Midwifery Practice and Education in Antwerp: Forecasting Its Future With Scenario Planning

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abstract

Background: Midwifery across the world is facing changes and uncertainties. By recognizing plausible future options, a contemporary and strategic scope of midwifery practice and education can be established. The city of Antwerp, Belgium, was the indicative case for this study. Key drivers were identified to serve as input for scenarios. **Method:** Structuration theory and intuitive logics scenario planning methods were used to structure contextual midwifery scenarios. **Results:** Six certain and six uncertain variables were identified. A two-dimensional framework showed these factors: (a) maternity care services and organization and (b) the society of childbearing women and their families. Three scenarios described the plausible future of midwifery: (a) midwife-led care monitoring maternal health needs, (b) midwife-led holistic care, and (c) midwife/general practitioner–led integrated maternity care. **Conclusion:** All of the scenarios show the direction of change with a strategic focus, the importance of midwifery authenticity, and digital adaptability in maternity services. Also, the coronavirus disease 2019 (COVID-19) pandemic cannot be ignored in future midwifery. **[*J Contin Educ Nurs.* 2022;52(x):xx-xx.]**

Our world is constantly transforming and evolving, and new medical technological developments arise. Midwifery-specific technologies include prenatal screening and testing and controlled reproduction, involving ethical complexity (Oelhafen et al., 2017). Maternity services and the landscape of childbearing are changing rapidly as part of a complex society (Jepsen et al., 2017a, 2017b; Kingwell et al., 2017). To keep up with changes and developments, midwives are expected to quickly adapt (Carman et al., 2010; Lemieux-Charles & McGuire, 2006). Within midwifery, we recognize different paradigms embodied in the medical and biopsychosocial models, allowing us to consider technocratic, medicalized, and interventionist birth versus physiological birth, with attention to maternal emotional well-being and maternal and family life balance (Fontein-Kuipers et al., 2018a, 2018b; Kuipers et al., 2019). Medicalization and the medical hierarchy are likely to influence midwives' job conditions as technocratic and interventionist birth is recognized to affect midwives' ability to provide autonomous practice and their advocacy for physiological birth (Dixon et al., 2017; Jepsen et al., 2017b; Watkins et al., 2017; Yoshida & Sandall, 2013). Without a doubt, all of these factors have an impact on the future of the midwifery profession, the organization of midwifery care, and the education of future midwives.

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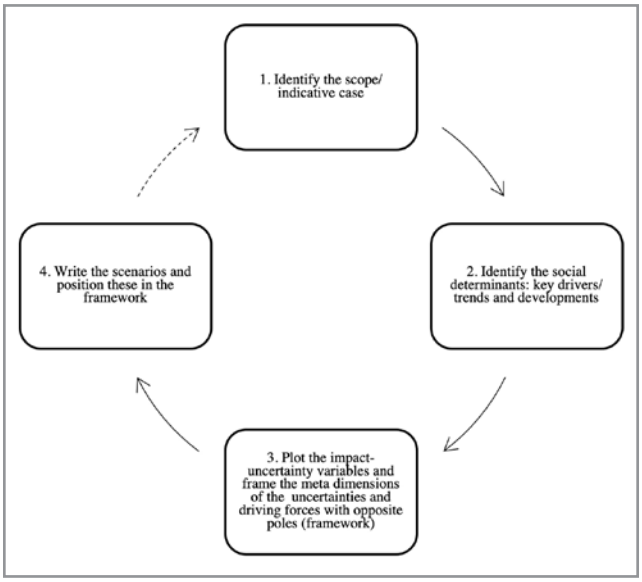

Figure 1: Intuitive logics scenario development process.

The coronavirus disease 2019 (COVID-19) pandemic, is evidence of disrupting the world, impacting on society, and affecting health care, including midwifery. Currently, our reality seems to resemble *Black Mirror,* a Netflix series in which the future of the 21st century is shown with a focus on technology, influencing human life (Brooker, 2011-2019).**[AQ2: Added per APA style. OK?]** When we discuss the future of midwifery, we ask, "What will midwifery of the future look like?" We are often unable to provide a substantive or reliable answer because no one can foresee the future. The further we want to look ahead, the more unknown variables exist. Anticipation of unknown variables in midwifery relies not only on the context of midwifery but also on societal factors.

With regard to foreseeing the future of midwifery and presenting a case for education and practice, we draw attention to proactive behavior of midwives in considering the future and the ability to act in times of change (Mestdagh, 2019). A proactive answer helps to develop a strategic plan, including concurrent behavior and actions for midwifery practice and education, allowing us to make decisions and choose a focus and direction, based on consideration of outcomes and implications. The goal of our study is to facilitate professional and institutional learning by answering the following question: What will midwifery practice and education look like in 10 years, in 2031? We have chosen this period because we are aware that trends and developments have a 2- to 10-year turnaround time (Russell Group, 2015). We chose the Flemish city of Antwerp in Belgium as our environment of study. The city of Antwerp represents a typical Western metropolitan environment, with a strong and growing knowledge-intensive sector (Stad Antwerpen, 2020) and complex social and health factors, such as migration and social and economic inequity. As in all parts of the world, Antwerp has been faced with the COVID-19 pandemic. Studying urban health generates information for action in a wider population (Collins & Hayes, 2010). This study, therefore, is internationally recognizable and is timely and relevant because every modern Western country has cities similar to Antwerp.

METHOD

We chose structuration theory and scenario planning as our approach. This approach offers a set of concepts that can be used to consistently and systematically analyze future uncertainties within midwifery practice and education. Scenario planning is often used in finance, politics, industry, and the public sector (Spaniol & Rowland, 2019), and it is sporadically applied in the field of health care, such as financial health care management and health care facilities (Krentz & Gish, 2000; Van Reedt Dortland et al., 2014), but never in midwifery.

Structuration Theory

According to the classic work of Whittington (1992), structuration theory is a framework for analyzing how social determinants and human action interact within predefined social structures, rules, and resources. In structuration theory, scenario planning has become a widely used approach for making sense of complexity and uncertainty in dynamic environments.

Scenario Planning Method

Scenario planning is a theoretically phased method of inquiry, allowing us to think ahead through a process of analyzing future events by considering different possible situations and outcomes. The scenario method is a specific thinking tool, not a planning tool, to gain insight into alternative and innovative possibilities, offering a better perspective on which future situations to avoid, facilitate, or pursue (Rowland & Spaniol, 2017; Spaniol & Rowland, 2019).

Intuitive Logics

The founders of intuitive logics consider plausible prospective futures instead of preferred probable future situations, using a sequence of steps (Bradfield et al., 2015; Postma & Liebl, 2005; Ramírez & Selin, 2014; Rowland & Spaniol, 2017) (**Figure 1**). The research team represented a thorough knowledge of midwifery practice, education, research, management, perspectives, and roles, indicating their suitability to perform this study.

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RESULTS

Key trends and developments are presented, subdivided into demographic, social, political, technological, and financial issues, including the COVID-19 pandemic. National data and scientific literature were collected between May 2020 and May 2021. The certain and uncertain variables derived from the key trends and developments led to three scenarios.

Step 1. Indicative Case: The City of Antwerp

Antwerp is an international city, currently with 530,104 inhabitants (Stad Antwerpen, 2020). Antwerp is part of Flanders, the Dutch speaking part of Belgium. The city of Antwerp pursues a social policy aiming at progression and emancipation, actively reaching out to people who are struggling to access social assistance and services, including child poverty. Diversity of the city's population is regarded as an asset and as challenging (Stad Antwerpen, 2019). More than 51% of the Antwerp population has an immigrant background, representing approximately 175 different nationalities (Stad Antwerpen, 2020). Antwerp claims to have the ambition to be the largest educational capital in Flanders. The presence of students enriches the city center with great economic, social, and cultural potential. In 2019, the city of Antwerp had 17,758 registered students (Stad Antwerpen, 2020).

Step 2. Social Variables: Key Drivers/Trends and Developments in Midwifery Care and Education

This step addresses different key trends and developments within two themes: (a) midwifery care in Antwerp and (2) midwifery education in Antwerp, both during the time of COVID-19.

Key Trends and Developments in Midwifery Care in Antwerp

Demographic. The highest Belgian fertility rate (1.7:1000 women) is found in Antwerp (Centraal Bureau voor Statistiek, 2019). The birth rate in Antwerp has increased (from 17,720 in 2001 to 20,130 in 2019), and there is an increase in the number of pregnant women at advanced age as well as an increase in the number of women with pre-existing maternal morbidity factors (e.g., obesity, diabetes) (Benhalima et al., 2019; Bogaerts et al., 2013; Devlieger et al., 2019; Euro-Peristat, 2018; Sauer, 2015). In 2018, 41% of the women who had a baby in Antwerp gave birth to their first child and 59% to a subsequent child (Kind&Gezin, 2018). The mean age of primiparous women in Flanders is 29 years (Devlieger et al., 2019). Of the current births in Flanders**[AQ3: OK?]**, 70% are spontaneous vaginal births, 20% are cesarean births, and 10% are instrumental births; in addition, 25% of all labors are induced, and 70% of all childbearing women have epidural anesthetics during labor and birth (Devlieger et al., 2019). Preliminary unpublished reports on antenatal and postpartum depressive symptoms show a rate**[AQ4: Annual rate?]** of 50% to 60% in Flanders. **[AQ5: OK?]**

Antwerp has five maternity units. Most Antwerp midwives (2,221) are employed by hospitals (85%), 6% work as independent midwives in a primary care setting, and 9% work in both settings. Of all practicing midwives, 30% are older than 50 years (Benahmed et al., 2016). In Belgium, there is no distinction between midwives and nurse midwives. There is one 3-year bachelor's education program for midwives and a combined nursing-midwifery program at the master's level. The master's degree does not lead to authority within midwifery practice (Vlhora, 2019). Between 5% and 14% of midwives show at least one sign or symptom of burnout, 13% feel emotionally exhausted, and 10% show dissatisfaction with their job as a midwife (Geuens et al., 2015). Work-related stress is predominantly related to being involved in trauma and perinatal death (Fontein-Kuipers et al., 2018a).

Social. The Antwerp childbearing population includes a large group of pregnant women who have physical or mental disorders, reduced health literacy, low income, and unhealthy lifestyles, including substance use. Most of these women reside in less affluent areas, often including women with a non-Belgium background (Kind&Gezin, 2019). Several child- and family-focused nongovernmental organization–led initiatives and projects have been launched to reach these pregnant women with educational and financial support and supply of nonfood items, such as baby gear and essentials (e.g., clothes, toys, diapers, cribs).**[AQ6: OK as edited?]**

Flemish maternity care fits the medical model of care, is hierarchically organized, and is predominantly led by obstetricians, and hospital-based midwives work under the direction of obstetricians (Christiaens et al., 2013; Goemaes et al., 2020). Since 1990, the rate of home births has decreased (Grey et al., 2019). Midwives have expressed the need for equity between obstetricians and themselves, the need for autonomy, and advocacy for physiological childbirth (Van Kelst et al., 2013). Midwives have also voiced the need for more specific midwifery models of care, such as midwife-led care (Benahmed et al., 2016; Van Kelst et al., 2012).

Political. The domain of maternity services in Antwerp is under Belgian federal regulation and Flemish regulation. There is no formal boundary between primary and secondary maternity care. Women do not require referral to an obstetrician when pregnant. The national government decided in 2014 that every newly graduated midwife is

authorized to prescribe medication, expanding the scope of practice (Facq et al., 2018). In 2014, the Flemish government introduced a shortened postpartum hospital stay, leading to a 78% increase in, and thus pressure on, provision on postnatal care by independent primary care midwives (Benahmed et al., 2019; KCE, 2019).**[AQ7: OK as edited? Formerly KCE, 2019a.]**

Technological. Flemish midwives are supported in using an electronic patient record to strengthen multidisciplinary information exchange (Vandenbroecke, 2019). Patient-centered technological interventions, such as telemonitoring, web-based interactivity, and virtual reality, are developing within Flemish midwifery. Examples include introduction of a mobile online application to optimize contact between parents at home and their child at the neonatal ward (Tency, 2019), use of a web-based individually tailored program to optimize maternal emotional well-being (AP Hogeschool Antwerpen, n.d.-a), and use of virtual reality during labor (AP Hogeschool Antwerpen, n.d.-b).

Financial. For Flemish women, obstetric-led care is the norm; 98% of Belgian women consult an obstetrician for preconception, antenatal, intrapartum, and postpartum care (Benahmed et al., 2019; **[AQ8: Correct citation? Formerly KCE, 2019a.]** Christiaens & Bracke, 2009; Christiaens et al., 2013). Health care insurance pays $22,600.000 to Flemish obstetricians annually. The price per room for a straightforward labor and birth in an Antwerp maternity setting costs between $1,770 and $3,660 (Klina, n.d.-a) and for cesarean delivery between $2,130 and $4,730 (Klina, n.d.-b), partly paid to obstetricians. The yearly costs of Flemish maternity services are considered too high, resulting in the closure of one Antwerp maternity setting (KCE, 2020). A newly graduated full-time employed midwife in Antwerp earns approximately a gross monthly salary of $2,600, increasing to $3,900 after 10 years of work experience. The midwife's salary is similar to that of nurses. Antenatal, intrapartum, and postnatal fees of independent community midwives are a maximum of $505, $250, and $287, respectively, when providing care for healthy women (RIZIV, 2020).

Midwifery Care During the COVID-19 Pandemic. So far, 1,098 pregnant Flemish mothers have had positive results for the COVID-19 virus, and two pregnant women and their fetuses died. Eight neonates of mothers with COVID-19 have had positive results (B-OSS, 2021). The vaccination program started in December 2020, and pregnant and breastfeeding women were considered a priority group (Hoge Gezondheidsraad, 2021).

Within maternity wards, strict measures applied to visitors. Only the woman's partner was allowed to come to the maternity ward. Laboring women were screened for COVID-19. If the mother had a positive test result, the father was also considered to have a positive result. A trend was observed (but not yet shown in figures) toward an increasing number of home births, a shorter stay in maternity units, and an increase in breastfeeding. Social distancing as a protective measure during the COVID-19 pandemic contributed to the moral injury of midwives (Luyben et al., 2020).

Key Trends and Development in Midwifery Education in Antwerp

Demographic. Two university colleges in Antwerp provide bachelor's-level midwifery education (640 students/year), and one university has a master's-level nursing-midwifery program (160 students/year) (Vlhora, 2019). Antwerp is close to the Dutch border, and 47% of Antwerp midwifery students are from the Netherlands (Vlhora, 2019).

Social. Compared with their fellow Antwerp students, Dutch midwifery students show more proactive behavior during clinical placement and in-school activities. Proactively behaving midwives are more likely to work autonomously, adapt easily, and constantly seek the most effective and qualitative state-of-the-art practices (Mestdagh et al., 2018). Midwifery students are often involved in emotionally difficult and traumatic situations during clinical placement (Fontein-Kuipers et al., 2018c). Preliminary unpublished results show that 41% of Antwerp midwifery students experience symptoms of depression and/or anxiety. In response to this finding, one of the Antwerp university colleges has developed a support program for student midwives who encounter difficult and traumatic experiences (Karel de Grote Hogeschool, 2017). Final-year midwifery students participate in a 1-week interprofessional collaboration education module with final-year students from multiple Antwerp health care studies (e.g., medicine, physiotherapy, nursing) (Tsakitzidis et al., 2015).

Political. There has been an ongoing debate about the length of the bachelor's program for midwifery in Flanders (Goemaes et al., 2020). The Flemish professional organization of midwives and midwifery educators (Vlaamse BeroepsOrganisatie voor Vroedvrouwen)**[AQ9: Correct? Changed throughout.]** has so far unsuccessfully lobbied for extending the current 3 years (180 credits) to a 4-year program (240 credits) to prepare students for continuing education on an academic master's level and/or education as advanced midwife practitioners (Goemaes et al., 2020). Topics such as diversity, internationalization, and use of computer/digital resources in education, aligning with the perceptions of the Millennial generation of students, are regarded as relevant (Goemaes et al., 2020; Grey et al., 2019). In a lifelong learning context, midwives in

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Belgium must undertake 75 fit-to-practice study hours for every 5 years of practice (Vlaamse BeroepsOrganisatie voor Vroedvrouwen, [AQ10: OK?] 2020).

Financial. Studying in Antwerp has become more expensive because of the reduced governmental annual study grant per student (from $10,635 to $5,900). Universities and colleges were forced to raise their registration fees, which are still relatively low compared with the rest of Europe. The fee for a full-time year of 60 credits is $1,120, attracting Dutch students, where the annual fee is twice as high.

Technological. In-person classroom education is decreasing, and digital education is increasing. Students work with virtual reality, simulation training, and blended learning, meeting their needs for flexible scheduling of education, fitting the Millennial generation's information and communications technology use and needs (Kennisnet, 2016). The Flemish Agency of Innovation and Entrepreneurship as well as the government encourage boosting the use of technology in education through funding.

Midwifery Care and Education During the COVID-19 Pandemic. Most midwifery education during the lockdown period took place online, resulting in rapid digitalization of the curriculum and distance learning, with lecturers and students working from home. Initially, the clinical placements of midwifery students in primary care were put on hold. However, there was no consistency in the clinical placements of students because some hospitals received students and others did not. In addition to in-school vaccination, most hospitals took care of vaccinating students during internships.

Step 3. Building a Scenario Matrix

With such an array of complexities, the future of midwifery practice and education in Antwerp is replete with challenges and uncertainties. We assessed, verified, and discussed the evidence with members from our practice, education, and management networks, using a deductive approach. We clustered the evidence into a meaningful and manageable set of key variables. From the evidence shown in Step 2), we identified 20 key variables and rank ordered these in terms of their relative impact or importance and their relative uncertainty. We used an iterative process of interaction and negotiation among the authors to structure the key variables. We used a 2 × 2 matrix, creating a four-quadrant model, to transform the practice of scenario planning and allowing us to compare and contrast the core logic for the scenarios (Ramírez & Selin, 2014; Ramírez & Wilkinson, 2014; Spaniol & Rowland, 2018). The labels of each quadrant indicated the nature of their association with midwifery practice and midwifery education: factors that are certain and uncertain and factors that have a great or small impact (**Table 1**). The uncertain and certain factors with great impact were expected to hit the midwifery domain with potential force (Ramírez & Selin, 2014; Ramírez & Wilkinson, 2014; Spaniol & Rowland, 2018).

Table 1 shows that more than half of the variables were assigned great impact with varying certainty, either certain or uncertain. The six certain variables with great impact were recognized to be driving forces, and the six uncertain variables with great impact were known to be critical uncertainties. Four variables were shown to have a small and uncertain impact. We considered the six critical uncertainties, including COVID-19, and the six driving forces as paramount and as mandatory for writing the scenarios. The total of 12 critical uncertainties and driving forces showed two meta-dimensions of underlying and mutual concepts. From the meta-dimensions, we derived a theoretical two-dimensional framework with opposite poles (Rowland & Spaniol, 2017; Van Notten et al., 2005): (1) maternity care services and care organization, with midwives on one side and medical/obstetric professionals on the opposite side; (b) childbearing women and their families and the psychosocial and health context of childbearing women, with the complexity of health needs and values and beliefs about pregnancy, birth, and early motherhood on the opposite poles of the dimension (**Figure 2**).

Step 4. Scenarios

The authors have no role as professional advocates, assuring scientific and practice-based reliability of the execution of our scenario planning, writing, and refining. When writing the scenarios as narrative descriptions, we used a process of constant comparison, moving between the scenario concepts and the evidence provided in Step 2. We have chosen three scenarios as most appropriate for further adequate representation (Aaker, 2001; Bea & Haas, 2005). In refining the scenarios, we believed that the four variables with small but certain impact (**Table 1**, lower left quadrant) could not be ignored because of their collateral force in the scenarios, and we added these variables where they suited the scenarios best. Scenario A (A), Safety First, presents midwife-led care, monitoring maternal health needs with a focus on prevention and risk assessment (**Figure A**, available in the online version of the article). Scenario B, Buddy to Buddy, shows midwife-led holistic care within a lifeworld-led public health perspective (**Figure B**, available in the online version of the article). Finally, Scenario C, Joining & Sharing Forces, presents maximum integrated maternity care with the midwife and the general practitioner as lead professionals within a positive health care perspective (**Figure C**, available in

TABLE 1

2 × 2 MATRIX: KEY VARIABLES OF MIDWIFERY PRACTICE AND EDUCATION

	Impact	
Certainty	**Small impact**	**Great impact**
Uncertain	Increasing age of practicing midwives	Coronavirus disease 2019 (COVID-19)
	Decrease in number of students	Pandemic social distancing rules
	Advanced midwifery practitioners	Evolution of midwives' tasks/workload
	Dutch student midwives	Finances/poverty/reduced health literacy causing inequity
		Personal emotional well-being
		Implementation of midwifery models of care
Certain	Slight increase in number of births	Technology/medicalization
	Workload, including midwives' involvement in perinatal trauma and death	Complex maternal health
		Social politics focusing on psychosocially vulnerable groups of women/families
	Emotional well-being of (student) midwives	
	Length of midwifery program	Women's preference for obstetric-led care
		Number of practicing midwives
		Shift toward postnatal primary care

the online version of the article). The left lower quartile of **Figure 2** does not have a corresponding scenario because this quadrant most closely reflects the current situation of Antwerp midwifery practice and education.

DISCUSSION

We have used theoretical and methodological strategies to make an effort to think differently than the stasis in Antwerp midwifery practice and education in the time of COVID-19. In a sequence of steps, we have identified, synthesized, and structured midwifery practice and education in Antwerp and the contextual change drivers according to their impact and uncertainty or predictability. We believe that we have presented a robust, methodologically constructed noticeable gap between how midwifery care is currently being provided in a modern society and the needs of the population. We must assess whether the scenarios reflect the presence of a contextual and systematized vision, if they are coherent and plausible, if they paint a vivid picture, and if they have the power to inspire. We have to ask ourselves if the three scenarios are meaningfully different, although they contain the key variables, and if they reflect their logical premise (Spaniol & Rowland, 2018). We believe that we have presented and addressed these issues in our scenarios, allowing their use in midwifery practice and education.

Implications for Practice and Education

Reflecting on the scenarios and the number of key variables per scenario, we recognize two important aspects extending the near future of midwifery practice and education in terms of transformation, direction of change, scope, proactive behavior, and vision. First, the scenarios and variables emphasize the authenticity of the midwife, with a shift toward the biopsychosocial model of care and an analogous workload and a shift toward continuation of care, extending into the first year postpartum. Scenarios B and C, positioned the furthest from complexity of needs, show the greatest evolution of midwives' tasks and workload. Second, digital adaptability of the midwife in collaboration with the woman as well as with colleagues of other disciplines, plays a pivotal role in all scenarios. As shown in our scenarios, a pandemic where social distancing rules must be followed and remote monitoring and on-distance communication and support are more common and required facilitate or accelerate the creation of a digital health care ecosystem in which continuity of care is supported (Rentea et al., 2011). Scenario A leans more toward a science fiction–like setting. This scenario is positioned in the classic medical midwife-led organization of care quadrant in our model, illustrating the depersonalized and technocratic threat of medicalization (Berg et al., 2012). We believe that the way we have incorporated technology in our scenarios is realistically achievable and acceptable in midwifery, but there is no guarantee that these scenarios will materialize within 10 years.

Scenarios B and C show the aspect of human connection, either between the woman and the midwife, with the woman and her social support network, and among multiple health care professionals. Nurturing the human connection and establishing relationships fits the philosophy of woman-centered care (Fontein-Kuipers et

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al., 2018a). This approach suggests that the midwife in a biopsychosocial model of maternity care is the lead professional in shaping scenarios B and C into a future possibility (Walsh & Devane, 2012). Increasing awareness of midwives' emotional well-being is an important strategy for maintaining a healthy midwifery workforce, as shown in scenario B (Dixon et al., 2017; Jepsen et al., 2017a; Yoshida & Sandall, 2013). Scenario C presents integrated care. For implementing such a scenario, it is important to maintain the autonomy of the different practitioners and implement interprofessional education (Murray-Davis et al., 2011). The denominator of all scenarios seems that an emancipatory shift among midwives is required for more midwife-led models of care and even for integrated care models. Midwives alone cannot achieve change because it requires social, interprofessional, and political relationships and collaboration (Perdok et al., 2016). Interprofessional collaboration also concerns education. All of the scenarios provide a clear direction for the curricula for bachelor's and master's education.

Limitations

Although we have provided thoughts on transformation, inspiration, direction for change, and strategic foci, the scenarios are meant to provide a navigation tool. We used a theoretical plausibility-centered approach. This approach lacks a ready-to-use plan and a detailed guideline on the workload and tasks and/or organization of maternity care (Ramírez & Wilkinson, 2014). Development of a more detailed plan and strategy requires further discussion, negotiation, and research among the stakeholders (Ramírez & Selin, 2014; Ramírez & Wilkinson, 2014; Rowland & Spaniol, 2017). Although we believe that our scenarios provide a realistically achievable presentation of the near future, we are also aware that our scenarios might present rather extreme situations that can create discomfort or ambiguity. However, discomfort can be effective in evoking managerial attention for further study (Ramírez & Selin, 2014). Although we consulted networks to verify the identified variables and their position in the matrix, the perceptions, subjective ideas, and thoughts of the researchers may have caused bias (Ramírez & Selin, 2014). We have chosen Antwerp as our indicative case, assuming that worldwide there are similar cities facing similar complexity. However, generalizability of the scenarios is limited to those cities with a population similar to that of Antwerp and with maternity services in comparable health settings where midwifery-led care models are not the norm.

CONCLUSION

Our theoretical framework encompasses sufficient fundamental differences and nuances to explore the differences for the future of midwifery in Antwerp and similar international urban municipal health settings. The scenario planning method has provided plausible prospective futures for midwifery practice and education. Midwifery authenticity in a biopsychosocial model of care and digital adaptability shapes a clear direction of transformation, change, scope, proactive behavior, and strategic focus. This study is merely a theoretical exercise and a means for in-depth discussion among student health care practitioners, with further research and exploration of pragmatic organizational details and planning strategies needed.

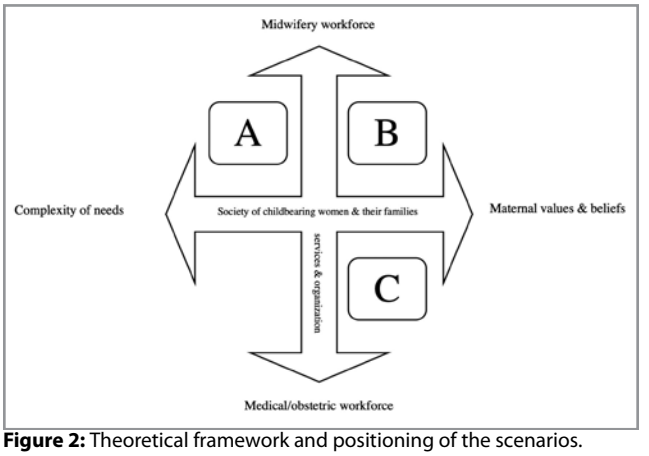

Figure 2: Theoretical framework and positioning of the scenarios. Scenario A, Safety First; Scenario B, Buddy to Buddy; Scenario C, Joining & Sharing Forces.

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