiencing higher levels of autonomy [29].

The degree to which hospital-based midwives are autonomous is variable and depends on the extent of authority given to them by their place of practice [15]. While hospital-based midwives feel less autonomous than primary care midwives, still over 80% rate their autonomy as high. Even if autonomous practice is more difficult for hospital-based midwives, autonomy still is apparent and considered important for them [15]. In the Netherlands lower professional autonomy rates were found in hospital-based midwives compared to primary care midwives, but 70.5% of hospital-based midwives felt autonomous though [30]. These high rates might illustrate that professional autonomy is important for health professionals as autonomy is related to sense of belonging [31], job satisfaction [32] and professional wellbeing [33]. Internationally, mixed views are reported among midwives about whether they practice autonomously or not, based on their working environment and interpretation of the autonomy concept [19]. Conversely, it has been argued that midwives who never observed primary maternity care may not truly understand midwifery autonomy [20].

As previously outlined, Belgium midwives' degree of autonomy may vary across regions [14]. Midwives working in the Brussels Capital region in general perceive themselves as more autonomous than midwives from the Flemish and Walloon region. The context of a healthcare setting might be sociocultural and politically influenced which may impacts midwives' autonomy [34]. Further research is warranted to determine how the sociocultural profile of the Brussels Capital region may affect midwives' work and autonomy.

Midwives with a professional experience of less than 5 years scored significantly less on the professionalism dimension than midwives with more professional experience. This is not surprising as the items in this dimension are related to expertise, competence and authority. It is to be expected that one will acquire these professionalism competences over time. The older midwives get and the more professional experience they gain, the higher they rate their own autonomy. Older midwives and midwives with more professional experience feel more social and professional recognition. There is evidence that shows that more experience led to higher levels of job satisfaction in Dutch midwives [35]. The decline in our participants' self-perceived socially and professionally recognition after more than 30 years of professional experience is thus surprising and unexplained. Conversely, a decrease in the self-perceived autonomy of midwives older than 50 year and those with more than 21 years of experience was equally noticed. There might be systematic differences in how midwives perceive their work at different stages of their life course [36]. A scoping review aiming to identify challenges older nurses and midwives encounter in the workplace, identified besides physical and promotional difficulties, lack of respect by other health professionals and management. The lack of respect is mainly related to lack of acceptance and recognition for their years of practice and expertise [37].

In contrast, it is concerning that primary care midwives feel less societally and professionally recognised and also experience a lack of respect from other health professionals in the field of maternity care. Primary care midwives in the Netherlands emphasized that satisfaction with collaboration with other health professionals in maternity care varies within regions and echelons of care [38]. The question why midwives working in Wallonia do not feel equally autonomous, recognised and respected as midwives from other regions remains unanswered. All midwives in Belgium work within the same legislative framework and the organisation of hospital-based settings is similar. Further research is required to identify the factors that

contribute to the disparities in autonomy, recognition, and respect among midwives in different regions of Belgium. Regarding societal and professional recognition, midwives feel that their competences are ignored by society. While the lack of adequate compensation of Belgian midwives is acknowledged as hindering midwifery professionalisation [39], women's limited knowledge about midwives' competences may affects midwives' recognition and their autonomy [34]. Brussels' women do not consider midwives as playing a central role in uncomplicated pregnancy and that they prefer obstetricians for an uncomplicated labour, may explain why they are doubtful about midwives' competences [40].

Most hospital-based midwives and midwives from research and education believe that a professional association of midwives defines the rules governing the exercise of their profession. There is less agreement on this among primary care midwives. However, there is a call for a more professional functioning of the Belgian professional associations of midwives. The WHO emphasizes the importance of a strong midwifery association defending midwives' rights, making their voices heard in order to promote professional autonomy and self-regulation of midwives [1]. Midwifery associations need to be strong political actors to promote and negotiate the position of all their members. Interconnection between midwifery organisations, other health professionals in maternity care and policy-makers with women's groups is recommended [40].

Feeling professionally respected by other health professionals in maternity care is important for our respondents. Likewise, in Greece the strongest effect on high job satisfaction in midwives was noted to be respect by women and other health professionals [32]. Midwives work in practice often with other health professionals who have a different ideology that can be challenging if professionals are required to work according to ideologies different from those of their own profession [3]. Professional relationships between similar professions play an important role in the professionalisation of an occupation. It has been acknowledged that when different professional groups know each other, this results in mutual respect and constructive collaboration. Interprofessional collaboration should be further explored since midwives' autonomy and participatory decision-making may be challenged which affect their professionalism [2]. A Swedish study exploring midwives' professional role and identity revealed that midwives' role in childbirth care had gradually decreased in favour of obstetricians [41].

Nevertheless, midwives found that the dialogue with them was gradually improved, which led to better teamwork and joint decisions.

The majority of our respondents think that in future, midwives should be able to work completely or mostly autonomously. This is more expressed by primary care midwives. In literature opposing views are reported, as to whether midwives want to practice autonomously and take on more responsibility [19]. Other studies identified reluctance for increased autonomy, mostly because of fear of being held responsible for professional choices [10,12]. Such a lack of clarity and fears are not echoed in our results. While a majority of Belgian midwives perceives themselves as autonomous, they desire even more autonomy in future in constructive collaboration with other health professionals in maternity care. A WHO report confirms indeed that midwives worldwide want to be more autonomous, which means that they would require professional respect to be afforded by obstetricians [1].

As Walloon midwives, older midwives and primary care midwives feel less recognised and not respected by other health professionals, research is warranted to explore this blind spot. We recommend exploring the views of stakeholders (e.g. general practitioners, obstetricians, paediatricians, policy advisors, hospital managers and women's groups) about midwifery and midwifery autonomy. Specific attention should be paid to older midwives, primary care midwives and midwives working in Wallonia.

Limitations

This is the first study to explore how Belgian midwives perceive their professional autonomy. Nevertheless, attention should be drawn to the limits of our study. We employed a quantitative approach for data collection and analysis, supplementing it with respondent quotes. The combination of quantitative and qualitative approaches offers strengths such as complementary data, triangulation of findings, depth in understanding and contextualisation of quantitative data. However, this approach may pose challenges in integration and interpretation, risk of bias in selecting and interpreting quotes and limited generalisability for qualitative findings [42].

From the 435 answers received, only 312 (75.2%) completed the whole questionnaire. It is somewhat surprising that nearly 25% of respondents did not end the survey. It had been demonstrated that the inclusion of a QR code will make respondents more likely to participate

with a smartphone. Conversely, break down rates for respondents participating by smartphone are considerably higher compared with other devices [43]. Despite this breakdown, an acceptable variation sampling was achieved. Respondents represented each of the identified midwifery domains, namely hospital-based midwifery, primary care, education and research. The outstanding participation of primary care midwives participated in this study, 21% versus 9% of the national average midwives working in primary care, could be explained because professional autonomy is most significant for their job satisfaction [35]. Indeed it has been reported that Belgian primary care midwives are more satisfied with their job than hospital-based midwives [17]. A potential limitation of this study is that we not considered the participants' country of origin and country of education, which may have implications for the generalisability of the findings on midwives' views regarding their professional autonomy.

The dimension ‘relationship with others’ was not internally consistent as the items were too heterogeneous. To identify if midwives feel supervised, recognised and respected and if a midwifery association defines the professional rules, descriptive analyses was used (frequencies and percentages). To support future use of the professional relationships measure of autonomy, additionally qualitative methods should be considered to understand how midwives view their independence, recognition and respect by other maternity care professionals.

### 4.5. Conclusions

While Belgian midwives generally rate their own professional autonomy as high, we observed significant differences between hospital-based and primary care midwives and the region where she works. Older midwives and midwives working in the Walloon Region feel less societally and professionally recognised than others in the sample. While primary care midwives feel significantly more autonomous than hospital-based midwives, they feel less societally and professionally recognised and less respected by other health professionals in maternity care. A significant majority of respondents desire more autonomy in future and want to be respected by society and other health professionals in maternity care.

Societal and professional recognition came up as vital irrespective of midwives’ age, region or professional setting. Professional organisations’ role in the ongoing process of midwifery professionalisation is key to promoting and negotiating midwives’ position. Additionally, views

of stakeholders in maternity care, including policy makers and women, about the midwifery profession needs to be explored to get a full understanding of the complex phenomenon of midwifery autonomy.

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| **Table 4.1.: Sociodemographic and professional characteristics of respondents who completed the questionnaire** | | |
|---|---|---|
| | | n (%) 312 (100) |
| **Gender** | Female | 309 (99.0) |
| | Male | 3 (1.0) |
| **Age (Years)** | 20-30 | 74 (23.7) |
| | 31-40 | 96 (30.8) |
| | 41-50 | 65 (20.8) |
| | >50 | 77 (24.6) |
| **Professional experience as a midwife (Years)** | <5 | 71 (22.7) |
| | 5-10 | 60 (19.2) |
| | 11-20 | 81 (26.0) |
| | 21-30 | 47 (15.1) |
| | >30 | 53 (17.0) |
| **Professional setting** † | Hospital-based care | 185 (59.3) |
| | Primary care | 66 (21.2) |
| | Both hospital-based and primary care | 28 (9.0) |
| | Education and/or research | 55 (17.3) |
| | Other | 32 (10.3) |
| **Professional activities in hospital-based care** ‡ | Postnatal ward | 148 (47.4) |
| | Labour ward | 153 (49.0) |
| | Antenatal consultation | 61 (19.6) |
| | Ultrasound | 7 (2.2) |
| | Reproductive medicine | 2 (0.6) |
| | Gynaecology | 13 (4.2) |
| | Neonatology | 62 (19.9) |
| | Other | 36 (11.5) |
| **Region** | Brussels Capital | 95 (30.4) |
| | Flanders | 156 (49.9) |
| | Walloon | 61 (19.7) |

† The total is >100% as a midwife can be employed in several settings

‡ The total is >100% as a midwife can be professional active in different hospital-based settings

| Table 4.2.: Midwives' views about their autonomy and their views on autonomy in the future | | How do you generally rate your autonomy as a midwife? n (%) † | To what extent do you think that a midwife should be able to work autonomously in Belgium? n (%) † |
|---|---|---|---|
| **Age (Years)** | 20-30 | 59 (79.7) | 72 (97.3) |
| | 31-40 | 80 (83.3) | 95 (99.0) |
| | 41-50 | 58 (89.2) | 64 (98.5) |
| | >50 | 65 (84.4) | 73 (94.8) |
| **Professional experience as a midwife (Years)** | <5 | 54 (76.1) | 70 (98.6) |
| | 5-10 | 50 (83.3) | 59 (98.3) |
| | 11-20 | 72 (90.0) | 79 (97.5) |
| | 21-30 | 43 (83.7) | 46 (97.9) |
| | >30 | 43 (81.1) | 50 (94.3) |
| **Professional setting** | Hospital-based care | 151 (81.6) | 180 (97.3) |
| | Primary care | 63 (95.5) | 66 (100) |
| | Both hospital-based and primary care | 24 (85.7) | 26 (92.9) |
| | Other | 72 (83.7) | 84 (97.7) |
| **Region** | Brussels Capital | 88 (92.6) | 91 (95.8) |
| | Flanders | 126 (81.8) | 152 (98.7) |
| | Walloon | 46 (73.0) | 59 (96.7) |
| † Sum of respondents who answered 'mostly autonomous' or 'completely autonomous' on the statements | | | |

| **Table 4.3.: Midwives' views about their autonomy related to work content and the professionalism of the midwife** | | | | | |
|---|---|---|---|---|---|
| **Dimension: work content** | | **Work content score (5-20)** | | | |
| | | Mean | Standard Deviation | n | p-value |
| **Age (Years)** | 20-30 | 15.28 | 2.71 | 74 | 0.58 |
| | 31-40 | 15.71 | 2.60 | 96 | |
| | 41-50 | 15.97 | 2.46 | 65 | |
| | >50 | 15.47 | 2.25 | 77 | |
| **Professional experience as a midwife (Years)** | <5 | 14.89 | 2.87 | 71 | 0.07 |
| | 5-10 | 15.88 | 2.42 | 60 | |
| | 11-20 | 15.99 | 2.47 | 81 | |
| | 21-30 | 15.51 | 2.23 | 47 | |
| | >30 | 15.75 | 2.32 | 53 | |
| **Professional setting** | Hospital-based care | 15.18 | 2.45 | 182 | <.01* |
| | Primary care | 17.31 | 2.06 | 64 | |
| | Both hospital-based and primary care | 15.41 | 2.87 | 29 | |
| | Other | 14.89 | 2.01 | 37 | |
| **Region** | Flanders | 15.56 | 2.50 | 156 | <.01* |
| | Brussels Capital | 16.27 | 2.22 | 95 | |
| | Walloon | 14.69 | 2.71 | 61 | |
| **Dimension: professionalism of the midwife** | | **Professionalism of the midwife score (5-20)** | | | |
| | | Mean | Standard Deviation | n | p-value |
| **Age (Years)** | 20-30 | 15.93 | 2.34 | 74 | 0.16 |
| | 31-40 | 16.43 | 2.27 | 96 | |
| | 41-50 | 16.86 | 2.14 | 65 | |
| | > 50 | 16.69 | 2.17 | 77 | |
| **Professional experience as a midwife (Years)** | <5 | 15.23 | 2.14 | 71 | <.01* |
| | 5-10 | 16.63 | 2.46 | 60 | |
| | 11-20 | 16.94 | 1.95 | 81 | |
| | 21-30 | 16.89 | 2.16 | 47 | |
| | >30 | 16.83 | 2.13 | 53 | |
| **Professional setting** | Hospital-based care | 16.24 | 2.16 | 182 | <.01* |
| | Primary care | 17.23 | 2.66 | 64 | |
| | Both hospital-based and primary care | 16.79 | 1.80 | 29 | |
| | Other | 15.97 | 1.92 | 37 | |
| **Region** | Flanders | 16.50 | 2.29 | 156 | 0.03* |

| | | | | | |
|---|---|---|---|---|---|
| | Brussels Capital | 16.85 | 2.13 | 95 | |
| | Walloon | 15.77 | 2.20 | 61 | |
| *= Statistically significant (p≤.05) | | | | | |

| Table 4.4.: Midwives' views about their autonomy in relationship with others | | I am not supervised by doctors or other health professionals n (%)† | I am recognised by society n (%)† | I am professionally recognised n (%)† | Other health professionals in maternity care respect the role of the midwife n (%)† | A legitimately established professional association of midwives defines the rules governing the exercise of their profession. This in consultation with the competent authorities n (%)† |
|---|---|---|---|---|---|---|
| **Age (Years)** | 20-30 | 29 (39.2) | 40 (54.1) | 49 (66.2) | 55 (74.3) | 58 (78.4) |
| | 31-40 | 44 (45.8) | 56 (58.3) | 58 (60.4) | 76 (79.2) | 65 (67.7) |
| | 41-50 | 33 (50.7) | 40 (61.5) | 44 (67.7) | 50 (76.9) | 49 (75.4) |
| | >50 | 35 (45.5) | 54 (70.1) | 58 (75.3) | 58 (75.3) | 51 (66.2) |
| **Professional experience as a midwife (Years)** | <5 | 26 (37.7) | 39 (56.5) | 44 (62.0) | 54 (76.1) | 53 (74.6) |
| | 5-10 | 30 (50.0) | 30 (50.0) | 41 (68.3) | 46 (66.7) | 45 (75.0) |
| | 11-20 | 38 (46.9) | 47 (58.0) | 49 (60.5) | 64 (79.0) | 49 (60.5) |
| | 21-30 | 22 (46.8) | 38 (80.9) | 38/ (80.9) | 36 (76.6) | 31 (66.0) |
| | >30 | 25 (47.2) | 36 (67.9) | 37 (69.8) | 39 (73.6) | 36 (67.9) |
| **Professional setting** | Hospital-based care | 58 (31.8) | 116 (63.7) | 125 (68.6) | 151 (82.9) | 133 (73.0) |
| | Primary care | 254 (84.4) | 32 (50.0) | 37 (57.8) | 35 (54.7) | 42 (65.6) |
| | Both hospital-based and primary care | 12 (41.4) | 18 (62.0) | 21 (72.4) | 23 (79.3) | 20 (68.9) |
| | Other | 141 (45.2) | 24 (64.9) | 26 (70.3) | 30 (81.1) | 28 (75.8) |
| **Region** | Brussels Capital | 41 (44.2) | 57 (60.0) | 64 (67.3) | 82 (86.3) | 65 (68.4) |
| | Flanders | 69 (44.2) | 109 (69.8) | 127 (81.4) | 117 (75) | 109 (69.9) |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Walloon | 30 (49.2) | 24 (39.4) | 18 (29.5) | 40 (65.6) | 49 (80.3) |
| † Sum of respondents who 'agreed' or 'strongly agreed' on the statements | | | | | | |

# Chapter 5: Key maternity care stakeholders' views on midwives' professional autonomy

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# Key maternity care stakeholders' views on midwives' professional autonomy


## Abstract

### Introduction

Advancement towards professionalism in midwifery is closely linked to midwives' professional autonomy. Although the perspectives of Belgian midwives on their professional autonomy have been studied, the views of other maternity care stakeholders is a blind spot.

### Aim

The aim of this study therefore was to explore maternity care stakeholders' views on Belgian midwives' professional autonomy.

### Methods

A qualitative exploratory study was performed, using focus group interviews.

### Results

A heterogenous group of 27 maternity care stakeholders participated. Variation between midwives, with different levels of autonomy, was reported. The analysis of the data resulted in 5 themes: 1) The autonomous midwife is adequately educated and committed to continuous professional further education, 2) The autonomous midwife is competent, 3) The autonomous midwife is experienced, 4) The autonomous midwife assures safe and qualitative care, and 5) The autonomous midwife collaborates with all stakeholders in maternity care.

### Conclusion

A maternity collaborative framework, where all maternity care professionals respect each other's competences and autonomy, is crucial for providing safe and quality care. To achieve this, it is recommended to implement interprofessional education to establish strong foundations for interprofessional collaboration. Additionally, a regulatory body with supervisory powers can help ensure safe and quality care, while also supporting midwives' professional autonomy and professionalisation.

**Keywords:** midwives; midwifery; midwifery autonomy; autonomy; professional autonomy; professionalisation

## 5.1. Introduction

Professional autonomy, a cornerstone of midwifery's philosophy [1], is equally considered a catalyst for advancing midwifery's journey towards professionalism [2]. In some, but not all, countries midwives' professional autonomy is limited; this contrasts with the (1) legal framework, (2) evidence about the positive outcomes of midwife-led care, and (3) international calls for strengthening midwifery [3]. Midwives may not be able to practise to their full extent in current maternity care settings [4]. Internationally, medicalisation of birth is suggested as limiting midwifery autonomy [5,6]. The historical value given to specialist medical services have an impact on midwives' autonomy, for example, most obstetricians perform births in Belgium. Internationally, hospital-based midwives have limited control over the organisation of their work such as one to one care, continuity of care, or working hours most of which are determined by hospital management [7].

Belgium is a country in Western Europe with a complex political organisation which is 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) [7]. In 2019, 10.501 midwives were professionally active in Belgium, 70% (n=7.357) in Flanders, 23% (n=2.400) in Wallonia and 6% (n=625) in the Brussels Capital Region. Of the total of all professionally active midwives, 78% (n=8.243) work in a hospital setting, 9% (n=990) in primary care and 12% (n=1.268) combine both [7]. Maternity services in Belgium occupy an important place in the hospital landscape given their vital role as about 98% of births in Belgium takes place in hospitals [8,9]. Giving birth in a birth centre or at home is rather exceptional. Homebirths are in general supervised by independent midwives working in primary care settings. To our knowledge, there are 13 birth centres and one alongside midwifery-led birth centre in Belgium [7]. The effective figures of midwifery-led care in labour and childbirth is uncertain. The second annual report on midwife-led care in Belgium notes that 1.7% of the total number of births in 2021 were midwifery-led [10]. However, underreporting is suspected as data are from self-registration and Walloon data are partly missing.

The national birth rate in Belgium in 2021 was 117.914 [11], with a perinatal mortality rate of 6.0‰ in 2015 [12] and a maternal mortality rate of 6.2 deaths per 100.000 live births in 2017 [11]. Intervention rates in the different regions in Belgium are comparable, induction of labour

27.0%, 30.7% and 32.0%, caesarean section 22.1%, 22.4% and 20.1% in the Flanders, Walloon and Brussels region respectively [13-15]. The epidural analgesia ratio is 80.0% in Wallonia and about 75% in both other regions (15.6%) [13]. Despite the medicalised care, Belgian hospital-based midwives still hold a woman-centred ideology [16]. Nevertheless, maternity care ideology, medicalised or women-centred care, is an attribution of a person, not a profession. Belgian, midwives' degree of autonomy varies; in hospitals most midwives work under the authority of obstetricians, although this varies amongst hospitals and regions. A midwife in primary care accompanies normal, low-risk pregnant women before, during, and after childbirth. Some primary care midwives autonomously assist homebirths or births in a birthing centre. It may be possible for primary care midwives to assist births in the hospital [17]. Majority of primary care midwives in Belgium however only assist women ante- and/or postnatally [10]. In primary care, Belgian midwives work on their own, in group practices or in public health organisations outside of the hospital [18]. Internationally, midwives employed in primary care settings, tend to have more autonomy in the organisation of their work [6,19,20].

In Belgium, midwifery education follows a direct-entry program at the bachelor's level, adhering to the European Directives outlined in Directive 2013/55/EU [21]. As stated in the Directive, Belgian midwives are educated in a full-time programme consisting of at least 4.600 hours of theory and practice, with at least one third of the minimum duration based in clinical practice [22]. As a result, students are educated to autonomously provide care for women experiencing uncomplicated pregnancies [23]. Various Master's programmes, such as a Master of Science (MSc) in Nursing and Midwifery, a MSc in Healthcare Management, a MSc in Public Health or a MSc in Health Education and Health Promotion, are accessible for midwives but not restricted to midwives only [19]. Specialist or advanced roles for midwives are limited to management, research and educational functions. Advanced roles may include lactation consultants. The concept of postgraduate education (MSc, Doctorate), leading to advanced midwife practitioners is not yet clarified in Belgium [24].

Recently a consensus definition of midwifery autonomy in Belgium has been developed in order to establish a joint understanding of the concept of midwifery autonomy [25]. The definition comprises critical components related to the work content, professionalism of the midwife and relationship with others. Together they encompass the essentials of midwifery autonomy in Belgium. An autonomous midwife is defined as a skilled and experienced health

professional who is recognised by society and the medical community. They are capable of working independently, in accordance with their professional profile and the relevant legislation. An autonomous midwife possess the expertise, authority, and competence to make independent decisions and take control of their work. As an autonomous practitioner, the midwife is responsible and liable for their actions and decisions, and is not required to be supervised by other health professionals [25].

Using this research-derived definition, Belgian midwives' views on their current and future autonomy were explored aiming to strengthen the midwifery profession in Belgium. Belgian midwives generally rated their own professional autonomy as high, but significant differences were observed between hospital-based and primary care midwives and between regions [26]. Midwives working in Wallonia felt the least autonomous and recognised of the three Belgian regions (Flanders, Brussels and Walloon). Midwives with professional experience of more than 30 years and primary care midwives felt less recognised and less respected by other maternity care professionals. A significant majority of participants desired more autonomy in future, but above all Belgian midwives wanted to be respected by society and other maternity care professionals. As literature suggests, midwives' autonomy may be subject of debate with other maternity care professionals, women, researchers and policymakers [27].

While the views of Belgian midwives on their current and future professional autonomy recently was studied, the views of other stakeholders in maternity care about midwifery is still a blind spot. The aim of this study therefore is to explore multiple key maternity care stakeholders' views on Belgian midwives' professional autonomy, in order to shape the future of maternity care.

## 5.2. Materials and Methods

### 5.2.1. Design

A qualitative exploratory study using online synchronous heterogeneous focus group interviews.

### 5.2.2. Setting

Belgium.

#### 5.2.2.1. Participants

The involvement of all stakeholders to gather their views on a subject, improves the interface between academics and decision-makers in health care [28]. In the context of the multidimensional nature of maternity care, we opted for focus group interviews to explore the views off multiple key stakeholders in maternity care [29]. Heterogeneous focus groups with multiple key stakeholders in maternity care were compiled with 1) health professionals, 2) policy advisors 3) hospital managers and 4) women's groups/consumers.

5.2.2.2. Recruitment

Key stakeholders were targeted using purposive sampling of legally established professional associations, national and regional health related advisory committees, governmental departments and women's/consumers associations in Belgium. Our selection of categories was informed by a recent publication (2020) that outlined the organisation of maternity services in Belgium [30]. To ensure comprehensive coverage, we collaborated with 11 content experts: five experts from Flanders (three midwives, one nurse and one neonatologist) and six experts from Wallonia (four midwives, one nurse and one obstetrician). They gave feedback on a first draft of categories of potential stakeholders. Based on this feedback the first author adapted the categories. Consequently the identified stakeholders were contacted by the first author. These content experts were not involved in this study. Table 5.1. outlines the legally recognised associations representing stakeholders in Belgian maternity care.

We identified 41 stakeholders' associations in Belgian maternity care; 14 associations representing health professionals, 10 representing policy advisors, 6 representing hospital managers, while women's groups/consumers were represented by 11 associations. Executive board members of the identified organisations were informed about this study and invited by email to participate three weeks before the planned focus group interviews. Each association was asked to recruit a maximum of two individuals. Potential participants were informed about the study and invited to the focus group. A reminder was sent three days prior to the planned focus groups. A wet ink signed informed consent document and socio-demographics data (gender, age, association, highest education level, profession, years of professional experience in this profession, language) were collected prior to the focus groups.

Table 5.1.: Identified legally established associations representing stakeholders in Belgian maternity care

5.2.2.3. Data collection

In October 2022, focus group interviews were conducted in Dutch and French, as these are the national languages of Belgium, using Microsoft Teams©. Both languages were used in each focus group. The first and last author formulated four questions to answer the research question. To ensure content validity, two external experts were asked to review the latter questions to increase their content validity (table 5.2.). We chose to utilize online focus groups because they are a convenient and practical option for busy professionals or individuals with significant time commitments to participate and benefit from [31]. To overcome the challenges of remote focus groups and ensure high-quality data, we employed several strategies. These included, providing clear instructions for joining the group, setting expectations for participation, limiting the group size to a maximum of 10 individuals to encourage contributions from all, and recording the focus group to avoid any loss of information [32].

Table 5.2.: Interview guide

During the focus groups, the interviewer (JV) digitally recorded the interview, asked questions and facilitated the discussion while the observer (MF, an experienced qualitative researcher and lecturer in qualitative research methodology) observed nonverbal clues, ensured that all stakeholders were dealt with in a proportionate way and that the discussion was not dominated by those with authoritative knowledge. In addition to managing the focus group, detailed field notes were recorded. Focus groups were organised until no new data were forthcoming. All video recordings were securely stored in an onsite locked facility, only accessible to the researchers. No data were shared or discussed with other colleagues. In order to maintain anonymity all identifying information was removed. The study is self-funded and ethical approval was obtained from the University Hospital Brussels and the Vrije Universiteit Brussel (VUB) in August 2022 (registration number: B.U.N. 143/202/100/0490).

5.2.2.4. Data analysis

Data analysis was performed using thematic analysis [33]. This involved transcribing recordings into text format, familiarising with the data by reading and rereading the transcriptions to gain a thorough understanding of the content, and coding into recurrent and common themes by systematically identifying segments of data that relate to a specific theme. Throughout the analysis, the researchers (JV, MF) engaged in discussions to ensure the integrity of the analysis

and to ensure that the themes were a good fit for the data. Both researchers organised the results, with significant examples of each theme selected and translated into English. To ensure our study was sufficiently transparent, reliable and reproducible the researchers followed the Consolidated criteria for reporting qualitative research (COREQ), while designing and conducting the study [34].

### 5.3. Results

From the 41 invited associations, 24 (58.5%) did participate in this study. A heterogenous group of 27 stakeholders involved in maternity care participated. Twelve health professionals, 3 policy advisors, 4 hospital managers and 8 service users. Health professionals were represented by obstetricians (n=3), paediatricians (n=5), general practitioners (GPs, n=3)) and a nurse. Most participants were aged between 51 and 60 years (n=9, 33,3%), female (n=22, 81,5%), with a professional experience of 21-30 years (n=10, 37.0%) and all educated to a minimal of bachelor level (table 5.3.: Sociodemographic and professional characteristics of participants).

In total three focus groups with 7 to 11 participants per focus group were undertaken. The focus groups lasted all approximately 120 minutes (FG1: 120 minutes, FG2: 121 minutes, FG 3: 113 minutes). Each focus group included at least one member from the following groups: health professionals, policy advisors, hospital management, and consumers. In terms of health professionals, every focus group featured at least one obstetrician and one paediatrician.

Table 5.3.: Sociodemographic and professional characteristics of participants

Variation between midwives

The participants in the focus groups reported a wide variation between midwives, with different levels of autonomy related to their professional activities. Commonly, stakeholders viewed hospital-based midwives as quite autonomous despite working under the authority of an obstetrician. While midwifery autonomy was embedded in daily practice in some hospitals, it might be restricted in others. In hospitals with a midwife-led approach and in birth centres, midwives' professional autonomy was obviously more prominent. Generally, the difference between hospital-based and independent midwives is a divisive issue in the autonomy debate. Some participants focused their attention on independent midwives and homebirths, while others raised concerns about the competences of independent midwives regarding risk

selection and referral to other health professionals. Conversely, lack of competence in risk selection was not mentioned with regard to hospital-based midwives.

Variation in practices of primary care midwives was reported. While primary care midwives were perceived as autonomous, many differences and grey areas between them were expressed by stakeholders. This was highlighted by a health professional as such:

*"So I think …., that to summarise there is a huge heterogeneity [in primary care midwives], and that there is a need for quality of care. I don't mean that not everyone is doing their best to give quality but that, indeed, sometimes that goes in different directions". (FG 3_Health Professional 2)*

The analysis of the data resulting from the focus group interviews resulted in 5 themes: 1) The autonomous midwife is adequately educated and committed to continuous professional further education, 2) The autonomous midwife is competent, 3) The autonomous midwife is experienced, 4) The autonomous midwife assures safe and qualitative care, and 5) The autonomous midwife collaborates with all stakeholders in maternity care. Each of these themes will be explored in more detail below. Excerpts from relevant quotes from the focus groups are provided as illustrations.

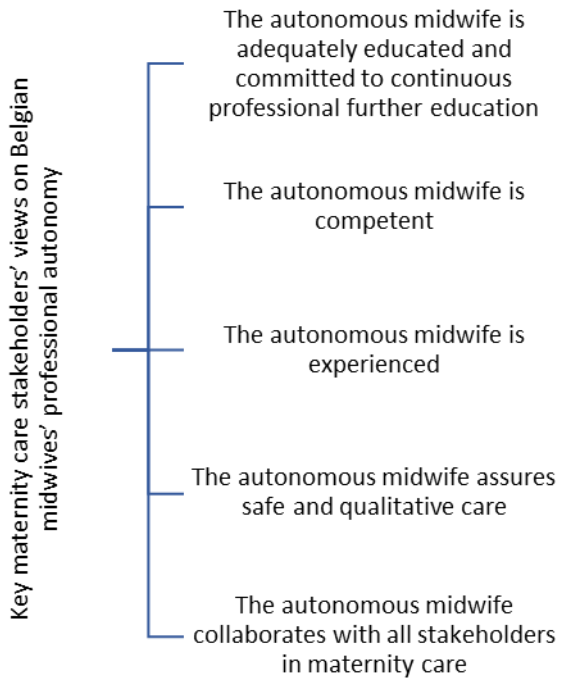


Figure 5.1.: Identified themes

**The autonomous midwife is adequately educated and committed to continuous professional further education**

Several stakeholders identified education, collaboration and competence as key pillars for autonomous midwifery. Most stakeholders believed that education and continuous professional education are prerequisites for midwifery autonomy. While currently midwifery education equips midwives to work in the hospital, some stakeholders argued that newly graduated midwives lacked competence for primary care, especially for performing homebirths. To increase competence in primary care, more practical placements and clinical experience are suggested by some stakeholders. This was made explicit by one of the stakeholders:

*"I think that self-employed midwives who actually do so [performing homebirths] are insufficiently trained and experienced. I think, … that a midwife would act better if she had worked, an extra year for example, 1 or 2 years in a obstetric unit with at least 1000 births a year, I say something. Because I think that you are then so much better skilled to make appropriate judgments at home". (FG 1_Health Professional 1)*

Some stakeholders suggested including additional topics in undergraduate midwifery education, early risk detection and referral were the most mentioned. To facilitate communication amongst maternity care professionals, some stakeholders suggested organising interprofessional communication courses in undergraduate and continuous professional development education.

As there were increasing demands towards newly graduated midwives, most stakeholders agreed that it is challenging to include all necessary contents of the study in a three-year midwifery programme. However, the majority of stakeholders did not clearly indicate how midwifery education needs to be restructured. The completion of an in-depth study or specialisation year of one or two years for midwives who would want to work independently was obvious for some stakeholders though. One stakeholder referred to a recent initiative of a postgraduate program in the Walloon region of 30 European Credit Transfer and Accumulation System (ECTS) aiming at the acquisition of advanced midwifery competences in uncomplicated birth:

*"We also question education. This is why recently at [two universities in the Brussels Capital Region] a further training in advanced midwifery practice was established. We know that midwifery education prepare midwives to work in the hospital under supervision, … and that they are not always prepared to work autonomous …". (FG2_Consumer 1)*

As evidence evolves, stakeholders expected midwives equally to evolve and improve their competences continuously. Interprofessional meetings and compulsory trainings to develop specific competences were viewed as necessary for all midwives. Some doctors and hospital managers clearly preferred to organise their own professional development activities for midwives. These further training activities are perceived as quality education and in line with the demands of daily practise. Those stakeholders recommended that primary care midwives participate to those activities, so their practices will be aligned with hospital policies. Additionally, this provides the midwives an opportunity to connect with the maternity care team. These doctors and hospital managers were convinced that the established interprofessional connection enhances confidence and facilitates collaboration.

All stakeholders believed that all further professional training courses should be tailored to up to date scientific knowledge. Moreover, it was suggested that official accreditation of professional development courses would benefit midwives' professionalisation. Since there are no formally supervisory measures for continuing professional education in midwifery yet, certain stakeholders recommend that a regulatory authority oversee the continuous professional development activities of midwives. Additionally, reference was made to the recent Belgian Healthcare Quality Law (Kwaliteitswet Gezondheidszorg, 2022). This law requires Belgian health professionals, including midwives, to maintain a portfolio that demonstrates their skills and experience. Nevertheless, some stakeholders considered that this law is a good initiative, but yet too vague while lacking implementing decisions.

**The autonomous midwife is competent**

The theme 'The autonomous midwife is competent' highlights the importance of midwives' competence from a stakeholder perspective, which includes having excellent knowledge, being alert for risks, and collaborating with other professionals. While most stakeholders agreed that midwives are competent, some expressed doubts about their competences in certain areas, and suggested clarifying midwives' competences.

Competence was identified as a major attribute of a midwife and this is a matter of course for all stakeholders. All stakeholders acknowledged that most midwives are competent and adequately educated for their tasks, regardless of her professional setting. Competence was viewed by stakeholders as holding an excellent knowledge of physiology and pathology, being alert for risks and warnings, proactive behaviour and collaboration irrespective of the scope of practice. A stakeholder expressed this as follows:

*"She [the midwife] has completed the necessary education so that she can call in the required help when needed. This need to be in her basic training irrespective if she works at home, at a birth centre or in a hospital. She needs to be competent to identify when and where to refer". (FG2_Consumer 2)*

All stakeholders acknowledged that midwives may only act within the legally defined framework of their profession. This requires that midwives know their exact boundaries and adhere to them. Midwives need to make proper assessments of each situation, make appropriate referrals and engage with other health professionals in a timely manner. It is expected that a midwife is never too confident and stays alert all the time. Some stakeholders mentioned that in reality this is challenging as a situation can quickly deteriorate while the distinction between pathology and physiology is not unambiguous.

Midwives are most autonomous while working in antenatal and postpartum care. Some stakeholders believed that midwives should be allowed to prescribe more medication in pregnancy. Conversely, several stakeholders wished that some boundaries of midwives' competences should be reassessed. These boundaries referred to the follow-up period of babies by the midwife. Those stakeholders were doubtful about midwives' competences in the follow up of a baby until 3 years of age, giving examples of advice about infant vaccination or toilet training.

*"I think, for example, giving advice on potty training, is that still a task of an independent midwife? To what extent, … because you can stretch it to … 25 years, to what extent does midwives' competence reach? I believe that the professional profile and legislation should be guiding in this". (FG2__Health Professional 2)*

Midwives' competences are not well known by society and other maternity care professionals. Some service users did not know exactly what midwives can do and their limits, they suggested

clarifying midwives' competences to women and other occupational groups. Overall, maternity care professionals trust the midwife if they consider her competent. When health professionals know each other's competences this promotes mutual trust. Likewise, trust in each other's competence facilitates early referral in case of doubt, which was highlighted by one of the stakeholders:

*"When I may speak for the users, I think the expectations are that they [midwives] are competent, that they are capable, that they can detect if there are problems, if there are pathologies… then refer to other professionals when this is the case". (FG1_Consumer 5)*

Clear communication towards the parents is needed about the midwife's experiences, competences and about the interprofessional perinatal network she is part of. This communication need to be done with respect to other maternity care professionals' competences and their respective roles in maternity care. Conversely, some stakeholders argued that the needs of women might be unknown to the health professionals:

*"So, the needs of the patients are unknown to us,… and it is our role as professionals to talk about their options, to help them make informed choices … And I think it is our duty as health professionals to inform them correctly". (FG3_Hospital management 13)*

**The autonomous midwife is experienced**

By experience, an intuition is developed which is important to assess labour progression and the early detection of abnormalities. Experience was identified key to master midwifery activities as was pointed out by one stakeholder:

*"In your definition [definition of midwifery autonomy in Belgium] there is a word that drew my attention, and that is 'mastery'. And there I support [a stakeholder from hospital management], to achieve mastery you must work with different professionals. To be autonomous it is the mastery, the anticipation and the continuity of care". (FG3_Health Professional 4)*

From the perspective of the stakeholders, independent midwifery should only be allowed if the midwife has an extensive clinical experience and is supervised by a senior colleague at the start of her career. A health professional stakeholder made reference to similarities in medical education, where doctor specialists in training are educated under the supervision of an

experienced mentor. These mentors need to have educational and clinical expertise. Newly graduated midwives do not have enough experience and are not sufficiently equipped to work independently. Conversely, a stakeholder argued that less experienced midwives' judgement is not accurate in recognising problems in a timely manner:

*"I think you need a minimum experience in performing births in a hospital to know em, … when it suddenly unexpectedly goes wrong. Because if you don't have real work experience in the hospital, I think you're missing some competences … So a minimal experience, … really working as a midwife and in the hospital, I find that indispensable as a paediatrician". (FG2_Health Professional 2)*

Some stakeholders doubted the interprofessional collaboration competences of less experienced midwives. Particularly new midwives need to finetune their practise within a multidisciplinary team. Clinical experience and collaboration with other health professionals is less a matter of concern for hospital-based midwives as they can rely on a multidisciplinary team at all times.

**The autonomous midwife assures safe and qualitative care**

Most stakeholders stressed that safe and quality care should be priority at all time. Stakeholders noted that each health professional can work autonomously, but never at the expense of mother or child's safety. Some stakeholders were of the opinion that midwives can work independently, but in a hospital only. They stressed that midwives are competent to lead an uncomplicated labour and childbirth, but always in a setting with a multidisciplinary team as back up. Under that condition stakeholders were in favour of more autonomy for hospital-based midwives. A stakeholder expressed this as follows:

*"For me, autonomy of midwives in Belgium should be limited to a physiological pregnancy, … but always in a medical setting,… So, autonomy of midwives is certainly possible, it is done in many hospitals where midwives can consult autonomously, but in collaboration with a doctor who can always give their opinion. Like in the labour room, midwives are equipped for it to be, perfectly possible that the midwife performs normal births, I am the first defender of that, but always in a medical setting". (FG2_Policy advisor 1)*

Giving birth outside the hospital was seen as taking unnecessary and avoidable risks by some stakeholders. In the opinion of others, the hospital may induce a false sense of safety, resulting

in unnecessary medical interventions. Some argued that in a hospital the emphasis is less on one to one or women-centred care. Giving birth in the hospital does not necessarily mean that all health professionals present are experienced and competent, as argued by a stakeholder:

*"What secures birth is the human and not the machines, it's not the hospital that secures birth. It is the caregivers who are well equipped, well trained and work together. Autonomy is about collaboration, but with respect to the expertise and knowledge of each one. And so it's not because you are a doctor that you are a good doctor, …, it's not because you are a midwife that you are poorly trained, that you have no experience and that you don't know your limits". (FG2_Consumer 1)*

Some stakeholders advocated for the use of a checklist in pregnancy with clear agreements with other maternity care professionals to anticipate for the unexpected and to safeguard safe care. These stakeholders found that the role of the different maternity care professionals and hospitals need to be outlined. These arrangements need to be drawn up with the different health professionals and regulate the cooperation in the multidisciplinary team. A stakeholder expressed this as such:

*"A pregnancy is a period when a kind of checklist needs to be used to anticipate and to make clear agreements between your network, between paediatricians, with obstetricians …. So now, I think that is a very important issue because we are actually talking about, a care path and about agreements and about em limits". (FG3_Health Professional 3)*

Most stakeholders were convinced that the use of protocols, guidelines and care pathways reduce risks. To assure safe and qualitative care, maternity care needs to be structured and standardised in their opinion. Rules on health care professions must be clearly defined by their respective established professional associations. The role of the professional organisations is to provide quality guidelines to their members. Therefore some stakeholders suggested that membership of midwives of an established professional association should be mandatory. That not all midwives are member of an established midwifery professional association may impede quality of care according to some stakeholders. Evidence-based care is supposed to be embedded in midwives' practise. Moreover, some stakeholders thought that the compliance with evidence-based guidelines should be actively promoted by midwifery professional associations. Some stakeholders, particularly health professionals, argue that the

work of independent midwives sometimes lacks scientific substantiation. Additionally, they found it striking that some of these midwives are recommending non-conventional therapies such as laser removal of the lingual frenulum, food supplements and osteopathy for new-borns e.g.:

*"And what I find difficult is that they [independent midwives] are a group that often goes quite the alternative tour and yes, … I have seen few children who have not been sent to the osteopath, recommended to take supplements - that cost a lot of money - but which isn't much of proven value". (FG2_Health Professional 2)*

One stakeholder advocated for more midwifery regulation in Belgium. This expert advocated for a hotline were midwives and other maternity care professionals, involved in doubtful practices, can be reported. This initiative is suggested to be tailored to the way in which the Order of Doctors (Orde der Artsen) deals with professional ethics, advice and disciplinary powers for Belgian doctors.

**The autonomous midwife collaborates with all stakeholders in maternity care**

Autonomy might be misunderstood as working independently and in isolation. This was pointed out by a stakeholder as follows:

*"Autonomy, that sounds like 'I work on my own, and this is my field of expertise and you must stay away', … and if we would collaborate and respect each other's competences …, with that we would move forward". (FG3_Policy Advisor 1)*

Some stakeholders mentioned that it is a danger if midwives do not collaborate with other health professionals. A low threshold between health professionals is seen as important, as it facilitates communication, early referral and safe care. Independent midwives need to elaborate an interprofessional network in stakeholders views. Regular debriefings with other maternity care professionals should be structurally embedded as a form of critical peer review, which would increase confidence and mutual trust. Smooth and easy lines of communication between the health professionals should be facilitated according to several stakeholders.

One stakeholder experienced a mistrust between obstetricians and independent midwives, noting that obstetricians often think that independent midwives go too far in their

physiological approach and misinform women about maternity care in the hospital. Stakeholders called to open the discussion between all maternity care professionals and restore respect and confidence:

*"Nowadays obstetricians are absolutely willing to respect physiology as much as possible. But we know that many independent midwives do not trust, … So I regret that, I think it really, really [accentuated] is time that obstetricians and independent midwives come back together, because I think we do not really have so many differences in vision at the end, … together we can make good progress". (FG1_Health Professional 1)*

Stakeholders were convinced that if maternity care professionals keep women's interest as a focus that will facilitate a smooth and respectful interprofessional collaboration. Health professionals should have to resume a debate and this debate need to be respectful while refraining from expressing opposing views publicly and respect each other. A stakeholder expressed this as such:

*"… to act in a confraternal way and, … we must restrain debate, … As obstetricians we have to stop saying 'yes, but the midwife knows nothing' and the midwife has to stop saying 'yes, but the obstetricians are always exaggerating'. When we have that mutual reserve, it is obvious that we will move on much better". (FG3_Health Professional 4)*

Maternity care professionals need to know and respect each other's competences, which is fundamental for interprofessional collaboration. All maternity care professionals must strive for respectful interprofessional communication and collaboration. Respectful interprofessional collaboration will enhance trust and ads to the professionalisation. Competent midwives will be respected by other maternity care professionals, leading to mutual trust and respect. Most stakeholders acknowledged midwives as trusted and equal members of the maternity care team with common goals. A stakeholder expressed her vision on interprofessional collaboration:

*"I can testify that it [respectful collaboration] goes very well with the paediatricians, obstetricians, … All the health professionals surrounding the midwife, where everyone has a place and respects each other in what they do. When it brings value to the patient, it is good for the patient and the continuity of care and most important …, I think, for each one of us". (FG3_Hospital Management 1)*

## 5.4. Discussion

In this study, we aimed to capture the views of stakeholders in maternity care on Belgian midwives' professional autonomy. Stakeholders exposed many differences between Belgian midwives' levels of professional autonomy related to their professional domain. Our research identified competence, education, collaboration and respect as prerequisites for midwives' professional autonomy. These prerequisites are essential for improving the quality of midwifery care and ensuring the safety and well-being of women and new-borns and should be considered in the context of the identified themes.

### 5.4.1. Competence

All stakeholders in maternity care acknowledge that competence is a major attribute for quality care. Midwives can develop competence by gaining experience in all domains and settings [35]. Most stakeholders find that the use of guidelines ensures quality of care. Evidence-based guidelines need to be developed in collaboration between obstetricians and midwives [36]. Women should be involved in guideline development as health professionals' compliance with guidelines might be considered more important than women's wishes [37]. However, while Belgian midwives are convinced of the importance of evidence-based practice guidelines, they do not believe that guidelines enabled them to provide woman centred care [36].

Differences in competences among hospital-based and independent midwives were expressed. Some participants questioned the competences of independent midwives regarding risk selection and referral to other health professionals. This lack of competence in risk selection was not mentioned in regard to hospital-based midwives. Belgian doctors, along with hospital-based midwives, have negative views on homebirths [16]. When they meet a woman in hospital, who intended to have a home birth, she mostly was referred due to complications. As hospital birth is what hospital-based midwives know, this is probably what they consider the safest option [16]. While hospital-based midwives may view homebirth as an intrapartum risk [38], this perspective may not be shared by midwives working in hospitals where homebirths are offered as an alternative maternity care option for women, as is the case in the UK and Australia, among other countries [39].

Belgian midwives who perform births independently however must comply with legal requirements [40]. The aim of this regulation is to provide safe and quality care. Midwives who

have recently graduated may only assist births under the supervision of a senior midwife. The advice is adopted by insurance companies and is binding for independent midwives. Additionally, in 2016 the Flemish Professional Association of Midwives introduced the 'Good Practice Logo' (GPL) for independent midwives, a quality label for midwifery practice. To ensure the safety and quality of care, midwives must meet several prerequisites, including providing evidence-based care and being a member of a professional association and a midwifery network [7]. Compliance with the GPL conditions is assessed annually by random sampling by the association, despite compliance not being a legal obligation. Additionally, the professional association has no regulatory or supervisory powers. Some stakeholders suggest adopting the model of the Order of Doctors. A compulsory registration in the Order of Doctors applies to all doctors wishing to practise in Belgium. The Order ensures the moral integrity and professional autonomy of the profession and the confidence of society in the doctor. In this respect, evidence-based practice remains the unconditional criterion for Belgian doctors [41]. Nevertheless, individual health professionals may be influenced by a variety of factors that can lead them to deviate from evidence-based practice, such as personal beliefs, financial incentives, and social pressures [42].

5.4.2. Education

While Belgian midwifery education adheres to the European Directive and the International Confederation of Midwives (ICM) Global Standards for Midwifery Education [19], some stakeholders have recommended incorporating supplementary topics into undergraduate midwifery education. Suggestions were made to include more interprofessional education and collaboration in both undergraduate and postgraduate midwifery education. Interprofessional education and collaboration are linked [43], and are acknowledged as improving students' performance in health care [44]. Students from different disciplines learn about, from, and with each other in a safe learning environment [45]. The involvement of medical students and trainees in obstetrics need to be considered to promote interprofessional competences [46].

While a majority of stakeholders do not clearly indicate how exactly midwifery education would need adjustment, stakeholders particularly believe in the idea of lifelong learning. Additionally, they expect that midwives continuously educate themselves professionally. Some recommend a supervisory authority for professional development activities of

midwives. Most stakeholders are convinced that all continuous professional development courses should be tailored to up to date scientific knowledge.

### 5.4.3. Collaboration

Most stakeholders viewed midwives to be equal members of the maternity care team. Keeping safe, quality and respectful care as common focus, facilitated respectful interprofessional collaboration. Maternity care professionals need to be aware of each other's competences and respect them, which was crucial in interprofessional collaboration. Therefore, a transparent care path and collaboration between maternity care professionals is desired [47], within this collaboration, the autonomy of all maternity care professionals need to be respected [43]. Finding the balance between a high level of professional autonomy amongst maternity care professionals and good collaboration, however is a challenge [48].

Midwifery associations were viewed to be key to integration of the profession in health systems and hold the profession together. A strong association is the foundation to create quality midwifery systems and support midwifery regulation and accreditation [49]. Professional associations should push for collaboration in regional maternity collaborative networks enabling all maternity care professionals to join the network meetings. Municipalities and associations of maternity care professionals should work together to get the respective professionals and consumers in touch with each other [47]. This interprofessional collaboration should be structurally embedded in maternity care and promoted by professional associations. As recently (2022) in the Netherlands such collaboration networks are conditions imposed by health insurance companies when negotiating agreements with midwives and hospitals [50].

Safe care encompasses the involvement of women and a relational model of care within a collaborative and evidence-based health system [51]. To enable fully informed consent, midwives should share birth information, in all its forms. To be with the woman, they should be open for woman's choices [52]. Birth plans can facilitate shared decision-making, and women's sense of autonomy and control before, during, and after giving birth is critical. When discussing the birth plan, exploring different scenarios may help women prepare for unforeseen circumstances [53].

### 5.4.4. Respect

Relational models of care such as midwife-led continuity of care, which is cost effective and guarantees optimal outcomes, are currently ignored [51]. The added value of midwife-led continuity of care is unknown to Belgian policy makers [54]. The first freestanding midwifery-led unit within a Belgian hospital, installed in 2014, received a lot of attention by stakeholders in maternity care, including policy makers, from over the country. All initiatives, however, appear to be concerned about the lack of government funding for this kind of services. Belgian midwives and consumers have voiced the need for the introduction of midwife-led continuity care tough [55].

If the identified prerequisites of midwifery autonomy are adopted at all levels of the maternity care system and by maternity care professionals, most women will have a safe outcome, related to a positive birth and motherhood experience. When further outlining the future of midwifery in Belgium, which include midwifery association and education, it is essential to consider the results of this study. Stakeholders emphasized that listening to women's voices to shape the future of maternity care is needed. Midwives collaborating with the woman as with all maternity care professionals will be critical for the future Belgian maternity care [43]. Midwife-led continuity of care needs academics, policymakers, and governors in established professional midwifery associations, putting this relational model of care up in a debate with healthcare politicians, health services, insurances and consumers on macro level [56].

### 5.4.5. Strengths and limitations

#### Strengths

One of the strengths of this study is that it is part of a comprehensive research project that aims to explore the professional autonomy of Belgian midwives. The study will gather insights from midwives, stakeholders, and midwifery students to gain a well-rounded understanding of the topic. To explore maternity care stakeholders' views, we performed online synchronous heterogeneous focus group interviews. Participants interacted with the interviewer and each other live. Online focus groups offer convenience, reduced costs, access to a wider range of participants, and reduced social desirability bias. However, they also have limitations such as technical issues, potential for distractions, and limited interaction between participants [31]. We achieved a professional heterogeneous composition regarding professional background, education and professional experience [33]. Nevertheless, all our participants have professional

experience and expertise in maternity care in common [32]. We invited stakeholders through their respective professional associations. Including stakeholders from established professional associations increases the likelihood that that they are committed to the subject and can represent their (professional) group [28]. Nevertheless, at the beginning of each focus group the interviewer stressed that while each stakeholder participated as a representative of their association, they were not necessarily expecting to echo their associations' views. Moreover, they were mainly invited because of their expertise in Belgian maternity care.

Limitations

Seventeen associations did not participate in this study (41.5%), which curtails its generalisability. The major reasons for non-participation was that the subject of midwifery autonomy did not fit with associations' expertise (mentioned by 1 health professional, 4 policy advisors, 1 hospital management and 2 consumers associations). Additionally two associations reported lack of time (1 health professional and 1 consumers association), while one policy advisors' association stressed that they want to maintain a neutral attitude towards both obstetricians and midwives. Nevertheless, an adequate participation of stakeholders in each focus group was achieved. Moreover, in each focus group at least one member of health professionals, policy advisors, hospital management and consumers participated. Additionally, each focus group consisted of minimal one obstetrician and one paediatrician. Extensive professional experience between the stakeholders was observed in all focus groups, 22 participants (81.5%) had a professional experience of more than 11 years.

We did not critically consider potential relationships between stakeholders and researchers, this could include issues of power dynamics, ethical considerations, and the potential impact on the findings. To address this issue, participants were invited to provide feedback on the findings [57]. A short summary of the findings was forward for feedback two months after the discussions. Only one amendment was received, suggesting that aspects of midwives' liability should be more emphasised. As the aspect of liability had only been cited in one focus group, the first and last author opted not to elaborate on this aspect.

### 5.5. Conclusions

This is the first study to explore Belgian midwives' autonomy through the lens of maternity care stakeholders. The involvement of key maternity care stakeholders in focus group

interviews was critical to shape the future of maternity care. Municipalities and established professional associations need to collaborate and unite maternity care professionals. The structural embedment of women in such an organisational structure will be critical to shape the future maternity care in Belgium. In the proposed maternity collaborative framework all maternity care professionals need to be aware of each other's competences, while respecting each other's autonomy. The foundation for successful interprofessional collaboration must be established through interprofessional education for healthcare professionals.

While most midwives are perceived as trusted and equal members of maternity care teams, the difference between hospital-based and independent midwives is divisive in the autonomy debate. A compulsory registration in an Order, a regulatory body with supervisory powers, may reduce undesirable differences among Belgian midwives. It is emphasised that adopting the model of an Order will help to ensure safe and quality care and catalyse midwives' autonomy and professionalisation.

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**Table 5.1.: Identified legally established associations representing stakeholders in Belgian maternity care**

| Health Professionals | Policy advisors | Hospital management | Consumers |
|---|---|---|---|
| Flemish Association for Obstetrics and Gynaecology | Planning Commission | Council of University Hospitals Belgium | Flemish patient platform |
| Professional association of Belgian obstetricians and gynaecologists | Federal Knowledge Centre for Healthcare KCE | Board of nursing managers NVKVV Network Nursing | Representatives of patients in the Federal Knowledge Centre for Healthcare KCE |
| Royal College of Gynaecologists Obstetricians of French Language of Belgium RVB | Study centre for perinatal epidemiology, Flanders | Flemish Association for Nursing executives | Women's Council FERM |
| Belgian Group of French-speaking Paediatricians | Perinatal Epidemiology Center, Brussels and Wallonia | Flemish Hospital network | Health Services Users League |
| Flemish Society for Paediatrics | Federal Council of Midwives | Belgian Association of Nurses and National Federation of Nurses of Belgium: Board of Directors of Nursing Departments | Platform for a respected birth |
| Belgian Society for Paediatrics | National Institute for Health and Disability Insurance | Federal Council of Hospitals | Together for respectful birth |
| Professional association of General Practitioners in Flanders and Brussels | Federal Public Service Health, Food Chain Safety and Environment | | The world according to women |
| Belgian Group of General Practitioners | Federal Public Service Social Security | | Dutch-speaking women's Council |
| College of physicians for the mother and the new-born | Zorgnet ICURO, umbrella organisation of the Flemish general hospitals, initiatives | | Council of French-speaking women of Belgium |

| | | | |
|---|---|---|---|
| | in mental healthcare and social profit facilities in geriatric care | | |
| Belgian Society for Neonatology | Flemish health ambassador | | Feminine Life |
| Child and Family Services | | | Flemish association for parents of incubator babies |
| the Office of Birth and Childhood ONE | | | |
| Federation of Francophone Medical Centres and Health Collectives | | | |
| Scientific Society of General Medicine | | | |

**Table 5.2.: Interview guide**

| **Engagement question** |
|---|
| How do you perceive Belgian midwives' autonomy in everyday practice? |
| **Exploring questions** |
| What are your expectations of midwives working as autonomous practitioners? |
| To what extent do you think that midwives should act autonomously? |
| What would you think are factors/stakeholders that influence midwives' autonomy? |
| **Probes (in order to minimise misunderstandings)** |
| Can you please tell more about this? |
| Please, help us understand what you exactly mean by that? |
| Can you give us an example of that? |
| **Exit questions** |
| Is there anything additional you would like to say about midwifery autonomy? |
| Of all things discussed today, what do you think is the most important? |

**Table 5.3.: Sociodemographic and professional characteristics of participants**

| | | Health Professionals n=12 | Policy advisors n=3 | Hospital management n=4 | Consumers n=8 |
|---|---|---|---|---|---|
| Gender (female, male) | Female | 9 | 2 | 3 | 8 |
| | Male | 3 | 1 | 1 | 0 |
| Age (years) | 20-30 | 0 | 0 | 0 | 1 |
| | 31-40 | 1 | 0 | 1 | 4 |
| | 41-50 | 3 | 2 | 0 | 0 |
| | 51-60 | 6 | 1 | 1 | 1 |
| | >60 | 2 | 0 | 2 | 2 |
| Native language (Dutch, French) | Dutch | 7 | 2 | 2 | 4 |
| | French | 5 | 1 | 2 | 4 |
| Education level (highest completed education) | No education / Primary education only | 0 | 0 | 0 | 0 |
| | Secondary education | 0 | 0 | 0 | 0 |
| | Tertiary education | 12 | 3 | 4 | 8 |
| Professional experience (years) | <5 | 0 | 0 | 0 | 3 |
| | 5-10 | 0 | 0 | 0 | 2 |
| | 11-20 | 3 | 1 | 1 | 2 |
| | 21-30 | 7 | 1 | 1 | 1 |
| | >30 | 2 | 1 | 2 | 0 |

# Chapter 6: The exploration of professional midwifery autonomy: Understanding and experiences of final-year midwifery students

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# The exploration of professional midwifery autonomy: understanding and experiences of final-year midwifery students.


**Abstract**

**Background**

The concept of professional midwifery autonomy holds great significance in midwifery education. Notably, clinical placements play a crucial role in introducing students to its concept. However, the understanding and experiences of students regarding midwifery autonomy are relatively unknown.

**Objectives**

This study aimed to examine the experiences and understanding of midwifery autonomy among final-year midwifery students.

**Methods**

A qualitative exploratory study using focus group interviews with final-year midwifery students from each of the three Belgian regions; Flanders, Wallonia and the Brussels Capital Region. Focus groups were recorded, transcribed verbatim and analysed using a thematic analysis.

**Results**

Students emphasized the importance of promoting professional midwifery autonomy through the ability to make their own professional decisions and take initiatives. They highlighted the need for a safe and supportive learning environment that encourages independent practice, nurtures self-governance and facilitates personal growth. Additionally, collaborative relationships with other maternity care professionals and increased awareness among women and the broader healthcare community were identified as essential factors in embracing and promoting professional midwifery autonomy.

**Conclusions**

Our study provides valuable insights into the significance of midwifery autonomy among final-year midwifery students, emphasizing the need for supportive learning environments,

collaborative relationships and further education to promote autonomy in midwifery. By actively cultivating a safe and supportive learning environment, educators can contribute to the development of a truly autonomous midwifery profession, ultimately improving maternal and new-born health.

**Keywords:** midwives; midwifery; midwifery autonomy; autonomy; professionalisation; maternity care; midwifery education, midwifery students

## 6.1. Introduction

Professional midwifery autonomy is a cornerstone of midwifery's philosophy [1], and a catalyst for the professionalisation of midwifery [2]. Professional midwifery autonomy is usually linked to decision-making and power over the own work [3]. The central, most frequently documented element is the capacity for decision-making in which midwives are responsible and accountable for their decisions [3-5]. Education is a field where motivation plays a crucial role in students' learning outcomes and performance. Motivation theory, specifically the Self-Determination Theory, provides valuable insights into understanding and enhancing motivation in educational settings. The Self Determination Theory proposes that three psychological needs—autonomy, competence, and relatedness—play a fundamental role in fostering intrinsic motivation, promoting optimal engagement, and driving performance [6]. Professional midwifery autonomy is consequently positively associated with job satisfaction [7,8], professional commitment [9] and well-being [10]. However, midwives' professional autonomy might be restricted in some counties and professional settings [11]. The concept of autonomy is relevant for midwifery education as educational programmes need to be designed to equip midwives to function as autonomous professionals [12].

## 6.2. Background

In Europe, midwifery education programs are aligned with the EU Directives (EU 2013/55/EC), [13] which have been guiding the requirements for the profession and promotes professional midwifery autonomy [14,15]. Belgian midwifery education, aligned with the European Directives, educates students for autonomous care of women with uncomplicated pregnancies [12]. It is a direct-entry programme at bachelor's level. The duration of midwifery education varies among regions, requiring 180 ECTS (three years) in Flanders and 240 ECTS (four years in Wallonia and Brussels Capital Region) [16]. Despite this difference in length of the programmes, students need to acquire the same competences and are educated as autonomous practitioners in uncomplicated pregnancies, competent in all midwifery domains: obstetrics, reproductive medicine, gynaecology and neonatology [17]. Students dedicate approximately 50% of their study time to clinical practice, which spans 38 weeks, with about 20 weeks specifically allocated to hospital labour wards. These placements are carefully scheduled to cover both low- and high-risk settings, encompassing public and private healthcare facilities. To guide and support students during these placements, each student is assigned an academic

supervisor from the university college. Additionally, experienced midwives from the placement settings serve as preceptors and collaborate with the supervisor to deliver practical education, offer feedback, and evaluate the students' progress [18].

Midwifery education aims to provide a safe learning environment promoting self-governance, personal development and autonomous functioning [19]. However, a study among practising midwives revealed that they did not feel adequately equipped for professional autonomy after completing their education [4]. Also, final-year midwifery students felt ill-prepared for autonomous practise [20]. Another study revealed that midwives believed that the concept and achievement of midwifery autonomy had not been explicit enough in their midwifery education. Most participants identified that they had only witnessed midwifery autonomy in midwife-led units and not in obstetrician-led units [21]. Students learn the role of midwife in a changing culture, where some midwives practise autonomously, while others rely on obstetricians for decision-making. Autonomous midwives are appropriate and influential role models [22], since they learn students how to become autonomous practitioners [23]. Hence, the impact of clinical placements cannot be underestimated for familiarising students with the concept of professional autonomy [18].

Therefore, the aim of this study was to explore final year midwifery students' understanding of midwifery autonomy and their experiences of midwifery autonomy during practice placements and to assess whether midwifery education equips midwives for autonomous practice.

## 6.3. Methods

### 6.3.1. Design

A qualitative exploratory study using focus group interviews.

### 6.3.2. Setting

Belgium.

### 6.3.3. Participants

Midwifery students from midwifery education programmes in alle three Belgian regions: one in Flanders (Odisee University of Applied Sciences, Sint Niklaas), one in the Brussels Capital Region (Erasmus Brussels University of Applied Sciences and Arts, Brussels) and one in

Wallonia (Haute École de Namur-Liège-Luxembourg, Namur) were invited for a focus group. These university colleges were purposefully selected using convenience sampling in order to ensure representation from each of the three Belgian regions.

### 6.3.4. Recruitment

Students were informed by mail about the study and invited to participate four weeks before the planned focus group. Participation was voluntary. To mitigate the potential for power coercion, interviews were conducted by an impartial interviewer who had no affiliation with the midwifery departments in any teaching or assessment capacity.

### 6.3.5. Data collection

After explaining the purpose of the study, the interviewer asked participants to provide informed consent. Additionally, socio-demographic data were collected (age, gender, native language, year of education, clinical experiences in labour wards).

The interview guide explored participants' understanding and experiences of autonomy and related concepts which allowed to structure the focus group conversation. The questions derived from a literature review. The semi-structured interviews started with open questions on how the students 1) understood midwifery autonomy and 2) experienced autonomy during their practice placements (see table 6.1.). During the interview, the interviewer used silence, questioning, validation and other appropriate communication techniques to maintain the flow of the discourse. The observer (MF) observed nonverbal clues and ensured that all students participated in a proportionate way. Additionally, detailed field notes were recorded. Focus group interviews lasted until no new data came up and data saturation was achieved.

Table 6.1.: Interview guide

All audio-recorded interviews were securely stored in an onsite locked facility, only accessible to the researchers. The study was not funded. Ethical approval was obtained from the University Hospital Brussels and the Vrije Universiteit Brussel (VUB) on November 23th 2022 (registration number: B.U.N. 143/202/100/0490).

### 6.3.6. Data analysis

Interviews were recorded and transcribed verbatim. Data were analysed using a thematic analysis. The transcripts were coded into recurrent and common themes in line with the study aim [24]. Themes were compared based on content similarities, differences and patterns were identified in the themes [25] and was performed in NVivo version 20 (QSR International). To achieve investigator triangulation, discussion between two researchers (JV and MF) was incorporated to confirm themes and data saturation [26]. As suggested in literature member check was performed, participants were invited to provide written feedback on the findings [27]. A summary of the findings was forwarded for feedback to the participants two months after the focus groups. The Consolidated Criteria for Reporting Qualitative Research (COREQ) were followed to ensure transparency, reliability and reproducibility [28].

## 6.4. Results

Three focus groups (FG) with a total of 22 students were undertaken, lasting approximately 60 minutes (FG1: 56 minutes, FG2: 65 minutes, FG3: 60 minutes). Participants were aged between 20 and 39 years (mean: 21.95 years), female, except for 1 male student, and with clinical experiences in labour wards between 15 and 24 weeks (mean: 18.81 weeks).

Table 6.2.: Characteristics of participants

The analysis of the data resulting from the focus group interviews resulted in five themes: 1) working independently is a key aspect of professional midwifery autonomy, 2) a positive learning environment plays a crucial role in the development of professional midwifery autonomy, 3) the professional context significantly influences professional midwifery autonomy, 4) the extent of professional midwifery autonomy is shaped by the actions and decisions of other individuals and 5) professional midwifery autonomy is beneficial for women. All participants were invited to provide feedback on the findings, but only one student provided feedback, confirming the accuracy of our findings. Each of the identified themes and accompanying subthemes are described in detail below.

Table 6.3.: Identified themes and subthemes

### 6.4.1. Working independently is a key aspect of professional midwifery autonomy

Participating students defined midwifery autonomy as encompassing the capacity to work independently, navigate professional and personal boundaries, and engage in interprofessional collaboration.

Independent decision-making

The significance of independent decision-making was emphasized by several participants who valued the ability to make their own professional decisions and take initiatives without constant supervision. They expressed a desire to be empowered to act autonomously, relying on their professional judgment and organisational skills to carry out tasks without continuous confirmation from others. One participant summed up the importance of independent decision-making by stating that midwifery autonomy involves the freedom to make decisions and execute certain actions without interference from doctors or colleagues. This highlights the desire for midwifery students to have the authority to make independent choices and have ownership over their professional practice.

*“That you can be autonomous, make independent decisions, don't always need confirmation from, for example, a doctor or colleagues, but that you can really decide and carry out certain things yourself without anyone else having a say in it". FG3_1*

Working between professional and personal boundaries

Beyond independent decision-making, participants also recognised the importance of working within professional and personal boundaries. They acknowledged that midwifery autonomy extends to being able to navigate these boundaries while providing care. Establishing and respecting these boundaries allows midwives to maintain their individuality and walk their own path within the scope of their practice. The ability to work within limits, while still exercising autonomy, was seen as a crucial aspect of professional identity and practice.

*“That is also autonomy for me, that you... yes, within the limits as [fellow student] said, that you can still walk your own path and are allowed to do so”. FG2_5*

Collaboration

Participants also emphasized the significance of collaboration and interprofessional teamwork. They acknowledged that effective collaboration in a safe environment, where the "no shame, no blame" principle prevails, is essential for optimal decision-making and care

provision. Participants found value in working together as a multidisciplinary team, recognising that collective expertise and knowledge result in better outcomes for women. Collaboration was seen as an opportunity to learn from others, respect each other's competences, and ultimately deliver comprehensive care. One participant highlighted the enjoyment derived from working together and receiving recognition from obstetricians. They emphasized the inherent value of teamwork and the shared understanding that, as a multidisciplinary team, they possess a greater wealth of knowledge and skills compared to working alone.

*"Of course, it's great to receive recognition from the obstetrician ... It's simply enjoyable when you can work together. You are and you remain a multidisciplinary team, and together, you always know more than alone". FG3_6*

The views of the participants underscored the importance of collaboration in fostering effective teamwork and decision-making within the realm of professional midwifery autonomy. They recognised the unique strengths and skills that each team member brings, emphasizing the added value of a multidisciplinary approach. The overall consensus was that collaboration enhances the quality of care provided to women, leading to improved outcomes.

*"Each individual has their own set of skills ... It is an added value to work as a team... Multidisciplinary, more competence". FG1_4*

6.4.2. A positive learning environment plays a crucial role in the development of professional midwifery autonomy

The vital role of a positive learning environment in fostering their professional autonomy was repeatedly emphasized by the respondents. They highlighted the importance of elements such as acceptance, safety, empowerment, positive feedback, and a reflective attitude in this regard.

Respectful and safe environment

Midwifery students faced challenges related to rejection, limited critical dialogue, and concerns about evaluation in their learning environment. Some students experienced

rejection when introducing themselves as students during internships, resulting in feelings of not being accepted or wanted.

*“At my internship when I introduced myself, I immediately heard, 'Oh no, I'm not taking students today' [sounds of recognition from the others]. Such things affect you, … they simply don't want you …, they don't even want to accept you”. FG2_2*

Creating an atmosphere of openness and respect, where expressing opinions is encouraged without fear of blame, was seen as crucial. Students desired the engagement of all parties in critical dialogue without the fear of being blamed. Concerns about evaluation often hindered students' ability to question observed practices, even when witnessing unnecessary interventions. Establishing a supportive learning environment that encourages open dialogue is essential for empowering students to voice concerns without undermining authority. The act of being evaluated influenced students' feelings of not being safe and hindered their comfort in questioning practices.

*“I think if we weren't evaluated, we would be more comfortable [agreement from others] in saying, 'Why are you actually doing that?' when women came in spontaneously in labour and were progressing well, … their membranes were (artificially) ruptured,…. But why? It's not necessary, but I just don't dare to say It”. FG2_12*

Empowerment through recognition and trust

Recognition and trust were identified as empowering factors for midwifery students. Participants expressed the desire for acknowledgement and appreciation of their professional autonomy, emphasizing the need for increased recognition and understanding of the multifaceted nature of their profession.

*“I simply believe that autonomy as a midwife can still grow, that it is currently very limited …, and that, yes... I think that goes hand in hand with appreciation, … yes, just give those opportunities to midwives to grow in that autonomy, but mainly appreciation. I think that’s very important”. FG3_12*

Students additionally highlighted the importance of dispelling misconceptions and being acknowledged for their diverse roles beyond what is commonly portrayed in media. Additionally, misidentification as nurses highlighted the need for clarification of their

professional identity, as some students encountered instances where they were mistakenly identified.

*“There are certain women when we enter a room and they are on the phone ‘I'll let you go because the nurse is here.' No, no, we introduced ourselves by name, and say ‘I am a midwife,’ but it doesn't register, we remain nurses ..”. FG1_11*

Trusting relationships were seen as essential for fostering independence and confidence among midwives. Building trust with preceptors and being allowed to work autonomously facilitated professional growth and autonomy.

*“A midwife whom I regularly worked with, said to me 'I'll let you do it alone, because I know that it feels better when I'm not just watching over you’, it is a solution to build trust between us, and that she can mentor you much better …, promoting your independence”. FG3_8*

Reflective environment

A reflective environment was highlighted as crucial for students to gain competence and confidence in their decision-making abilities. Constructive feedback was seen as instrumental in fostering autonomy and confidence. Positive feedback enhanced students’ self-confidence and leading to greater trust and professional autonomy. Additionally, recognition and affirmation from mentoring midwives and obstetricians played a significant role in the development of professional autonomy and capability.

*“Or, as a midwife, entrust you to assist the birth to a student who has been on the placement for four weeks, … and she says, 'Go ahead, I know you can do it, go ahead'. One midwife did that with me, and I will never forget that moment”. FG2_6*

Acquiring autonomy-related competences was seen as challenging, but facilitated through practical experiences, guidance, and development of clinical reasoning skills.

*“The midwife asked me ‘What would you do in this situation, with this internal examination?’ She really made me think, and I explained what I would do. She said, ‘You reasoned very well, I would do the same’. It gives you a sense of confidence”. FG2_4*

6.4.3. The professional context significantly influences professional midwifery autonomy

The influence of the professional context on professional midwifery autonomy is evident through the subthemes of diversity in healthcare settings, variations among hospitals, and disparities observed across different countries.

Diversity in healthcare settings

Notable differences in the level of autonomy were experienced by midwives in different healthcare settings. Students highlighted the positive impact of a supportive and safe environment especially in primary care settings, which fostered their confidence and competence. The opportunity to handle consultations and make independent decisions played a crucial role in shaping their readiness for primary care.

*“That feeling of 'it's okay what I'm doing, and it's okay to ask for help, and they will gladly help'. The safe atmosphere of a primary care practice has given me a lot of confidence to start working there myself”. FG2_1*

In hospital-based services, such as fertility or antenatal consultations, as well as in the postpartum ward, students observed that midwives possess a higher level of autonomy and are often the ones making decisions. In the labour ward, the level of autonomy may be comparatively lower, possibly due to factors such as time constraints, the presence of obstetricians or guidelines to follow.

*“The hospital feels very routine, … in primary care, … there's no one there saying, ‘Well, she needs to give birth within my working hours’ or ‘Oh no, she's been at 7 cm for 2 hours, that's not good’ or ‘Her membranes still haven't ruptured’. It's just different, you know?”. FG2_4*

Heterogeneity among hospitals

The level of midwifery autonomy can vary significantly between different hospitals. Some hospitals provide more opportunities for midwives to exercise their competences and make autonomous decisions, while others restrict their autonomy and limit their involvement in certain aspects of care. Conversely, in some hospitals midwives have a broader scope of practice and are entrusted with comprehensive care throughout the maternity journey.

*“I went for my internship at [name Walloon hospital], and there you really see the difference, … all the follow-up is done by the midwife. The birth is attended by the midwife, and the postpartum care is also provided by the midwife”. FG1_4*

Several students suggested that university hospitals generally providing more autonomy compared to non-university hospitals.

*"In the university hospital, the midwives work very independently and make quite a lot of decisions on their own. Whereas, during my internship in [non-university hospital in Flanders], it was completely the opposite. For every decision, they had to call a doctor, even for the smallest thing". FG3_1*

Contrasts across neighbouring countries

Overall, the level of midwifery autonomy and responsibility for midwives can vary significantly between neighbouring countries, with France and the Netherlands being mentioned as providing more professional autonomy compared to Belgium. A French student studying midwifery in Belgium specifically emphasized this aspect:

*"In France, we have more autonomy, more responsibility, ... there is a huge gap. These are two European neighbouring countries, ... I have the impression that in Belgium, the obstetrician is the midwife and the midwife is a paediatric nurse, everything is downgraded in terms of status …, that's a shame". FG1_4*

6.4.4. The extent of professional midwifery autonomy is shaped by the actions and decisions of other individuals

Within the broader context of the extent of professional midwifery autonomy, hierarchy and power dynamics, the doctor's presence, and ambiguity of the midwife's role offer insights into how the actions and decisions of different individuals shape the level of autonomy experienced by midwives, emphasizing the intricate interplay between various individuals.

Hierarchy and power dynamics

Hierarchy and power dynamic within clinical placements were observed, particularly between obstetricians, midwives and students. There are certain situations where midwives or students feel hesitant to bother or seek the agreement of obstetricians, implying a hierarchical structure where the opinion or approval of the obstetrician is considered superior.

*“Even if we know that we did it well, it's the midwife who did it well, but it's just, do I have the agreement of the obstetrician, who is superior to me, etc. It's not a matter of competence, but of hierarchy". FG1_2*

When having medical and midwifery students in the labour ward, the medical students are given priority in attending births, thus reinforcing the existing hierarchy and ingrained lack of midwifery autonomy.

*"You can already feel that hierarchy between junior doctors and students [midwifery], once you have three doctors in trainings and two midwifery students, who do you think will be allowed to attend the birth? The doctors,... so autonomy is already ingrained in the study". FG3_3*

Impact of doctors’ presence

The presence of assistants and obstetricians in labour wards may restrict midwifery professional autonomy, as they may dictate the steps and limit decision-making. Midwives adapt their approach based on their familiarity with different obstetricians and may verify instructions quickly to align with expectations.

*“As a midwife, you already know that ‘Oh, that's that obstetrician, it's not easy, so I'll verify what he wants’, just to be sure." FG3_2*

Clear agreements with obstetricians were considered important to understand consultation frequency and autonomy. Supportive relationships with doctors may enhance learning and skill development. Some obstetricians exhibited a relaxed approach, which allowed midwives to proceed without direct supervision, indicating a higher level of midwifery autonomy.

Ambiguity of the midwife's role

The level of autonomy experienced by midwifery students was influenced by factors such as supervision, confidence, communication, and individual experiences. This ambiguity of the midwife's role is further exemplified in how some midwives feel restricted in their autonomy when they are constantly directed and supervised, while others prefer the support and comfort of having a multidisciplinary team present.

*"They [midwives] are so accustomed to being supervised by obstetricians and always having them present that it provides them with assurance. However, when they find themselves alone, it becomes a source of error and distress, causing them to feel destabilised and unsure". FG 1_2*

There could be miscommunication and role misconceptions, with midwives feeling undervalued for their contributions, contributing to the ambiguity of the midwife's role. The varying levels of autonomy in midwifery practice were influenced by individual characteristics, including personality and professional experience, highlighting the complex dynamics and considerations involved.

*"But those midwives who dare to speak up are generally more autonomous than those who remain silent or are afraid of criticism. They go along without thinking for themselves". FG2_3*

Some participants highlighted the challenges and tensions when assuming different roles within the birthing process. These narratives reflected the presence of ambiguity of the midwife's role. Participants encountered challenges and tensions when switching roles, as its specific expectations were not well-defined. Consequently, participants experienced confusion and perceived role discrepancies, leading to a lack of clarity and potential conflicts in their responsibilities.

*"They [midwife] explicitly told me, 'Maybe this time you shouldn't assist the birth, and instead take on the role of the midwife rather than the obstetrician. So, when I am in that position [assisting the birth], I am seen as playing the role of the obstetrician". FG3_5*

6.4.5. Professional midwifery autonomy is beneficial for women

Safety and quality of care, continuity of care and being with the woman underscore the significance of professional midwifery autonomy in promoting the well-being and satisfaction of women.

Safety and quality of care

Students highlighted the importance of the principle of one midwife for one woman, as it helps to reduce errors. When midwives were assisting multiple women, they might have become overwhelmed, leading to compromised attentiveness and increased chances of mistakes, especially in urgent situations. Additionally, students stressed the need for effective

collaboration and respectful communication between healthcare professionals to ensure women's safety and potentially save lives.

*"The midwives quickly realized that something was wrong, … but the doctors actually did nothing, they simply didn't listen to what the midwives had to say…, and that is a dangerous thing, because... it could have saved that woman's life". FG2_3*

The profession of midwifery aimed to provide safe and high-quality care to women while ensuring the well-being of both women and midwives themselves.

*"For me, the true good profession of a midwife is one that is safe for the woman, … and provides quality care to everyone". FG 1_2*

Midwifery emphasized the importance of autonomy and the ability to advocate for the best interests of the woman. Challenging an obstetrician's decision exemplified the significance of midwifery autonomy and its potential for positive outcomes. Students emphasized the importance of midwives having the freedom to make independent decisions and take appropriate actions based on their expertise and knowledge.

*"I heard a midwife say, 'No!' when an obstetrician said, 'We're going to perform a caesarean section because it's taking too long'. She stood up against it because she was convinced that it was a posterior presentation, … she turned the woman around, and she gave birth very smoothly... saying 'No' as a midwife, … is important". FG2_5*

Continuity of care

Students highlighted the importance of personalised, continuous care provided by midwives, the need for effective communication and collaboration between maternity care professionals, and the significance of respecting the autonomy and expertise of midwives in ensuring a positive birthing experience for women.

*"I'm the one monitoring the labour, and then the doctor who absolutely wants to assist the birth, even though she hasn't seen the woman, hasn't witnessed her moments of difficulty, nothing,... it's getting on my nerves a bit...". FG1_4*

The vulnerability and intimacy of the birthing process was acknowledged by some students as requiring a sensitive and attentive approach. At some occasions, the presence of multiple

professionals during labour and birth, including doctors in training and obstetricians, led to disruption in continuity of care and personal connection with the woman, which caused discomfort and dissatisfaction.

*"Someone who arrives at the last moment, puts on their gloves, and off we go! 'Who are you, who are you?' … , it's a stranger arriving, and for 10 hours we've been there, supporting and building trust, caregiver-woman relationship. It's really disturbing for everyone involved". FG1_5*

To be with the woman

Students reflected on the value placed on midwifery autonomy, women's involvement, and shared decision-making in maternity care. A student acknowledged the expectation to seek permission from the doctor, but emphasized the ideal of seeking permission from the woman, highlighting the significance of woman-centred care.

*"It is expected of me that I ask for permission from the doctor when assisting in a birth, but ideally, I should be asking the woman". FG 3_4*

The concept of shared decision-making was emphasized, highlighting the importance of both the midwife and the woman being autonomous and actively involved in making decisions together.

*"To be able to make decisions together autonomously with the woman, there is often talk about informed consent, but it should be more about shared decision-making,... where both parties are autonomous and come to a decision together". FG2_1*

Students valued midwifery autonomy, they recognised that being an autonomous midwife is not solely about working independently, but also about empowering the woman during childbirth. A midwifery student emphasized the importance of creating a supportive and empowering environment where the woman's autonomy feels respected and nurtured.

*"I believe that as an autonomous midwife, one should strive for that … empowering the woman in her autonomy and strengths". FG2_1*

## 6.5. Discussion

This study aimed to explore the understanding and experiences of professional midwifery autonomy among final-year midwifery students. The findings shed light on their experiences and provide valuable insights into the phenomenon of midwifery autonomy.

Our research revealed that the respondents had a clear perception of the role that autonomy plays in their future profession. They demonstrated a solid understanding of the concept of midwifery autonomy. Students defined professional midwifery autonomy as the capacity to work independently, without constant supervision. This aligns with previous studies among English final-year midwifery students that describe autonomy as working unsupervised while being competent and responsible [21]. Additionally, they recognised the importance of working within professional boundaries and establishing respectful interprofessional collaboration. Midwifery autonomy extends to navigating these boundaries while providing care, allowing midwives to maintain their individuality and professional identity. Balancing a high level of professional autonomy with effective collaboration poses a significant challenge. Striking the right equilibrium between individual autonomy and collaborative teamwork requires careful navigation and consideration [5].

Contextual factors play a crucial role in shaping the extent of autonomy experienced by midwifery students. These factors include the level of support from other maternity care professionals, institutional policies, guidelines, legal frameworks, and the hierarchical structure within hospitals. In countries where midwifery is an autonomous profession, midwives are not supervised by doctors or any other health professional. However, midwives' professional autonomy may clash with the hierarchical and routine-based culture of the hospital [29]. Our findings align with previous literature, emphasizing the significance of a safe and supportive learning environment, including role models, for optimizing students' learning experiences in labour wards [30]. A supportive learning environment fosters socialisation and a sense of belonging, playing a vital role in nurturing professional midwifery autonomy. Students' relationships with mentoring midwives were found to be crucial in gaining access to learning experiences and developing confidence in their abilities [31,32].

The challenges identified in our study hindered the students' ability to practice autonomously. These challenges encompassed restricted decision-making authority, limited support from other maternity care professionals, resistance to midwifery-led care, and a lack of awareness

among women regarding midwifery professional autonomy. Addressing these obstacles is essential to effectively support the implementation and success of midwifery-led continuity care models [3]. The complexity of the midwife's role is further illustrated by the differing perspectives among midwives, as some feel their autonomy is limited by constant direction and supervision, while others prefer the support and comfort of working with a multidisciplinary team. Conflicting perspectives exist regarding midwives' desire for autonomy and increased responsibility [4].

Midwifery educators and preceptors can inform their practices by fostering a comprehensive understanding of professional midwifery autonomy and promoting independent yet collaborative work. Creating a supportive learning environment, addressing contextual factors, overcoming challenges to autonomy, and promoting dialogue and collaboration among midwives are key recommendations. Implementing these strategies will support the development of midwifery students' autonomy, enhancing their professional growth and preparing them for autonomous midwifery practice, ultimately improving care for mothers and new-borns.

Strengths and limitations

The strength of our study is that it has the potential to inform educators and preceptors to implement appropriate support strategies to optimise midwifery students' professional autonomy. It is worth mentioning that all participants had arrived at the same point in their study programme. As the focus groups took place during the advanced stages of their course, all students had gained valuable practical experience in labour wards. As a result, students developed a strong grasp of professional midwifery autonomy. Nevertheless, it should be noted that our data solely reflects the perspectives and experiences of students from a single setting within Flanders, Wallonia, and the Brussels Capital Region. This might have reduced the variety of responses, while a more diverse sample, might have produced different insights. Future research should explore strategies like shared decision-making, interprofessional collaboration, and advocacy for midwifery autonomy. Additionally, assessing the long-term impact of autonomous midwifery practice on maternal and new-born health outcomes is crucial. By demonstrating the benefits of midwifery autonomy, such as increased maternal satisfaction and improved health outcomes, we can emphasize its importance in the healthcare system. Prioritizing and investigating midwifery autonomy in education and

practice can lead to transformative advancements in maternity care, empowering midwives, promoting their professional growth, and ultimately enhancing maternal and new-born health outcomes.

### 6.6. Conclusions

This study provided valuable insights into the understanding and experiences of final-year midwifery students regarding midwifery autonomy. Our findings emphasized the need for supportive learning environments and collaborative relationships with other maternity care professionals. By actively creating a safe and supportive learning environment that encourages autonomous practice, nurtures self-governance, and promotes personal growth among midwifery students, educators can contribute to the development of a truly autonomous profession. Additionally, our study revealed the urgent need for increased awareness and understanding among women and the broader healthcare community regarding the role of midwifery in order to fully embrace and promote professional midwifery autonomy. Recognising the value and contributions of midwifery is essential for empowering midwives and advocating for their autonomy within the healthcare system. The findings from our study contribute to ongoing efforts aimed at strengthening midwifery and promoting the autonomy of midwives, ultimately improving the health and well-being of mothers and new-borns on a global scale.

**Contributions, approvals, and acknowledgments**

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| **Table 6.1.: Interview guide** |
| --- |
| **Engagement question**<br>Can you describe your understanding of midwifery autonomy ?<br>Can you describe your overall experiences of midwifery during your practice placements? |
| **Exploration questions**<br>What were the most important aspects of midwifery autonomy ?<br>What facilitated your midwifery autonomy?<br>What hindered your midwifery autonomy?<br>Which competences related to autonomy were challenging to achieve?<br>Are there issues that would have improved your midwifery autonomy? |
| **Exit questions**<br>Is there anything additional you would like to say about your understanding of midwifery autonomy?<br>Is there anything additional you would like to say about your experiences of midwifery autonomy?<br>Of all things discussed today, what do you think is the most important? |
| **Probes (in order to minimize misunderstandings)**<br>Can you please tell more about this?<br>Help me understand what do you mean by that?<br>Can you give an example of that?<br>Can you tell me something else about that? |

**Table 6.2.: Characteristics of participants**

| | Participants (n) | Age (years) | Year of education | Clinical experiences in labour ward (weeks) |
|---|---|---|---|---|
| Focus group 1 (Wallonia) | 10 | M: 21.8, Me: 22 | All last year of education (4th year) | M: 19, Me19 |
| Focus group 2 (Flanders) | 6 | M: 25.7, Me: 21 | All last year of education (3rd year) | M: 18.8, Me: 18.5 |
| Focus group 3 (Brussels Capital Region) | 6 | M: 22.2, Me: 21.5 | All last year of education (3rd year) | M: 18.5, Me: 17 |

M=mean; Me=median

**Table 6.3.: Identified themes and subthemes**

| Themes | Subthemes |
|---|---|
| Working independently is a key aspect of professional midwifery autonomy. | Independent decision-making |
| | Working between professional and personal boundaries |
| | Collaboration |
| A positive learning environment plays a crucial role in the development of professional midwifery autonomy. | Respectful and safe environment |
| | Empowerment through recognition and trust |
| | Reflective environment |
| The professional context significantly influences professional midwifery autonomy | Diversity in healthcare settings |
| | Heterogeneity among hospitals |
| | Contrasts across neighbouring countries |
| The extent of professional midwifery autonomy is shaped by the actions and decisions of other individuals | Hierarchy and power dynamics |
| | Impact of doctors' presence |
| | Ambiguity of the midwife's role |
| Professional midwifery autonomy is beneficial for women | Safety and quality of care |
| | Continuity of care |
| | To be with the woman |

# Chapter 7: General discussion

Adapted from: Vermeulen J, Buyl R, Luyben A, Fleming V, Tency I, Fobelets M, How to promote midwives' recognition and professional autonomy? A document analysis study, In review at Midwifery, November 2023

$JIF_{2022}$: 2.7, Q1

# How to promote midwives' recognition and professional autonomy? A document analysis study.


**Abstract**

**Objective**

To identify challenges associated with midwives' professional autonomy in Belgium and develop recommendations to promote midwives' recognition and professional autonomy.

**Design**

Through a document analysis study we identified challenges, categorised them into themes and linked them with Greenwood's sociological criteria for a profession. Consequently recommendations, contributing to the promotion of midwives' recognition and professional autonomy were developed.

**Findings**

We identified challenges related to midwife-led continuity care models, regulation of the midwifery profession, collaboration with stakeholders, professional esteem and professional culture. Based on them, our recommendations include prioritizing midwife-led continuity of care, fostering collaboration, tailoring continuous professional development, increasing public awareness and advocating for policy changes. The attribute of a profession which is lacking the most in midwifery in Belgium is recognised authority, which may result in midwives being undervalued, underutilised and underpaid.

**Key conclusions**

In this paper we identified challenges in Belgian midwives' recognition and professional autonomy and provided recommendations to address them, emphasizing the importance of recognised authority in midwifery. Implementing these recommendations can positively impact midwives' recognition and autonomy in Belgium and potentially in other countries.

**Implications for practice**

It is essential for policy makers to address the issue of the lack of recognised authority in midwifery, as it plays a critical role in facilitating decision-making, policy development, and

the professionalisation of the field. Implementing the outlined recommendations can drive positive changes in midwifery recognition and autonomy in Belgium and beyond.

**Keywords:** midwives; midwifery; midwifery autonomy; autonomy; professional autonomy; professionalisation

## 7.1. Introduction

Professional autonomy, a cornerstone of midwifery's philosophy [1], is considered a central concept in the professionalisation of midwifery [2]. Through its autonomy, a profession is entrusted with safeguarding the public from those who lack the necessary competences to work within the relevant profession [3]. Professional autonomy has a positive effect on health professionals' job satisfaction [4-6], sense of belonging [7] and subjective wellbeing of the job [8]. In some countries, midwives' professional autonomy is restricted contrasting with countries' legislation and evidence about the positive outcomes of midwifery care models. In the current maternity care context, midwives might not be able to practice to their full extent [9]. Internationally, hospital-based midwives have limited control over the organisation of their work such as one to one care or continuity of care, most of which are determined by hospital management [10]. Additionally, medicalisation of birth is suggested as limiting midwifery autonomy [11]. However, literature is inconclusive about whether midwives themselves want to be more autonomous [2,12,13]. Nevertheless, a WHO report confirmed that midwives worldwide seek more professional autonomy and professional respect by other maternity care professionals [14].

Recently, attention has been directed towards the professional autonomy of Belgian midwives. Belgian midwives' degree of autonomy varies. In hospitals, midwives often work under the authority of obstetricians, although this can differ among hospitals and regions [10]. Conversely, primary care midwives in Belgium tend to have more autonomy in the organisation of their work, whether working independently, in group practices, or within public health organisations [15]. Belgium consists of three highly autonomous communities and regions: the Flemish Region (Dutch-speaking), the Walloon Region (French-speaking), and the Brussels-Capital Region (bilingual). Its political organisation is intricate, based on regional and linguistic considerations. However, assessing the overall professional autonomy of Belgian midwives remains challenging due to regional differences or local practices. These inconsistencies highlight the need for further research and attention to gain a comprehensive understanding of Belgian midwives' professional autonomy across all regions and professional domains.

Based on five studies (4 published and 1 submitted to an international peer-reviewed journal, 2023), a document analysis was conducted to identify challenges related to midwives'

professional autonomy in Belgium and develop recommendations for promoting their recognition and professional autonomy.

In the first study, a discussion paper was conducted, examining the professionalisation of midwifery in Belgium through the application of Greenwood's sociological criteria for a profession. The analysis revealed that midwifery in Belgium has made progress in research and education, following recognised guidelines and complying with the European Directive 2005/36/EC [16]. National legislation and regulation provide protection for the midwifery profession in Belgium, aligning with European Directives. However, challenges exist in terms of limited recognition by clients and the need to fully implement the scope of midwifery, develop advanced roles, facilitate midwifery-led models of care, and promote autonomous practice. Furthermore, the presence of different decision-making levels and regional responsibilities in Belgium may result in fragmented advocacy efforts by midwifery associations.

To achieve autonomy, a clear and shared view of midwifery autonomy was considered essential for a joint understanding of the concept. In our second study, a definition of midwifery autonomy was developed, using a modified Delphi survey with 27 content experts (Annex 3: “Questionnaire definition”). The consensus definition of midwifery autonomy in Belgium comprised 15 components related to midwives' work content, professionalism, and relationship with others. We identified work related content when the midwife was responsible, could independently take decisions and controlled her work. Professionalism of the midwife encompassed expertise, authority, and competence, while relationship with others included respect for the autonomy of midwives, their recognition and respect by other maternity care professionals. Together these components encompass the essentials of midwifery autonomy in Belgium. Belgian midwives’ views on their current and future autonomy were explored in a consecutive study, using this consensus definition [17].

In a subsequent study, a descriptive observational survey was conducted using an online questionnaire (Annex 1: “Autonomy questionnaire: midwives’ views”). The survey involved 312 midwives from various clinical areas in Belgium. Findings indicated variations in perceived autonomy among respondents. Brussels' midwives felt the most autonomous, while Walloon midwives felt the least autonomous. Primary care midwives reported higher levels of autonomy compared to hospital-based midwives. Midwives with over 30 years of experience

and primary care midwives felt less recognised and respected by other maternity care professionals. Despite rating their own autonomy as high, the majority of respondents believed that midwives should have more autonomy in the future. Recognition and respect from society and other maternity care professionals were identified as vital for midwives, regardless of age, region, or professional setting. Most respondents believed that a professional midwifery association should establish regulations governing their practice. However, certain primary care midwives advocated for more effective and professional functioning of midwifery associations in Belgium [18].

In the fourth study, which employed qualitative exploratory methods, online focus group interviews were conducted with 27 maternity care stakeholders, including health professionals, policy advisors, hospital managers, and service-users. This study reported significant variations in midwives' autonomy levels, with this difference primarily attributed to the professional domain of the midwife. Maternity care stakeholders in Belgium generally believe that an autonomous midwife should be adequately educated and committed to continuous professional education, competent, experienced and thus ensuring safe and qualitative care. Additionally, a healthy collaboration with all stakeholders in maternity care was emphasized. A maternity collaborative framework, where all maternity care professionals respect each other's competences and autonomy, was advised as crucial for providing safe and quality care. To reduce undesirable differences among Belgian midwives and support their professional autonomy and professionalisation, it was suggested to implement a compulsory registration in a regulatory body with supervisory power [19].

In the final study, we conducted a qualitative exploratory research to delve into the understanding and experiences of midwifery autonomy. This exploration involved 22 final-year midwifery students hailing from three different regions of Belgium. The students emphasized the importance of being able to make independent decisions and take initiatives to promote professional midwifery autonomy. They highlighted the need for a safe and supportive learning environment that encourages autonomous practice and personal growth. Collaborative relationships with other maternity care professionals and increased awareness among women and the healthcare community were additionally identified as crucial in fostering and promoting midwifery autonomy. The study underscores the significance of supportive learning environments, collaborative relationships, and further education to

cultivate autonomy in midwifery, with the potential to improve maternal and new-born health outcomes.

This document analysis study expands on the findings of the five aforementioned studies regarding midwives' professional autonomy. The aim of this study is to identify the challenges related to midwives' professional autonomy in Belgium and propose recommendations to enhance recognition and promote their autonomy.

## 7.2. Methods

We utilised a rigorous and systematic approach, involving an in-depth synthesis of the results from our five studies in order to examine comprehensively the challenges to optimise midwifery autonomy and develop corresponding recommendations. These studies addressed five research questions to explore the professional autonomy of Belgian midwives: 1) What is the state of the professionalisation of midwifery in Belgium?, 2) How can midwifery autonomy in Belgium be defined?, 3) How do midwives view their professional autonomy?, 4) How do multiple key maternity care stakeholders view midwives' professional autonomy?, and 5) How do final year midwifery students understand midwifery autonomy and how did they experienced midwifery autonomy during their education?.

The research aims, design, participants, data collection and data analysis of the five respective studies are outlined in Table 7.1. All studies were self- funded and approval was obtained from the Ethics Committee of the University Hospital Brussels/Vrije Universiteit Brussel (VUB) in May 2021 (registration number: B.U.N. 143/202/100/0490). Approved amendments were made for consecutive studies by the ethics committee in December 2021, August 2022 and November 2022.

To extract key insights through a document analysis study, we meticulously selected, appraised, and synthesised data from these documents as suggested in literature [20]. Drawing upon these insights as a foundation, we identified challenges [21], and subsequently categorised these challenges into cohesive themes. To address these challenges effectively, we employed Greenwood's structured framework [22], which facilitated a systematic analysis of the challenges in relation to the attributes of professionalisation, offering valuable guidance for identifying specific areas that require attention. Based on this analysis, we developed recommendations aimed at tackling the identified challenges and promoting midwifery

recognition and autonomy. To ensure a comprehensive understanding of the findings, both the first and last authors thoroughly examined and assessed the challenges, themes, and recommendations. Additionally, the entire research team was actively involved in the process, contributing to the validation and comprehensive assessment of the findings.

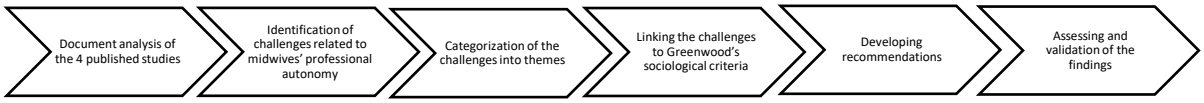


Figure 7.1.: Methods overview

### 7.3. Findings

The challenges related to midwives' professional autonomy were categorised into themes, providing a comprehensive framework for understanding and addressing these challenges. Furthermore, recommendations for future research are also delineated. The recommendations are proposed actions or suggestions that address the challenges and aim to improve midwives' professional autonomy.

#### 7.3.1. Challenges associated with midwives' recognition and professional autonomy

We identified challenges encompassing various aspects related to midwifery practice, education, collaboration, recognition, and the need for both local and global initiatives to advance professional midwifery autonomy. Next, the challenges were clustered into five themes, namely: 1) midwife-led continuity care models, 2) regulation of the midwifery profession, 3) collaboration with stakeholders, 4) professional esteem and 5) professional culture (Table 7.2.). The implementation and advancement of midwifery practice face various challenges across different themes. Addressing these challenges is vital for advancing midwifery practice, ensuring high-quality, collaborative and autonomous care. Additionally, the identified challenges were linked with Greenwood's criteria for a profession, a key finding

emerged regarding the attribute of recognised authority. It was revealed that midwifery in Belgium lacks the expected level of recognition from clients, other healthcare professionals, and hospital managers, which is an essential criterion for professional status according to Greenwood's sociological framework.

### 7.3.2. Recommendations for optimising midwives' recognition and professional autonomy

In order to promote and enhance midwives' recognition and professional autonomy, several key recommendations are outlined. These recommendations aim to address various aspects of midwifery practice and the broader healthcare system. The following sections will explore each recommendation, emphasizing their importance and potential impact on midwifery care. By implementing these recommendations, it is envisioned that midwives will have increased opportunities for autonomous decision-making, improved collaboration with stakeholders, and ultimately, enhanced quality of care for women and families.

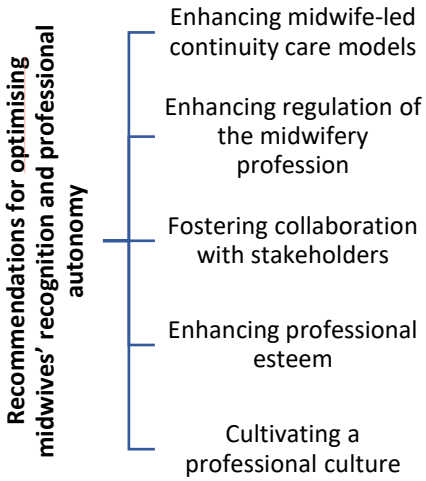


Figure 7.2.: Recommendations for optimising midwives' recognition and professional autonomy

#### 7.3.2.1. Enhancing midwife-led continuity care models

These recommendations are closely tied to the following challenges: fully implementing the comprehensive scope of midwifery practice, enhancing autonomy within hospital settings, and advocating for the recognised benefits of midwife-led continuity of care.

The low level of continuity of midwifery care, limited choices for service-users and restricted opportunities for independent midwives to work within hospitals should be addressed.

Service-users' limited knowledge about midwives' competences may affect midwives' recognition and autonomy [19]. An increased public awareness of midwives' roles and competences is therefore recommended. Influencing the public opinion is an important way to effectuate a cultural change in maternity care. To initiate cultural change, we recommend implementing targeted public information campaigns, introducing structural changes in maternity care, and employing strategies to inspire public opinion [23]. As Belgian midwives and service-users' groups have voiced the need to introduce midwife-led continuity care, government funding for this kind of services is necessary. We recommend a paradigm shift in maternity care in Belgium, aiming to develop a sustainable model of care that optimises resources utilization and expands beyond a hospital-based approach.

As professional autonomy over midwifery practice is challenged, we recommend that hospital managers acknowledge the professional autonomy of midwives. The active pursuit of independent decision-making and the eagerness to make professional choices without constant supervision among (student)midwives are crucial steps in their journey towards professional autonomy. We strongly encourage hospital managers to actively participate in discussions regarding maternity care and to take a leading role in establishing a maternity care task force. To increase autonomous practice in hospitals, we recommend assessing the barriers and facilitators regarding the access of independent midwives to hospitals. Additionally, we suggest enhancing the conditions for independent midwives to gain access to hospitals in order to promote midwife-led continuity of care models, which adds to safe and qualitative care for all service-users as well as contributing to professional autonomy. A recent report aiming to enable service-users in Belgium to give birth with their own midwife in the hospital, provides a solid foundation for successful collaboration between midwives and the hospital, encompassing scientific, legal and financial aspects [24]. Expanded roles for midwives, particularly in the provision of antenatal and intrapartum care, need to be considered.

Midwife-led continuity of care is a strong contributor to personalised safe and quality maternity care [25]. Additionally, professional midwifery autonomy was found to benefit women's care, ensuring safety, quality, continuity, and a woman-centred approach during childbirth. To promote the added value of midwife-led continuity of care, we recommend to introduce midwifery led models of care and put these models up in a macro-level debate with other maternity care professionals, healthcare politicians, health services, insurances an

service-users. Additionally, we suggest to develop an interprofessional maternity care task force comprising all identified stakeholders to shape the future of maternity care in Belgium. Given their crucial role in establishing the recommended structures, policy advisors should actively participate in these forward-thinking discussions. To enhance the acceptance of such a paradigm shift, additional requirements can be established, including adherence to evidence-based guidelines, ongoing supervision, continuous professional development, and involvement in interprofessional collaborative networks.

7.3.2.2. Enhancing regulation of the midwifery profession

These recommendations prioritise key areas such as promoting compliance with professional and ethical standards, fostering continuous education and professional development, and ensuring the delivery of safe and quality care.

Compliance of all midwives with professional and ethical standards is strongly advised and need to be ensured. The establishment of a regulatory and supervisory body with appropriate authority needs to be considered, drawing inspiration from models such as the Order of Medical Doctors [26]. This approach can help ensure safe and quality care while catalysing midwives' autonomy and professionalisation. To foster midwives' professional autonomy and promote a unified professional culture, it is crucial to recognise membership in a professional organisation or an Order as an integral requirement for midwives' license to practice. By establishing this link, midwives can not only gain a sense of professional identity, but also benefit from the optimised autonomy, resulting from being part of a collective body.

We recommend elaborating a 'lifelong midwifery education continuum', by focussing on continuous professional development routes for all midwives. It is recommended to organise continuous professional development activities as a joint initiative with hospitals, other maternity care professionals and service-users' groups. Furthermore, all continuing development activities should align with current scientific knowledge and be accredited by a supervisory authority. The recent Belgian Kwaliteitswet Gezondheidszorg (Healthcare Quality Law, 2022) requires Belgian health professionals, midwives included, to maintain a portfolio that demonstrates their skills, experience and continuous professional development activities.

It is acknowledged that the use of evidence-based guidelines ensures professional autonomy and quality of care, these guidelines need to be developed altogether with obstetricians,

midwives and service-users' groups, preferably as a joint initiative. Moreover, these guidelines can be refined and customised within regional maternity collaborative networks, thereby enhancing the validity, acceptance and implementation of the guideline within the maternity care community. It can additionally be considered to incorporate evidence-based guidelines into electronic medical records, as is the case with general practitioners. This may promote the use and implementation of evidence-based guidelines.

Given the significant variations in autonomy levels among Belgian midwives across different professional domains, we recommend the adoption of established principles for independent midwives in Belgium to be followed by all midwives [27]. To comply with these principles, independent midwives have to meet several prerequisites [10]. We therefore recommend in particular the supervision of newly graduated midwives by an experienced midwife, the implementation of evidence-based care and being a member of a professional association and a maternity collaborative network.

The relationship between effective figures of midwifery-led care in labour and childbirth in Belgium and professional autonomy remains uncertain due to incomplete data resulting from self-registration, with some missing Walloon data. A first stand-alone report on midwife-led care in Belgium in 2020 was published in 2022 [28]. One of the three established Belgian midwifery associations initiated the registration of midwife-led care to assess its prevalence and promote professional autonomy. However, these registration parameters have not yet been integrated into the official perinatal registration systems. The inclusion of more midwifery-related parameters in the existing registration at Studiecentrum voor Perinatale Epidemiologie (SPE) and Centre d'Épidémiologie Périnatale (CEPIP) needs to be considered e.g. birth position, and method of foetal monitoring during labour, maternity care professional who attended the birth [28]. We recommend a structural embedding and inclusion of midwifery-led care registration. Additionally, the voluntary nature of perinatal registration at SPE and CEPIP need to be assessed. It could be worth considering the inclusion of midwives' participation in perinatal registration as a specific requirement for obtaining a midwifery license to practice.

7.3.2.3. Fostering collaboration with stakeholders

Interprofessional collaboration has the potential to contribute to health professionals' professional autonomy by fostering shared decision-making, mutual respect, and a collaborative practice environment [29]. However, it is important to ensure that while engaging in interprofessional collaboration, professionals retain their own professional identity and the ability to use their unique voice rather than solely adapting to the group. The foundation for successful interprofessional collaboration lies in interprofessional education, which should be integrated into both undergraduate and postgraduate educational curricula in healthcare. By structurally embedding interprofessional education and collaboration, healthcare professionals can develop the skills and knowledge necessary to engage in collaborative practice while maintaining their professional identity. Establishing a positive and safe learning environment that empowers (student)midwives, offers constructive feedback, and fosters open interprofessional dialogue is in addition crucial in supporting their professional growth and autonomy.

We additionally recommend interprofessional collaboration in regional maternity collaborative networks enabling all maternity care professionals to join this network. Such a structural network may promote collaboration in maternity care and, consequently, contribute to increased professional autonomy [30]. Municipalities and associations of maternity care professionals are encouraged to work together to get the respective professionals and service-users' groups in touch with each other. Incorporating service-users' voices into maternity care can enhance the provision of respectful and personalised care [25]. These interprofessional maternity collaborative networks should be structurally integrated into primary care zones with the aim of coordinating the efforts of local governments, health professionals, and service users. Additionally collaboration in the networks should promoted by professional associations of maternity care professionals. Such collaboration networks may be considered as a condition imposed by health insurance companies when negotiating agreements with midwives and hospitals. It is recommended to establish transparent care paths that clearly outline collaboration among maternity care professionals, as this can greatly contribute to the coordination and continuity of care. Furthermore, the integration of birth plans within maternity care practices is recommended to facilitate shared decision-making and enhance service-users' sense of autonomy and control over their birth experiences. There is a need for the development of a comprehensive, multidisciplinary, and interprofessional

approach to creating a standardised birth plan template in collaboration with service-users. This initiative aims to enhance continuity of care but also address the current issue where birth plans may be disregarded when there is a need for transfer to a hospital during labour or when parents decide to give birth in a hospital setting.

To optimise professional development in maternity care, it is essential to foster more joint initiatives among maternity care professionals. By organizing continuous professional development activities through collaborative efforts, such as involving midwives, obstetricians, nurses, educators and other stakeholders, opportunities for learning and sharing best practices can be created. Moreover, to ensure a women-centred approach, it is recommended to include service-user groups in these postgraduate activities. Their perspectives and insights can contribute to shaping the content and delivery of professional development programs, ultimately improving the quality of care provided in the field of maternity care.

To promote midwives' professional autonomy and advance the field of midwifery practice, collaboration with policy makers is crucial. In the specific context of Belgium, it becomes imperative to address the legal clarification of further education, including masters and doctorate programs, that would enable midwives to pursue advanced roles as midwife practitioners. There is an international consensus that engaging in a discussion regarding the defining elements of advanced midwifery practice can greatly contribute to enhancing professional autonomy for midwives [31]. Collaborating with policy makers is essential to establish the necessary frameworks and regulations that recognise and support the development of advanced midwifery practice in Belgium.

7.3.2.4. Enhancing professional esteem

These recommendations strive to enhance the recognition of midwives and rectify disparities in autonomy and acknowledgment.

To improve the recognition of midwives, a multifaceted approach is recommended. This includes increasing public awareness of midwives' roles and competences through targeted education campaigns and highlighting their valuable contributions to maternity care. Additionally, by implementing structural changes in maternity care and employing strategies to inspire public opinion, we can initiate a cultural shift that recognises and appreciates the

vital role of midwifery. Furthermore, investigating service-users' knowledge and attitudes towards midwifery care provides valuable insights for addressing any misconceptions or gaps in understanding. Lastly, designing transparent and evidence-based care paths that outline the collaboration and respective competences of all maternity care professionals can foster a more unified and recognised role for midwives within the healthcare system.

The decline in our midwives' self-perceived societal and professional recognition after more than 30 years of professional experience is surprising and remains unexplained. Conversely, a decrease in the self-perceived autonomy of midwives older than 50 year and those with more than 21 years of experience was noticed. We recommend hospital managers and policy advisers to develop an appreciation policy for these midwives. Flexible job pathways for more experienced midwives need to be considered and implemented. Recognising the expertise of experienced midwives and involving them in mentoring and facilitating growth opportunities for younger colleagues can play a crucial role in fostering a supportive and empowering environment. This collaborative approach not only acknowledges the value of experienced midwives, but also promotes knowledge sharing and continuous learning within the field, ultimately contributing to the overall advancement of midwifery practice and the autonomy of midwives.

7.3.2.5. Cultivating a professional culture

There is a call for an increased professional functioning of the Belgian professional associations of midwives. Midwifery associations need to be strong political actors to promote and negotiate the autonomous position of all their members. While respectful collaboration and structural partnerships with other maternity care professional and service-users' groups should be established, professional associations should represent the interests of all midwives, regardless of their professional domain. Professional associations' role in the ongoing process of midwifery professionalisation is key to promoting and negotiating midwives' autonomous position. Given that only a limited number of primary care midwives perceive professional associations as playing a significant role in governing their profession, we recommend that professional associations enhance the visibility of their work and engage in dialogue. This approach will ensure that the specific needs of all midwives are addressed, fostering a sense of respect and inclusion.

Cultivating a professional culture that promotes collaboration with stakeholders and unity among midwifery associations is essential to overcome the challenges posed by differing needs in different regions. While the Belgian professional midwifery associations may have distinct agendas and focuses, it is important to establish common ground and foster a shared vision of the profession and the role of midwives. To achieve this, we recommend building bridges between the respective midwifery associations, service-users' groups, other associations representing maternity care professionals, and policy-makers. By treating these stakeholders as equal partners, meaningful collaboration can be fostered, allowing for the alignment of goals, exchange of expertise and collective efforts to enhance the recognition and advancement of midwives' professional autonomy.

Fostering collaboration among associations and applying our definition of midwifery autonomy internationally can strengthen professional autonomy and promote a broader understanding of midwifery globally. There is a potential to apply our consensus definition of midwifery autonomy internationally, as its contents are based on international literature and all European midwifery education programmes have to meet the same European standards. Our definition of midwifery autonomy can potentially encourage an international dialogue, grounded in a common understanding of autonomy, enabling stakeholders in maternity care to strengthen professional midwifery autonomy. To explore midwives' perspectives on their existing and prospective autonomy, a questionnaire was developed, utilizing the consensus definition of midwifery autonomy. Conversely, we recommend the translation and psychometric validation of our questionnaire. Our instrument may help to explore the state of midwives' autonomy in other countries.

**7.4. Discussion**

This study offering an initial lens through which we gained valuable insights into the recognition and professional autonomy of midwives in Belgium. Through a comprehensive document analysis, we identified challenges across multiple dimensions of midwifery, including practice, education, collaboration and recognition. These challenges underscore the importance of implementing both initiatives to advance professional midwifery autonomy. The identified challenges were further grouped into five themes: midwife-led continuity care models, regulation of the midwifery profession, collaboration with stakeholders, professional esteem, and professional culture. These themes are in line with previous research which

identified that European midwives' roles in practice as well as their professionalisation are matters of concern [2,32,33]. Each theme highlights a specific aspect that necessitates attention and action from multiple stakeholders. Additionally, recommendations were developed to promote midwives' recognition and professional autonomy. As such this study has the potential to enhance the status of the midwifery profession, its credibility within society and midwives' professional autonomy in Belgium.

Our recommendations aim to enhance the recognition and professional autonomy of midwives by emphasizing midwife-led continuity of care practices and engage in debate with stakeholders. Indeed, midwives' recognition and professional autonomy needs to be the subject of debate with other maternity care professionals, service-users and policymakers [34]. Collaboration and respect among all maternity care professionals should be fostered through interprofessional education and collaboration programs. Interprofessional education is a critical approach for preparing students for interprofessional teamwork to enhance the quality of patient care [35]. Interprofessional education enables students to identify with their profession as well as creating a safe place to gain insight into other professionals' competences. In addition, last-year midwifery students highly valued independent decision-making and seek opportunities to make professional choices without constant supervision. Additionally, a positive learning environment, influenced by the acknowledgeable role models, plays a significant role in developing midwifery autonomy. Moreover, students obtain knowledge about being a professional participant and enrich their professional identity [36]. In addition, the establishment of a maternity collaborative framework and a regulatory body with supervisory power may ensure safe and quality care, while also supporting midwives' professional autonomy and professionalisation [37]. Existing literature supports the notion that reinforcing regulation of the midwifery profession and strengthening midwives' associations would be advantageous for the overall advancement of the midwifery profession [38].

Additionally, continuous professional development should be tailored to current scientific knowledge, and pathways for advancement in midwifery roles should be clarified. Moreover, raising public awareness about midwives' roles and competences is essential, alongside engaging in cultural changes in maternity care. Finally, advocating for policy changes, such as legal clarifications and the establishment of regional maternity collaborative networks, can further support midwives' autonomy and the overall improvement of maternity care. By

prioritizing these themes and implementing targeted strategies, we can establish the foundation for recognising midwifery as an autonomous and respected profession, leading to optimal maternal and new-born health outcomes [39].

Our findings align with Greenwood's attributes of a profession, which serve to define and distinguish a profession from an occupation or trade. By linking the challenges to the attributes of a profession, we gained additional insights into the aspects that need particular attention and focus. Aligning the challenges with Greenwood's framework provides a strategic direction for future initiatives, enabling targeted interventions that enhance the professional recognition and advancement of midwives in Belgium. The attribute of a profession in which midwifery in Belgium is lacking the most is recognised authority, as per Greenwood's sociological criteria for a profession. This signifies that midwives in Belgium do not have the level of recognition from their clients, other health professionals, and hospital managers that is expected of a profession. While recognised authority is an important attribute of a profession, it reflects the level of trust and confidence that society has in the competences of its professionals. In addition, midwives want to be recognised and respected by society and other health professionals. Indeed, previous research identified that Danish midwives are determined to go above and beyond in their profession, but they also seek appreciation and social recognition in return [40]. The high level of job autonomy experienced by New Zealand midwives is reinforced by the recognition and respect they receive from women and colleagues, who understand and appreciate their scope of practice [41]. A lack of recognised authority may result in midwives being undervalued, underutilised, and underpaid [42]. Limited recognised authority can also lead to a lack of autonomy in decision-making and a reduced input into policy-making [43]. Overall, when faced with a lack of authority, midwives can leverage their competences and professional networks to advocate for change, collaborate with others, and actively contribute to the advancement and recognition of the midwifery profession as a critical component of maternity care. To concretize our recommendations effectively, it is crucial to create a detailed action plan with specific timelines and responsible individuals or groups. Collaboration between midwives, professional associations, healthcare institutions, policymakers, and the public is key to achieving these goals and enhancing the recognition and professional autonomy of midwives in Belgium.

Strengths and limitations

The methodology employed in this study has several strengths. It utilised a rigorous and systematic analysis of our five studies, employing thematic analysis to identify main themes in the data. The iterative analysis process extracted key insights from the results, conclusions, and implications of the respective studies. To ensure trustworthiness, a meticulous process of data selection, appraisal, and synthesis was undertaken, guaranteeing both the reliability and relevance of the findings. [20]. As suggested in literature, the involvement of multiple researchers provided a comprehensive understanding of the findings [44]. Additionally, the use of Greenwood's structured framework facilitated a systematic analysis of challenges in relation to professionalisation attributes, guiding the identification of specific areas for improvement. Overall, our systematic and meticulous analysis of the five studies, supplemented with the identification and categorization of challenges, has yielded invaluable insights that inform the formulation of effective recommendations, aimed at enhancing midwifery autonomy. However, the study is subject to some limitations, including the limited number of studies, potential lack of generalisability beyond Belgium and subjectivity in judgments and interpretations [45]. These limitations should be considered when interpreting the findings and recommendations.

### 7.5. Conclusions

This paper presents the findings of a comprehensive document analysis study on the recognition and professional autonomy of Belgian midwives. We identified significant challenges associated with midwife-led continuity care models, regulation of the midwifery profession, collaboration with stakeholders, professional esteem, and professional culture. Drawing from these findings, we provide recommendations to promote midwife-led continuity of care, foster collaboration, advocate for policy changes, and enhance public awareness to support midwives' professional autonomy. Creating a positive and safe learning environment that empowers (student)midwives, provides constructive feedback, and encourages open dialogue is vital to support their professional growth and professional autonomy. Additionally, we identified that recognised authority was the professionalisation attribute that is most lacking in Belgium, which might have negative consequences for midwives' autonomy, decision-making and policy-making. Our document analysis study contributes to the current knowledge of midwives' recognition and professional autonomy

and may lay the foundation for future studies in this area. Addressing the challenges and implementing the recommendations of this study could have a positive impact on the professionalisation of midwifery, not only in Belgium but also in other countries facing similar challenges.

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**Table 7.1.: Schematic overview of the methods of respective studies included in this research project**

| | **Research aim 1: To describe the state of the professionalisation of midwifery in Belgium,.**<br><br>(Published in Women and Birth, 2021) | **Research aim 2: To define a consistent definition of midwifery autonomy in Belgium.**<br><br>(Published in Journal of Advanced Nursing, 2022) | **Research aim 3: To explore Belgian midwives' views on their current and future autonomy.**<br><br>(Published in Healthcare, 2023) | **Research aim 4: To explore maternity care stakeholders' views on Belgian midwives' professional autonomy.**<br><br>(Published in Healthcare, 2023) | **Research aim 5: To explore the experiences and understanding of midwifery autonomy among final-year midwifery students.**<br><br>(Submitted to an international peer-reviewed journal, 2023) |
|---|---|---|---|---|---|
| Design | A document analysis of relevant policy and academic texts underpinned by Greenwood's sociological criteria for a profession | A modified Delphi study | A descriptive observational survey | A qualitative exploratory study | A qualitative exploratory study |

| | | | | | |
|---|---|---|---|---|---|
| Participants | N/A | 27 content experts from different professional settings in Belgium (hospital, primary care, education and research) | 312 midwives from different professional settings in Belgium (hospital, primary care, education and research) | 27 maternity care stakeholders in Belgium (health professionals, policy advisors, hospital managers and service-users' groups) | 22 final-year midwifery students from each of the three Belgian regions |
| Data collection | Literature search of policy and academic texts on maternity care in Belgium. | A self-constructed online questionnaire, based on 17 critical components retrieved from literature | A self-constructed online questionnaire, based on the 15 validated items from the consented definition of midwifery autonomy in Belgium | Online synchronous heterogeneous focus group interviews, using a self-constructed interview guide with four open-ended questions | Face-to-face focus group interviews, using a self-constructed interview guide with seven open-ended questions |

| | | | | | |
|---|---|---|---|---|---|
| Data analysis | Structured text analysis using Greenwood's sociological criteria for a profession: own body of knowledge, recognised authority, broader community sanctions, own code of ethics and professional culture sustained by professional association | The content validity index (CVI) of individual critical components was calculated for each critical component's clarity and relevance. Additionally, content experts could suggest other items and adjustments | Quantitative analysis, using a Tukey honestly significant difference test, descriptive statistics and Chi-square. Additionally, quotes from respondents were used to contextualise the quantitative data | Thematic analysis: transcription of recordings, familiarising with the data and coding into recurrent and common themes | Thematic analysis: transcription of recordings, familiarising with the data and coding into recurrent and common themes |

**Table 7.2.: Challenges and recommendations**

| Themes | Challenges | Challenges linked to Greenwood's sociological criteria for a profession | Recommendations |
|---|---|---|---|
| Midwife-led continuity care models | To implement the full scope of midwifery practice | Recognised authority | To promote good midwife-led continuity of care practices |
| | | | To promote midwifery and increase midwives' visibility |
| | | | To consider expanded roles for midwives, especially in the provision of antenatal and intrapartum care |
| | To increase autonomous practice in hospital | Recognised authority | To advice hospital managers to acknowledge the professional autonomy of midwives |
| | | | To advice hospital managers to actively participate in maternity care discussions |
| | | | To assess the barriers and facilitators regarding the access of independent midwives to hospitals |
| | | | To set up the conditions for independent midwives to gain access to hospitals in order to promote midwife-led continuity of care models |
| | To increase awareness of the added value of midwife-led continuity of care | Recognised authority | To consider midwife-led continuity care models of care and to debate this model with other stakeholders, service-users included |
| | | | To set up a maternity care task force to shape the future of maternity care in Belgium |
| | | | To advice policy makers to consider financial incentives to promote midwife-led care continuity services |
| Regulation of the midwifery profession | To ensure compliance with | Broader community sanctions | To consider the establishment of an Order of midwives ensuring safe and quality evidence-based care |

| | | | |
|---|---|---|---|
| | professional and ethical standards | Own code of ethics | |
| | | Own body of knowledge | To develop evidence-based guidelines in close collaboration between obstetricians, midwives. and service-users |
| | | | To refine and customize evidence-based guidelines within regional maternity collaborative networks |
| | | | To tailor all continuous professional development activities to update scientific knowledge |
| | | Broader community sanctions | To install a supervisory authority accrediting professional development activities for midwives |
| | To ensure adequate education and continuous professional development | Own body of knowledge | To foster a comprehensive understanding of professional midwifery autonomy and promoting independent yet collaborative work |
| | | | To create a safe and supportive learning environment, addressing contextual factors |
| | | | To promote dialogue and collaboration among educators, midwives, preceptors and stakeholders |
| | | | To structurally embed interprofessional education and collaboration within educational programs |
| | | | To organise continuous professional development activities as a joint initiative with hospitals, other maternity care professionals and service-users' groups |
| | To ensure safe and high-quality care | Broader community sanctions | To adopt some of the legal principles for independent to all midwives |
| | | | To integrate midwifery-led care registration in the official established perinatal registration |
| | | | To consider the inclusion of more midwifery-related parameters in the existing registration |
| | | | To assess the voluntary nature of perinatal registration |

| | | | |
|---|---|---|---|
| Collaboration with stakeholders | To ensure interprofessional collaboration | Recognised authority | To-encourage collaboration and unity among maternity care professionals by fostering partnerships between municipalities and established professional associations |
| | | | To set up a maternity collaborative framework, where all maternity care professionals respect each other's competences and autonomy |
| | | | To advocate for collaboration within regional maternity collaborative networks by encouraging all maternity care professionals to actively participate in network meetings. |
| | | | To structurally embed interprofessional undergraduate and postgraduate education in order to establish strong foundations for interprofessional collaboration |
| | | | To foster transparent care paths, outlining collaboration among maternity care professionals |
| | To ensure structural collaboration with service-users | Recognised authority | To structurally embed service-users in a collaborative maternity network which is critical for shaping the future of maternity care in Belgium |
| | | | To structurally embed birth plans in maternity care in order to facilitate shared decision-making and enhance service-users' sense of autonomy and control |
| | To develop advanced midwifery roles | Own body of knowledge | To develop continuous professional development routes for all midwives in line with the lifelong midwifery education continuum |
| | | | To legally clarify the concept of further education leading to advanced midwife practitioners (MSc, PhD) |
| | | | To legally clarify the concepts of advanced midwifery roles |
| Professional esteem | To improve the recognition of midwives | Recognised authority | To increase public awareness of midwives’ roles and competences |
| | | | To consider structural changes in maternity care and strategies to inspire public opinion to initiate cultural change |
| | | | To investigate service-users’ knowledge and attitudes towards midwifery care |
| | | | To design transparent care paths, outlining the collaboration and respective competences of all maternity care professionals |
| | To address discrepancies in | Recognised authority | To examine the impact of regional sociocultural profiles on midwives’ autonomy and recognition |

| | | | |
|---|---|---|---|
| | autonomy and recognition | | To examine the impact of regional policies on midwives' autonomy and recognition |
| | | | To explore why Walloon midwives feel less autonomous |
| | | | To explore why older midwives, primary care midwives and Walloon midwives feel less recognised and respected |
| | | | To advice hospital managers and policy advisers to develop an appreciation policy for elder midwives |
| Professional culture | To consider a professional functioning of midwifery associations | Professional culture sustained by formal professional associations | To strengthen midwifery associations as influential political actors to actively promote and negotiate for the position and interests of all their members |
| | | | To recognise membership to a professional organisation or an Order as a vital requirement for midwives' license to practice, enabling them to effectively represent all midwives and foster a sustainable professional culture |
| | To unite midwifery associations | Professional culture sustained by formal professional associations | To advice professional associations to intensify the dialogue with all their members and to represent the interests of all midwives, regardless of their professional domain |
| | | | To advice professional associations to motivate all their members meticulously participating in the official established perinatal registration |
| | | Professional culture sustained by formal professional associations Recognised authority | To strive for interconnection between midwifery associations, other health professionals in maternity care and policy-makers with service-users groups |
| | | | To facilitate collaboration between municipalities and associations of maternity care professionals to foster meaningful connections between professionals and service-users within the respective communities |
| | | | To set up regional maternity collaborative networks with the involvement of all stakeholders |
| | To encourage dialogue around midwifery autonomy | Own body of knowledge | To translate and validate the psychometric properties of our questionnaire aiming to explore midwives' views on their autonomy for international use |
| | | | To apply the consolidated definition of midwifery autonomy internationally |

# Chapter 8: General conclusions

**General conclusions**

In this doctoral research, we comprehensively examined the landscape of Belgian midwives' professional autonomy, delving into a range of perspectives and dimensions. Our research highlighted the progress and challenges in the midwifery profession in Belgium. While there have been advancements in practice, education, and compliance with regulations, challenges such as limited recognition, restricted autonomy, and the need for advanced roles persist. The establishment of a definition of midwifery autonomy was realised, while variations in self-perceived autonomy among midwives were observed. Despite high self-reported autonomy levels, most midwives desire even more autonomy in the future. Education, competence, and collaboration were identified by stakeholders as crucial factors in fostering professional midwifery autonomy. Moreover, a positive learning environment and the professional context play significant roles in developing professional midwifery autonomy. Emphasizing the importance of professional autonomy, this research provides valuable insights for policymakers, educators, and stakeholders to enhance midwifery practice and women-centred care in Belgium and beyond.

Addressing the identified challenges is vital to foster the professionalisation of midwifery and elevate the profession's recognition. Efforts to enhance midwifery-led continuity of care models, promote interprofessional collaboration, and create a positive learning environment are essential steps. Public awareness campaigns can improve the societal recognition of midwives and their critical role in maternal and new-born care. Advocating for policy changes and strengthening the regulatory framework can further advance the profession and ensure high-quality midwifery care. By implementing these recommendations, midwives in Belgium can attain the recognition and autonomy they deserve, ultimately enhancing the quality of care and the status of midwifery within the healthcare system.

## Summary

Adapted from: Vermeulen J, Buyl R, Fobelets M, Exploring and enhancing midwives' professional autonomy: Embarking on a journey of empowerment for midwives globally (Editorial), European Journal of Midwifery, October 2023, doi: 10.18332/ejm/172426

$JIF_{2022}$: 1.9, Q3

## Summary

Besides the importance of professional autonomy for the professionalisation of healthcare professions, autonomy also has positive effects on job satisfaction, sense of belonging, and subjective well-being of professionals, including midwives. However, the autonomy of midwives is sometimes under pressure, influenced by contextual, societal, and political factors. Moreover, the literature is not unanimous on whether midwives desire more autonomy, with fear of liability being a possible obstacle. While the current state of Belgian midwives' professional autonomy is unknown and critical knowledge gaps persist, this research underscores the importance of studying the professional autonomy of Belgian midwives. Such a study is vital for strengthening the midwifery profession and advancing the recognition and professional autonomy of midwives in Belgium and beyond.

The aim of this doctoral research was to explore the professional autonomy of Belgian midwives. The work identified challenges, defined 'midwifery autonomy', examined the perceptions of midwives, stakeholders, and students, and formulated recommendations to promote the recognition and professional autonomy of midwives in Belgium.

In the first study, we analysed the state of professionalisation of midwifery in Belgium using Greenwood's criteria of professionalism. We identified several challenges, including limited societal recognition of midwives, restricted development of advanced roles, limited midwifery-led continuity of care models, and limited professional autonomy. Subsequently, through a Delphi study, we developed a consensus definition of 'midwifery autonomy in Belgium'. This definition comprises 15 components related to work content, professionalism, and relationships with others. Next, we explored the views of Belgian midwives about their own professional autonomy. We used a self-constructed and validated questionnaire based on this consensus definition. The majority of midwives felt that they were mostly or fully autonomous, however variations in their professional autonomy were observed. Midwives in Brussels felt the most autonomous, while midwives in Wallonia felt the least autonomous, and primary care midwives felt more autonomous than hospital midwives. Recognition and respect from society and other professionals were considered facilitating factors for professional autonomy, and the majority believed that midwives should have more autonomy

in the future. The fourth study examined the views of maternity care stakeholders regarding the professional autonomy of Belgian midwives. Conditions that must be met for professional autonomy of midwives include education, continuous professional development, competence, experience, and collaboration. An integral maternity collaborative framework was recommended, along with advocating for more regulation of the midwifery profession to ensure quality care and promote the autonomy and professionalisation of midwives. In a final study, we investigated the experiences and understanding of autonomy in midwifery among final-year midwifery students. They emphasized that making professional decisions, independent practice, a safe learning environment, collaborative relationships, and increased societal awareness would benefit the professional autonomy of (student)midwives.

Furthermore, we identified challenges that hinder the professional autonomy of midwives in Belgium. These barriers were categorised and assessed against Greenwood's criteria of professionalism. To promote the professionalisation of midwifery, it is important to focus on the criterion of 'recognised authority' to prevent the undervaluation, underutilization, and underpayment of midwives. Additionally, we made recommendations to promote the recognition and professional autonomy of midwives, including prioritizing midwifery-led continuity of care models, promoting collaboration and continuous professional development, increasing public awareness, and advocating for policy changes.

This doctoral research has the potential to initiate a societal and interprofessional dialogue and strengthen the recognition and autonomy of midwives in Belgium and beyond.

## Samenvatting

Naast het belang van professionele autonomie voor de professionalisering van gezondheidsberoepen, heeft autonomie ook positieve effecten op job-tevredenheid, 'sense of belonging' en het subjectieve welzijn van professionals, ook op die van vroedvrouwen. Desalniettemin staat de autonomie van vroedvrouwen soms onder druk en wordt deze beïnvloed door contextuele, maatschappelijke en politieke factoren. Bovendien is de literatuur niet eenduidig of vroedvrouwen meer autonomie wensen, de angst voor aansprakelijkheid is een mogelijke hindernis. Terwijl de huidige staat van professionele autonomie onder Belgische vroedvrouwen niet gekend is en er kennishiaten zijn, onderstreept dit onderzoek het belang van het bestuderen van de autonomie van Belgische vroedvrouwen. Een dergelijke studie is essentieel voor het versterken van het beroep van vroedvrouw en het bevorderen van hun erkenning en professionele autonomie zowel in België en daarbuiten.

Het doel van dit doctoraatsonderzoek was het onderzoeken van de professionele autonomie van Belgische vroedvrouwen. Ons werk identificeerde uitdagingen, definieerde 'autonomie in de vroedkunde', onderzocht percepties van vroedvrouwen, stakeholders en studenten en formuleerde aanbevelingen om de erkenning en professionele autonomie van vroedvrouwen in België te versterken.

In een eerste studie hebben we de staat van professionalisering van de vroedkunde in België geanalyseerd aan de hand van Greenwood's criteria van professionaliteit. We hebben vastgesteld dat er verschillende uitdagingen zijn, waaronder de beperkte maatschappelijke erkenning van vroedvrouwen, beperkte ontwikkeling van advanced rollen, beperkte midwifery-led continuity of care modellen en beperkte professionele autonomie. Daarna hebben we via een Delphi-studie een consensusdefinitie van 'autonomie in de vroedkunde in België' ontwikkeld. Deze definitie omvat 15 componenten met betrekking tot werkinhoud, professionaliteit en relaties met anderen. Vervolgens hebben we de ervaringen en opvattingen van Belgische vroedvrouwen over hun eigen professionele autonomie onderzocht. We maakten gebruik van een zelf geconstrueerde en gevalideerde vragenlijst, gebaseerd op deze consensusdefinitie. De meerderheid van de vroedvrouwen vond dat ze meestal of volledig autonoom zijn, toch zijn er variaties in hun professionele autonomie.

Vroedvrouwen in Brussel voelden zich het meest autonoom en vroedvrouwen in Wallonië het minst, terwijl eerstelijnsvroedvrouwen zich meer autonoom voelden dan ziekenhuisvroedvrouwen. Erkenning en respect van de samenleving en andere professionals werden als faciliterend beschouwd voor professionele autonomie. De meerderheid vond dat vroedvrouwen in de toekomst meer autonomie zouden moeten hebben. De vierde studie onderzocht de opvattingen van stakeholders in de verloskunde over de professionele autonomie van Belgische vroedvrouwen. Voorwaarden waaraan voldaan moet worden voor professionele autonomie van vroedvrouwen omvatten opleiding, permanente professionele ontwikkeling, competentie, ervaring en samenwerking. Er werd een integraal samenwerkingskader voor verloskunde aanbevolen en geadviseerd om het beroep van vroedvrouw meer te reguleren om kwaliteitsvolle zorg te waarborgen en de autonomie en professionalisering van vroedvrouwen te bevorderen. In een laatste onderzoek hebben we de ervaringen en het begrip van de autonomie in de vroedkunde onderzocht bij laatstejaars studenten vroedkunde. Zij benadrukten dat het nemen van professionele beslissingen, onafhankelijke praktijkvoering, een veilige leeromgeving, samenwerkingsrelaties en verhoogd maatschappelijk bewustzijn de professionele autonomie van (student)vroedvrouwen ten goede zou komen.

Vervolgens hebben we uitdagingen geïdentificeerd die de professionele autonomie van vroedvrouwen in België belemmeren. Deze werden gecategoriseerd en getoetst aan de professionaliteitscriteria van Greenwood. Om de professionalisering van de vroedkunde te bevorderen, is het belangrijk om te focussen op het criterium ‘erkende autoriteit’ om onderwaardering, onderbenutting en onderbetaling van vroedvrouwen te voorkomen. Bijkomend deden we aanbevelingen om de erkenning en professionele autonomie van vroedvrouwen te bevorderen, deze omvatten het prioriteren van midwifery-led continuity of care modellen, het bevorderen van samenwerking en permanente professionele ontwikkeling, het vergroten van het maatschappelijke bewustzijn en het pleiten voor beleidswijzigingen.

Dit doctoraatsonderzoek heeft het potentieel om een maatschappelijke en interprofessionele dialoog op gang te brengen en de erkenning en autonomie van vroedvrouwen in België en daarbuiten te versterken.

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Brussels, November 2023

Joeri Vermeulen

## About the author

Joeri Vermeulen, born December 8th 1967 in Herk-de-Stad, Belgium. Graduated from the HRIPB Brussels in 1989 with a Midwifery degree and from Ghent University in 2001 with a Master in the Medical-Social Sciences. Additionally he obtained the Health Care Management degree from the Training Centre for Nurses and Midwives in Brussels.

He acquired clinical midwifery experience at the labour ward of the University Hospital Brussels and is since 2005 the head of the midwifery department at Erasmus Brussels University of Applied Sciences and Arts. Besides, he is a guest lecturer in the Master programme Research in Female Reproduction at the National and Kapodistrian University of Athens, Greece. He is the Associate Editor of the European Journal of Midwifery since 2019. Next to his academic work, he is a Board Member of the Belgian Midwives Association and the Flemish Professional Organisation of Midwives and a delegate for Belgium in the European Midwives Association.

In February 2020 he started his PhD trajectory within the Department of Public Health of the Vrije Universiteit Brussel (VUB). He completed the Doctoral Programme of Social Health Sciences at the Doctoral School of Life Sciences and Medicine, VUB in December 2021. The results obtained during his PhD trajectory were presented at several national and international scientific conferences. He (co-)authored 30 international peer-reviewed articles (including 14 in Q1 ranked journals), 4 book chapters and 15 international and national non–peer reviewed articles. His work has garnered substantial scholarly attention, with a total of 521 citations and a Hirsch-index of 8 (Scopus, November 2023).

# Publications of the author

**Publications related to this thesis**

- Vermeulen J, Luyben A, Buyl R, Debonnet S, Castiaux G, Niset A, Muyldermans J, Fleming V, Fobelets M, The state of professionalisation of midwifery in Belgium: A discussion paper, Women and Birth, 2021, doi: 10.1016/j.wombi.2020.09.012. $IF_{2021}$: 3.349, Q1 category 'Nursing'
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- Vermeulen J, Fobelets M, Midwifery in Belgium, Accepted as a chapter in Medical professions in international perspective: Midwife, Wydawnictwo Uniwersytetu Rzeszowskiego [Publishing House of the University of Rzeszów], Rzeszów, Poland, 2022
- Vermeulen J, Buyl R, Luyben A, Fleming V, Fobelets M, Key maternity care stakeholders' views on midwives' professional autonomy. Healthcare, 2023, doi: 10.3390/healthcare11091231 $IF_{2022}$: 2.8, Q2 category 'Health Policy & Services'
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- Vermeulen J, Buyl R, Fobelets M, Exploring and enhancing midwives' professional autonomy: Embarking on a journey of empowerment for midwives globally (Editorial), European Journal of Midwifery, 2023, doi: 10.18332/ejm/172426XXX. $IF_{2022}$: 1.9, Q3 category 'Obstetrics & Gynecology'
- Vermeulen J, Buyl R, Luyben A, Fleming V, Fobelets M, The views of maternity care stakeholders on midwives' autonomy and its potential impact for midwifery education (Conference proceeding), European Journal of Midwifery, 2023, doi: 10.18332/ejm/171926. $IF_{2022}$: 1.9, Q3 category 'Obstetrics & Gynecology'

**Submissions related to this thesis**

- Vermeulen J, Buyl R, Fleming V, Luyben A, Tency I., Fobelets M, The exploration of professional midwifery autonomy: understanding and experiences of final-year

midwifery students, Revised and resubmitted at Nurse Education Today, November 2023, $IF_{2022}$: 3.9, Q1 category 'Nursing'

- Vermeulen J, Buyl R, Luyben A, Fleming V, Tency I., Fobelets M, How to promote midwives' recognition and professional autonomy? A document analysis study, In review at Midwifery, November 2023, $IF_{2022}$: 2.7, Q1 category 'Nursing'

**First author publications in international peer-reviewed journals**

- Vermeulen J, Beeckman K, De Clercq G, Vandelannoote I, Gucciardo L, Laubach M, Swinnen E, Inter-professional Perinatal Simulation training: A valuable educational model to improve competencies amongst student midwives in Brussels, Belgium, Midwifery, 2016, 33: 49–51, doi:10.1016/j.midw.2015.11.020. $IF_{2016}$: 1.948, Q1 category 'Nursing'

- Vermeulen J, Swinnen E, D'haenens F, Buyl R, Beeckman K, Women's preferences and knowledge about the legal competences of midwives in Brussels, Belgium. A descriptive observational study, Midwifery, 2016, 40: 177-186, doi:10.1016/j.midw.2016.07.002. $IF_{2016}$: 1.948, Q1 category 'Nursing'

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# Annexes

## Annex 1: Autonomy questionnaire: midwives' views

| **Autonomy questionnaire: midwives' views** | | | | |
|---|---|---|---|---|
| **Questionnaire** | **Strongly disagree** | **Disagree** | **Agree** | **Strongly agree** |
| **Dimension: Work content** | | | | |
| I can independently take decisions | | | | |
| I can act independently | | | | |
| I have control over my own work | | | | |
| I get responsibility in the course of my duties | | | | |
| I can do my work according to the professional profile and the relevant legislation | | | | |
| **Dimension: Professionalism of the midwife** | | | | |
| I can take responsibility for my own tasks and decisions | | | | |
| I am responsible and liable for my actions and decisions | | | | |
| I have expertise to act autonomously | | | | |
| I feel competent to act autonomously | | | | |
| I have authority to act autonomously | | | | |

| **Dimension: Relationship with others** | | | | |
|---|---|---|---|---|
| I am not supervised by doctors or other health professionals | | | | |
| I am recognised by society | | | | |
| I am professionally recognised | | | | |
| Other health professionals in maternity care respect the role of the midwife | | | | |
| A legitimately established professional association of midwives defines the rules governing the exercise of their profession. This in consultation with the competent authorities. | | | | |
| **Midwives' views about their autonomy and their views about their autonomy in the future.** | **Not autonomous at all** | **Not particularly autonomous** | **Mostly autonomous** | **Completely autonomous** |
| How do you generally rate your autonomy as a midwife? | | | | |
| To what extent do you think that a midwife should be able to work autonomously in Belgium? (regardless of your current work situation) | | | | |

# Annex 2: Determination of the internal consistency and construct validity of the autonomy questionnaire

Procedure

The following analyses were performed in the R programming environment. (*R Development Core Team 2004. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna*) The visual inspection of the distribution of the items demonstrated that that data were not normally distributed. Secondly, a reliability analysis on each scale's dimension, namely 'work content', 'professionalism of the midwife' and 'relationship with others' was performed using the psych package in R. (Revelle, 2017) Cronbach's alpha was used as a measure of internal consistency, as a measure for the reliability of each scale. (Polit & Beck, 2009) To consider scale or its dimensions appropriateness, the alpha needed to reach minimal .70, However, .80 is mostly being considered as a good internal consistency rate. The internal consistencies of both 'work content' and 'professionalism of the midwife' were considered good ($\alpha_{workcontent} = 0.80, \alpha_{professionalism} = 0.81$), while the dimension 'relationship to others' reached no acceptable internal consistency rate ($\alpha_{relation\ to\ others} = 0.50$). Dropping an item did not yielded any noteworthy improvement in the alpha coefficient. An item inspection revealed that the items of this subscale are too heterogeneous because of which the scale is not internally consistent.

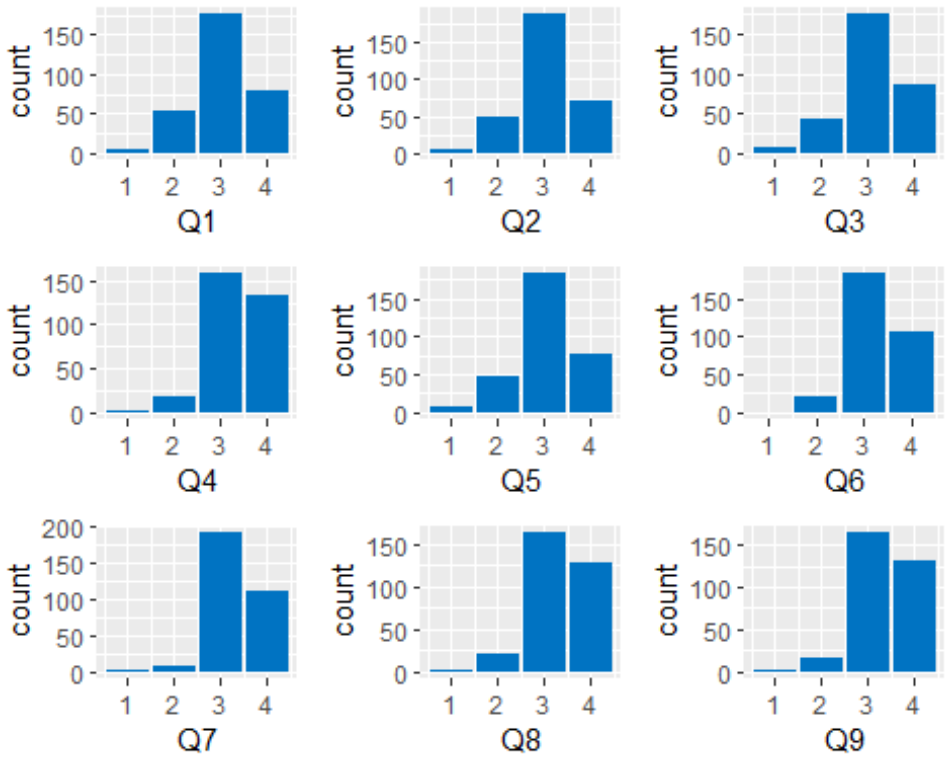
Next, construct validity of the scale was assessed. Different Confirmatory Factor Analyses (CFA) models were drafted to determine which model fits best the data. (*R Development Core Team 2004. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna*) As the analyses require structural equation modelling, data were analysed with the R-package lavaan. (Rosseel, 2012) The lavaan output contains different fit indices, which allow to evaluate how well the model fits the data. Stated differently, is the model adequate to explain the data? First, if the chi-square test is non-significant, the model fit is considered acceptable since the observed covariance matrix is considered similar to the model-implied covariance matrix. The Comparative Fit Index (CFI) is suitable for small (n < 100) sample sizes (Bentler, 1989). It is advised that the CFI exceeds .90 or, ideally, .95. Next, a value of the Tucker Lewis Index (TLI) between .90 and .95 is considered as a marginal fit, values exceeding .95 represent a good fit (Kenny, 2014). Concerning the Root

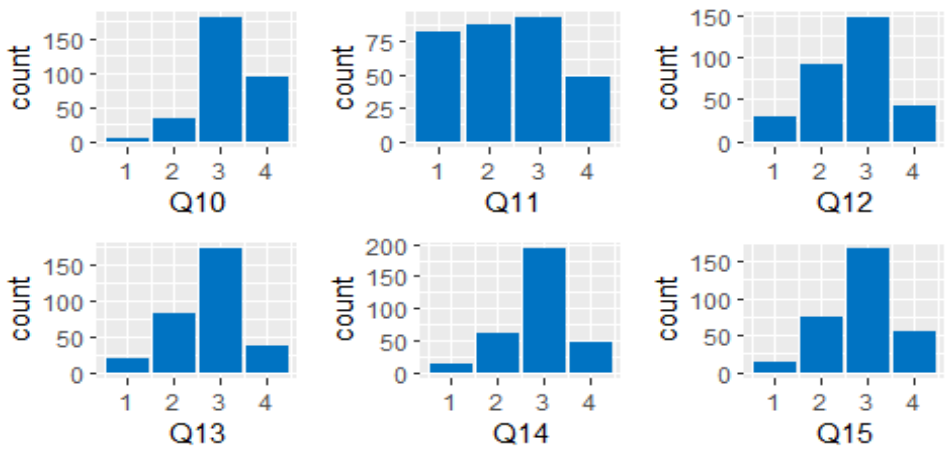
Mean-Square Error of Approximation (RMSEA) a value below 0.04 describes a good fit and below 0.08 a moderate fit (Kline, 2010).

Next, it was verified per construct if the standardised factor loadings exceed .50. A Maximum Likelihood (ML) estimator resulted in a suboptimal model fit, which is due to the fact that continuous normally distributed data are needed. However, because a 4-point Likert scale was used and as data were skewed, we opted to use the Diagonally Weighted Least Squares (DWLS) estimator, which resulted in good model fits. The detailed results of these CFA models is included in Appendix 1. In sum, the CFA's including three dimensions consistently revealed too low standardised factor loadings for the relationship with others-dimension, indicating that these items cannot be considered good indicators of this latent scale. When excluding this scale from the model, good model fits and standardised factor loadings were consistently obtained.

Visual inspection

The distribution of the variables is looked at.






The graphs above show that the data was measured on a 4-point scale and that data are not normally distributed. This is not ideal, this needs to be taken into account.

Reliability

The reliability is then checked on a scale-by-scale basis. Cronbach's alpha is used as a measure for internal consistency. The alpha is ideally above .70 to consider the scale as acceptable. From .80 the internal consistency is considered good.

Work content

##

## Reliability analysis

## Call: alpha(x = cbind(rb[, 5], rb[, 6], rb[, 7], rb[, 8], rb[, 9]))

##

## raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r

# 0.8 0.8 0.78 0.45 4 0.018 3.1 0.5 0.44

##

## lower alpha upper 95% confidence boundaries

## 0.76 0.8 0.83

##

## Reliability if an item is dropped:

```
## raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r

## V1   0.73 0.73 0.68 0.41 2.7          0.025 0.0049 0.43
## V2   0.75 0.75 0.70 0.43 3.0          0.023 0.0060 0.45
## V3   0.78 0.78 0.75 0.47 3.6          0.020 0.0107 0.47
## V4   0.75 0.75 0.71 0.43 3.0          0.023 0.0144 0.41
## V5    0.790.79 0.75 0.49 3.80.019 0.0067 0.46

##

## Item statistics

## n raw.r std.r r.cor r.drop mean sd

## V1 312 0.81 0.81 0.76 0.67 3.1 0.69

## V2 312 0.77 0.77 0.70 0.62 3.0 0.67

## V3 312 0.71 0.70 0.58 0.52 3.1 0.71

## V4 312 0.76 0.77 0.69 0.62 3.4 0.62

## V5 312 0.68 0.68 0.55 0.48 3.1 0.68

##

## Non missing response frequency for each item

##        1         2         3         4
miss  ##  [1,]  0.02  0.17  0.56  0.25
0

## [2,] 0.02 0.15 0.61 0.22     0

## [3,] 0.03 0.13 0.56 0.28     0

 ## [4,] 0.01 0.06 0.51 0.43     0

## [5,] 0.02 0.15 0.59 0.25     0
```

A Cronbach's alpha of .80 is observed. This is acceptable, the scale is internally consistent.

Professionalism of the midwife

```
##

## Reliability analysis

## Call: alpha(x = cbind(rb[, 10], rb[, 11], rb[, 12], rb[, 13], rb[,

##         14]))

##
```

```
##     raw_alpha std.alpha G6(smc) average_r S/N     ase mean    sd median_r
##          0.81      0.81      0.8      0.45 4.1 0.018 3.3 0.45       0.42
##
## lower alpha upper          95% confidence boundaries
## 0.77 0.81 0.84
## Reliability if an item is dropped:
##        raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## V1   0.78     0.78     0.75     0.47 3.5          0.020 0.021 0.48
## V2   0.79     0.79     0.76     0.49 3.8          0.019 0.015 0.49
## V3   0.77     0.77     0.74     0.45 3.3          0.022 0.011 0.42
## V4   0.74     0.74     0.71     0.41 2.8          0.025 0.016 0.36
## V5    0.76      0.76      0.75      0.45 3.2           0.022 0.020 0.42
##
## Item statistics
## n raw.r std.r r.cor r.drop mean sd
## V1 312 0.72 0.73 0.64 0.55 3.3 0.58
## V2 312 0.68 0.70 0.59 0.51 3.3 0.55
## V3 312 0.76 0.75 0.68 0.60 3.3 0.61
## V4 312 0.82 0.81 0.77 0.69 3.4 0.59
## V5 312 0.78 0.76 0.68 0.61 3.2 0.66
##
## Non missing response frequency for each item
##        1         2         3         4
miss  ##  [1,]  0.00  0.06  0.59  0.35
0

## [2,] 0.01 0.03 0.61 0.36     0

## [3,] 0.00 0.07 0.52 0.41     0

## [4,] 0.00 0.05 0.53 0.42     0

## [5,] 0.01 0.11 0.58 0.30     0
```

A Cronbach's alpha of .80 is observed. This is acceptable, the scale is internally consistent.

Relationship with others

```
##
## Reliability analysis
## Call: alpha(x = cbind(rb[, 15], rb[, 16], rb[, 17], rb[, 18], rb[,
##         19]))
##
##     raw_alpha std.alpha G6(smc) average_r S/N     ase mean    sd median_r
##             0.5          0.53       0.53             0.18 1.1 0.046 2.7 0.47           0.09
##
## lower alpha upper          95% confidence boundaries
## 0.41 0.5 0.58
##
## Reliability if an item is dropped:
##         raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## V1   0.59     0.59     0.57     0.27 1.45         0.037 0.043 0.239
## V2   0.33     0.36     0.33     0.12 0.56         0.062 0.018 0.083
## V3   0.32     0.35     0.32     0.12 0.54         0.063 0.014 0.090
## V4   0.41     0.43     0.45     0.16 0.77         0.056 0.043 0.086
## V5   0.51       0.56      0.55 0.24  1.28          0.047 0.053 0.213
##
## Item statistics
## n raw.r std.r r.cor r.drop mean sd
## V1 312 0.51 0.42 0.11 0.084 2.3 1.03
## V2 312 0.69 0.71 0.67 0.425 2.7 0.84
## V3 312 0.69 0.72 0.69 0.459 2.7 0.75
## V4 312 0.58 0.63 0.48 0.333 2.9 0.69
## V5 312 0.45 0.47 0.19 0.146 2.9 0.75
##
## Non missing response frequency for each item
##        1         2         3         4
miss ##  [1,]  0.27  0.28  0.30  0.15
0

## [2,] 0.10 0.29 0.47 0.14     0

## [3,] 0.06 0.27 0.55 0.12     0
```

## [4,] 0.04 0.20 0.62 0.15 0

## [5,] 0.04 0.24 0.54 0.18 0

A Cronbach's alpha of .50 is observed. This is problematic, this scale is not internally consistent. The removal of an item does not lead to a notable increase in the Cronbach's alpha (see reliability if an item is removed).

Overarching scale

Next, it is determined whether the aggregation of all items leads to an overarching reliable scale.

```
##
## Reliability analysis
## Call: alpha(x = cbind(rb[, 5], rb[, 6], rb[, 7], rb[, 8], rb[, 9],
##                 rb[, 10], rb[, 11], rb[, 12], rb[, 13], rb[, 14], rb[, 15],
##                  rb[, 16], rb[, 17], rb[, 18], rb[, 19]))
##
##     raw_alpha std.alpha G6(smc) average_r S/N     ase mean    sd median_r
##          0.83      0.85      0.88      0.27 5.6 0.014       3 0.39      0.26
##
## lower alpha upper          95% confidence boundaries
## 0.81 0.83 0.86
##
## Reliability if an item is dropped:
##          raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r
## V1   0.81      0.83      0.86      0.26 4.9          0.015 0.024 0.23
## V2   0.82      0.84      0.86      0.27 5.1          0.015 0.025 0.23
## V3   0.82      0.84      0.87      0.27 5.1          0.015 0.025 0.24
## V4   0.81      0.83      0.86      0.26 4.8          0.015 0.024 0.22
## V5   0.82      0.84      0.87      0.27 5.1          0.015 0.027 0.23
## V6   0.82      0.83      0.86      0.26 4.8          0.015 0.024 0.23
## V7   0.82      0.83      0.86      0.26 5.0          0.015 0.026 0.22
## V8   0.83      0.84      0.87      0.27 5.2          0.015 0.025 0.26
## V9   0.82      0.83      0.86      0.26 5.0          0.015 0.024 0.23
## V10 0.82      0.83      0.86      0.26 4.9          0.015 0.026 0.22
## V11 0.83      0.84      0.87      0.27 5.3          0.014 0.025 0.26
## V12 0.83      0.85      0.87      0.28 5.5          0.014 0.025 0.30
```

```
## V13 0.83     0.84     0.87     0.28 5.4          0.014 0.026 0.30
## V14 0.83     0.85     0.88     0.29 5.6          0.014 0.026 0.30
## V15  0.85     0.86      0.88          0.30 6.0             0.013 0.021 0.31

##

## Item statistics

## n raw.r std.r r.cor r.drop mean sd

## V1 312 0.68 0.68 0.67 0.61 3.1 0.69

## V2 312 0.61 0.61 0.59 0.53 3.0 0.67

## V3 312 0.60 0.59 0.56 0.51 3.1 0.71

## V4 312 0.69 0.71 0.70 0.63 3.4 0.62

## V5 312 0.60 0.60 0.56 0.52 3.1 0.68

## V6 312 0.69 0.71 0.70 0.63 3.3 0.58

## V7 312 0.62 0.64 0.61 0.56 3.3 0.55

## V8 312 0.52 0.55 0.52 0.44 3.3 0.61

## V9 312 0.61 0.64 0.62 0.54 3.4 0.59

## V10 312 0.65 0.67 0.64 0.58 3.2 0.66

## V11 312 0.56 0.52 0.47 0.42 2.3 1.03

## V12 312 0.45 0.43 0.38 0.32 2.7 0.84

## V13 312 0.51 0.50 0.46 0.40 2.7 0.75

## V14 312 0.40 0.40 0.33 0.30 2.9 0.69

## V15 312 0.25 0.23 0.13 0.12 2.9 0.75

##

## Non missing response frequency for each item

##        1         2         3         4
miss ## [1,]     0.02  0.17  0.56  0.25
0

## [2,]  0.02 0.15 0.61 0.22     0

## [3,]  0.03 0.13 0.56 0.28     0

## [4,] 0.01 0.06 0.51 0.43     0

## [5,] 0.02 0.15 0.59 0.25     0
```

## [6,] 0.00 0.06 0.59 0.35 0

## [7,] 0.01 0.03 0.61 0.36 0

## [8,] 0.00 0.07 0.52 0.41 0

## [9,] 0.00 0.05 0.53 0.42 0

## [10,] 0.01 0.11 0.58 0.30 0

## [11,] 0.27 0.28 0.30 0.15 0

## [12,] 0.10 0.29 0.47 0.14 0

## [13,] 0.06 0.27 0.55 0.12 0

## [14,] 0.04 0.20 0.62 0.15 0

## [15,] 0.04 0.24 0.54 0.18 0

A Cronbach's alpha of .83 is observed. This is acceptable, this scale is internally consistent.

What about an overarching scale based on only professionalism and work content (i.e. without relationship with others)?

##

## Reliability analysis

## Call: alpha(x = cbind(rb[, 5], rb[, 6], rb[, 7], rb[, 8], rb[, 9],

## rb[, 10], rb[, 11], rb[, 12], rb[, 13], rb[, 14]))

##

## raw_alpha std.alpha G6(smc) average_r S/N ase mean sd median_r

## 0.86 0.87 0.88 0.39 6.4 0.012 3.2 0.43 0.38

##

## lower alpha upper 95% confidence boundaries

## 0.84 0.86 0.89

##

## Reliability if an item is dropped:

## raw_alpha std.alpha G6(smc) average_r S/N alpha se var.r med.r

```
## V1  0.85  0.85  0.86  0.38 5.6  0.013 0.0136 0.36
## V2  0.85  0.86  0.86  0.40 5.9  0.013 0.0129 0.39
## V3  0.86  0.86  0.87  0.40 6.0  0.012 0.0130 0.38
## V4  0.84  0.85  0.86  0.38 5.5  0.013 0.0137 0.35
## V5  0.86  0.86  0.87  0.40 6.1  0.012 0.0141 0.39
## V6  0.84  0.85  0.86  0.38 5.5  0.013 0.0134 0.36
## V7  0.85  0.85  0.87  0.39 5.8  0.013 0.0142 0.39
## V8  0.86  0.86  0.87  0.41 6.2  0.012 0.0093 0.39
## V9  0.85  0.85  0.86  0.39 5.8  0.013 0.0121 0.38
## V10 0.85  0.85  0.87  0.39 5.8  0.013 0.0141 0.37
##

## Item statistics

## n raw.r std.r r.cor r.drop mean sd

## V1 312 0.73 0.72 0.69 0.64 3.1 0.69

## V2 312 0.66 0.65 0.61 0.56 3.0 0.67

## V3 312 0.64 0.62 0.56 0.52 3.1 0.71

## V4 312 0.75 0.75 0.72 0.67 3.4 0.62

## V5 312 0.62 0.61 0.54 0.50 3.1 0.68

## V6 312 0.74 0.75 0.73  0.67 3.3 0.58
## V7 312 0.65 0.67 0.62  0.57 3.3 0.55
## V8 312 0.58 0.59 0.55  0.48 3.3 0.61
## V9 312 0.67 0.68 0.65  0.58 3.4 0.59
## V10 312 0.68 0.68 0.64  0.59 3.2 0.66
##

## Non missing response frequency for each item

##       1    2    3    4
miss
## [1,] 0.02 0.17 0.56 0.25    0
## [2,] 0.02 0.15 0.61 0.22    0
## [3,] 0.03 0.13 0.56 0.28    0
## [4,] 0.01 0.06 0.51 0.43    0
## [5,] 0.02 0.15 0.59 0.25    0
## [6,] 0.00 0.06 0.59 0.35    0
## [7,] 0.01 0.03 0.61 0.36    0
## [8,] 0.00 0.07 0.52 0.41    0
## [9,] 0.00 0.05 0.53 0.42    0
## [10,] 0.01 0.11 0.58 0.30      0
```

A slightly increased Cronbach's alpha is observed. This scale is likewise internally consistent.

Construct validity

Then is checked whether there is evidence of the construct validity of the proposed scales. For this purpose, different CFA models are developed to determine which model best fits the data.

Model 1:

- The indicators for the latent variable work content are: Q1, Q2, Q3, Q4 and Q5
- The indicators for the latent variable professionalism are: Q6, Q7,Q8, Q9 and Q10
- The indicators for the latent variable relationship with others are: Q11, Q12,Q13, Q14 and Q15

Model 2 is similar to model 1 but is also a hierarchical structure where work content, professionalism and relationship with others are referred to as indicators of an overarching construct 'autonomy'.

Model 3 is a single factor CFA (i.e., 1 underlying construct is modelled) where all items serve as indicators for the latent construct autonomy (cfr. overarching construct).

```
library(lavaan)
  # Model 1: model with 3 dimensions
  aut <- '
    wc =~ Q1 + Q2 + Q3 + Q4 + Q5
    prof =~ Q6 + Q7 +Q8 + Q9 + Q10
    relationship to others =~ Q11 + Q12 + Q13 + Q14 + Q15
   '

# Model 2: hierarchic model
hier <- '
 wc =~ Q1 + Q2 + Q3 + Q4 + Q5 prof =~
 Q6 + Q7 +Q8 + Q9 + Q10 relationship
 with others =~ Q11 + Q12 + Q13 + Q14
 + Q15 aut =~ wc + prof + relationship
 with others
'


# Model 3: single dimension
one <- '
 aut =~ Q1 + Q2 + Q3 + Q4 + Q5 + Q6 + Q7 +Q8 + Q9 + Q10 + Q11 + Q12 +
          Q13 + Q14 + Q15
'
```

We note that using a Maximum Likelihood (ML) estimator yielded suboptimal results in terms of model fit, this is due to the fact that when using this estimator, continuous normally distributed data are required. However, because only a 4-point Likert scale was used and data were skewed, we opted to use the Diagonally Weighted Least Squares (DWLS) estimator, which resulted in good model fits. The detailed results of these CFA models are included in the additional appendix.

In sum, the CFA's including three dimensions consistently revealed too low standardised factor loadings for the relationship with others-dimension, indicating that these items cannot be considered good indicators of this latent scale. When excluding this scale from the model, good model fits and standardised factor loadings were consistently obtained.

Each of these models is now being evaluated for the model fit. The following conventional rules are used in the evaluation of the model fit. A good model fit meets the following criteria:

- p-value van de chi-square <.05
- CFI > .95
- TLI > .95
- RMSEA < .05
- SRMR < .05

For an acceptable fit, the following criteria apply:

- .90 > CFI > .95
- .90 > TLI > .95
- .05 < RMSEA < .10
- .05 < SRMR < .08

In addition, the standardised factor loads (see below in output the Std.all-column in the Latent Variables section) were also examined if they were more than .50.

Data were analysed using R. (*R Development Core Team 2004. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna*) As the analyses require structural equation modelling, data were analysed with the R-package lavaan. (Rosseel, 2012) The lavaan output contains different fit indices, which allow to evaluate how well the proposed model fits the data. First, if the chi-square is not significant, the model fit is considered acceptable since the observed covariance matrix is considered similar to the model-implied covariance matrix. However, this test only seems appropriate for small samples as it will falsely result in a significant result with larger samples. The Comparative Fit Index (CFI) is suitable for small (n < 100) sample sizes. (Bentler, 1989) It is advised that the CFI exceeds .90 or, ideally, .95. (Cook, 1994) Next, a value of the Tucker Lewis Index (TLI) between .90 and .95 is considered as a marginal fit, values exceeding .95 represent a good fit. (Kenny, 2015) Concerning the Root Mean-Square Error of Approximation (RMSEA) a value below 0.04 describes a good fit and below 0.08 a moderate fit. (Kline, 2011) Next, it is inspected per construct if the standardised factor loadings exceed .60.

Model 1: Model with 3 dimensions

```
# Model 1: model met 3 dimensies
```

```
fit_3dimo <- cfa(aut, data = rb, estimator = "DWLS")
        summary(fit_3dimo, fit.measures = T, standardised = T)
```

```
## lavaan 0.6-11 ended normally after 58 iterations ##

##    Estimator                                      DWLS
##   Optimization method                              NLMINB
##   Number of model parameters                     33
##
##       Number                of                   312
observations ##
## Model Test User Model:
##
##      Test statistic                                216.827
##    Degrees of freedom                             87
##       P-value          (Chi-                      0.000
square) ##
## Model Test Baseline Model:
##
##      Test statistic                                2697.688
##    Degrees of freedom                             105


       P-value                                              0.000

## User Model versus Baseline Model:

##

##       Comparative Fit Index (CFI)    0.950 ##        Tucker-
Lewis Index (TLI)        0.940

##

## Root Mean Square Error of Approximation:

##

##       RMSEA0.069
##       90 Percent confidence interval - lower         0.058
##       90 Percent confidence interval - upper         0.081
##      P-value RMSEA <= 0.05                                0.004

##

## Standardised Root Mean Square Residual:

##

##    SRMR                                                 0.086

##
```

## Parameter Estimates:

##

## Standard errors Standard
## Information Expected
## Information saturated (h1) model Unstructured
##

## Latent Variables:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## wc =~

## Q11.000 0.500 0.720

## Q2 0.840 0.061 13.675 0.000 0.420 0.631

## Q3 0.865 0.062 13.926 0.000 0.432 0.606

## Q4 0.948 0.064 14.798 0.000 0.474 0.764

## Q50.831 0.060 13.741 0.000 0.416 0.607

## prof =~

## Q61.000 0.446 0.775

## Q7 0.822 0.056 14.761 0.000 0.367 0.662

## Q8 0.723 0.055 13.161 0.000 0.323 0.525

## Q9 0.857 0.060 14.197 0.000 0.382 0.643

## Q10 0.965 0.068 14.302 0.000 0.431 0.656

##relationship to others =~

## Q11 1.000 0.603 0.584

## Q12 0.485 0.057 8.583 0.000 0.293 0.350

## Q13 0.558 0.058 9.684 0.000 0.337 0.447

## Q14 0.384 0.048 7.989 0.000 0.232 0.333

## Q150.166 0.044 3.811 0.000 0.100 0.133

##

## Covariances:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## wc ~~

## prof 0.179 0.012 15.202 0.000 0.804 0.804 ## relationship with others 0.237 0.020 11.874 0.000 0.785 0.785

```
##     prof ~~
##relationship to others     0.191       0.017     11.507       0.000       0.709       0.709
##
## Variances:
                                   Estimate Std.Err z-value P(>|z|)            Std.lv Std.all
.Q1       0.233   0.046   5.091   0.000   0.233   0.482
## .Q2 0.266   0.043   6.214   0.000   0.266   0.601
## .Q3 0.322   0.049   6.600   0.000   0.322   0.633
## .Q4 0.161   0.038   4.174   0.000   0.161   0.417
## .Q5 0.296   0.045   6.651   0.000   0.296   0.632
## .Q6 0.133   0.029   4.585   0.000   0.133   0.400
## .Q7 0.173   0.031   5.487   0.000   0.173   0.562
## .Q8 0.273   0.031   8.750   0.000   0.273   0.724
## .Q9 0.208   0.031   6.619   0.000   0.208   0.587
## .Q10          0.245   0.042   5.819   0.000   0.245   0.569
## .Q11          0.703   0.084   8.421   0.000   0.703   0.659
## .Q12          0.612   0.053   11.638 0.000   0.612   0.877
## .Q13          0.454   0.050   9.000   0.000   0.454   0.800
## .Q14          0.429   0.046   9.414   0.000   0.429   0.889
## .Q15          0.560   0.045   12.570 0.000   0.560   0.982
## wc   0.250   0.025   10.197 0.000   1.000   1.000
## prof0.199   0.018   11.040 0.000   1.000   1.000
##relationship to others     0.364       0.063       5.822       0.000       1.000       1.000
```

The model fit is on the edge. When inspecting the standardised factor loads, one see that these are far too low for the third dimension (relationship with others). This model is not usable.

Model 2: Hierarchic model

```
fit_hiero <- cfa(hier, data = rb, estimator = "DWLS") summary(fit_hiero,
          fit.measures = T, standardised = T)
```

```
## lavaan 0.6-11 ended normally after 46 iterations ##
##     Estimator                                         DWLS
##    Optimization method                                NLMINB
##   Number of model parameters                         33
##
##       Number                of                       312
observations ##
## Model Test User Model:
##
##       Test statistic                                  216.827
```

```
##    Degrees of freedom                                87
##       P-value           (Chi-                        0.000
square) ##
## Model Test Baseline Model:
##
##      Test statistic                                 2697.688
##    Degrees of freedom                               105
##     P-value                                         0.000
##
## User Model versus Baseline Model:
##
##      Comparative Fit Index (CFI)                    0.950
        Tucker-Lewis Index (TLI)                          0.940

## Root Mean Square Error of Approximation:

##

##       RMSEA0.069
##       90 Percent confidence interval - lower       0.058
##       90 Percent confidence interval - upper       0.081
##       P-value RMSEA <= 0.05                           0.004

##

## Standardised Root Mean Square Residual:

##

##   SRMR                                                0.086

##

## Parameter Estimates:

##

##       Standard errors          Standard
##       Information     Expected
##       Information saturated (h1) model     Unstructured
##

## Latent Variables:

##                                 Estimate Std.Err z-value P(>|z|)           Std.lv Std.all

##    wc =~

##       Q1                        1.000                                    0.500      0.720

## Q2 0.840 0.061 13.675 0.000 0.420 0.631

## Q3 0.865 0.062 13.926 0.000 0.432 0.606

## Q4 0.948 0.064 14.798 0.000 0.474 0.764
```

## Q50.831 0.060 13.741 0.000 0.416 0.607

## prof =~

## Q6 1.000 0.446 0.775

## Q7 0.822 0.056 14.761 0.000 0.367 0.662

## Q8 0.723 0.055 13.161 0.000 0.323 0.525

## Q9 0.857 0.060 14.197 0.000 0.382 0.643

## Q10 0.965 0.068 14.302 0.000 0.431 0.656

##relationship to others =~

## Q11 1.000 0.603 0.584

## Q12 0.485 0.057 8.583 0.000 0.293 0.350

## Q13 0.558 0.058 9.684 0.000 0.337 0.447

## Q14 0.384 0.048 7.989 0.000 0.232 0.333

## Q150.166 0.044 3.811 0.000 0.100 0.133

## aut =~

## wc 1.000 0.943 0.943

## prof 0.806 0.083 9.666 0.000 0.852 0.852

##relationship to others 1.065 0.101 10.539 0.000 0.832 0.832

##

## Variances:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## .Q1 0.233 0.046 5.091 0.000 0.233 0.482

## .Q2 0.266 0.043 6.214 0.000 0.266 0.601

## .Q3 0.322 0.049 6.600 0.000 0.322 0.633

## .Q4 0.161 0.038 4.174 0.000 0.161 0.417

## .Q5 0.296 0.045 6.651 0.000 0.296 0.632

## .Q6 0.133 0.029 4.585 0.000 0.133 0.400

## .Q7 0.173 0.031 5.487 0.000 0.173 0.562

## .Q8 0.273 0.031 8.750 0.000 0.273 0.724

##.Q90.208 0.031 6.619 0.000 0. 208 0.587

##.Q100.245 0.042 5.819 0.000 0.245 0.569

## .Q11 0.703 0.084 8.421 0.000 0.703 0.659

```
## .Q12          0.612 0.053 11.638 0.000 0.612        0.877
## .Q13          0.454 0.050 9.000 0.000 0.454 0.800
## .Q14          0.429 0.046 9.414 0.000 0.429 0.889
## .Q15          0.560   0.045   12.570 0.000   0.560   0.982
##       .wc     0.028   0.024   1.167   0.243   0.110   0.110
##       .prof   0.055   0.017   3.271   0.001   0.274   0.274
##       .relationship to others         0.112   0.057   1.965   0.049   0.307   0.307
##       aut                     0.222       0.028       7.974       0.000       1.000       1.000
```

```
# third dimension remains inappropriate
```

Also in the hierarchical model, the fit is on the edge. Nevertheless, evidence is found of an overarching autonomy construct (see standardised factor loads from autonomy). However, this third dimension results in far too low standardised factor loads. This model is not usable.

Model 3: Single dimension

```
fit_1dimo <- cfa(one, data = rb, estimator = "DWLS")
summary(fit_1dimo, fit.measures =T, standardised = T)
```

```
## lavaan 0.6-11 ended normally after 28 iterations ##

##   Estimator                                       DWLS
##   Optimization method                             NLMINB
##   Number of model parameters                      30
##
##       Number                of                    312
observations ##
## Model Test User Model:
##
##     Test statistic                                245.579
##   Degrees of freedom                              90
##       P-value           (Chi-                     0.000
square) ##
## Model Test Baseline Model:
##
##     Test statistic                                2697.688
##   Degrees of freedom                              105
##   P-value                                         0.000
##
## User Model versus Baseline Model:
##
##     Comparative Fit Index (CFI)                   0.940
##       Tucker-Lewis Index (TLI)                    0.930
##
## Root Mean Square Error of Approximation:
```

RMSEA 0.075 90 Percent confidence interval - lower
0.063 ## 90 Percent confidence interval - upper
0.086
## P-value RMSEA <= 0.05 0.000

##

## Standardised Root Mean Square Residual:

##

## SRMR 0.093

##

## Parameter Estimates:

##

## Standard errors Standard
## Information Expected
## Information saturated (h1) model Unstructured
##

## Latent Variables:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## aut =~

## Q1 1.000 0.468 0.674

## Q2 0.843 0.061 13.708 0.000 0.395 0.594

## Q3 0.872 0.062 14.033 0.000 0.408 0.572

## Q4 0.969 0.065 14.992 0.000 0.454 0.732

## Q5 0.840 0.061 13.855 0.000 0.393 0.574

## Q6 0.895 0.060 14.939 0.000 0.419 0.727

## Q7 0.740 0.052 14.208 0.000 0.346 0.625

## Q8 0.629 0.050 12.629 0.000 0.294 0.479

## Q9 0.742 0.054 13.694 0.000 0.347 0.584

## Q10 0.857 0.060 14.225 0.000 0.402 0.612

## Q11 1.095 0.084 13.038 0.000 0.513 0.496

## Q12 0.503 0.057 8.823 0.000 0.236 0.282

## Q13 0.589 0.057 10.356 0.000 0.276 0.366

## Q14 0.401 0.049 8.156 0.000 0.188 0.270

## Q15 0.176 0.047 3.713 0.000 0.082 0.109

##

## Variances:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## .Q1 0.263 0.044 6.007 0.000 0.263 0.545

## .Q2 0.286 0.042 6.870 0.000 0.286 0.648

## .Q3 0.342 0.048 7.170 0.000 0.342 0.673

## .Q4 0.179 0.037 4.808 0.000 0.179 0.465

## .Q5 0.314 0.044 7.214 0.000 0.314 0.670

## .Q6 0.156 0.027 5.741 0.000 0.156 0.471

## .Q7 0.187 0.031 6.089 0.000 0.187 0.609

## .Q8 0.291 0.030 9.546 0.000 0.291 0.770

## .Q9 0.233 0.030 7.765 0.000 0.233 0.659

## .Q10 0.270 0.041 6.579 0.000 0.270 0.626

## .Q11 0.805 0.063 12.710 0.000 0.805 0.754

## .Q12 0.642 0.050 12.765 0.000 0.642 0.920

## .Q13 0.491 0.047 10.443 0.000 0.491 0.866

## .Q14 0.448 0.044 10.071 0.000 0.448 0.927

## .Q15 0.563 0.044 12.691 0.000 0.563 0.988

## aut 0.219 0.021 10.548 0.000 1.000 1.000

Again, the model fit is on the edge. Additionally, the standardised factor loads of Q12 up to and including Q15 are far too low.

Adaptation basic models

Adaptation 1 : Removal of the third dimension

```
# model met 2 dimensies
dim2 <- '
          wc =~ Q1 + Q2 + Q3 + Q4 + Q5
          prof =~ Q6 + Q7 +Q8 + Q9 + Q10
        '
        fit_2dim <- cfa(dim2, data = rb, estimator = "DWLS")
          summary(fit_2dim, fit.measures = T, standardised = T)
```

Model 1

## lavaan 0.6-11 ended normally after 28 iterations ##

```
##   Estimator                                      DWLS
##   Optimization method                            NLMINB
##   Number of model parameters                     21
##
##   Number of observations                         312
## Model Test User Model:
##
##   Test statistic                                 80.576
##   Degrees of freedom                             34
##   P-value (Chi-square)                           0.000
## Model Test Baseline Model:
##
##   Test statistic                                 1956.314
##   Degrees of freedom                             45
##   P-value                                        0.000
##
## User Model versus Baseline Model:
##
##   Comparative Fit Index (CFI)                    0.976
##   Tucker-Lewis Index (TLI)                       0.968
##
## Root Mean Square Error of Approximation:
##
##   RMSEA                                          0.066
##   90 Percent confidence interval - lower         0.048
##   90 Percent confidence interval - upper         0.085
    P-value RMSEA <= 0.05                          0.072
```

```
## Standardised Root Mean Square Residual:

##

##    SRMR                                                0.077

##

## Parameter Estimates:

##

##        Standard errors         Standard
##        Information     Expected
##        Information saturated (h1) model     Unstructured
##

## Latent Variables:

##                                   Estimate Std.Err z-value P(>|z|)           Std.lv Std.all

##     wc =~

##  Q11.000                    0.501                                    0.722

## Q2  0.847   0.067   12.568 0.000   0.425   0.638
## Q3  0.851   0.067   12.778 0.000   0.427   0.598
## Q4  0.961   0.071   13.518 0.000   0.482   0.777
## Q5 0.807                   0.064      12.520     0.000       0.405       0.591

##      prof =~

## Q61.000                    0.449                                    0.779

## Q7  0.804   0.059   13.692 0.000   0.361   0.650
## Q8  0.733   0.059   12.384 0.000   0.329   0.535
## Q9  0.867   0.065   13.288 0.000   0.389   0.653
## Q100.949   0.072   13.252 0.000   0.426   0.648
##

## Covariances:

##                                   Estimate Std.Err z-value P(>|z|)           Std.lv Std.all

##     wc ~~

##        prof                    0.180       0.013     14.338       0.000       0.802       0.802

##

## Variances:

## Estimate Std.Err z-value P(>|z|) Std.lv Std.all

## .Q1 0.231 0.047 4.944 0.000 0.231 0.479

## .Q2 0.262 0.044 6.004 0.000 0.262 0.592
```

## .Q3 0.327 0.049 6.642 0.000 0.327 0.642

## .Q4 0.153 0.040 3.858 0.000 0.153 0.397

## .Q5 0.305 0.045 6.811 0.000 0.305 0.651

## .Q6 0.131 0.030 4.392 0.000 0.131 0.393

## .Q7 0.177 0.032 5.595 0.000 0.177 0.577

## .Q8 0.269 0.032 8.496 0.000 0.269 0.713

## .Q9 0.203 0.032 6.333 0.000 0.203 0.573

## .Q10 0.250 0.043 5.874 0.000 0.250 0.580

## wc 0.251 0.026 9.522 0.000 1.000 1.000

## prof 0.201 0.019 10.454 0.000 1.000 1.000

Fit ok

The removal of the third dimension (relationship with others) results in an acceptable model fit with acceptable standardised factor loads.

```
# hierarchic model
hier2 <- '
  wc =~ Q1 + Q2 + Q3 + Q4 + Q5 prof
  =~ Q6 + Q7 +Q8 + Q9 + Q10 aut =~
  wc + prof
'
fit_hier2 <- cfa(hier2, data = rb, estimator = "DWLS") summary(fit_hier2,
fit.measures = T)
```

Model 2: Hierarchic model without relationship with others

## lavaan 0.6-11 ended normally after 27 iterations

##

## Estimator DWLS
## Optimization method NLMINB
## Number of model parameters 22
##
## Number of 312
observations ##
## Model Test User Model:
##
## Test statistic 80.576
## Degrees of freedom 33
## P-value (Chi-square) 0.000
##
## Model Test Baseline Model:
##
## Test statistic 1956.314

```
##   Degrees of freedom                        45
##   P-value                                   0.000
##
## User Model versus Baseline Model:
##
##    Comparative Fit Index (CFI)              0.975
##     Tucker-Lewis  Index  (TLI)              0.966
##
## Root Mean Square Error of Approximation:
##
##  RMSEA                                      0.068
##          90 Percent confidence interval - lower0.049
##          90 Percent confidence interval - upper0.087
##   P-value RMSEA <= 0.05                     0.056
##
## Standardised Root Mean Square Residual:
##
##  SRMR                                       0.077
##
## Parameter Estimates:
##
##   Standard errors                           Standard
##   Information                               Expected
      Information saturated (h1) model         Unstructured
## Latent Variables:

##                          Estimate Std.Err z-value P(>|z|)

##   wc =~

## Q11.000

## Q2  0.847   NA
## Q3  0.851   NA
## Q4  0.961   NA
## Q50.807      NA

##   prof =~

## Q61.000

## Q7  0.804   NA
## Q8  0.733   NA
## Q9  0.867   NA
## Q100.949   NA
##   aut =~

##     wc                1.000

##     prof              0.993          NA

##
```

## Variances:

## Estimate Std.Err z-value P(>|z|)

## .Q1 0.231 NA
## .Q2 0.262 NA
## .Q3 0.327 NA
## .Q4 0.153 NA
## .Q5 0.305 NA
## .Q6 0.131 NA
## .Q7 0.177 NA
## .Q8 0.269 NA
## .Q9 0.203 NA
## .Q10 0.250 NA ## .wc
0.070 NA
## .prof 0.022 NA
## aut 0.182 NA

This model has a good fit, but comprises too few observations to calculate all the necessary parameters. Therefore, the result cannot be evaluated.

```
# single dimension
one2 <- '
          one =~ Q1 + Q2 + Q3 + Q4 + Q5 + Q6 + Q7 +Q8 + Q9 + Q10
        '
          fit_one2 <- cfa(one2, data = rb, estimator = "DWLS")
        summary(fit_one2, fit.measures = T, standardised = T)
```

Model 3: Single factor CFA without relationship with others

## lavaan 0.6-11 ended normally after 26 iterations

##

## Estimator DWLS

## Optimization method NLMINB

## Number of model parameters 20

##

## Number of observations 312

##

## Model Test User Model:

##

## Test statistic 102.536 ## Degrees of freedom
35

## P-value (Chi-square) 0.000

```
##
## Model Test Baseline Model:
##
##       Test statistic    1956.314 ##    Degrees    of    freedom
45
##     P-value                                          0.000
##
## User Model versus Baseline Model:
##
##       Comparative Fit Index (CFI)    0.965 ##         Tucker-
Lewis Index (TLI)        0.955
##
## Root Mean Square Error of Approximation:
##
##       RMSEA0.079
##       90 Percent confidence interval - lower       0.061
##       90 Percent confidence interval - upper       0.097
##    P-value RMSEA <= 0.05                             0.004
##
## Standardised Root Mean Square Residual:
##
##   SRMR                                             0.089
##
## Parameter Estimates:
##
##       Standard errors          Standard
##       Information    Expected
##       Information saturated (h1) model    Unstructured
##
## Latent Variables:
##                              Estimate Std.Err z-value P(>|z|)          Std.lv Std.all
##    one =~
## Q11.000                     0.465                                    0.669
## Q2 0.851 0.068 12.593 0.000 0.395 0.594
```

## Q3 0.860 0.067 12.875 0.000 0.400 0.560

## Q4 0.991 0.072 13.739 0.000 0.460 0.742

## Q5 0.820 0.065 12.637 0.000 0.381 0.556

## Q6 0.920 0.067 13.727 0.000 0.427 0.742

## Q7 0.743 0.057 13.056 0.000 0.345 0.622

## Q8 0.654 0.055 11.818 0.000 0.304 0.495

## Q9 0.769 0.060 12.743 0.000 0.357 0.601

## Q10 0.863 0.066 13.132 0.000 0.401 0.610

## ##
Variances:

Estimate Std.Err z-value P(>|z|) Std.lv Std.all

##.Q1 0.267 0.045 5.991 0.000 0.267 0.553
## .Q2 0.286 0.042 6.762 0.000 0.286 0.647
## .Q3 0.349 0.048 7.271 0.000 0.349 0.686
## .Q4 0.173 0.038 4.530 0.000 0.173 0.450
## .Q5 0.324 0.044 7.398 0.000 0.324 0.691
## .Q6 0.149 0.028 5.285 0.000 0.149 0.449
## .Q7 0.188 0.031 6.060 0.000 0.188 0.613
## .Q8 0.285 0.031 9.221 0.000 0.285 0.755
## .Q9 0.226 0.031 7.371 0.000 0.226 0.639
## .Q10 0.270 0.041 6.523 0.000 0.270 0.627
## one0.216 0.022 9.696 0.000 1.000 1.000

When the items of relationship with others are removed in the single factor model a good model fit is found. Also, standardised factor loads are satisfactory.

Additional analyses

Additional analyses were carried out to determine if satisfactory results could be obtained with more complicated CFA's.

For example, a two-group CFA looked at whether better results were obtained if participants were divided into groups based on language. This turned out not to be the case.

In addition, a subset of the relationship with others items was worked on, but this too did not produce any better results

Finally, a two-group CFA was used to explore whether a better result could be obtained if participants were divided into primary care midwives and midwives working in a hospital, but this neither did produce any better results

Conclusion

Based on this analysis, it can be concluded that the first and second dimensions can be used in their present form. The scales of both work content and professionalism of the midwife are internally consistent, which is a measure of scale reliability. Regarding the scale of relationship with others, we cannot confirm internal consistency. The items are too heterogeneous which makes the scale not internally consistent and therefore far too low Cronbach's alpha's were found. Conversely, an overarching construct (with all items belonging to 1 single scale namely autonomy) did provide good internal consistency.

Regarding construct validity, in the models with the three dimensions too low standardised factor loads for relationship to others are consequently observed, which means that the proposed items are not good indicators of this latent scale. Good model fits were obtained when we omit the relationship with others items from the model. Even then the standardised factor loads were always > .50.

Alternatively, autonomy can be measured by means of a single factor model (use all items as a measure for autonomy). Again, this model resulted in appropriate results when the items of relationship with others were removed.

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## Annex 3: Questionnaire definition

| **Questionnaire Definition** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Clarity** | | | | **Relevance** | | | |
| **Components** | Not clear | Some what clear | Quite clear | Very clear | Not relevant | Some what relevant | Quite relevant | Very relevant |
| For me, autonomy in midwifery means that a midwife can independently take decisions | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has control over her own work | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is given more responsibility when performing her tasks | | | | | | | | |
| For me, autonomy in midwifery means that a midwife takes responsibility for her own tasks and decisions | | | | | | | | |
| For me, autonomy in midwifery means me that a midwife can do her work according to the professional profile and relevant legislation | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is responsible and liable for her actions and decisions | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has expertise | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is competent | | | | | | | | |
| For me, autonomy in midwifery means that midwives can regulate their own profession | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is not supervised by doctors or other HPs | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| For me, autonomy in midwifery means that a midwife can act independently | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is recognised by society | | | | | | | | |
| For me, autonomy in midwifery means that a midwife is professionally recognised | | | | | | | | |
| For me, autonomy in midwifery means that the professional group of midwives has more political influence | | | | | | | | |
| For me, autonomy in midwifery means that a midwife has authority | | | | | | | | |
| For me, autonomy in midwifery means that women respect the competences of the midwife | | | | | | | | |
| Autonomy in midwifery means to me that other HPs in maternity care respect the competences of the midwife | | | | | | | | |