The initiation of Dutch newly qualified hospital-based midwives in practice, a qualitative study

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A B S T R A C T

In the Netherlands, a percentage of newly qualified midwives start work in maternity care as a hospital-based midwife, although prepared particularly for working autonomously in the community.

Aim: This study aimed to explore newly qualified Dutch midwives’ perceptions of their job demands and resources during their initiation to hospital-based practice.

Design: We conducted a qualitative study with semi structured interviews using the Job Demands-Resources model as theoretical framework.

Methods: Twenty-one newly qualified midwives working as hospital-based midwives in the Netherlands were interviewed individually between January and July 2018. Transcripts were analyzed using thematic content analysis.

Findings: High workload, becoming a team member, learning additional medical procedures and job insecurity were perceived demands. Participants experienced the variety of the work, the teamwork, social support, working with women, and employment conditions as job resources. Openness for new experiences, sociability, calmness and accuracy were experienced as personal resources, and perfectionism, self-criticism, and fear of failure as personal demands.

Conclusion: Initiation to hospital-based practice requires from newly qualified midwives adaptation to new tasks: working with women in medium and high-risk care, managing tasks, as well as often receiving training in additional medical skills. Sociability helps newly qualified midwives in becoming a member of a multidisciplinary team; neuroticism and perfectionism hinders them in their work. Clear expectations and a settling-in period may help newly qualified midwives to adapt to practice. The initiation phase could be better supported by preparing student midwives for working in a hospital setting and helping manage expectations about the settling-in period.

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Introduction

Newly qualified midwifery (NQMs) well-being after graduation is at stake, due to the demanding tasks and responsibilities NQMs face (Fullerton et al., 2011). These new responsibilities may influence NQMs’ professional confidence and competence, with possible negative consequences on the quality of the provided care (Kitson-Reynolds et al., 2015; Reynolds et al., 2014) or exit from the profession within the first year of graduation (Fenwick et al., 2012).

NQMs face different challenges when starting as a midwife in a hospital setting. Firstly, NQMs potentially lack confidence in their own clinical decision-making and they tend to struggle with the complexity of care (Skirton et al., 2012). Secondly, NQMs still need...
time to learn to prioritize their work and they usually need training in additional clinical skills, for example performing fetal blood sampling and coordinating treatment in case of emergencies (Avis et al., 2013). Thirdly, NQMs need to become a trusted member of the multidisciplinary team in their work as hospital-based midwives (Davis et al., 2011).

In different occupations, specific demands and specific resources lead to specific outcomes (Schaufeli and Taris, 2014). The Job-Demands Resource model (JD-R) model (Fig. 1) is often used as a theoretical model, due to the focus on different job demands and resources depending on the specific profession and a focus on positive and negative well-being (Mastenbroek, et al., 2014; Schaufeli and Taris, 2014; Vink et al., 2011). Job demands (for instance work overload, heavy lifting or job insecurity) are aspects of the job requiring effort and are associated with mental or physical costs. Job resources (such as feedback, job control or social support) help the professional achieve job goals or reduce job demands (Bakker and Demerouti, 2007). In addition to job demands and job resources, the JD-R model integrates personal resources (Xanthopoulou et al., 2007). Personal resources are positive self-evaluations that are linked to resilience and refer to individuals’ sense of their ability to control and affect their environments successfully (Hobfoll et al., 2003) and help employees in achieving goals (Schaufeli and Taris, 2014). Personal resources partially mediate the association between job resources and work engagement (Xanthopoulou et al., 2007).

Job demands of health care professionals that are related to negative outcomes are: a high workload, high emotional load, staff shortage, stressful situations with patients (van der Doef, 2017), little support from management, few development opportunities, lack of professional recognition (Dixon et al., 2017) and long working hours (Hildingsson et al., 2013). Job demands on NQMs are different from the demands on more experienced colleagues: facing a reality shock in practice (van der Putten, 2008), facing in practice a midwifery philosophy of care different from their own values (Barry et al., 2013; Hobbs, 2012) and delay in securing employment and work allocations (Clements et al., 2012). Job resources reported by health care professionals include the variety of the work and the patients (van der Doef, 2017) and, for midwives, supportive midwifery partners, work flexibility and autonomy as potentially protective for burn-out symptoms (Dixon et al., 2017). For NQMs, job resources differ from experienced colleagues: positive support and mentorship from colleagues (Clements et al., 2012; Hunter and Warren, 2014; Pairman et al., 2016), working with clients in continuity of care (Cummins et al., 2015; Fenwick et al., 2012) and postgraduate training programs for mentors (Hobbs, 2012; Pairman et al., 2016).

In different occupations, hope and optimism (Clauss et al., 2018), extraversion, self-efficacy and conscientiousness (Mastenbroek et al., 2014) are important personal resources. Neuroticism and perfectionism are personal demands, both for newly qualified and experienced midwives (Henriksen and Lukasse, 2016; Hildingsson et al., 2013; Kool et al., 2019). Neuroticism is characterised by a tendency to negatively interpret events and characteristics like self-consciousness and vulnerability (Hendriks et al., 1999).

What is not known are the specific job demands and job resources are for NQMs who are prepared and educated for working autonomously in the community, but start work in Dutch maternity care as a hospital-based midwife. This context involves becoming a team member on a labor ward, without formal support programmes. Furthermore, research shows a gap of knowledge about personal resources and personal demands on NQMs which help or hinder them in their work as a hospital-based midwife.

The aim of this study was therefore to identify job demands, job resources, personal demands and personal resources of Dutch NQMs working in a hospital setting during their first years in practice. The research question for this study was:

Which specific job- and personal demands and specific job- and personal resources are perceived by Dutch NQMs who start work as hospital-based midwives?

The outcomes of this study will help us to build specific support programmes to ensure NQMs’ well-being in their first year in a hospital setting in the Netherlands. Next to identified job demands and job resources, specific knowledge about NQMs’ personal demands and resources helping or hindering them, help us to prepare graduates for working in a hospital setting. The outcomes of this study provide insight in the demands and resources on the JD-R model for newcomers in the midwifery profession. This will help midwifery practice and midwifery education better prepare and support students and newly qualified midwives for working in hospital settings.

**Background**

The midwives’ professional education in the Netherlands consists of a four-year Bachelor of Science (BSc) program at a university of applied sciences. When graduated, NQMs can register themselves in the BIG-register of the Health Ministry, indicating license to practice. The educational program meets the national and international standards of professional competencies (Aitink et al., 2014; Fullerton et al., 2011) and is taught with approximately 55% of time spent on theoretical education, and 45% in placements in primary, secondary and tertiary care settings (Gottfreßdottir and Nieuwenhuize, 2018).

In the Netherlands, about 72% of midwives work in primary care, 28 percent work as hospital-based midwives (Kenens et al., 2017). Twenty percent of Dutch midwives has graduated abroad and about half of them is working as a midwife in a hospital setting (Kenens et al., 2017). Amongst Dutch NQMs over the last 20 years, about 22 percent start work in a hospital setting within the first year after graduation (Kenens et al., 2017). Hospital-based midwives bridge the gap between primary-care midwives and obstetricians (Cronie et al., 2012). The role of the hospital midwife differs from that of primary-care midwives in that hospital-based midwives function semi-autonomously under supervision of an obstetrician within a hospital setting. In this setting they routinely care for women during birth who are at increased risk, such as women requiring pain relief, birth complicated by meconium staining of the amniotic fluid, or post-term pregnancy (Cronie et al., 2012). In contrast to the United Kingdom, Australia and New Zealand, the Netherlands has no formal support programmes designed to help NQMs in their transition to practice (Avis et al., 2013; Henshaw et al., 2013; Pairman et al., 2016). Dutch NQMs’ support exclusively depends on informal support, whether they work as a midwife in a community or in a hospital setting.

![Fig. 1. Adapted JD-R model of occupational wellbeing (Schaufeli and Taris, 2014).](image)
Method

We used a qualitative descriptive design for this study to explore the working experiences of NQMs in their first year in a hospital setting. Data were collected through semi-structured interviews in order to identify specific job demands and resources as well as personal demands and resources.

NQMs who graduated less than three years ago and work as hospital-based midwives in the Netherlands, were recruited for individual interviews. We assumed that for a period of three years, participants could recall their experiences in their first year of working in practice with a good degree of accuracy. We invited NQMs who graduated from all three Dutch academies. Recruitment of NQMs took place via Dutch Midwifery Academies (list of alumni), social media (Facebook and LinkedIn), and through snowball sampling. Participants received written information (via e-mail) regarding the purpose of the study, including a consent form.

Two researchers (IB, LK) conducted the individual interviews between January and July 2018. A topic guide (Appendix 1) was used for the interviews, based on the dimensions of the JD-R model. Interviews were all individual, except for one double interview at the request of the participants. Interviews were audio recorded and transcribed. Participants were provided with the transcript of the interview upon request. In one transcript, we removed a segment, as requested by the participant, because of possible recognition by colleagues of a specific situation.

Ethical considerations

In the Netherlands, ethical approval by an ethical committee is not required regarding this type of research (www.ccmo.nl). All participants gave written informed consent before the start of the interview. To ensure confidentiality, personal data of the participants were separated from the transcripts and saved according to the data management rules of the University of Groningen.

Data analysis

Interviews were analyzed thematically, using MAXQDA 11, and were open coded by two researchers (IB, LK). They discussed the codes until they reached consensus. Open codes were inductively categorized by the same researchers and axial coded in themes, using the different elements of the JD-R model (Schaufeli and Taris, 2014). After ten interviews, we started with an interim analysis. We then added more in-depth questions about personal resources, in order to gain more detailed information from participants.

After twenty interviews, we did not acquire new codes, which indicated data saturation.

Findings

In total, twenty-one Dutch NQMs participated with a mean age of 26 years (range 22–33), as shown in Table 1. The duration of the interviews ranged between 36 and 65 minutes.

All participants worked ($n=20$) or recently worked ($n=1$) as a hospital-based midwife. Except for one, all NQMs had the Dutch nationality, 47% graduated in Belgium, and the remaining 53% in the Netherlands. Participants had a contract for between 0.4 to 1.0 full time equivalent (FTE). Three participants had a temporary employment contract with flexible working hours and worked between 24 and 36 hours per month. Most participants ($n=19$) worked in a general hospital, two were employed by a university hospital.

| Table 1 Background characteristics of NQMs working as hospital-based midwife ($N=21$). |
|-------------------------------------|-----------------|-----------------|
| Characteristics                     | The Netherlands | Amsterdam/Groningen |
| Midwifery education                 | 11 (53)         | 8 (38)          |
|                                    | Rotterdam       | 1 (4)           |
|                                    | Maastricht      | 2 (8)           |
|                                    | Belgium         | 10 (47)         |
| Year of graduation                 | 2015            | 6 (28.5)        |
|                                    | 2016            | 6 (28.5)        |
|                                    | 2017            | 9 (43)          |
| Age                                 | Mean            | 26              |
|                                    | Range           | 22–34           |
| Employment contract (hours per week)| 0–36 (flexible) | 3 (14)          |
|                                    | 16–32           | 8 (38)          |
|                                    | 32–36           | 9 (42)          |
|                                    | 47             | 1 (5)           |
| Hospital                            | General         | 19 (90)         |
|                                    | University      | 2 (10)          |

Fig. 2. Perceived job resources, job demands, personal resources, personal demands by 21 Dutch NQMs, working in hospital-based midwifery care.

An overview of the results is shown in Fig. 2 and categorized as job demands, job resources, personal resources and personal demands.

**Job demands**

The most important job demands (see also Fig. 2), according to the participants, were: high workload, becoming a team member, learning additional midwifery skills and procedures, providing care for women in mid and high risk and, job insecurity.
High workload

NQMs faced a high workload when they work on a maternity ward. Coordinating several delivery rooms at the same time was new for NQMs. During internships they only had to support one delivery at the time, but as a hospital-based midwife they had to manage different births simultaneously. Additionally, they also had consultations with women referred from primary care. The combination of coordinating several births and consultations caused a high workload. Therefore, they faced a high workload which required time management and fast decision-making in emergency situations.

The difference [with primary midwifery care] is that you have a whole maternity ward, we have seven delivery rooms which we have to take care of and they are sometimes really full with five [patients] and when a referred patient comes in and then you have to do your consultation. You have to be really good in keeping an overview and setting your priorities! (P7)

NQMs mentioned that due to the high workload, they often could not give their women all the attention they wanted to provide. Women referred from primary care might have to wait too long before they had a consultation because of the hectic and unpredictable nature of the maternity ward. Participants mentioned not feeling very well prepared for the hectic nature and high workload on the maternity ward.

Becoming a team member

Membership of a multidisciplinary team required competences in collaboration, cooperation, and leadership. For NQMs, especially in comparison to their internships, it took effort and adaptation to become a full member of the team. Furthermore, they also had to decide when direct supervision of the obstetrician was required.

‘... it also depended on the colleagues you are working with. Is it someone who helps you and who guides you a little or is that someone who thinks: ‘Well, another youngster, and let her prove herself?’’ (P4)

Participants had on one hand to learn how to delegate tasks to the obstetric nurses and on the other hand had to work under strict supervision of an obstetrician. Working under supervision of an obstetrician required collaboration and learning to function semi-autonomously. NQMs mentioned having to show their competence in order to build trust and reliability.

‘There are a lot of dynamics in the hospital ... And it took me some time to realize which disciplines are involved and which agreements are made per hospital, and about protocols. And even if you have a protocol, the usual way of doing things can be different, and it takes a while before you know this. It differs per hospital, but also per obstetrician it is different again, and per nurse and per primary care midwife. That is so diverse, it really took me a while before I really knew how it works and I still run into issues now and then.’ (P3).

Additional midwifery skills and procedures

Hospital-based NQMs faced different midwifery skills and procedures, which they were not specific trained for during their education. For instance, they had to learn how to insert Foley-catheters and fetal-scap electrodes. These procedures required additional skills, which they had to learn in practice. Other midwifery procedures were trained before graduation, but NQMs were less experienced in practice, such as assessing fetal monitoring or suturing complex episiotomies. NQMs lacked routine in these complex procedures, so these procedures required effort.

‘Especially with the CTG [cardiotocogram], you are immediately thrown in at the deep end. You have to work in practice with the CTG and it remains difficult and partially subjective. What one person thinks can be different from another and you must have a lot of experience with it if you want to be able to take advantage of it. And then you sometimes make choices that you think would not have been necessary. So that in particular - and even more so at night when you are alone in the delivery room.’ (P3)

Providing care for women

Working with women in mid- and high-risk care confronted NQMs with new challenges. Women with specific needs, specific socioeconomic- and cultural backgrounds or mental and psychiatric disabilities required effort and experience, which participants reported as lacking.

‘... about the ethical things that I sometimes find difficult. We have a large refugee center nearby and we sometimes have difficulties with people from a different culture who want different things. Partners with different opinions about pregnancy and birth. Once I felt enormously threatened by a partner, because I did not work like the midwives act [in their country of origin]. And those are tricky things... We really learned it differently from how they want it. Yes, and then you do want to go a bit with the culture, but yes, you naturally also want to continue to do medically responsible things.’ (P4)

Job insecurity

NQMs mentioned the type of employment during their first year in practice as challenging, such as flexible or temporary contracts. These types of employment were perceived by NQMs as insecure. NQMs sometimes felt like a conditional team member: they had to prove themselves as a hospital-based midwife in a short timeframe.

‘I now increasingly have the end date in my mind... I'm still looking at other job vacancies. Yes, because they cannot give me clarity yet. That feels ... quite annoying because I really feel like I am a part of this team ... and then you are confronted with the fact that you do not have a permanent contract yet.’ (P2)

Job resources

Important job resources, according to the participants were: working in a team; working with women; variety of the work; and employment conditions.

Working in a team

NQMs work as members of multidisciplinary teams with obstetric nurses, pediatricians and obstetricians. Teamwork provides NQMs with possibilities for collaboration and provides them with company during shifts and breaks. Shared tasks and responsibilities and the opportunity to delegate tasks to other team members were seen as important job resources.

‘Teamwork is really important, that actually determines everything in your work, I think, because you need each other.’ (P17)

Positive support from peers (other midwives), and accessible consultations with obstetricians, when available, were reported as helpful. One participant organized consultation meetings with experienced midwives for this reason. Another participant mentioned support and guidance from the manager of the ward as resource:
‘... my team manager was actually the one who was responsible for the focus on my setting-in period support. I had an evaluation interview with her on a weekly basis, just very briefly, to see where are you, how are you doing and how do we continue?’ (P10)

**Working with women**

Rewarding feedback from women was perceived as a job resource. Doing the best for women and their families and building a relationship of trust with them was experienced as motivating.

‘If it is just a beautiful birth: mother and child are doing well. Or, if people when they leave say: ‘oh, thank you’. Or a follow-up check where people are just satisfied with you. That’s the best thing. Or sometimes also a heavy situation that is nicely solved, a shoulder dystocia that you get out, that ends well.’ (P14)

**Variety of the work**

The variety of the work in a hospital setting altogether appeared to be seen as a resource. NQMs felt satisfied and excited when they were able to deal with handling a lot of deliveries, and with different and unexpected, even complex, situations that challenged them.

‘An acute situation that ends well, that was very thrilling ... I like the challenge when someone has a hemorrhage post-partum. I think okay, what can I do in order for her to be fine. Yes, I really like that kind of action.’ (P13)

**Employment conditions**

An initial period for familiarization with the maternity ward, a period of lesser workload and the presence of supervising midwives were perceived as an important resource. When NQMs got the opportunity to take some weeks settling and were able to get supervision until they could manage different delivery rooms by themselves, they felt more secure and competent. Furthermore, clear expectations regarding what was expected from NQMs was an important resource. Stability in employment conditions such as a secured contract, was also experienced as a resource. NQMs mentioned it was a job resource to be able to work with a set schedule, compared to the long on-duty hours in primary midwifery care during their internships. A roster provides NQMs with secured time off and thus time to relax and meet family and friends.

*It gives me much more comfort in secondary midwifery care knowing that at the end of your shift, you hang over the phone and not take it to bed with you.* (P3)

Possibilities for continuous education and resources for additional master or training programs were also perceived as resources.

**Personal resources**

Openness for new experiences, sociability, calmness and accuracy were experienced by our participants as personal resources which helped NQMs to perform well at the workplace (Fig. 2).

Openness for new and unknown situations helped them in their initial period in practice. Being extraverted and able to act socially helped NQMs’ interaction with their team members and women and their families.

‘I think it is very important to feel what someone needs or how they feel about themselves at such a moment. I usually try to find out how things went beforehand. For example if someone has contractions, just a chat about how it started. Or if they have children to ask about it. To break the ice.’ (P2)

Calmness helped participants in stressful situations so they were able to think clearly and keep an overview of what was happening to the different women. Working accurately and carefully were also mentioned as personal resources, both in the case of medical tasks as well as in administrative tasks. Being self-reliant as a person helped NQMs with autonomous decision-making and helped them dealing with feedback from colleagues and women.

‘I also dared to make decisions and I dared to pick up [tasks] independently and it is really not that I needed help with anything and everything. I think that I can generally work independently.’ (P13)

**Personal demands**

NQMs mentioned personal demands, hindering them while working in a hospital setting (Fig. 2). Participants named characteristics like perfectionism, self-criticism and fear of failure.

Perfectionism was seen at times as unduly demanding; some NQMs just wanted to do their job extremely well, which, for instance, made it difficult for them to stop thinking about their work when their shift was over. They were overthinking the decisions they made and doubting their actions. They also criticized themselves about their work, when they compared their work with more experienced colleagues.

‘But also feelings of uncertainty, can I do it, am I doing it right? And sometimes sad feelings, I’ll never get the hang of it. For example, if I had to start an induced labor, and then it didn’t work as I expected... And then my colleague told me: we can easily break the membranes. And then I was so embarrassed. And well then, I started to break the membranes and then I didn’t succeed. And then I let her do it. Then just disappointment, gloom, insecurity...’ (P10)

Participants also identified a fear of failure which hindered them to perform in practice. NQMs reported at times sensing the feelings of clients or colleagues, but they did not dare to ask for feedback. Consequently, they took feelings of anxiety with them at home, and did not check whether these feelings were right or wrong.

‘I am sometimes so much in doubt. Is it perfectionism, or is it some form of being afraid to fail. ... I have noticed more than ever since my graduation that you carry responsibility for mother and child, that is a certain pressure that you feel. And then you think that can indeed be fatal... And perhaps it is a factor that I can be sensitive or afraid of doing things wrong.’ (P2)

**Discussion**

Within this study, we explored the specific demands and resources Dutch NQMs face in hospital settings. Newly qualified hospital-based midwives face new tasks and challenges they did not expect beforehand. The hospital context itself is also demanding, with a high workload, necessary team membership and job insecurity. On the other hand, the hospital also provides social support from colleagues, and the variety of women and tasks. Personal resources such as openness to new experiences, sociability, calmness and accuracy help newly qualified midwives in their initiation period. However, perfectionism, self-criticism and fear of failure were perceived as personal demands.

Similar job demands have been reported previously, with studies of NQMs reporting a high workload, working with women
with complex needs and learning additional medical procedures (Pairman et al., 2016; van der Putten, 2008). In our study we identified job resources in hospital setting that are similar to findings in other studies on NQMs: working in a supportive team, working with women and the variety and diversity of the work (Fenwick et al., 2012; Mason and Davies, 2013; Pairman et al., 2016). However, this study added to the previous evidence the demands put on Dutch NQMs by the process of becoming a trustworthy team member and working under insecure employment conditions. Additional personal demands are personality traits: perfectionism, self-criticism and fear of failure. We identified specific personal resources, such as being an extravert and having sociable traits, next to calmness and self-reliance in our study.

In line with the findings of Fenwick et al (2012) we found that the importance of a supportive team with available colleagues is an important job resource for NQMs (Fenwick et al., 2012). The importance of the support from team managers, helping NQMs or hindering (when lacking) to make their initial period in practice successful is similar to previous findings (Hobbs, 2012). However, Dutch NQMs mentioned the need for experienced colleague midwives and supportive obstetricians as important to adapt to the complexity and hectic nature of a maternity ward. Dutch hospital-based NQMs lack opportunities to work together with experienced midwives as opposed to other countries, where NQMs are provided with mentors (Clements et al., 2012; Fenwick et al., 2012; Pairman et al., 2016). This highlights the absence of formal mentorship and support programmes for these starting professionals in the Netherlands. A lack of support from experienced midwives can also hinder the further development of professional identity and sustaining resilience, as shown by Hunter and Warren (2014). Adamson et al. (2012) make similar observations on the importance of formal collegial support in their study on social workers’ resilience.

In our study NQMs explicitly mentioned working together with others in the same shift as a job resource, which differed from other studies. This could be explained by the socialization of midwives: they are mostly prepared for working in primary care, where they work mostly alone in the community (De Vries et al., 2013).

Working with women was mentioned by our NQMs as a job resource, similar to previous research (Fenwick et al., 2012; Kool et al., 2019). In contrast with other studies on NQMs, in our study the variety and unpredictability of the job was mentioned as rewarding. It provided Dutch hospital-based NQMs with excitement. A possible explanation for this finding could be the Dutch organization of maternity care, whereby most midwives work in primary care settings (Kenens et al., 2017). Hospital-based NQMs in our interviews compared their work in the hospital with community-based midwifery. Although NQMs have had placements in both contexts, during the interviews participants compared the variety of their work in the hospital with the work as a midwife in the community: caring for low risk women.

Personal resources such as openness and calmness helped hospital-based NQMs in their work, similar to findings by Butler et al. about being an effective communicator (Butler et al., 2008). Job demands such as the high workload, becoming a team member, providing care for women with medium- and high-risk, and insecure employment conditions have been reported elsewhere previously (Avis et al., 2013; Cummins et al., 2017; Hughes and Fraser, 2011; Kitson-Reynolds et al., 2015). In addition, we identified demands, such as learning additional medical skills and working under direct supervision from an obstetrician as demanding for Dutch NQMs. An explanation for this outcome could be the focus of the Dutch educational programmes for most midwives working in primary care. This could lead to unclear expectations for new graduates about future employments (for both working in the community and in the hospital setting). Job insecurity in our study is also considered a job demand with an impact on NQMs confidence (Clements et al., 2012; Kool et al., 2019). Compared to other research, our findings on personal demands appear similar: neuroticism and perfectionism as poor personal resources (Hobfoll et al., 2003; Mastenbroek et al., 2014). However, on studies on NQMs, specific personal demands were not yet reported: our study identified perfectionism, self-criticism and fear of failure as specific demands among NQMs.

**Strengths and limitations**

A strength of this study is that we used a theoretical framework. Working with the JD-R model, helped us identify job demands, job resources, personal resources, but also personal demands. Personal demands and resources were not explored in other studies on NQMs. Another strength in our study is that our participants reflected a representation of the Dutch hospital-based NQM population (Kenens et al., 2017). In our sample, for instance, we had participants educated in the different academies in the Netherlands as well as participants educated abroad.

In this study we explored and identified factors that influence well-being of hospital-based NQMs. A limitation of our study is that we did not explicitly relate these specific demands and resources to well-being and performance of hospital-based NQMs. Another limitation is that we only interviewed hospital-based NQMs working in the Netherlands. These outcomes are possibly not applicable in other countries, due to the differences in the educational programmes and organization of maternity care.

**Implications for practice, education and research**

Our findings suggest that NQMs in their settling-in period need support and guidance from their managers, colleagues and team. Experienced colleague midwives and obstetricians are essential for the adaptation of NQMs to a hospital setting. Team members must be aware of their importance as job resource: positive support helps NQMs become an effective team member. Colleague midwives are important as role models and, together with obstetricians, important for their expertise: providing NQMs with expert feedback and guidance.

Due to the lack or formal support for hospital-based NQMs in the Netherlands, team managers in hospital settings and the Dutch Royal Organization of Midwives may want to consider organizing settling-in and support programmes. For adaptation in the hospital setting, NQMs have to meet clear expectations about responsibilities and supervision in practice. Especially in hospital settings with a high workload and medium and high-risk care NQMs are vulnerable in their initiation period.

The initial education of midwives in the Netherlands could prepare midwives more explicitly for the different working contexts: in the community and in a hospital settings. Although 10–20 percent of new graduates applies for a job as hospital-based midwife (Kenens et al., 2017), it is important to raise awareness of the differences of working in primary and secondary/tertiary care and its implications for the settling-in period in practice.

Our findings indicate that Dutch NQMs found themselves not fully prepared for working in a hospital setting. Based on this finding, future investigation should focus on the ways in which midwifery students are prepared for working in different contexts and what helps or hinders them in their adaptation in hospital settings. Based on our findings, further quantitative research is necessary about NQMs wellbeing as well as working conditions associated with wellbeing. These outcomes can help with building specific support programmes for NQMs in practice.
Conclusion

For Dutch NQMs, working in a hospital setting the context itself is demanding, due to a high workload and the complexity of the work. NQMs face also new managing tasks and have to learn additional medical skills required for working as a hospital-based midwife. Personal resources such as sociability help NQMs in becoming a member of a multidisciplinary team. Neuroticism and perfectionism hinder NQMs in practice. Clear expectations and a settling-in period and support from colleague midwives and obstetricians help NQMs to adapt to work in a hospital setting.

Author declaration

We the undersigned declare that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere.

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

Ethical approval

In line with legal requirements in the Netherlands (www.ccmo.nl) medical ethical approval was not necessary. We asked all participants for written informed consent. Confidentiality was guaranteed with anonymous reporting of the transcripts by numbering the interviews and participants. Raw data was saved securely at the University of Groningen. Written consent forms as well as the transcribed interviews are stored and available upon request.

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Declaration of Competing Interest

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Supplementary materials
