THROUGH THEIR EYES

Experiences of clients and professionals with
obstetric and neonatal healthcare during
pregnancy, childbirth, and postpartum period

Cherelle M.V. van Stenus

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Experiences of clients and professionals with obstetric
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and postpartum period

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CHAPTER 1

Introduction

Transitional care during pregnancy, childbirth, and postpartum period

When women become pregnant in the Netherlands, they are sure to encounter various healthcare professionals during the coming years [1]. At various times, pregnant women are referred to the obstetric and neonatal healthcare system's different types of healthcare professionals. The main subject of this thesis is the clients and healthcare professionals' experiences and satisfaction with these various types of care. This introductory chapter provides background information on the transitional nature of the Dutch obstetric and neonatal healthcare system, its organization, and the quality of the care. The aim and research questions of this study are presented at the end of this chapter.

Care pathways

In a longitudinal care pathway, clients follow a natural route during their pregnancy, childbirth, and the postpartum period [2]. As soon as Dutch women know they are pregnant, an appointment is made with an obstetric healthcare professional. In most cases, the first appointment is with a community midwife who works in a primary care setting and generally takes place between the eighth and tenth week of pregnancy [3]. If the pregnancy is low-risk (i.e. singleton gestation without maternal or fetal risk factors), community midwives provide pregnant women and their babies with obstetric healthcare from the beginning of the pregnancy until six weeks after childbirth [4]. Clinical midwives and/or obstetricians provide women with a moderate or high-risk indication with obstetric care in a secondary care setting [5]. If the pregnancy remains low-risk, pregnant women can choose where to give birth [6]: at home, in birthing hotels, or in the outpatient clinics of hospitals. During such low-risk childbirths, community midwives, often with the help of maternity care assistants, guide women. In addition, if their clients have illnesses or problems not related to pregnancy or childbirth, pregnant women can contact general practitioners or medical specialists to provide the relevant care. After childbirth, all new mothers and their newborns receive care from community midwives [7,8]. Every day during the week following childbirth, community midwives give the mother and child medical checkups. Thereafter, the relevant obstetric healthcare professional and the new parents usually have a six-week postpartum appointment, during which they evaluate the provided healthcare [2].

After the first appointment with the community midwife, it sometimes becomes clear that secondary healthcare professionals, such as obstetricians or clinical midwives, need to guide the clients [9]. Secondary care professionals provide obstetric healthcare at a hospital in cases of multiple pregnancies, severe complications during previous pregnancies or childbirths, and mothers with severe health conditions, which makes the care pathway transversal. In such cases, pregnant women are transferred from a primary care setting to a secondary care setting.

Currently, all women in the Netherlands are entitled to maternity care after childbirth aimed at providing care, giving support, instructing and informing mothers, partners, and children. Maternity care also aims to create tranquility in a household, as this facilitates the new mother's mental and physical recovery and the integration of the newborn within the family [10]. The basic health insurance covers such care for all new mothers. The number of hours of maternity care that women receive depends on the new mother's condition and the family situation. If the woman and her newborn need to remain in the hospital after childbirth, this reduces the number of maternity care hours received. Examples of situations in which more hours of maternity care are granted are: complications during childbirth, slow recovery of the mothers or newborns, multiple birth, no partners, unstable home situation, and problems with breastfeeding [11].

When maternity care ends after the first week after childbirth, the family is transferred to a youth healthcare organization. Youth healthcare provides all newborns with preventive child healthcare, which continues until they are eighteen years old [12]. Youth healthcare professionals monitor the physical, psychological, social, and cognitive development of children during fixed contact moments. Youth healthcare workers visit the newborns at home and perform a hearing screening and heel prick test, with the blood of the latter tested for various hereditary diseases [13]. Two to three weeks after childbirth, youth healthcare nurses visit the new mothers and babies at home, during which they discuss their experiences with the pregnancy, childbirth, and postpartum period. The nurses will also inspect the newborns physically, explain the youth healthcare services, and give information about very many topics such as sleeping, nutrition, safety, vaccinations, preferential posture, and smoking around children. At the end of the visit, an appointment is made for a first visit to the well baby clinic, where healthcare physicians take anthropometric measurements (weight, height, and head circumference). The physicians assess the development of the newborns and, together with their growth, discuss these with the mothers, as well as providing additional advice. The physicians also answer questions about the well-being of the babies [14].

The above description of the care pathways shows that transfers of care are a common feature of the Dutch obstetric and neonatal healthcare system. Nevertheless, with different healthcare professionals providing guidance and treatment, the result could be the discontinuity of care [15,16]. In turn, this could have a negative influence on client satisfaction and, therefore, on the perceived quality of the care [15,16,17]. In the next section, the continuity of care is discussed in greater depth.

Continuity of care

In the longitudinal care pathway, clients will generally experience pre-known transfers of care [5,18,19]. These pre-known transfers occur between healthcare professionals responsible for clients in the subsequent obstetric and neonatal healthcare periods. Figure 1 illustrates these subsequent periods of obstetric and neonatal healthcare.

Figure 1. Subsequent periods of obstetric and neonatal healthcare.

Pre-known transfers also occur within the four major healthcare organizations (community midwife practice, hospital, maternity care organization, and youth healthcare organization) and take place between healthcare professionals working for the same healthcare organization. In the community midwife practice, pre-known transfers happen between community midwives within the same midwife practice, often occurring in larger community midwife practices in which a group of midwives take care of their clients. Pregnant women thus have appointments with different midwives working in that practice. In the hospital, pre-known transfers occur between obstetric healthcare professionals working in the hospital, because obstetricians and clinical midwives work in shifts. Multiple obstetricians or clinical midwives are therefore likely to guide women during pregnancy and childbirth. In the maternity care organization, different maternity care assistants guide clients during childbirth and the first postpartum week. During childbirth, maternity care assistants specialized in providing childbirth assistance guide women. After childbirth, the women are pre-known transferred to different maternity care assistants, from the same organization, specialized in providing postpartum care. In the youth healthcare organization pre-known transfers are less common, because the same physicians and nurses usually undertake the contact moments at the youth healthcare organizations. However, if these professionals are ill or on holiday, clients could see different ones.

In the transversal care pathway, clients can also experience transfers whose frequently abrupt nature characterizes them [20]. These transfers occur between healthcare professionals working on different care levels due to (impending) complications, such as: gestational diabetes, high blood pressure, preterm birth, pharmacological pain relief during childbirth, and if (continuous) mother and baby monitoring is required during pregnancy or childbirth [18,21]. In rare cases, women with serious complications could be transferred to tertiary care at highly specialized hospitals. This category also covers a transfer to hospital, sometimes via ambulance, due to homebirth complications [20]. These transfers often have an acute indication with a greater risk of adverse outcomes for mothers and children [1]. Abrupt transfers also occur when clients wish to change their healthcare professionals or healthcare organizations due to, for example, dissatisfaction with the provided healthcare or a client's relocation.

Transfers of care are such a common occurrence in the Dutch obstetric and neonatal healthcare system that it is important to strive for a pleasant client experience. Literature suggests that women who transferred during pregnancy, labor, and childbirth are less

satisfied with the care provision and the quality of the care than those not transferred [18,22,23,24]. Dissatisfaction with the care provided during pregnancy, childbirth, and the postpartum period can have serious adverse effects on the physical, mental, and psychological state of the client [25,26]. Dutch obstetric and neonatal healthcare professionals therefore work towards maintaining and improving client experiences and satisfaction [1,27]. This thesis thus studies client experiences and satisfaction with transfers. Since it is difficult for clients to distinguish between different types of transfers, according to healthcare providers with whom we had preliminary discussions, this thesis makes no distinction between transfers in the longitudinal or transversal care chain.

The Dutch obstetric and neonatal healthcare system

The system in numbers

In 2016, 3221 midwives (72% community midwives and 28% clinical midwives) from 555 different midwife practices provided obstetric and neonatal healthcare in the Netherlands [28]. Almost all (98.8%) of these midwives were female [28]. These midwives cooperate with 1121 registered obstetric medical specialists working in secondary care, of whom 58% were female [29]. In 2016, 10,196 registered maternity care assistants were also responsible for maternity care [30]. In a 2015 report, the Capaciteitsorgaan, which monitors inflow and outflow of healthcare professionals, estimated that a total of 1500 physicians work in youth healthcare [31].

In 2016, 166,694 women gave birth to 169,135 children in the Netherlands [32]. Almost all pregnancies in 2016 were singleton (98.5%), with the women giving birth having an average age of 31.1 years [32]. Only a small percentage (0.9%) of women were below 20 years of age or older than 40 years (3.3%) [32]. The Netherlands is a multicultural country: In 2016, 12.3% of the Dutch inhabitants had a non-western background (a migration background from Africa, Latin America, Asia [excluding Indonesia and Japan] and Turkey) and 9.8% a (non-Dutch) western background (person with a migration background from a country in Europe [excluding Turkey], North America and Oceania, as well as Indonesia and Japan). The four largest communities with a non-western background in the Netherlands are Turkish, Moroccan, Surinamese, and Antillean [33]. Of the women who gave birth in the Netherlands in 2016, 74.3% had a Dutch background, and 25.7% a non-Dutch background (western and non-western backgrounds combined). Of the women with a non-Dutch background, 7.1% was Turkish or Moroccan, 5.1% European, and 2.6% Surinamese or Antillean [32].

Childbirths usually have a spontaneous onset, meaning that contractions start, after which the membranes rupture without the aid of induction. Almost three quarters (69.8%) of the 2016 childbirths in the Netherlands occurred like this [32]. Stimulation, like an oxytocin drip, was needed in 20.3% of the childbirths, with 22.6% being induced. Most childbirths took place vaginally and spontaneously without medical interventions (76.0%).

Healthcare professionals used an instrument, such as, a vacuum extractor or forceps, in 8% of the childbirths. 16.0% of the childbirths were by means of Caesarian sections, of which 8.1% were planned. A smaller percentage of the childbirths (7.9%) began as a spontaneous vaginal birth, but resulted in a caesarian section [32].

Adverse outcomes are often used as a measuring tool to evaluate obstetric healthcare [34]. The 'Big 4' concept is an instrument used to monitor and evaluate adverse outcomes. A study by Bonsel et al. in 2010 showed that four defined disorders comprise 85% of the perinatal mortality cases (mortality from 22 weeks of gestation until 7 days after childbirth) [35]: small for gestational age (birth weight <10th percentile for gestational age), preterm birth (birth < 37 weeks gestation), congenital disorders, and a low Apgar score (<7 after 5 minutes) [36]. In 2016, 6.9% of newborns were born preterm, 5.9% had a low birth weight, 3.0% were born with a congenital disorder, and 1.8% had a low Apgar score. These numbers have been stable for the last 10 years [36].

In 2016, 86.8% of the 166,694 women who gave birth started their obstetric healthcare in primary care with community midwives and general practitioners guiding them [32]. In the same year, 13.2% of women with an increased birth risk started their obstetric healthcare in secondary care with clinical midwives and obstetricians guiding them [32]. As previously mentioned, women can experience transfers during pregnancy and childbirth. During their 2016 pregnancy, 35.3% of women were transferred from primary care to secondary care and another 21.5% during childbirth [32]. After childbirth, another 1.2% of the women were transferred to secondary care [32]. Figure 2 shows the shift of women starting their pregnancies in primary care and ultimately giving birth in primary or secondary care. Of the 30% percent of women who gave birth in a primary care setting, 12.7% occurred at home, while 17.3% gave birth in birthing hotels or outpatient clinics. Childbirth in a secondary care setting took place in 70% of the cases [32]. The percentage of homebirths in the Netherlands is declining. In the period between 2005 and 2008, 29% percent of childbirths took place at home, but in the period between 1997 and 2000, this was 35% [32,37].

Dutch obstetric and neonatal healthcare professionals submit their data annually to the national registry, Perined, which closely monitors the performance of the healthcare system [28]. The data clarify the client flows through the different care settings during pregnancy and childbirth, which are then used to measure the quality of the care. These client flows are also used to identify areas in which the quality lags. Policies can therefore be adjusted to improve these indicators [38]. However, as an indicator of the quality of the care, client experiences and satisfaction are becoming more important [28,38]. Nevertheless, a pregnancy, childbirth, and postpartum period with mentioned indicators may end well, with no adverse outcomes and the mother and the child both healthy. However, from the client viewpoint, there are other factors that influence whether a pregnancy, childbirth, and postpartum period go well and these indicators cannot measure.

Consequently, it is important to inquire about clients' experiences and satisfaction. Client experiences and satisfaction provide in-depth information about how the obstetric

Figure 2. Flowchart Dutch transfers of care in 2016 from start pregnancy until childbirth [32]

and neonatal healthcare system performs, which can in turn be used to improve the quality of the care.

Integrating obstetric and neonatal healthcare

In 2010, the external steering committee 'Pregnancy and Birth' published the report: 'A good start; safe healthcare during pregnancy and childbirth' (Een goed begin; veilige zorg rond zwangerschap en geboorte) [1]. In this report, the committee explained its vision of collaborating to achieve contemporary and reliable obstetric and neonatal healthcare. The committee agreed that obstetric and neonatal collaborations (Verloskundige Samenwerkingsverbanden, VSV) are very important and should comprise all professionals who provide obstetric and neonatal healthcare in a particular region, usually a hospital's service area [39].

The steering committee had four goals for the VSV [1]:

1. Achieving coordination by building and maintaining trust between the local and the regional professionals;
2. Regional implementation and local execution of the multidisciplinary protocols and frameworks of the Association Obstetric and Neonatal healthcare (College Perinatale Zorg);
3. Preventing caregiver delays by providing gap-free collaboration between all the professionals;
4. The exchange of information on every pregnant woman, including her birth plan, and Perinataal Webbased Dossier (PWD).

In 2016, the Health and Youth Inspectorate published the concluding report on the introduction and implementation of the VSV [40]. The inspectorate examined whether and how the requirements that the steering committee had mentioned in 'Een Goed Begin' were carried out and if the collaboration between the healthcare professionals had improved. As of 2016, every region surrounding a hospital or birthing center facilitating childbirths had an established VSV. All 79 VSV have met the four requirements that the Steering committee indicated, resulting in a closer collaboration between the different professions [40].

In 2018, the Dutch obstetric and neonatal healthcare system will transform from a system with different care levels to a system of integrated care [41]. An 'integrated obstetric and neonatal healthcare system' refers to the entire care pathway from the preconception phase up to and including the first six weeks after childbirth [42]. Currently, community midwives work autonomously at a primary care level, whereas obstetricians and clinical midwives work at a secondary or tertiary care level. In an integrated care system, professionals with different professions across care levels collaborate closely to provide care [16]. A new model of integrated care means that community midwives and clinical midwives/obstetricians decide how clinical midwives/obstetricians and community midwives' specific expertise should be deployed at the beginning of pregnancies [41]. An integrated system with integrated funding will replace the current obstetric and neonatal healthcare system, in which the care provision is clearly defined between primary and secondary/tertiary care levels. Traditionally, the healthcare professionals submitted all the medical procedure costs to the health insurers. In an integrated funding system, the insurers pay for the relevant healthcare system costs. This means that all the obstetric and the neonatal healthcare professionals affiliated with the integrated system will receive one rate per pregnant woman for all their healthcare activities [42].

The integrated and multidisciplinary system aims to improve obstetric and neonatal healthcare [43]. Pregnant women's care demand is central to the integrated obstetric and neonatal healthcare system, which, through constant evaluation of the outcomes and client experiences, makes care qualitatively better, more effective, and more efficient. By taking the care demand of pregnant women and their viewpoint into account throughout the obstetric care by and linking these to the available evidence-based knowledge, the system can prevent supply-oriented care and provide continuous, coordinated, and good quality care [42].

In recent years, the various professionals in the obstetric and neonatal healthcare system have started collaborating more intensively, which the VSV have demonstrated [40]. However, the integration of the obstetric and neonatal healthcare system has been a complicated and lengthy process, requiring a step by step approach. Opponents of the integrated system argue that there is too much uncertainty about the possible consequences of integrated funding and there are too many barriers [44]. These opponents also fear that the new system will put the independent position and entrepreneurship of community midwives in the obstetric healthcare system at stake and will severely restrict pregnant

women's freedom of choice [42]. Owing to the complicated process and opposition, the Ministry decided in 2017 that the various regions were not ready to introduce integrated funding [43]. The Ministry proposed to give healthcare professionals the possibility to experiment with integrated funding. As of 2018, eight regions have integrated their obstetric and neonatal healthcare systems and have opted for integrated funding [45]. They believe that one rate - one pot of money - can improve collaboration and the quality of the care [45]. Within a few years, the Ministry will again assess whether the integrated obstetric and neonatal healthcare system and the integrated funding contribute to improved quality of care [43].

Quality of care

Client experiences, client satisfaction, and professional experiences

The quality of care and how to measure this were extensively studied during previous years [46-52]. How clients assess the care they receive is a fundamental indicator of the quality of obstetric and neonatal healthcare and plays an important role in improving the quality [53]. Measuring and reporting the functioning of a healthcare system can be used to identify the shortcomings and provide indicators for evaluating the healthcare system [54]. Clients' input is required to ensure that the Dutch obstetric and neonatal healthcare system remains demand-driven instead of supply-oriented [22,55]. Nevertheless, it can be challenging to study the Dutch obstetric and neonatal healthcare systems' quality of care by means of the experiences of its clients. This challenge is due to the multiple healthcare levels (primary, secondary, and tertiary care levels), healthcare professionals (general practitioners, community midwives, clinical midwives, obstetricians, maternity care assistants, youth healthcare physicians, and nurses), and the long pregnancy, childbirth and postpartum period [2]. Since transfers of care are a notable characteristic of the Dutch obstetric and neonatal healthcare system, the main theme of this thesis is exploring clients' experiences with the transfers of care. The value of this study's mixed methods approach is that the results of the different sub-studies complement one another and endeavor to provide an in-depth examination of the research aim [56]. Little is known about how the professionals experience and undertake their clients' transfers, which we therefore also study.

In this thesis, the terms 'client experiences' and 'client satisfaction' are used to indicate the assessment of the obstetric and neonatal healthcare quality from a client's perspective. When examining client perspectives of the provided care, it is not sufficient to only report on the client satisfaction [57]. Client expectations and previous experiences influence their satisfaction strongly [22]. Further, Scheerhagen et al. suggest that high satisfaction scores are common in studies on client satisfaction with obstetric and neonatal healthcare, due to the customarily good pregnancy and childbirth outcomes [58]. Owing to the high sensitivity of client satisfaction, studies have shifted towards using client experiences to improve the quality of care [55,59].

Table 1. Description of the eight WHO responsiveness domains [60]

Domain	Description
Interaction with professional	
Dignity	Receiving care in a respectful, caring, non-discriminating setting
Autonomy	The need to involve clients in the decision making process to the extent that they wish this to occur; the right of patients of sound mind to refuse treatment for themselves
Confidentiality	The privacy of the environment in which health professionals conduct consultations; the confidentiality of medical records and information about individuals.
Communication	The notion that professionals clearly explain the nature of an illness and the details of the required treatment and options to the patient and the family. It also includes providing time for patients to understand their symptoms and to ask questions
Experiences with organizational setting	
Prompt attention	Care is provided readily or as soon as necessary
Social consideration	The feeling of being cared for and loved, valued, esteemed, and able to count on others should the need arise.
Basic amenities	The extent to which a health facility's physical infrastructure is welcoming and pleasant
Choice and continuity	The power of an opportunity to choose, which requires more than one option

Responsiveness is a term that the World Health Organization (WHO) introduced to address experiences with the non-clinical aspects of healthcare [3]. The definition of responsiveness is 'the way a client is treated by the professionals and the environment in which the client is treated.' The responsiveness model comprises eight domains, four of which represent the interactions between clients and healthcare professionals, while the other four represent experiences with the organizational setting. Table 1 illustrates these eight WHO responsiveness domains.

The WHO responsiveness model was never prescribed for a healthcare subsystem, such as obstetric and neonatal healthcare, until Scheerhagen et al. used the model as a conceptual basis to measure client experiences with the obstetric and neonatal healthcare in the Netherlands in 2015 [58]. The Scheerhagen research team developed the Repro Questionnaire (ReproQ), which aims to measure the quality of the care from the client perspective.

By using the ReproQ, we can measure the client experience and the client satisfaction in respect of eight different domains. This allows us to specifically measure which domains of the obstetric and neonatal healthcare system the clients view as doing well and which they regard as doing less well.

Filling the knowledge gap

Even though client experiences and client satisfaction with transfers in the obstetric and neonatal healthcare system have been the subject of multiple studies, certain elements,

required to obtain a full picture of how clients experience transfers, have been underexposed [20,24,61,62,63].

Two studies have shown that the transfers of care during childbirth have a negative influence on client satisfaction [24,62]. Rowe et al. found that women hoped for a natural birth and did not expect to be transferred to a secondary care setting. Feelings of disappointment, ambiguity, and anxiety resulted in unfavorable experiences [62]. Christiaens et al. found that Dutch women who gave birth at home were highly satisfied [24]. Once they needed a transfer to a hospital, their satisfaction was lower than that of women who did not need a transfer to a hospital. Women who were transferred during childbirth from a home setting to a hospital were more satisfied than women who had a planned hospital birth [24]. These studies by Rowe and Cristiaens focused on the transfers from a home situation to a hospital during childbirth. As shown in previous sections, a great number of transfers occur along the obstetric and neonatal care pathway. Three different approaches were used to measure experiences and satisfaction with transfers for our sub-studies. The first approach is the responsiveness model included in the ReproQ. We, in collaboration with the researchers who developed the ReproQ, expanded the ReproQ questionnaire by adding questions targeted at transfers of care along the entire care pathway. In addition, the studies mentioned in this thesis were the first to extensively administer this validated questionnaire in the Netherlands. The second approach is a narrative one, during which the clients were given the opportunity to tell their story. The third approach comprised interviewing healthcare professionals who personally transferred clients

Pregnancies, childbirths, and postpartum periods are unique to every woman and experiences with the provided care can therefore vary immensely [64]. If asked about their experiences with transfers of care and the provided obstetric and neonatal healthcare, researchers must also consider the uniqueness of the women's answers to the questions. In 2014, researchers from the Rathenau Institute in the Netherlands published a study in which they used a qualitative approach to record the experiences of hospital clients [55]. In their research findings, these researchers mentioned that clients' narratives, more than questionnaires or complaint forms, contribute to good quality care [65]. The Rathenau Institute researchers mentioned that hospitals should, far more than at present, listen to their clients' experiences and actively collect these [66]. The structural integration of client narratives into a hospital's quality assurance can make an important contribution to the improvement of care. Such an integration can prevent medical failures and make the provided care more efficient and client-friendly [66]. Therefore, besides collecting client experiences by means of questionnaires, we also use narratives in this thesis to study client experiences. In addition, we gave clients an opportunity to share their experiences with all transfers of care in the obstetric and neonatal healthcare system, not just during childbirth. As the researchers of the Rathenau institute mentioned, it is important to listen to clients' stories to understand their experiences [66]. In this thesis we comply with this statement by researching the narratives reported in chapter 4.

In addition to listening to clients, it is also important to take the involved healthcare professionals' experiences into account, as collecting multiple perspectives contributes to a bigger picture [60]. Owing to their knowledge and positions, obstetric and neonatal healthcare professionals have a great influence on the decision making process regarding transfers, treatments and interventions [1]. Consequently, we decided to include the experiences of obstetric and neonatal healthcare professionals in this thesis by interviewing them about transferring clients and the continuity of care. Beside the newborn, the clients and healthcare professionals are the most important actors in the obstetric and neonatal healthcare; we therefore aim to measure and provide a comprehensive picture of their experiences with the transfers of care in the Dutch obstetric and neonatal healthcare system.

With this thesis, we aim to gain a better understanding of how clients experience transfers of care by (1) measuring experiences and satisfaction with transfers along the entire obstetric and neonatal care pathway instead of just during childbirth, (2) utilizing research methods worthy of the rich and detailed experiences that clients have, and (3) by taking professionals' experiences when transferring clients into consideration.

Outline of this Thesis

The aim of this thesis is to investigate clients and professionals' experiences with Dutch obstetric and neonatal healthcare by highlighting their experiences with transfers of care. The research presented in this thesis includes several sub-studies.

In part I of this thesis, 'client experiences and client satisfaction,' different methods are used to examine how pregnant Dutch women and women who have just given birth experienced their provided care and, especially, whether and how they experienced their transfers of care. In Chapter 2, we show the results of a quantitative study measuring the care provision satisfaction of transferred women and non-transferred women with uncomplicated pregnancies. The measurement instrument is a questionnaire designed to measure the quality of the obstetric and neonatal healthcare from the client's perspective.

The aims of chapter 2 are:

- to compare the client satisfaction of women with uncomplicated pregnancies at the onset of labor, but who were transferred across care levels during childbirth, with that of women with uncomplicated pregnancies at the onset of labor, but who were not transferred across care levels;
- to examine the extent to which sociodemographic characteristics, pregnancy and childbirth characteristics, and clients' experiences with the care process explain the differences in the client satisfaction of transferred and non-transferred women.

Chapter 3 describes the results of a quantitative study researching the differences in client experiences with the obstetric and neonatal healthcare of low-risk and high-risk women. The same questionnaire as the one used in chapter 2 was used in chapter 3, although their outcome variables differ. In chapter 2, we were interested in the satisfaction with the obstetric and neonatal healthcare of transferred and non-transferred women with uncomplicated pregnancies. In this chapter we also include high-risk women and examine their experiences with obstetric and neonatal healthcare compared to those of low-risk women.

The following research questions will be answered:

- Do client experiences with obstetric and neonatal healthcare differ between high-risk and low-risk women who gave birth to a live born child in an eastern region of the Netherlands?
- If so, which, if any, background characteristics, pregnancy circumstances, childbirth or follow up care characteristics explain these differences?
- What are the characteristics of women who had 'notably bad' experiences with obstetric and neonatal healthcare?

Chapter 4 focuses on client experiences with transfers of care during pregnancy, childbirth, and the postnatal period, as well as how those experiences compared with the Dutch Patient Federation's established quality of care aspects. The previous chapters described clients' experiences and satisfaction in a quantitative manner, this chapter deals qualitatively with women's experiences with transfers during their pregnancy, childbirth, and postpartum period. In this study women wrote narratives about their experiences with obstetric and neonatal healthcare, which is a seldom used, but promising, method to investigate experiences.

The research question addressed in chapter 4 is:

- How do clients experience transfers of care during pregnancy, childbirth, and the neonatal period, and how do these experiences compare with the established quality of care aspects that the Dutch Patient Federation developed?

Part II of this thesis, 'professional experiences,' examines professionals' experiences with how they transfer their clients. Chapter 5 shows the results of a qualitative study of obstetric and neonatal healthcare professionals on how they aim at continuity of care and on how they transfer their clients.

Chapter 5 answers the following research question:

- What are healthcare professionals' perceptions of the relevant factors that influence the continuity of care in the Dutch obstetric and neonatal healthcare system?

Lastly, in Chapter 6, the results of the previous four chapters are summarized to provide insight into clients' and professionals' viewpoints of the Dutch obstetric and neonatal healthcare and, particularly, of the transfers of care. These perspectives are discussed in the light of previous knowledge and understandings, policy and further research recommendations are made to improve the continuity of care and experiences with transfers of care.

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PART I

Client experiences and client satisfaction

CHAPTER 2

Client satisfaction and transfers across care levels of women with uncomplicated pregnancies at the onset of labor

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Abstract

Objective

To compare the client satisfaction of women with uncomplicated pregnancies at the onset of labor who were transferred across care levels during childbirth and women who were not transferred across care levels in the Dutch perinatal healthcare system, and - if there are differences - to identify the variables that may explain them.

Methods

The research entailed a population-based study of women with uncomplicated pregnancies at the onset of labor living in the catchment area of a Dutch Neonatal Intensive Care Unit (NICU) in the eastern part of the Netherlands who gave birth between April 2014 and September 2014. Respondents completed a validated questionnaire (n = 842; mean age 30.7 years). Client satisfaction, measured on a 10-point scale, was assessed within 12 weeks after childbirth.

Findings

Of the 842 respondents, 277 women experienced a transfer of care during childbirth, and 565 women were not transferred. The client satisfaction of women who were transferred across care levels (mean 8.04; SD 1.4) was significantly lower ($p < 0.001$) than that of women who were not transferred across care levels (mean 8.78; SD 0.9). Seven variables together explained 93.2% of the difference in client satisfaction. Explanatory pregnancy and childbirth variables were perceived health problems for the mother and medical interventions during childbirth. Explanatory clients' experiences with the care process variables were respect, prompt attention, quality of basic amenities, social consideration, and choice and continuity.

Conclusion

Women were highly satisfied with the care they received, although transfers across care levels during childbirth were associated with substantially lower client satisfaction. The differences in client satisfaction between transferred and non-transferred women can largely be explained by pregnancy and childbirth characteristics, and by clients' experiences with the care process.

Introduction

The degree to which women are satisfied with the care they received during pregnancy and childbirth is an important indicator of the quality of perinatal healthcare [1,2,3,4]. Healthcare managers and policymakers from healthcare organizations can use client satisfaction data for decision-making about choosing alternatives regarding organizing and providing healthcare [5]. Client satisfaction information can also be used to predict treatment adherence and is related to improvements in health status [6]. Negative client satisfaction with healthcare during childbirth can induce a depressive state of mind and post-traumatic stress disorder, negatively influencing willingness to have another baby and impacting mental health in the long term [7,8]. Dutch perinatal healthcare professionals therefore keep working towards maintaining high client satisfaction [1].

In the Netherlands, perinatal healthcare entails all care provided during pregnancy, childbirth, and the postpartum period, including the first month after childbirth. Pregnant women with uncomplicated pregnancies (i.e. singleton gestation without maternal or fetal risk factors) are guided by a primary care provider, which in most cases is a community midwife or a general practitioner (GP). A woman with an uncomplicated pregnancy has the choice to give birth at home, at a birthing center, or in an outpatient department, from which they are discharged within 24 hours. These births are all performed on a primary care level, guided by a community midwife or a GP. When complications occur during labor (e.g. prolonged labor or preterm birth), the risk of developing a complication increases, the request for pharmacological pain relief is made, or (continuous) monitoring is required during pregnancy or childbirth, a transfer is needed. This can be a transfer to a regional hospital (secondary care) or to a hospital with a Neonatal Intensive Care Unit (NICU; tertiary care) [9,10]. After a transfer to the secondary or tertiary care level, the woman and her (unborn) child will be attended by secondary or tertiary healthcare providers, such as clinical midwives, obstetricians, and/or pediatricians. Postpartum care is provided by maternity care organizations in collaboration with community midwives or GPs. After the first neonatal week, youth healthcare organizations provide preventive child healthcare to all newborns. In the Netherlands, youth healthcare organizations guide approximately 95% of all newborns [11,12].

Transfers between different care levels during labor are important to many women. As stated in research by Rowe et al. (2012, p11.): "Women wondered, worried or were fearful about what was to come." [13]. At least three studies have compared the client satisfaction of women who were transferred during childbirth to that of women who were not transferred. These studies show that women who experienced a transfer are less satisfied with the perinatal healthcare than women who were not transferred [13,14,15]. This evidence only addressed satisfaction with the transfer journey from one place to another, such as from

a home setting to a hospital. There is no evidence that findings for this group also apply to transfers between healthcare providers who work on different care levels. The existing studies addressed generic satisfaction, which was measured using different (mostly not validated) instruments [13,14,15]. Our goal is to measure which characteristics contribute to women's satisfaction by using a validated questionnaire.

The Dutch perinatal healthcare system offers an ideal opportunity to examine how and why transfers across care levels affect client satisfaction. In the Netherlands, approximately 50% of women are in primary care at the onset of labor [16]. In 2013, 43.5% of women in the Netherlands who had an uncomplicated pregnancy at the onset of labor had to be transferred across care levels during childbirth because their risk levels increased [17]. Transfer rates seem to differ among women with different background characteristics. In 2008, ethnic minority pregnant women were transferred more often than Dutch women [18]. It has also been observed that perinatal mortality and morbidity rates are higher among women of non-Western origin and women with lower social economic status [19,20]. Previous research has established that clients with a lower educational level are more satisfied with the medical care they receive [21]. However, the relation between transfers of care and educational level is not yet known.

The aim of this study is to compare the client satisfaction of women with uncomplicated pregnancies at the onset of labor who were transferred across care levels during childbirth to the client satisfaction of women with uncomplicated pregnancies at the onset of labor who were not transferred across care levels. If there is a difference, we aim to examine the extent to which socio-demographic characteristics, pregnancy and childbirth characteristics, and clients' experiences with the care process explain the differences in client satisfaction between transferred and non-transferred women. An extensive portrayal of the satisfaction of transferred and non-transferred women, including influencing characteristics, can aid perinatal healthcare providers to offer tailored patient-centered care and adapt their expectation management accordingly.

Methods

We performed a population-based study in which women who had their first routine visit to a child health clinic with their baby between April 2014 and September 2014 completed a questionnaire that measured their satisfaction with Dutch perinatal healthcare during childbirth.

Population and setting

The research was executed in the catchment area of the Neonatal Intensive Care Unit (NICU) Zwolle, with around 1,300,000 inhabitants, in the eastern part of the Netherlands. This area is characterized by large rural areas, medium-sized cities, and a population of women with

a predominantly Dutch ethnic background (85.5%) [22]. The perinatal care in the region is provided by the NICU Zwolle, five regional hospitals, 11 maternity care assistance organizations, 44 community midwife practices, three youth healthcare organizations, and two general practitioners (GP). The target population comprised all women with an uncomplicated pregnancy at the onset of labor, living in the catchment area of the NICU Zwolle, above the age of 18, and who visited child health clinics in one of the three youth healthcare organizations for the first time between April 14, 2014 and September 14, 2014. Transfers between care levels during childbirth can only take place when a woman starts labor in a primary care setting and is transferred to a secondary or tertiary care level when complications arise or the risk of complications increases. Therefore, only women with uncomplicated pregnancies who started labor in a primary care setting were included.

Data collection

Youth healthcare organizations reach 95% of all new mothers and newborns, therefore we asked them to help recruit participants. All three youth healthcare organizations in the area agreed to do so. At two organizations, assistants in the child health clinics were instructed to inform the parents about the research and hand out questionnaires to women who had their first routine appointment with their baby (usually four weeks old). Assistants act as 'hostesses,' greet the mothers at the reception desk, measure and weigh the newborns, and register the data in the client files. Having a first appointment with their baby at the child health clinic was the only inclusion criterion for women to be invited to participate in the survey. The third organization preferred to deliver the questionnaires to the home addresses of all women who were about to have their first routine appointment with their baby at the child health clinic (to prevent increasing workloads on the healthcare providers). All women were given the choice to fill in the questionnaire on paper or on the computer. Completion and submission of a questionnaire were considered to be implied consent. The answers to the questionnaire are anonymous, because there were no questions about contact details or birth dates.

A total of 3,654 questionnaires were distributed. We received 1,696 completed questionnaires (response rate: 46.4%). The distribution method of 40 (2.4%) completed questionnaires could not be retrieved, because the postal code was not filled in. Of the 1,856 questionnaires that were sent via the post, 49.4% (n=916) were returned and of the 1,798 questionnaires that were handed out, 41.2% (n=740) were returned. No follow-up was performed on non-responders. Information on the outcome and/or independent variables was missing in 157 cases (9.3%), and these questionnaires were excluded. Of the remaining 1,539 respondents (response rate 43.2%), 697 women had an increased risk level before the onset of labor, and therefore were not part of our target population. In the analysis, we only included women with a low risk level, and for this reason these 697 women were excluded from the analysis. The final sample for analysis consisted of 842 respondents who started labor in a primary care setting.

Variables

We used a client experience questionnaire (ReproQ), developed and validated by Scheerhagen and colleagues, to measure perinatal healthcare performance based on the World Health Organization (WHO) responsiveness model [23]. The WHO model contains factors that measure how the client experienced handling by healthcare professionals and the environment in which the client received care.

The outcome measure of the study is the client satisfaction score with Dutch perinatal healthcare, as assessed within 12 weeks after childbirth. This was measured with a question that asked the respondent to assess her experiences with perinatal healthcare by choosing a number on a 10-point scale with the anchors verbally defined (1 = I had a very bad experience; 10 = I had a very good experience). We assumed that a good experience was interpreted as satisfactory, while a bad experience was interpreted as dissatisfactory. This measure was used as a continuous outcome variable in the analysis of predictors of overall client satisfaction.

The key variable in our analysis was “transfer across care levels during childbirth,” which means a respondent had to be transferred from a primary care level to a secondary or tertiary care level during childbirth. Community midwives and general practitioners provide primary care, while clinical midwives and obstetricians provide secondary care. Respondents were asked if they experienced transfers across care levels during childbirth with the following two questions: 1) Who assisted you at the onset of childbirth? Community midwife / General practitioner / Clinical midwife / Obstetrician. 2) Who assisted you when your child was born? Community midwife / General practitioner / Clinical midwife / Obstetrician;/. A respondent was defined as being transferred across care levels when she self-reported that she was transferred between healthcare providers who work on different care levels.

Socio-demographic characteristics were obtained from the responses to the questionnaire. These characteristics were “maternal age” (in years), “education” (1 = low (none, elementary education, preparatory middle-level applied education, vocational education level 1), 2 = medium (higher general continued education, preparatory scholarly education, vocational education level 2, 3, and 4), 3 = high (university of applied sciences, university)), and “ethnicity” (0 = Dutch, 1 = non-Dutch). “Ethnicity” was defined by asking the respondents to which ethnic group they belonged. “Ethnicity” was grouped into Dutch and non-Dutch due to the small numbers of cases in the non-Dutch category. The questionnaire contained items about the respondents’ pregnancy and childbirth characteristics. These variables were “gave birth for the first time” (1 = yes, 0 = no); “experienced a medical intervention during childbirth” (1 = yes, 0 = no); “planned pregnancy” (1 = yes, 0 = no); received “pharmacological pain relief” during childbirth (1 = yes, 0 = no); “adverse outcome for baby” as defined by the presence (single or combined) of preterm birth (birth <37 weeks of gestation), and/or low birth weight (<2,500 grams), and/or suboptimal start at birth as defined by an Apgar score ≤6 and/or congenital anomalies (list defined) (1 = yes, 0 = no); the occurrence of (large) “problems related to the mother” after childbirth, which were self-reported in the ques-

tionnaire (1 = yes, 0 = no); and “childbirth assistance from a healthcare provider who was unknown to the woman” (1 = yes, 0 = no).

The WHO defined eight domains which cover the different factors that can influence clients’ experiences with the care process. These are “dignity,” “autonomy,” “confidentiality,” “communication,” “prompt attention,” “social consideration,” “quality of basic amenities,” and “choice and continuity” [24]. The respondents rated their experiences in all eight domains on a 4-point Likert scale (1 = very negative; 4 = very positive). The Cronbach’s alpha ranged from 0.66 to 0.92 for the eight domains [10]. The answers to the questions for all eight domains identified in the ReproQ were divided into two categories. The respondents who rated their experiences with a 4 on a 4-point Likert scale were defined as ‘positive.’ Respondents who rated their experiences with a ≤ 3.9 on a 4-point Likert scale were defined as ‘not positive’ (0 = ‘not positive’, 1 = ‘positive’).

Data analysis

The central aim of the analysis is to examine the extent to which socio-demographic characteristics, pregnancy and childbirth characteristics, and clients’ experiences with the care process can explain differences in client satisfaction between transferred and non-transferred women who had an uncomplicated pregnancy until the onset of labor. In order to explain such differences, these variables should show variation with respect to being transferred. The differences in transfers for the variables were explored in Table 1. Subsequently, multivariate analyses using linear regression were conducted. The differences in client satisfaction between transferred and non-transferred women, controlled for different groups of variables, are shown in Table 2. Five regression models were estimated to show how the different types of variables affect the association between transfers across care levels during childbirth and client satisfaction (Appendix 1). The relation between client satisfaction and transfers across care levels during childbirth is shown in Model 1. Model 1 was compared to Model 2, where socio-demographic characteristics were included. We checked whether the difference in client satisfaction between transferred and non-transferred women became smaller when adding the socio-demographic characteristics to Model 1. This comparison was also made for Model 3 and Model 4, where pregnancy and childbirth characteristics as well as clients’ experiences with the care process were added. In the final model, Model 5, all variables were included simultaneously. Statistical analyses were conducted using the SPSS 21.0 software program for Windows [25].

Findings

Characteristics of the sample

The age of the participating women ranged between 19 and 44 years, with a mean of 30.7 years (SD 3.9). Women who gave birth to their first baby made up 43.6% of the popula-

tion, and 29.5% had a medical intervention during childbirth. Adverse pregnancy outcomes were present for 3.9% of the babies, and 3.6% of women indicated that they experienced problems shortly after childbirth (Table 1). A comparison between our respondents and all 167,158 women who gave birth in the Netherlands in 2013 was made. The average age at first childbirth was almost identical - 29.3 years for our sample, compared to 29.5 years for the entire population [26]. The proportion of women who gave birth for the first time was 45.2% for the entire population, compared to 43.6% for our sample [16]. Women with a low education were underrepresented in our sample: only 10% had a low education (Table 1), while in the entire population of women who gave birth in 2013, 30.7% had a low education [27].

Transfers across care levels during childbirth

Of all 842 respondents with uncomplicated pregnancies until the onset of labor, 277 (32.9%) women were transferred from primary to secondary/tertiary care, while 565 (67.1%) women were not transferred. Transfers across care levels were more common among women who were younger (mean age 30.1 years for transferred women, and 31 years for non-transferred women). Women who had their first baby, had medical interventions, received pharmacological pain relief, gave birth to a baby with adverse pregnancy outcomes, experienced problems after giving birth, and were unfamiliar with their healthcare professional were more likely to be transferred (Table 1). No significant differences were found between transferred women and non-transferred women with respect to socio-demographic characteristics such as education ($p = 0.56$) and ethnicity ($p = 0.28$). Also, no significant difference was found between transferred women and non-transferred women with respect to the pregnancy and childbirth characteristic: unplanned pregnancy ($p = 0.49$). Positive associations were found between transfers and 'not positive' experiences for seven ReproQ domains, namely respect ($p < 0.001$), autonomy ($p < 0.001$), confidentiality ($p < 0.001$), communication ($p < 0.001$), prompt attention ($p < 0.001$), social consideration ($p < 0.001$), and choice and continuity ($p < 0.001$).

Examining differences for the two groups, ANOVA yielded significant group differences in the average mean scores in client satisfaction. Women who were not transferred across care levels had an average mean score of 8.78 (SD 0.94), while the average mean score for those who experienced a transfer was significantly lower at 8.04 (SD 1.41, ($p < 0.001$)). The mean client satisfaction with the perinatal healthcare in our sample was 8.53 (SD 1.2, range 9) on a scale of 1 to 10.

Table 1. Association between transfers across care levels during childbirth and socio-demographic characteristics, pregnancy and childbirth characteristics, and care process variables in women with uncomplicated pregnancies until the onset of labor

	Total N=842		Not transferred across care levels during childbirth N=565		Transferred across care levels during childbirth N=277		
Variable	N	(%)	N	(%)	N	(%)	P
Socio-demographic characteristics							
Education,							0.56
Low	84	10.0	52	9.2	32	11.6	
Middle	341	40.5	230	40.7	111	40.1	
High	417	49.5	283	50.1	134	48.4	
Dutch ethnicity	811	96.3	547	96.8	264	95.3	0.28
Pregnancy and childbirth characteristics							
Primiparous	367	43.6	162	28.7	205	74.0	<0.001
Medical intervention during birth*	248	29.5	84	14.9	164	59.2	<0.001
Unplanned pregnancy	115	13.7	74	13.1	41	14.8	0.49
Pharmacological pain relief	156	18.5	5	0.9	151	54.5	<0.001
Adverse pregnancy outcome (baby)**	33	3.9	11	1.9	22	7.9	<0.01
Perceived health problems (mother)	30	3.6	15	2.7	15	5.4	0.04
Unfamiliar with healthcare providers	220	26.1	43	7.6	177	63.9	<0.001
Clients' experiences with care process***							
'Not positive' on respect	214	25.4	90	15.9	124	44.8	<0.001
'Not positive' on autonomy	309	36.7	189	33.5	120	43.3	<0.001
'Not positive' on confidentiality	191	22.7	108	19.1	83	70.0	<0.001
'Not positive' on communication	324	38.5	188	33.3	136	49.1	<0.001
'Not positive' on prompt attention	240	28.5	117	20.7	123	44.4	<0.001
'Not positive' on social consideration	122	14.5	65	11.5	57	20.6	<0.001
'Not positive' on quality of basic amenities	98	11.6	60	10.6	38	13.7	0.19
'Not positive' on choice and continuity	255	31.3	126	22.3	129	46.6	<0.001
* Episiotomy, forceps, vacuum extraction, planned/unplanned Caesarean section.							
** <37.0 weeks gestational age, and/or low birth weight (<2,500 grams) and/or low Apgar score (<6) and/or congenital anomalies.							
*** 'Not positive' = ≤ 3.9 Likert score (scale 1-4)							

Explaining variation in client satisfaction

Women who were transferred scored 0.74 lower on client satisfaction (on a scale of 1 to 10) than women who were not transferred, which is shown in Model 1 (Table 2). Model 2 shows that adding the socio-demographic characteristics to Model 1 does not significantly change

the differences in client satisfaction between transferred and non-transferred women. Model 3 shows that adding pregnancy and childbirth characteristics to Model 1 reduces the differences in client satisfaction between transferred and non-transferred women from -0.74 to -0.30. In Model 4, clients' experiences with the care process are added to Model 1; here, the difference in client satisfaction between transferred and non-transferred women reduces from -0.74 to -0.40. In the final model, socio-demographic characteristics as well as pregnancy and childbirth characteristics and clients' experiences with the care process are added to Model 1. Taken together, these factors significantly lower the effect of being transferred across care levels on client satisfaction from -0.74 to -0.05 (95% confidence intervals do not overlap).

Table 2. Linear regression results of the association between client satisfaction of women with uncomplicated pregnancies until the onset of labor and transfers across care levels during childbirth (see Appendix 1 for entire multivariate analysis)

	Estimated coefficient of transfer (95% CI)
Constant (client satisfaction 1-10)	8.8
Model 1: transfers across care levels during birth a	-0.74 (-0.91 to -0.58)
Model 2: Model 1 + socio-demographic characteristics b	-0.74 (-0.91 to -0.58)
Model 3: Model 1 + pregnancy and childbirth characteristics c	-0.30 (-0.55 to -0.05)
Model 4: Model 1 + care process variables d	-0.40 (-0.56 to -0.24)
Model 5: Model 1 + socio-demographic characteristics + pregnancy and childbirth characteristics + care process variables e	-0.05 (-0.29 to 0.18)
a Client satisfaction; Transfers across care levels during birth	
b Model 1 + Age; Education; Ethnicity	
c Model 1 + Parity; Medical interventions; Planned pregnancy; Pharmacological pain relief; Adverse outcome pregnancy (baby); Perceived health problems (mother); Familiarity with healthcare providers	
d Model 1 + 8 care process variables (Respect; Autonomy; Confidentiality; Communication; Prompt attention; Social consideration; Quality of basic amenities; Choice and continuity)	
e Client satisfaction; Transfers across care levels during birth; Age; Education; Ethnicity; Parity; Medical interventions; Planned pregnancy; Pharmacological pain relief; Adverse outcome pregnancy (baby); Perceived health problems (mother); Familiarity with healthcare providers; 8 care process variables (Respect; Autonomy; Confidentiality; Communication; Prompt attention; Social consideration; Quality of basic amenities; Choice and continuity)	

Overall, the groups of variables that explained the variation in client satisfaction between transferred women and non-transferred women were pregnancy and childbirth characteristics and clients' experiences with the care process. The pregnancy and childbirth characteristics that were associated with variation in client satisfaction were perceived health problems for the mother ($b = -0.60, p < 0.001$) and medical interventions during childbirth ($b = -0.31, p < 0.001$) (Appendix 1). The clients' experiences with the care process that are strongly associated with variation in client satisfaction were respect, prompt attention,

quality of basic amenities, social consideration and choice and continuity (between 0.28 and 0.37). The variables included in the final model together explained 93.2% of the difference in client satisfaction between women who were transferred across care levels and women who were not transferred ($0.74 - 0.05 / 0.74 = 93.2\%$).

Discussion

In this population-based study of 842 women who had an uncomplicated pregnancy until the onset of labor, client satisfaction with the care provided during childbirth was, on average, 8.53 (on a scale of 1 to 10). Transfers across care levels during childbirth were negatively associated with client satisfaction. Transferred women score 0.74 lower on client satisfaction (on a scale of 1 to 10) than non-transferred women. This study found seven variables that largely explained the difference in client satisfaction between women who were transferred across care levels and women who were not - medical interventions during childbirth, the mother perceiving health problems after giving birth, and 'not positive' experiences with the care process variables (respect, prompt attention, quality of basic amenities, social consideration, and choice and continuity). Together, these variables explained 93.2% of the difference in client satisfaction between women who were transferred across care levels during childbirth and women who were not transferred.

Several other studies found relatively high client satisfaction among women who experienced a transfer during childbirth from a primary care professional to a secondary care professional [28, 29, 30]. Scheerhagen et al. suggest that a positive response pattern in self-reported questionnaires about client satisfaction with perinatal healthcare might be explained by the fact that pregnancy and childbirth are not diseases and customarily have a good outcome [29]. The lower client satisfaction we found in women who were transferred across care levels is in agreement with results obtained by Rowe et al., who found that British women were negatively affected by transfers from midwifery units to hospital obstetric units [14].

Medical interventions partly explained the difference in client satisfaction between transferred and non-transferred women. As expected, medical interventions were more prevalent in the group of women who were transferred across care levels, because most of these interventions have to be performed by healthcare professionals in secondary or tertiary care. Women who experienced medical interventions perceived their childbirth more negatively. These results are in agreement with the findings of Waldenström et al, which state that medical interventions and surgical procedures such as emergency caesarean sections, vacuum extractions, forceps deliveries, and episiotomies were all associated with a negative birth experience and/or decreased satisfaction [31,32].

Perceived health problems for the mother also partly explained the difference in client satisfaction between transferred and non-transferred women. Mothers who perceived health problems after childbirth had lower client satisfaction. These mothers were also more likely to have been transferred across care levels during childbirth. A possible explanation for this might be that their risk status increased due to, for example, childbirth-related complications for which they needed to be treated in secondary or tertiary care [33]. Britton mentioned various health-related factors that could be related to lower client satisfaction, including unexpected medical problems, physical symptoms, and hospitalization of the mother [34].

Similar to previous studies, socio-demographic factors could not explain the differences in client satisfaction between women who were transferred across care levels and women who were not transferred across care levels [8,35]. Five care process variables partly explained the differences in client satisfaction between transferred and non-transferred women. This result was not unforeseen, because the ReproQ was created to measure perinatal healthcare performances based on factors which measure how the client experienced handling by healthcare professionals and the environment in which the client received care [24,29].

In the Netherlands, almost every healthcare organization uses its own questionnaire to evaluate its services. In 2016, commissioned by the Dutch government, the Dutch organization College Perinatale Zorg (CPZ) selected a single questionnaire to uniformly measure client experiences. The ReproQ was selected as the most suitable questionnaire and, according to the CPZ, should from now on be used to measure client experiences [36]. A strength of this study is that it was, to our knowledge, the first to follow the CPZ's advice and use the ReproQ to measure client experiences with care process domains and overall client satisfaction on a large scale.

This study has limitations that should be noted. The first limitation concerns the inclusion method. Only women who had a first appointment with their baby at a child health clinic were asked to participate. Women who gave birth to a stillborn baby or lost their baby during the neonatal period were not included, because they did not register for the clinic. Second, we used respondents' self-reported data to determine whether they had been transferred across care levels. Respondents could have answered the questions incorrectly, and the possibility of misclassifications cannot be ruled out. A third limitation concerns the item that was used to measure client satisfaction. This item measured women's assessment of whether their experience was good or bad. We assumed that a good experience could be interpreted as satisfactory and a bad experience as dissatisfactory. The findings should therefore be interpreted with caution. Lastly, no follow-up was performed on non-respondents, which means that we do not know how the non-responders differed from responders, and the presence of non-response bias is a possibility.

The transfer rates of our sample and the entire population of women who gave birth in 2013 were compared. In our study, 32.9% of women who started labor in a primary care

setting were transferred during childbirth, which is lower than 43.5% of the entire Dutch population of women who had uncomplicated pregnancies at the onset of labor in 2013 [17]. This difference might be explained by regional differences in demographic and pregnancy characteristics. In the eastern part of the Netherlands, compared to other parts of the Netherlands, there are more multiparous women, home births, and spontaneous births [37]. These factors are all associated with fewer transfers across care levels during childbirth, which could explain why there are fewer transfers in our sample than in the entire Dutch population. Further research about the satisfaction of women who experienced a high risk at the onset of labor is therefore recommended, preferably with a follow-up study design.

Conclusion

This study showed that women who had an uncomplicated pregnancy at the onset of labor are highly satisfied with Dutch perinatal healthcare. Significant differences in client satisfaction were however found between women who were transferred across care levels and women who were not transferred across care levels, with the latter being more satisfied. This difference is largely explained by the fact that transferred women perceived more health problems after birth, experienced more medical interventions during childbirth, and had 'not positive' experiences with five care process variables. Some transfers are avoidable, but this does not apply to all transfers. Well-executed expectation management during pregnancy and at the onset of labor could help prepare pregnant women and their partners for the impending childbirth and the postnatal period. Improved guidance and future research should preferably be directed at how to improve and implement expectation management into the existing perinatal healthcare.

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CHAPTER 3

Client experiences with perinatal healthcare for
high-risk and low-risk women

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Abstract

Introduction

In the Netherlands, risk selection divides pregnant women into low- and high-risk groups. Receiving news that a pregnancy or childbirth has an increased likelihood of complications can cause elevated levels of emotional distress. The purpose of this study is to describe client experiences with perinatal healthcare and to determine which, if any, background characteristics, pregnancy circumstances, childbirth or follow-up care characteristics are explaining variables of differences in client experiences between high-risk and low-risk women.

Methods

Client experiences were measured with a validated questionnaire completed by 1 388 women within 12 weeks after childbirth.

Findings

Women rated their experiences with perinatal healthcare with a mean score of 3.78 on a scale of 1-4; 5.5% of the women rated their experiences as “notably bad”. Client experiences with perinatal healthcare show small variations, with a lower mean score for women who were at high-risk (3.75) compared to low-risk women (3.84). This difference is partially due to more unplanned medical interventions and pain relief during childbirth in the high-risk group. Also, single mothers and non-Dutch women were more susceptible to less positive experiences.

Conclusion

Given the potential negative impact of adverse client experiences, this study highlights the need for healthcare professionals to be aware of what women are susceptible for having had negative experiences. It is advised that healthcare provision be altered to tailor to the needs of these women.

Introduction

In the Netherlands, risk selection is used to divide pregnant women into low- and high-risk groups. Tailored care is then provided according to the identified risk [1]. This means that the course of pregnancy and childbirth can go three ways: (1) low-risk women are guided by community midwives in a primary care setting; (2) low-risk women are guided by community midwives until they become high-risk and are then referred to clinical midwives and/or obstetricians; (3) high-risk women are guided by clinical midwives and/or obstetricians in a secondary or tertiary care setting through-out the pregnancy and childbirth [2].

Community midwives are the responsible caregivers for low-risk women during pregnancy and childbirth. They are autonomous practitioners and work from a local midwifery practice. Community midwives have completed a four-year education program (Bachelor) at the midwifery academy [3]. Clinical midwives are employed to work in secondary or tertiary hospital setting, where they take care of high-risk women [4]. Additionally, having the same Bachelor education as community midwives, clinical midwives also completed a Master program of 2.5 years [5]. Lee et al. (2012) defined high-risk pregnancy and/or childbirth as “any condition which could increase the likelihood of an adverse outcome for mother and/or foetus” [6]. Complications include pre-existing medical disorders, such as diabetes mellitus and hypertension, multiple pregnancies, preeclampsia and preterm labour. If complications occur, women are transferred to an obstetrician or clinical midwife in secondary or tertiary care. The indications for a transfer from primary to secondary or tertiary care have been included in the “Obstetric Indication List” [7]. Low-risk pregnancy and/or childbirth refers to women aged 18-39, singleton or term pregnancy and the absence of any other medical or surgical conditions that pose a high-risk for poor pregnancy outcome [8].

In 2015, 87.3% of all pregnant women in the Netherlands started antenatal healthcare with a community midwife, indicating they had a low risk of developing complications. During pregnancy, 35.8% of these women were transferred to a clinical midwife or obstetrician due to an increased likelihood of complications. During labour, 22.4% of all pregnant women who started antenatal healthcare with a community midwife were transferred to the secondary care level. This resulted in 71% of all pregnant women giving birth under the supervision of a clinical midwife or an obstetrician [9]. These numbers show that most women in the Netherlands who gave birth in 2015 experienced an increased risk of complications.

Women who receive news that the pregnancy or childbirth has an increased likelihood of complications for herself and/or the foetus might experience stress and anxiety, depression and lower self-esteem [6,10,11]. An elevated level of emotional distress is often associated with the inability to anticipate pregnancy complications and of knowing what to expect [10]. Receiving timely, relevant and comprehensible information from healthcare

professionals can help clients cope with unknown and stressful situations. Failing to recognise the needs of women with an increased likelihood of complications during pregnancy and childbirth can result in a negative client experience [10].

Negative or unforeseen birth experiences are associated with maternal feelings of failure, grief, loss and problems with mother-infant interaction [12,13]. These negative experiences can have long-term effects for the woman and may influence her reproductive choices [14]. For these reasons, it is important that clients experience perinatal healthcare as positively as possible. This entails that healthcare professionals should meet their clients' needs and provide care that reflects the clients' views and preferences as much as possible [1].

Many factors influence client experiences with perinatal healthcare, such as their background characteristics, their educational level and their age at labour [15,16]. Studies in the Netherlands have reported that obstetric factors, in particular unplanned interventions and pharmaceutical pain relief, are associated with negative recall of birth experiences when compared to spontaneous vaginal births [12,14,17]. The role of other potentially influencing factors, such as parity, ethnicity, having a partner, pregnancy planning and follow-up care, are still disputed [18,19,20].

Several studies have investigated client experiences with perinatal healthcare of either low-risk or high-risk women [6,10,11,21,22]. However, no studies have compared the client experiences and characteristics between these two groups. We therefore aim to answer the following research questions: Do client experiences with perinatal healthcare differ between high-risk and low-risk women who gave birth to a live-born child in an eastern region of the Netherlands? If so, which, if any, background characteristics, pregnancy circumstances, childbirth or follow-up care characteristics explain such differences? Lastly, what are the characteristics of women who had "notably bad" experiences with perinatal healthcare?

A few of the abovementioned risk factors behind negative client experiences are unavoidable and cannot be altered by healthcare providers. However, if healthcare providers are aware of the risk factors that predict negative experiences, they can take the factors into account, pay more attention to these clients and situations, and adapt their expectation management. Improving perinatal healthcare by focusing on the particular needs of pregnant women and individualising care has been said to increase women's satisfaction [12].

Methods

The study was conducted in the Netherlands between April 2014 and September 2014. To obtain women's experiences of perinatal care, a questionnaire was distributed among women who recently gave birth. According to the criteria of the Dutch Medical Research Involving Human Subjects Act, this study did not need to be submitted for ethical approval by a Medical Ethical Committee [23]. Therefore, the study was reviewed and approved by the ethical committee of the University of Twente on 18 January 2015 (16011). Executives of the three involved youth healthcare organizations agreed to cooperate by handing out the questionnaires in their well baby clinics or send the questionnaires to the home addresses of their clients.

Participants

Women who gave birth to a live-born child in an eastern Dutch region and visited the well baby clinic between April 2014 and September 2014 for the first time after childbirth, were eligible to be included for this study. Women were recruited through well baby clinics of three youth healthcare organisations covering three different eastern regions in the Netherlands. Well baby clinics are visited by nearly 99% of parents and their children aged 0 to 1 year [24]. A well baby clinic is a special child health centre provided by a youth healthcare organization. It offers free basic care and prevention for all children between 0-4 years. The first fixed contact at a well baby clinic is around four weeks after childbirth [25]. The three participating healthcare organizations together, offer youth healthcare at 61 local well baby clinics. We asked the clinics to exclude mothers born in the year 1996 or later and those who could not understand the Dutch language sufficiently. Of the 3 654 eligible women we assumed to have received the questionnaire, 1 696 (46.4%) women responded by filling out the questionnaire. Information about client experiences with perinatal care (dependent variable), background characteristics or explaining factors (independent variables) was missing in 308 (18.2%) cases, therefore these questionnaires were excluded. The final sample for analysis consisted of 1 388 women. The questionnaires were filled out on average 6.1 weeks after childbirth.

The RISK LEVEL of women who gave birth was divided in four categories: (0) low-risk; (1) high-risk from the beginning of the pregnancy; (2) high-risk during the pregnancy; (3) high-risk at the onset of childbirth or during childbirth. Women were considered to be low-risk if they experienced uncomplicated pregnancies (i.e. singleton gestation without maternal or foetal risk factors) and gave birth at a primary care level, under guidance of a community midwife or general practitioner. Women were classified as being in the first high-risk group when they were guided by clinical midwives and/or obstetricians in secondary care from the start of their pregnancy because of predisposing risk factors. The second high-risk group consisted of women who had complications during the pregnancy for which they needed to be transferred from the primary care to the secondary care level. The third high-risk group

consisted of women who had (an increased risk of developing) complications during labour (i.e. prolonged labour or preterm birth), an indication for pharmacological pain medication or for continuous monitoring of the mother and child, for which they needed to be transferred from the primary care to the secondary care level [26]. Women in one of the three high-risk groups were all guided by clinical midwives and/or obstetricians during (at least part of) labour and childbirth.

Data collection procedure

Numbered questionnaire booklets were distributed among women who visited the well baby clinic about a month after giving birth. In two out of three youth healthcare organisations, the questionnaires were handed out by assistants in the well baby clinics, either upon the women's arrival at the clinic for the first time or at the end of the first appointment when the women would also receive other paperwork. To avoid adding to the workload of the healthcare providers, the third youth healthcare organisation delivered the questionnaires to the home addresses of all women who were about to have their first routine appointment with their baby at the well baby clinic.

Questionnaire packages contained a Dutch information sheet and paper questionnaire, which included a link to the questionnaire's online version. All women were gifted a coupon with a discount code to a web shop; the coupon was also included in the questionnaire package.

Participants could complete and return the paper questionnaire using the paid envelope provided or complete the online questionnaire. Declined questionnaire packages were returned to the researchers, who recorded the number of declined packages to enable accurate calculations of the response rate. We considered completion and submission of the questionnaire to imply consent. The answers to the questionnaire were anonymous, because there were no questions about contact details or birth dates. No reminders were sent to non-responders, due to time and financial constraints.

Variables

The outcome variable, CLIENT EXPERIENCES with perinatal healthcare (healthcare surrounding the period during labour, childbirth and continuing through the first 28 days of life [22]), was measured using a client experience questionnaire (ReproQ), developed and validated by Scheerhagen and colleagues based on the World Health Organization's (WHO) responsiveness model [27]. According to this model, client experiences with healthcare are measured by eight domains: dignity, autonomy, confidentiality, communication, prompt attention, social consideration, quality of basic amenities, and choice and continuity. See appendix belonging to chapter 3 for the full questionnaire.

The participants were asked to rate the extent to which they had experiences with the topics mentioned in the questions on a 4-point Likert scale (from 1 = never to 4 = always). The total mean score of client experiences with perinatal healthcare was computed

as unweighted average scores, treating “never” (1), “sometimes” (2), “most of the time” (3) and “always” (4) numerically across all eight domains. Higher scores on this scale indicated more positive experiences with perinatal healthcare.

We defined NOTABLY BAD EXPERIENCES (no = 0; yes = 1) with perinatal healthcare, as having a mean score that is two standard deviations below the mean score of the study population (mean score ≤ 3.32).

Four groups of independent variables were constructed to explain potential variations in client experiences for the different risk levels. Firstly, the following background characteristics were measured: the AGE of the mother at the time of completing the questionnaire (18-29 years = 0; 30-39 years = 1; ≥ 40 years = 2); the mother’s EDUCATIONAL LEVEL (low = 0 [none, elementary education, preparatory middle-level applied education, vocational education level 1]; middle = 1 [higher general continued education, preparatory scholarly education, vocational education level 2, 3 and 4]; high = 2 [university of applied sciences, university] [28]); the mother’s ETHNICITY (Dutch = 0; non-Dutch = 1); and whether the pregnancy was UNPLANNED (no = 0; yes = 1). Secondly, we included variables around pregnancy circumstances: being a mother for the FIRST TIME (no = 0; yes = 1), being a SINGLE MOTHER (no = 0; yes = 1). Thirdly, the following childbirth-related characteristics were measured: MEDICAL INTERVENTIONS during childbirth (no medical interventions = 0; unplanned medical interventions = 1 [such as forceps, vacuum extraction or emergency caesarean section]; planned medical interventions = 2 [such as induced labour or planned caesarean section]); FAMILIARITY WITH THE CAREGIVER in charge of the birth (“I was familiar with the healthcare provider” = 0; “The healthcare provider was unfamiliar to me” = 1); and receiving PAIN MEDICATION during childbirth (no medication = 0; medication = 1). Lastly, we measured follow-up care by asking if participants visited medical specialists in the hospital for themselves or their baby after childbirth: VISIT MEDICAL SPECIALIST (no visit = 0; visit = 1).

Data analysis

Data were analysed using univariate, bivariate and multiple regression analyses. The analyses showed no variation in outcome and explaining variables for the timing of becoming high-risk: high-risk from beginning of pregnancy, high-risk during pregnancy, high-risk at the onset of childbirth or during childbirth (the results are available on request). Further analyses were performed with two groups: (0) low-risk and (1) high-risk. Descriptive statistics were employed, firstly to describe the childbirth and background characteristics, pregnancy circumstances, childbirth characteristics and follow-up care of the whole sample, and secondly to explore the association between these variables and the risk level (low-risk and high-risk) (Table 1).

Subsequently, multivariate analyses using linear regression were conducted. Six regression analyses were performed to examine how the different groups of variables influence the association between risk level and client experiences (Table 2 and Table 3). To increase our understanding of why women had bad experiences with perinatal healthcare,

Table 1. Association between risk level (low-risk and high-risk) during pregnancy and/or childbirth and background characteristics, pregnancy circumstances, childbirth characteristics and follow-up care

Variables	Total N=1388		Low-risk N = 473 (34.1%)		High-risk N = 915 (65.9%)		P value
Background characteristics	N	(%)	N	(%)	N	(%)	P
Age							0.23
18-29	540	38.9	186	39.3	354	38.7	
30-39	810	58.4	279	59.0	531	58.0	
>40	38	2.7	8	1.7	30	3.3	
Education							0.33
Low	155	11.2	46	9.7	109	11.9	
Middle	583	42.0	195	41.2	388	42.4	
High	650	46.8	232	49.1	418	45.7	
Ethnicity							0.27
Dutch	1323	95.3	455	96.2	868	94.9	
Non-Dutch	65	4.7	18	3.8	47	5.1	
Unplanned current pregnancy							0.91
No	1204	86.7	411	86.9	793	86.7	
Yes	184	13.3	62	13.1	122	13.3	
Pregnancy circumstances							
Single mother							<0.001
No	1352	97.4	470	99.4	882	96.4	
Yes	36	2.6	3	0.6	33	3.6	
Primiparous							<0.001
No	743	53.5	334	70.6	409	44.7	
Yes	645	46.5	139	29.4	506	55.3	
Childbirth characteristics							
Medical intervention during childbirth							<0.001
None	769	55.4	447	94.5	322	35.2	
Planned*	345	24.9	20	4.2	325	35.5	
Unplanned**	274	19.7	6	1.3	268	29.3	
Pain medication during birth							<0.001
No	847	61.0	469	99.2	378	41.3	
Yes	541	39.0	4	0.8	537	58.7	
Unfamiliar provider who guided childbirth							<0.001
No	696	50.1	433	91.5	263	28.7	
Yes	692	49.9	40	8.5	652	71.3	

Follow-up care						
Visit medical specialist						<0.001
No	977	70.4	395	83.5	582	63.6
Yes	411	29.6	78	16.5	333	36.4
"Notably bad" experiences with healthcare***						<0.001
No	1312	94.5	462	97.7	850	92.9
Yes	76	5.5	11	2.3	65	7.1
* Induced labour, planned caesarean section						
** Episiotomy, forceps, vacuum extraction, unplanned caesarean section						
*** "Notably bad" ≤ 3.32 Likert score (scale 1-4)						

we performed bivariate analyses on the subgroup of participants with "notably bad experiences" (Table 4). Differences in risk level and other independent variables between women with "notably bad experiences" and women without them were tested by Pearson's chi-square test. The strength of associations between potential explanatory variables and client experiences are expressed as odds ratios (OR) with 95% confidence intervals (CI). All analyses were performed using the SPSS 21.0 software for Windows [29].

Findings

Characteristics of the sample

Participants' mean age was 30.8 years (SD 4.2) and ranged between 19 and 44 years. Almost half of the women were highly educated, while 42.0% had middle education levels and 11.2% had low education levels (Table 1). The majority of women were native Dutch (95.3%) and had a partner (97.4%). About half of the women were primiparous (46.5%) and more than three quarters had a planned pregnancy (86.7%). Almost half of the women had a medical intervention during childbirth (44.6%) and did not know the healthcare professional who supervised labour (49.9%). Pain medication during childbirth was received by 39.0% of the participants. After childbirth, one third of all women visited a specialist in the hospital for themselves or their baby (29.6%).

In comparison to all women who gave birth in the Netherlands in 2015, the respondent sample was largely representative in terms of age (mean 30.8 years in our population vs. 31.1 years nationally), parity (46.5% p0 in our population vs. 44.6% p0 nationally), risk level (65.9% high-risk level in our population vs. 71% nationally) and pain medication (39.0% received pain medication in our population vs. 37.9% nationally) [30]. Percentages of women with a low educational level (11.2% our in population vs. 25% nationally) and non-Dutch women (4.7% in our population vs. 26% nationally) were below the national average [30, 31].

Risk level of pregnant women

Of all 1 388 respondents, 915 (65.9%) had a high-risk pregnancy and/or childbirth, while

473 (34.1%) had a low-risk pregnancy and/or childbirth (Table 1). Using Pearson's chi-square test, no significant differences were found between the low-risk and high-risk groups for the background variables: age, education, ethnicity and unplanned current pregnancy. In the high-risk group, the percentage of single mothers and first-time mothers was higher than in the low-risk group (resp, $p < 0.001$ and $p < 0.001$). Women with a high-risk level had significantly more medical interventions during childbirth ($p < 0.001$), pain medication during childbirth ($p < 0.001$), were more often unfamiliar with the healthcare provider that guided childbirth ($p < 0.001$), and visited a medical specialist in the hospital more often ($p < 0.001$).

Explaining variation in client experiences

Examining differences between the two groups, ANOVA yielded significant group differences in the average mean score of client experiences with perinatal healthcare. Women on a high-risk level scored 0.09 lower on client experiences (on a scale of 1 to 4) than women with a low-risk, which is shown in Model 1 (Table 2). Women on a low-risk level had an average mean score of 3.84 (SD 0.18), while the average mean score for those with a high-risk was significantly lower at 3.75 (SD 0.24, ($p < 0.001$)). The mean client experiences with perinatal healthcare in our sample was 3.78 (SD 0.23, range 1.75) on a scale of 1 to 4 (Table 2). The variable risk level in Model 1 explained 4% of the variance of experiences with care ($R^2 = 0.04$, $p < 0.001$) (Table 3).

Table 2. Linear regression results of the association between women's experiences and risk level (see Table 3 for entire multivariate analysis)

	Estimated coefficient of experiences (95% CI)
c	3.78
Model 1: Riska	-0.09 (-0.12 to -0.07)
Model 2: Model 1 + background characteristics b	-0.09 (-0.12 to -0.07)
Model 3: Model 1 + pregnancy circumstances c	-0.09 (-0.11 to -0.06)
Model 4: Model 1+ childbirth characteristics d	-0.04 (-0.07 to -0.01)
Model 5: Model 1 + follow-up care e	-0.09 (-0.11 to -0.06)
Model 6: Model 1 + background characteristics + pregnancy circumstances, childbirth characteristics and follow-up care f	-0.03 (-0.07 to 0.01)
a Mean score client experiences; Risk	
b Model 1 + Age; Education; Ethnicity; Unplanned pregnancy	
c Model 1 + Single mother; Primiparous	
d Model 1 + Medical interventions; Pharmacological pain relief; Unfamiliar with healthcare providers	
e Model 1 + Visit medical specialist	
f Mean score client experiences; Risk; Age; Education; Ethnicity; Unplanned pregnancy; Single mother; Primiparous; Medical interventions; Pharmacological pain relief; Unfamiliar with healthcare providers; Visit medical specialist	

Table 3. Multivariate analyses using linear regression to explore the association between experiences of women with being high-risk or not

	Model 1a			Model 2b		
	b	95%-CI	P	b	95%-CI	P
Risk	-.09	-.12 to -.07	.00**	-.09	-.12 to -.07	.00**
Background characteristics						
Age						
29				-.01	-.03 to .02	.89
30-39 (reference)				-	-	-
>40				-.03	-.10 to .05	.45
Education						
Low				.01	-.03 to .05	.56
Middle				.04	.02 to .07	.00**
High (reference)				-	-	-
Ethnicity				-.07	-.12 to -.01	.02*
Unplanned pregnancy				-.02	-.06 to .01	.18
Pregnancy circumstances						
Single mother						
Primiparous						
Childbirth characteristics						
Medical interventions						
None (reference)						
Planned						
Unplanned						
Pain relief						
Unfamiliar with provider						
Follow up care						
Visit medical specialist						
Adj. R ²	.04			.04		
Sig.	.00			.00		
* p<.05 (two-tailed), ** p <.01 (two-tailed),						
a Mean score; risk.						
b Model 1 + Age; Education; Ethnicity						
c Model 1 + Single mother; Primiparous; Planned pregnancy						
d Model 1 + Medical interventions; Pharmacological pain relief; Unfamiliar with healthcare providers						
e Model 1 + visit medical specialist						
f Mean score, Risk, Age; Education; Ethnicity, Single mother; Primiparous; Medical interventions; Planned pregnancy; Pharmacolog						

Model 2 shows that adding background characteristics to Model 1 does not significantly change the differences in client experiences between low-risk and high-risk women (Table 2). The same is seen when pregnancy circumstances in Model 3 are added to Model 1. In Model 4, childbirth characteristics are added to Model 1, and here the difference in client experiences between low-risk and high-risk reduces from -0.09 to -0.04. In Model 5, follow-up care was

Model 3c			Model 4d			Model 5e			Model 6f		
b	95%-CI	P	b	95%-CI	P	b	95%-CI	P	b	95%-CI	P
-.09	-.11 to -.06	.00**	-.04	-.07 to -.01	.04*	-.09	-.11 to -.06	.00**	-.03	-.07 to .01	.10
									.01	-.02 to .03	.89
									-	-	-
									-.03	-.09 to .05	.50
									.02	-.02 to .06	.42
									.04	.02 to .07	.00**
									-	-	-
									-.06	-.11 to -.01	.04*
									-.02	-.06 to .02	.25
-.09	-.17 to -.02	.01*							-.09	-.16 to -.01	.03*
-.01	-.04 to .01	.28							-.01	-.03 to .02	.60
			-	-	-				-	-	-
			-.04	-.07 to -.01	.03*				-.04	-.08 to -.01	.01*
			-.05	-.09 to -.02	.00**				-.05	-.08 to -.01	.01*
			-.03	-.06 to -.01	.03*				-.03	-.06 to .01	.05*
			-.01	-.04 to .02	.35				-.01	-.04 to .02	.41
						-.03	-.06 to -.01	.04*	-.02	-.05 to .01	.12
.04			.05			.04			.06		
.00			.00			.00			.00		

ical pain relief; Unfamiliar with healthcare providers; visit medical specialist

added to Model 1, which does not significantly change the differences in client experiences between low-risk and high-risk women. In the final model, background characteristics as well as pregnancy circumstances, childbirth characteristics and follow-up care are added to Model 1. Taken together, these factors significantly lower the effect of a high-risk level on client experiences from -0.09 to -0.03 (95% confidence intervals do not overlap) (Table 2).

Overall, the variables that partly explained the variation in client experiences between low-risk and high-risk women were middle educational level ($\beta = 0.04$, $p < 0.001$), non-Dutch ethnicity ($\beta = -0.06$, $p = 0.04$), single mother ($\beta = -0.09$, $p = 0.03$), planned medical interventions ($\beta = -0.04$, $p = 0.001$), unplanned medical interventions ($\beta = -0.05$, $p = 0.001$) and pain medication during childbirth ($\beta = -0.03$, $p = 0.05$). The variables included in the final model explained 66.7% of the small difference in client experiences between women who had a high-risk pregnancy and/or childbirth and women who had a low-risk pregnancy and/or childbirth ($(-0.09) - (-0.03) / -0.09 = 66.7\%$) (Table 3).

Table 4. Comparison of explaining variables between women with “notably bad” experiences and women without them, using Pearson’s chi-square test ($n = 1\,388$)

	Total	No “notably bad” expe- riences	“Notably bad” expe- riences	Odds ratio	(95%CI)
Risk				3.21	(1.68 to 6.15)
Low-risk	473 (34.1)	462 (35.2)	11 (14.5)		
High-risk	915 (65.9)	850 (64.8)	65 (85.5)		
Background characteristics					
Age					
18-29	540 (38.9)	510 (38.8)	30 (39.5)	0.78	(0.23 to 2.67)
30-39 (reference)	810 (58.4)	767 (58.5)	43 (56.6)		
≥ 40	38 (2.7)	35 (2.7)	3 (3.9)	0.82	(0.24 to 2.87)
Education					
Low	155 (11.2)	145 (11.1)	10 (13.2)	1.26	(0.75 to 2.09)
Middle	583 (42.0)	555 (42.3)	28 (36.8)	1.27	(0.60 to 2.69)
High (reference)	650 (46.8)	612 (46.6)	38 (50.0)		
Ethnicity				2.59	(1.19 to 5.65)
Dutch	1323 (95.3)	1255 (95.7)	68 (89.5)		
Non-Dutch	65 (4.7)	57 (4.3)	8 (10.5)		
Unplanned current pregnancy				1.81	(1.02 to 3.23)
No	1204 (86.7)	1144 (87.2)	60 (78.9)		
Yes	184 (13.3)	168 (12.8)	16 (21.1)		
Pregnancy circumstances					
Single mother				2.22	(0.77 to 6.45)
No	1352 (97.4)	1280 (97.6)	72 (94.7)		
Yes	36 (2.6)	32 (2.4)	4 (5.3)		
Primiparous				1.45	(0.91 to 2.31)
No	743 (53.5)	709 (54.0)	34 (44.7)		
Yes	645 (46.5)	603 (46.0)	42 (55.3)		

Childbirth characteristics					
Medical intervention during childbirth					
None (reference)	769 (55.4)	743 (56.6)	26 (34.2)		
Planned*	345 (24.9)	321 (24.5)	24 (31.6)	0.34	(0.19 to 0.59)
Unplanned**	274 (19.7)	248 (18.9)	26 (34.2)	0.72	(0.40 to 1.28)
Pain medication during birth				2.13	(1.34 to 3.40)
No	847 (61.0)	814 (62.0)	33 (43.4)		
Yes	541 (39.0)	498 (38.0)	43 (56.6)		
Unfamiliar provider who guided childbirth				1.89	(1.17 to 3.06)
No	696 (50.1)	669 (51.0)	27 (35.5)		
Yes	692 (49.9)	643 (49.0)	49 (64.5)		
Follow-up care					
Visit medical specialist				1.33	(0.82 to 2.16)
No	977 (70.4)	928 (70.7)	49 (64.5)		
Yes	411 (29.6)	384 (29.3)	27 (35.5)		
"Notably bad" ≤ 3.32 Likert score (scale 1-4), Significant outcomes in bold					
* Induced labour, planned caesarean section					
** Episiotomy, forceps, vacuum extraction, unplanned caesarean section					

Finally, the bivariate analyses focused on the factors related to “notably bad experiences” (Table 4). Seventy-six women (5.5%) reported such experiences with perinatal healthcare (≤3.32 on a scale from 1 to 4), while 1 312 (94.5%) women did not (>3.32). These two groups did not differ significantly in age, education, parity, having a partner, receiving a medical intervention during childbirth or visiting a medical specialist after childbirth. The odds to experience perinatal healthcare as notably bad were higher for women with a high-risk pregnancy and/or childbirth (OR 3.21, [CI 1.7-6.15]), non-Dutch ethnicity (OR 2.59, [CI 1.19 to 5.65]), an unplanned pregnancy (OR 1.81, [CI 1.02-3.23]), who had pain medication during childbirth (OR 2.13, [CI 1.34-3.40]) and who were unfamiliar with the healthcare provider who guided childbirth (OR 1.89, [CI 1.17-3.06]).

Discussion

We found that women in an eastern part of the Netherlands in general had very positive experiences with the perinatal healthcare they received during their childbirth and neonatal period. They rated their experience with perinatal healthcare with a mean score of 3.78 (on a scale from 1 to 4), with 5.5% of the women rating their experience as “notably bad”. A high rating of care is not unusual in studies on birthing experiences [32]. Pregnancies and childbirths tend to have good outcomes, and recalling care experiences is thought to be biased by the happy encounter with the newborn [12]. We wanted to know to what extent the mean scores of client experiences with perinatal healthcare differed between low-risk and high-risk women. We also explored the association of background characte-

ristics, pregnancy circumstances, childbirth characteristics and follow-up care with clients' experiences with perinatal healthcare.

Client experiences with perinatal healthcare showed small variations, with a lower mean score for women who had a high-risk pregnancy and/or childbirth (3.75) than women with a low-risk pregnancy and/or childbirth (3.84). The multivariate analyses, focusing on relevant background characteristics, pregnancy and childbirth factors and follow-up care, showed that lower mean scores were most prominent among non-Dutch women, single mothers, women who had planned or unplanned interventions during childbirth and had pharmacological pain relief during childbirth. The factors maternal age, parity, unplanned pregnancy, familiarity with the healthcare provider during childbirth and follow-up care after childbirth could not explain the variation in client experiences between low-risk and high-risk women.

We found that women with a high-risk pregnancy and/or childbirth had a less positive experience with perinatal healthcare than women who had a low-risk. We can therefore cautiously conclude that women who gave birth in a hospital have a significant – but small – risk for negative experiences with the provided care, compared to women who gave birth at home. These findings match those of Rijnders et al., who state that giving birth in a hospital is a risk factor for a negative experience [14]. This might be related to multiple factors that tend to occur mostly in high-risk childbirths, such as planned and unplanned medical interventions and pain relief during childbirth.

Besides occurring more frequently among women with high-risk pregnancies and childbirths, these factors are also related to more negative experiences. As Baas et al. noted, women with unplanned caesarean sections were more likely to assess their provided care as “less than good” [33]. Women with planned or unplanned interventions and pain relief are always transferred to the secondary care level, which means that their risk level increases to high-risk. Transfers during childbirth have been found to have a negative influence on childbirth experiences [14]. Similarly as research performed by Waldenström (2004), we found that medical interventions during childbirth were risk factors for a negative experience with perinatal healthcare [34]. Especially when the intervention was unexpected, such as an emergency caesarean birth. In the study by Waldenström, an emergency caesarean section was even the strongest predictor of a negative overall experience [34]. In another study, Waldenström (2006) reported that half of the interviewed women who underwent an emergency caesarean section feared for their own or their baby's life [35]. Also, serious posttraumatic stress reactions were found by Ryding et al. (1998), who researched the influence of emergency caesarean sections [36].

A finding of our study is that administering pharmacological pain relief during childbirth can explain differences in experiences between high-risk and low-risk women. Even though it seems that pain relief helps with giving birth more easily, we found that clients had less positive experiences when they received pain relief. Previous studies found that women who did not use pain relief medication were the most satisfied [37]. Hodnett (2002)

reported that childbirths that take longer, are more difficult and more complicated are also likely to have more pharmacological pain relief [38]. The negative client experiences of women using pain relief medication could therefore also be influenced by the problematic childbirth, not just by the medication. Further research should be undertaken to investigate the influence of pharmacological pain relief on client experiences with perinatal healthcare.

Another observation was that we identified several variables – high-risk pregnancy and/or childbirth, a non-Dutch ethnicity, an unplanned pregnancy, an unplanned medical intervention during childbirth, pain medication during childbirth and unfamiliarity with the healthcare provider who guided childbirth – as risk factors for developing “notably bad” experiences. While we could not find comparable studies for these outcomes, it seems that we have uncovered a typology of women who are extremely sensitive for negative experiences. To develop a full picture of women with “notably bad” experiences, additional studies will be needed that specifically target this subpopulation.

It is important to bear in mind that our results only apply to women with live-born children. We excluded women who gave birth to a stillborn child, as they are known to have very different experiences with healthcare during pregnancy and childbirth [39].

Strengths and limitations

Our study has three main strengths. Firstly, it was performed in a large population-based sample. Secondly, we had a relatively high response rate to our questionnaire, increasing the generalisability of our results. Thirdly, the outcome variable was measured with a validated questionnaire – the Repro questionnaire [27]. Prior to considering the implications of our results, it is important to note the limitations of the study. Firstly, the question of possible bias due to the inclusion method must be kept in mind. Only women who were known by the well baby clinics were asked to complete the questionnaire. However, it is known that around 1% of women who gave birth do not visit these clinics [24]. Also, women who lost their baby in the first weeks after childbirth did not receive an invitation to participate in the study. Neonatal mortality (until 28 days after childbirth) is however very low – in 2015, the figure was 0.3% for all women who gave birth in the Netherlands [30]. For that reason, we think that we have reached almost all women in our target population, referring to women who gave birth to a live-born child in an eastern region of the Netherlands. Secondly, it is important to mention that we did not follow up on women who failed to return the questionnaires. For that reason, we do not know if and how the non-responders differ from the responders, which could have resulted in non-response bias. The third limitation results from using data that were reported by the women themselves. It cannot be excluded that their risk level and/or other medical questions might have been answered incorrectly. However, it has been shown that women can accurately recall birth memories up to 20 years after the event [40]. This is especially true for recalling reproductive history, complications and medical procedures [41,42].

Practical implications

The results of this research show that women with a high-risk pregnancy and/or childbirth have less positive experiences with the healthcare they received than women with a low-risk pregnancy and/or childbirth. Given the potential negative impact of negative client experiences, this study highlights the need for healthcare professionals to be aware of what women are susceptible for, having had less positive experiences. This is especially necessary for women who underwent planned and unplanned medical interventions and had pharmacological pain relief during childbirth. Involved healthcare professionals should keep in mind that these events can negatively influence their clients' experience and therefore the professionals should adjust their expectation management. Healthcare professionals should explore the types of medical interventions women expect to have, clarify misconceptions and explain the purpose of medical interventions.

In addition, our results show that women who did not know the healthcare professional who guided childbirth often had "notably bad" experiences (mean score ≤ 3.32). We therefore recommend that healthcare professionals invest more time in introducing themselves to women and their partners until they feel secure. Although background factors such as being a single mother and being non-Dutch are insusceptible, it is valuable information for the healthcare providers that are involved with these women from the beginning of their pregnancy. By informing women that the support from family and friends can be meaningful and offering additional guidance when there is no partner and providing information in the woman's own language, perinatal healthcare can cater to clients' needs.

Conclusion

This study showed that women in an eastern part of the Netherlands have very positive experiences with Dutch perinatal healthcare. Significant differences in client experiences were however found between women who had a low-risk pregnancy and/or childbirth and women who had a high-risk pregnancy and/or childbirth, with the latter being less positive. This difference can be partially explained by high-risk women more often having unplanned medical interventions and pain relief during childbirth. Also, single mothers and non-Dutch women were more susceptible to less positive experiences. Given the potential negative impact of negative client experiences, this study highlights the need for healthcare professionals to be aware of what women are susceptible for regarding less positive experiences. Healthcare professionals can tailor their healthcare provision to the needs of these women.

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CHAPTER 4

Through the client's eyes: using narratives to explore experiences of care transfers during pregnancy, childbirth, and the neonatal period

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Abstract

Introduction

The client experience is an important outcome in the evaluation and development of perinatal healthcare. But because clients meet different professionals, measuring such experiences poses a challenge. This is especially the case in the Netherlands, where pregnant women are often transferred between professionals due to the nation's approach to risk selection. This paper explores questions around how clients experience transfers of care during pregnancy, childbirth, and the postnatal period, as well as how these experiences compare to the established quality of care aspects the Dutch Patient Federation developed.

Methods

Narratives from 17 Dutch women who had given birth about their experiences with transfers were collected in the Netherlands. The narratives, for which informed consent was obtained, were collected on paper and online. Storyline analysis was used to identify story types. Story types portray patterns that indicate how clients experience transfers between healthcare providers. A comparative analysis was performed to identify differences and similarities between existing quality criteria and those clients mentioned.

Findings

Four story types were identified: 1) Disconnected transfers of care lead to uncertainties; 2) Seamless transfers of care due to proper collaboration lead to positive experiences; 3) Transfers of care lead to disruption of patient-provider connectedness; 4) Transfer of care is initiated by the client to make pregnancy and childbirth dreams come true. Most of the quality aspects derived from these story types were identified as being similar or complementary to the Dutch Patient Federation list. A 'new' aspect identified in the clients' stories was the influencing role of prior experiences with transfers of care on current expectations, fears, and wishes.

Conclusion

Transfers of care affect clients greatly and influence their experiences. Good communication, seamless transfers, and maintaining autonomy contribute to more positive experiences. The stories also show that previous experiences influence client's expectations for the next pregnancy, childbirth, and transfers of care.

Introduction

Quality of care is considered a multidimensional concept, illustrated by an extensive body of literature that emerged over the last four decades [1-7]. In addition to general assessment criteria for quality of care, criteria have been developed for specific types of care, such as the quality of perinatal healthcare. The quality of the perinatal healthcare system is largely assessed with objective measures of health outcomes, such as mortality or morbidity, caesarean section, and premature birth rates [8]. Clients' experiences (primarily the women involved) have become an important outcome in the evaluation and development of perinatal healthcare services [9].

Table 1: *Quality aspects of perinatal healthcare described by the Dutch Patient Consumers Federation (NPCF)**

Autonomy	The client is able to make choices regarding guidance and provision of care. The professional encourages and guides her so that the best choices can be made.
Effective care	The client is offered the most effective guidance and provision of care. Healthcare and guidance are professional, evidence-based, and free of personal values and normative beliefs.
Accessible care	The perinatal healthcare is available, accessible, and affordable.
Continuity of care	The client knows who is responsible for her care. The client experiences seamless transitions when she enters and leaves the care system and during transfers.
Information and education	The client has access to understandable information, tailored to her preferences and abilities.
Emotional support, empathy, and respect	The client feels heard and understood and receives psychosocial support where necessary.
Client-oriented environment	The client experiences an appropriate and pleasant environment.
Safety	The client experiences a safe environment. The client is noticeably prepared and informed of possible complications.
Transparency of care system	The client knows how the regional perinatal healthcare system works and which professionals work on what care level.
Transparency of cost	The client knows what she needs to pay regarding the provided healthcare.

Translation by first author

It is argued that demand-driven healthcare and improvements in the quality of care are not possible without clients' input [10,11]. Documenting experiences provides an important source of information for healthcare professionals, managers, and policymakers that can be directed towards improving the quality of care and experiences [12].

Looking at perinatal healthcare in particular, the Dutch Patient Consumers Federation NPCF (Nederlandse Patienten Consumenten Federatie) developed a list of quality

aspects healthcare in 2014, based on clients' experiences of the perinatal healthcare system in general [13]. The aim of the NPCF was to identify the wishes and needs of clients with respect to the entire perinatal period, and to clarify what qualitatively good healthcare entails for these women. This has resulted in a list of ten quality aspects that clients considered most important [13] (Table 1).

Measuring clients' experiences of perinatal healthcare poses a challenge, because there are different services (e.g. antenatal check-ups and screenings, care during childbirth, maternity care after childbirth, and youth healthcare), different healthcare providers (e.g. obstetricians, midwives, general practitioners, maternity assistants, and youth healthcare professionals), and time windows (e.g. the antepartum period, labour and childbirth, and the postpartum period) [14].

This is especially relevant in the Netherlands, where pregnant women might deal with even more healthcare providers due to the nation's approach to risk selection [15]. Healthy clients with pregnancies and childbirths free of complications are guided by primary caregivers only, such as community midwives or general practitioners. Clients can choose whether they want to give birth at home or in the hospital. Clients who have pre-existing conditions or develop complications which can harm the mother and child, are transferred to the secondary or tertiary care level in the hospital. Secondary or tertiary healthcare providers such as clinical midwives or obstetricians will guide the clients throughout the pregnancy and childbirth. In the first week after childbirth, a community midwife together with a maternity care assistant will provide postpartum care. From the second week after childbirth, preventive child healthcare is provided by youth healthcare organisations to all new-borns. The approach to risk selection results in a high percentage of pregnant women, starting with an uncomplicated pregnancy guided by community midwives or general practitioners, being transferred when they develop complications and need specialist guidance of obstetricians or clinical midwives [16].

Since transfers are a notable characteristic of the perinatal healthcare system, researchers have tried to identify how they influence the satisfaction and experiences of clients [17-21]. It has been shown that transfers of care, especially during childbirth, have a negative influence on the satisfaction of clients [18,20]. Even though factors have been identified that can explain the differences in satisfaction between women who were transferred or not, there is no list of quality criteria that clearly states what is essential for a satisfactory transfer during perinatal healthcare [20,21,22].

This paper addresses the lack of knowledge about aspects that determine quality of transfers in the chain of perinatal healthcare. We cannot assume that quality aspects regarding transfers are similar to quality aspects of the perinatal healthcare system in general (NPCF list), although there will be similar aspects. This paper therefore answers the following research question: How do clients experience transfers of care during pregnancy, childbirth, and the postnatal period, and how do these experiences compare to the established quality of care aspects the Dutch Patient Federation developed?

Investigating client experiences requires a qualitative approach, specifically one that can account for the richness and potential diversity of experiences. Over time, it became apparent to researchers that narratives could be used as a tool to understand experiences [23,24]. For example, narrative analyses have been used to provide insight into the broader context of illness experiences of people with neuromuscular diseases, to assess the role of patients in Dutch hospitals, and to explore how experiences of patients might contribute to improving quality of care [11, 25,26].

Method

Study design

The data reported in this article are part of a narrative study of women who recently gave birth who were asked about their experiences of transfers between healthcare professionals during pregnancy, childbirth, or the neonatal period. The data were collected between April 2016 and August 2016.

Population and setting

In 2015, 250 women living in the catchment area of one of the three Dutch Neonatal Intensive Care Units (NICUs) in the eastern part of the Netherlands participated in an observational, prospective, cohort study. The respondents were monitored from the moment the pregnancy was confirmed until the first month after delivery. During these 9 to 10 months, respondents received three questionnaires about their experiences of perinatal care. Of the 250 women, 44 were invited to participate in a successive qualitative research about their experiences of transfers of care. Respondents were selected if they – at any point during pregnancy, labour, childbirth or the neonatal period – experienced any of the following transfers between healthcare professionals: 1) guided by multiple community midwives during pregnancy, 2) transferred from the community midwife to an obstetrician or clinical midwife during pregnancy or childbirth, 3) transferred between multiple obstetricians or clinical midwives during childbirth, 4) transferred from the community midwife or obstetrician to the maternity assistant after childbirth, or 5) transferred from the maternity assistant to the youth healthcare.

Data collection

All 44 women received a letter in which the study was introduced and that explained why they were selected for participation in the qualitative research. The letter also mentioned that an incentive in the form of a gift coupon would be given to respondents who provided a story. The envelope contained an informed consent form and a return envelope, and instructions on how to write their experiences in the form of a narrative.

We wanted to collect experiences of clients with the least possible interference from

researchers or other clients. Therefore, written narratives were chosen above performing interviews or focus groups. The use of such narratives reduces the risk of interview bias and the analysing takes less time than transcribing interviews or focus group recordings [27]. In order to ensure that the narratives were as detailed and complete as possible, respondents were given targeted instructions. First, they were asked to imagine that they were telling their story to a friend or wanted to share it on a forum for (expecting) mothers. We were interested in their personal experiences when they were transferred between health-care providers. Second, the respondents were asked to give a broad overview of the events related to the transfer. Third, we indicated that we were interested in how they felt, what was important to them and what left an impression during these events. Fourth, participants were asked to remember the transfer they experienced during pregnancy, childbirth, or the neonatal period. From that position, they were asked to share their narrative about their experiences of the transfer. All respondents were given the choice to write their narrative on paper or on a computer, using a link and password that were given in the letter (see Supplementary file 1 for full instructions).

We received 17 narratives, of which nine were written on paper and eight were typed on a computer. The length of the narratives varied between 200 and 4,000 words. All narratives were checked for and, if necessary, edited to guarantee anonymity.

Analysis

Storyline analysis was used to identify story types that are indicative of various ways of giving meaning to a transfer of care [28]. Storyline analysis consists of three levels: story content and structure, interactional context of the story, and wider societal-cultural context. For the purpose of this article, only the first level was analyzed. This method has previously been applied in the context of patient narratives and healthcare [26,29,30].

Figure 1. Pentad of storyline elements. Source: ©Anneke Sools, Storylab University of Twente (inspired by Burke, 1969 [32])

A storyline has five elements, connected as a coherent whole called a pentad (Figure 1) [28]: (a) the agent – the main character of the story; (b) the setting or location – where the story takes place; (c) the acts and events – what the main characters do and what happens to the main character; (d) means and/or helpers – what or who is helpful for accomplishing the purpose; (e) the purpose – why the story develops, or a feared or desired goal. The storyline method assumes that there is an imbalance between two storyline elements, called the breach, in each story [31].

The story elements of each narrative were analyzed and constructed into a storyline. This was repeated for all 17 narratives. Thereafter, the 17 storylines were compared with each other in order to find patterns across individual narratives. This was followed by comparing the identified story types with the quality aspects the NPCF developed. In this comparative process, quality aspects respondents mentioned in their narratives were labelled as similar, complementary or new when compared to the NPCF list of quality aspects. To enhance reliability, the following measures were taken to increase intersubjective agreement. The identification of the storylines and story types were conducted by the first and second author and critically reviewed by the co-authors at various stages until agreement between researchers was reached. The third step was conducted by the first author and critically reviewed by all co-authors.

Findings

Client experiences of transfers of care

In this first part of the results, we present four story types that were identified. They portray four distinct ways of how clients experienced a transfer during pregnancy, childbirth, or the neonatal period. The story types are derived from varying numbers of narratives: Type one is derived from nine client narratives, type two from four narratives, type three from three narratives and type four from one narrative.

Type 1: Disconnected transfers of care lead to uncertainties

Main agent

Typically for this story type, the agent (protagonist) is pregnant for the first time and is not yet familiar with this situation: “I was ignorant with my first pregnancy and did not really know what was going to happen” (N1). Also characteristically for story type 1, is that the agent has a ‘medical’ pregnancy with multiple complications (e.g. high blood pressure, bleeding, or infections) instead of a natural pregnancy with an uncomplicated childbirth: “There were minor problems that could have major implications for the baby all the time” (N2). As a consequence, she has a lot of contact moments with different healthcare providers.

The healthcare providers are often qualified differently, because they work at different levels of care and have different professions. The healthcare providers are mentioned

hierarchically. The client seems to have more trust in the healthcare provider with the highest qualification and shows doubts and distrustful feelings towards the healthcare provider who is less qualified: "It confused me that my trusted midwife reacted unconcerned about something that could be so dangerous according to the 'higher' educated obstetrician" (N2). The client feels insecure, due to the different and sometimes even opposing approaches and advices, and is unsure which approach and advice to follow: "It is strange that the midwife gave such different information about this" (N2).

Setting

It is typical for this type of story that the setting includes multiple healthcare organisations. Most narratives of this type have in common that a transfer from the primary care level (e.g. a community midwife practice) to the secondary care level (e.g. a hospital) is inevitable due to complications. The setting is value loaded, and the client appreciates the hospital setting less than the community midwife practice. "How I experienced the transfer? Detached, you no longer belong to the intimate midwife practice, you have to 'swim' in the large hospital where everyone is emotionally detached" (N2). In these narratives, the midwife's practice is described as a cosy setting, where it is possible to have a connection with the healthcare provider. The hospital, on the other hand, is perceived negatively. It is described as a setting that confirms the client's complications and 'not-natural' pregnancy and creates unpleasant surroundings: "They were friendly at the hospital, but the hospital still leaves a bitter taste in the mouth" (N3).

Purpose

The client in this story type has a difficult pregnancy and childbirth due to complications and medical interventions. She expects that her healthcare providers (because of their expected professional expertise), support and guide her through the process of pregnancy and childbirth. She wants to stay involved in the whole process and have good contact with her healthcare providers:

- "Ever-changing healthcare providers guided me throughout the pregnancy and childbirth, I felt no connection or relationship with them and that is just what I need to feel safe during childbirth" (N1).
- "I wanted the follow-up appointment with the obstetrician who treated me, but even though I made an appointment with her, I met someone else. No feedback, no follow-up or closure. No more guidance" (N1).

The purpose of the client in this story type is to clearly indicate what she missed during the pregnancy or childbirth. These clients want to see that the healthcare providers are attainable and that there is a possibility to discuss concern."

Acts and events

The client had no control over the dissimilar approaches and different types of advice. The different medical approaches and advice a client could encounter may lead to: 1) confusion due to the circumstances, in which the client does not know who is in control and what is happening: “I was emotional because of the uncertainty” (N4), 2) a loss of the client’s confidence and trust in healthcare providers, or 3) a feeling that the client is left alone, because the care is transferred often and there is no continuity of care: “I felt terribly abandoned and poorly monitored” (N5).

Means/helpers

When a client experiences a transfer between healthcare providers, she does not take on an active role. Afterwards, she often regrets not standing up for herself. The client develops an active attitude after the whole experience, which helps her to consider requesting an evaluative conversation with her healthcare provider. Evaluative conversations are used as a way to share experiences about “what went well, what went less well and what should change next time” (N6). This active role is presented as a consequence of negative experiences rather than a desired goal from the start.

Breach

This type of story contains criticism about the poor communication, lack of involvement and support, resulting from transfers between multiple healthcare providers “like a ping-pong ball” (N3). As a result, the reasons behind the multiple transfers remain unknown to the client and she is stuck with a nagging feeling that her pregnancy and childbirth went by without her involvement: “The worst thing was that I thought: ‘Okay, this is supposed to be my son, and that was only because my husband brought him to me and because it was a boy” (N7).

Type 2: Seamless transfers of care due to proper collaboration lead to positive experiences

Main agent

In this type of story, the protagonist is most often an experienced mother. She has given birth before and is familiar with the perinatal healthcare system in the Netherlands. This becomes clear, among other matters, when the client explains what she likes or not. Her previous experience with perinatal healthcare forms the backdrop and creates the expectations for the current pregnancy, childbirth, or postpartum period. She becomes focused on negative past experiences and decides that she wants a more positive experience this time around: “With the third pregnancy, I decided that matters had to change” (N9).

Setting

Narratives of this type take place in medical (e.g. hospital) as well as natural (e.g. home)

settings. An overarching characteristic is that the client describes the setting as a place where she feels welcome and safe. The home of the client and midwife practices are mentioned as such settings. The client describes that she felt well looked after and was involved in the decision-making process.

Purpose

The client in this type of story fears a repeat of the past. The desired purpose of the client is to experience a smooth and natural perinatal period: “I thought that it never ran smoothly (i.e. the last four pregnancies), and this time I wanted to feel completely relaxed in the week after giving birth” (N8).

Acts/events

It is typical for this type of story that the client takes steps aimed at having a positive experience. For example, a client said: “Therefore, I decided to switch maternity care organisations” (N10). Another client made an agreement about her treatment with her healthcare provider: “I would stay under supervision of the obstetrician if the weight of the baby at 40 weeks was estimated to be more than 4 kg; if not, I could make the choice about who would guide me” (N9). These steps do not necessarily guarantee a more positive experience. However, the client in this story type takes the initiative to change something, to minimise the chance of repeating past negative experiences. She shows awareness of her ability to affect change in the situation and assumes an active role.

Means/helpers

In this type of story, the collaboration between the healthcare providers is described as seamless, natural and unnoticeable: “The midwives and maternity care assistants did not know each other, but I did not notice it – they just seemed to be colleagues” (N8). In these narratives, the clients mentions two elements involved in a seamless transfer of care. First, the alignment between healthcare providers goes hand in hand with trusting each other’s expertise:

- “I thought it was nice to see that they were so well-aligned” (R29);
- “The midwife trusted the expertise of the maternity care assistant entirely” (N8);
- “The midwife informed the hospital well and the hospital received and understood the communicated information.”
- Second, the alignment between clients and healthcare providers took place through consultation, dialogue, participation, and providing information:
- “We discussed everything and I liked that I was there myself, because it is about me” (N8);
- “She told me all the different possibilities, one of which was a transfer to the hospital” (N10).

Breach

The client learned a lesson from past experiences and decided that it would not happen

again. The past experiences and her determination can lead to a satisfactory experience. The client adopted an active role and became involved in her healthcare process: "I am very glad that I did this, because this time I was 100% satisfied with how it went" (N8). However, even with the efforts of the client, vulnerability remains as there is no assurance that the expectations can be met. Even after switching healthcare providers, it is possible that the situation will not improve.

Type 3: Transfers of care lead to disruption of patient-provider connectedness

Main agent

In this story type, the main agent extends beyond the mother or pregnant woman and also includes family members (e.g. partner and/or child/children). This protagonist is different from the protagonists in the other story types, in which the narratives are mostly about the feelings of the client. Typical for this story type is that the impact of a transfer on the life and routine of the family members is described in these narratives.

Setting

Typically, the setting of this story is a place where the patient-provider connectedness is very important to the client. In this study, that setting is most often at home and associated concepts of relaxation and calmness are mentioned in these narratives.

Purpose

The client in this story type aims for a relaxed and carefree perinatal period: "So all in all the days were less relaxed than I hoped" (N12). The family members and healthcare professionals understand each other and are aware of the preferences and expectations.

Acts/events

In some cases, a transfer is unavoidable (e.g. when a healthcare professional becomes ill). This type of story implies that the family receives a new healthcare provider and does not feel the same patient-provider connectedness after the transfer: "The connection was missing completely" (N13). The family then blames the healthcare organisation for not cooperating with the family. For example, it is unclear who takes over the healthcare provision and it is often not possible for the family to choose a replacement: "We really wanted to know who was coming and at what time" (N12). The transfer from a situation in which the family was positive and comfortable to a situation that was unclear and unwanted contributed to a negative experience: "We would have liked it more if we could have 'kept' our first maternity care assistant" (N13).

Means/helpers

Typically, the client describes how the family (the mother and other family members) were positive and satisfied with the care prior to the transfer: "This woman was excellent" (N12).

A client said, “It was so nice that we already had a connection, I felt safe with her right away” (N12). The healthcare provider knew what was expected of her/him and could work independently: “She just did what was necessary; it made me feel nice that I knew she had it under control and I could let go” (N12).

The period before the transfer was very much as the client wanted and wished. In this type of story, the client was so satisfied with the prior healthcare provider that the new healthcare provider, per definition, could not measure up to that level. The client kept comparing the two healthcare providers with each other and was unsatisfied when the new healthcare provider did not measure up to the performance of the previous provider. The client tries to find a polite and socially acceptable way of expressing her needs without disrupting the relationship between her and the healthcare provider, in a way that takes into account her dependence on the healthcare provider: “I told her that I did not like it, but that it did not go smoothly. I was probably too direct. Eventually, we worked it out” (N12).

Breach

In this type of story, the client is not satisfied after she experiences a transfer between healthcare providers. However, she decides not to request another healthcare provider: “It seemed rude to ask for another [healthcare provider]” (N13). This meant that she and her family stayed dissatisfied with the current situation and did not have the possibility of finding a suitable healthcare provider. The negative feelings are not directed to the healthcare provider personally. Often the healthcare provider is well-informed about the family and completes the tasks without problems: “She was well-informed; that was not the problem” (N13). The problem is the missing connection between the family and the new healthcare provider. It also seems difficult to find the correct way of expressing your needs without disturbing the patient-provider connectedness. In this story type, raising the problem leads to unsatisfactory transfers. The manner of communication between the client and healthcare provider is an important part of the desired purpose.

Type 4: Transfer of care is initiated by the client to make pregnancy and childbirth dreams come true

Main agent

Similar to story type 2, the protagonist in this type of story is a client who is typically experienced and has given birth multiple times. What is unique in this story is that she has a special wish or dream about what her healthcare provision should look like: “With this fourth pregnancy, I wanted a water birth; a beautiful closure of four pregnancies”(N14). This type of client does not want to steer away from her dream. The client is vigilant and has control over her own body.

Setting

In this story type, the client does not explicitly mention a physical setting, such as a hospital

or home. In this story type the client only has eyes for the execution of her dream scenario, the physical setting goes unnoticed. This scenario is detailed and uncommon. In this situation, the setting (i.e. hospital, home) where the water birth takes place is not important to the client. The client makes sure that the involved healthcare providers are informed about her wishes and expectations.

Purpose

The purpose is explicit in this story type. The client envisions a specific scenario of how to give birth and does not want to deviate from it. She believes that the scenario is realistic and she will make sure that her dreams come true.

Acts/events

In this situation, the client stays in control. She acts immediately when she notices that her dream scenario is in jeopardy. For example, the client will specifically enquire if her scenario (e.g. water birth) is achievable: "I asked specifically how it would go if an unqualified midwife (i.e. water birth) would be working during my delivery" (N14). Second, the client seeks reassurance that her scenario is possible, and third, she is prepared to transfer to a different healthcare provider when her original healthcare providers do not satisfy her expectations. When it becomes apparent that the client's dream scenario is not possible, she feels misunderstood and upset: "That afternoon, I drove home in tears and immediately called three other midwife practices" (N14). These feelings were not present in the beginning of the story, but surface as a consequence of the unexpected events.

Means/helpers

It seems that not all healthcare providers have the qualification of guiding pregnant or child-bearing women with their dream scenarios: "If you guide water births, then all midwives of that practice should be qualified, otherwise the clients cannot count on them" (N14). A transfer between midwife practices is conceivable when a client has such specific wishes (e.g. water birth) and her initial midwife practice cannot satisfy her expectations.

Breach

In this story type, the transfer of care is an initiative of the client herself. In the beginning of this story type, the client believes and expects that the healthcare organisation can provide the service necessary to fulfil her dream delivery. In the course of the story, the client loses confidence and trust in the healthcare organisation and therefore decides to transfer.

Comparison between quality aspects found in narratives and quality aspects from the NPCF list

In this second part of the results, we present how the transfer-related quality aspects as highlighted in the four story types compare to the NPCF list (Table 2). The table consists of three sections which are presented per story type. First, the quality aspects recognised in the narratives are presented. Second, the quality aspects from the NPCF list that match the aspects found in the narratives are shown. Third, we added if the quality aspects found in the narratives were similar, complementary or 'new' aspects when matched to the quality aspects from the NPCF list [13]. The label 'complementary' was given if the aspects were an addition of the quality aspects from the NPCF, and can be used to elaborate on the NPCF list.

Table 2: Quality aspects from the story types matched as similar/complementary/new to aspects from the NPCF list

Story type	Quality aspects recognised in the narratives	Matching quality aspects (NPCF list)	Similar/complementary/new
1. Disconnected transfers of care lead to uncertainties	Evaluative conversation as closure;	Transparency of care system	Similar
	Involvement of client, even though multiple healthcare providers are involved with provision;	Autonomy	Similar
	Adapt advice and approaches, especially when different professions are involved.	Effective care	Similar
2. Seamless transfers of care due to proper collaboration lead to positive experiences	Previous experiences form expectations;	No matching aspect	New
	Comfortable and safe environment contributes to positive experience;	Client-oriented environment and safety	Complementary
	Mutual trust/alignment between healthcare providers;	Continuity of care	Complementary
	Explanation by healthcare providers about possible outcomes;	Autonomy and effective care	Similar
	Client is aware that she can change healthcare providers.	Autonomy	Similar
3. Transfers of care lead to disruption of patient-provider connectedness	Transfers have an influence on the family (partner and children);	Emotional support, empathy and respect	Complementary
	Patient-provider connectedness is important to clients, without this, the expectations of each other are unclear.	Emotional support, empathy and respect	Complementary
4. Transfer of care is initiated by the client to make pregnancy and childbirth dreams come true	Being able to offer a solution or being flexible as healthcare provider, especially when uncommon scenarios are desirable;	Effective care	Complementary
	Uncomplicated transfer between healthcare organisations;	Autonomy	Similar
	Information about the course of events should be made clear by healthcare providers.	Information and education	Similar

Eight out of ten quality aspects included in the NPCF list were mentioned in the narratives. 'Accessible care', and 'Transparency of cost' were the two quality aspects that were not represented in the story types. In story type one, the mentioned quality aspects were all constructed as being similar to those mentioned in the NPCF list. Quality aspects in story type one were mainly about the role of the client and shared decision-making.

In story type two, four quality aspects from the NPCF list were also mentioned in the narratives. A complementary quality aspect to the 'Client-oriented environment' and 'Safety' aspects was that clients who felt comfortable and safe in a care setting were more likely to have good experiences with a transfer of care. Optimal collaboration between healthcare providers during transfers of care is included in the NPCF list as being important for 'Continuity of care.' Adding to this, we found that clients have positive experiences when they notice that healthcare providers trust each other and align their care, especially when they have different professions. Particularly in story type two, previous experience with a pregnancy or childbirth influenced the expectations of the current pregnancy. Negative prior experiences created fear and concerns, whereas positive prior experiences created high expectations from the healthcare providers. This aspect was not included in any NPCF quality aspect, and was therefore labelled as a new quality aspect.

In story type three, quality aspects concerning patient-provider connectedness were mentioned in the narratives, which matched the quality aspect 'Emotional support, empathy, and respect.' In the narratives, we found aspects that a transfer can be intrusive for the entire family, not just the pregnant woman. When clients and healthcare providers feel connected, the communication about what is expected from each other also runs more smoothly. We found evidence in all four story types that clients find it pleasant when transfers between healthcare providers take place smoothly. They want it to be quick, seamless, and without too much involvement from their side, which matches the description of the quality aspect 'Autonomy' on the NPCF list. In the quality aspect 'Effective care,' it is mentioned that the healthcare provider is aware of the client's expectations and wishes concerning pregnancy and childbirth and that deviations from these expectations and wishes must be discussed with the client [13].

In the narrative of story type four, it appears that this is especially true for more uncommon wishes, such as water births. Clients want clarity about whether their expectations can be satisfied. Otherwise they ask for a solution or flexible attitude of their healthcare providers. Furthermore, in this story type the NPCF list aspect "Information and education" was mentioned". The information about the course of events surrounding a water birth were incomplete, which resulted in a disappointed client.

Discussion

When research is targeted towards exploring clients' experiences with perinatal healthcare, the researcher needs to be aware that those experiences are detailed and highly emotional. Hence, it is a challenge to explore the quality of care from the client's perspective. This paper answers the research question: How do clients experience transfers of care during pregnancy, childbirth, and the neonatal period, and how do these experiences compare to the established quality of care aspects the Dutch Patient Federation developed?

Our analysis of transfer experiences during client's perinatal period resulted in four story types: 1) Disconnected transfers of care lead to uncertainties; 2) Seamless transfers of care due to proper collaboration lead to positive experiences; 3) Transfers of care lead to disruption of patient-provider connectedness; 4) Transfer of care is initiated by the client to make pregnancy or childbirth dreams come true. Overall, these types show that both the level and valence of previous experiences of transfers impact the expectations of the current pregnancy and the consequent evaluation of the pregnancy.

After identifying the quality aspects derived from the narratives, we observed that most of these aspects are similar to those included on the NPCF list. Especially, experiences concerning the interaction between the client and the healthcare provider ('Autonomy,' 'Effective care,' 'Safety,' 'Continuity of care,' 'Information and education', and 'Emotional support, empathy, and respect') were mentioned as being very important to clients who were transferred. These results seem to be consistent with research that related negative effects of transfers to the feeling of not being in control and absent shared decision-making [18, 33].

Aspects concerning the organisational structure of healthcare settings ('Accessible care,' 'Client-oriented environment,' and 'Transparency of care and cost') were hardly mentioned in the narratives. It is possible that these aspects satisfied the expectations of the clients, so that they did not feel the need to mention them in their narratives. Also, medical costs during pregnancy and childbirth seem to be insignificant to our respondents. The reason could be that medical costs are not discussed during a transfer of care or that the bulk of perinatal care is included in the mandatory basic health insurance [34]. Based on our results we should suggest removing the quality aspect "Transparency of care and cost" as a influencing factor on the experiences of clients with transfers of care.

The newly found quality aspect shows that prior experiences with transfers of care influence the current pregnancy or childbirth. Clients had positive experiences when they previously experienced transfers between healthcare providers (type two and four). This was the case for clients with an initial negative experience as well as for clients with an initial positive experience. Both types of clients knew what to expect and could therefore make changes or adjustments in their care process. In our study, the course of the pregnancy influences the experiences with the transfer between healthcare providers. Clients

who had a complicated pregnancy (type one) with multiple health issues often wrote a negative story about their experiences with transfers. They experienced a fearful period, with lots of medical interventions. Healthcare providers should be more aware of clients' prior experiences with perinatal healthcare, either positive or negative, so that they can adapt their care provision accordingly. Those experiences can be discussed during the first check-up with the midwife or obstetrician or even be written down, such as with this study. The transparency of fears, concerns, wishes, and dreams gives healthcare providers the opportunity to improve their role in assisting women achieve their expectations.

Client experiences in the form of narratives give us the opportunity to not only identify aspects of quality, but to also consider which quality aspects are more important to specific types of clients in particular settings. For example, clients barely described their experiences with the actual transfer journey (transport from a home setting to the hospital), presumably because they accepted that the transfer was a medical necessity. However, they did describe surrounding events that caused the most impact, such as losing the connection with the previous healthcare provider (type three), experiencing different types of advice and approaches from the healthcare providers, or having the possibility to talk with a midwife or obstetrician about their experiences (type one). Preparing clients for the multiple potential courses of pregnancy and childbirth is recommended. This is especially true for clients who are pregnant for the first time and encounter complications. Due to these complications, multiple transfers are unavoidable. Guiding the clients through these changes can positively influence their experiences. In the narratives, the clients mentioned that due to changing healthcare providers, types of advice and approaches they would value a case manager being assigned to them. The case manager is responsible for ensuring that the care is client-centred and can provide support, expertise, and evaluate individual needs. Assigning case managers to inexperienced pregnant women with complications can enhance the quality of care and the overall experience.

To our knowledge this is the first study which uses written narratives to analyse clients' experiences with transfers in the perinatal healthcare. By giving clients the opportunity to write down what was most important to them in great detail, without the possible interference from researchers, we were provided with rich accounts of pregnancy and childbirth experiences. However, we kept the amount of instructions to a bare minimum, which means there is a possibility that stories came out less valuable for the purpose of this study. Another limitation of our study is that the story types and quality aspects were all constructed from Dutch narratives. For future research, it would be interesting to repeat this research with clients from other perinatal care systems, and do an international comparison. Such a comparison can give insight into which story types and quality aspects are unique to the Dutch context and which are also valid in a broader context.

Conclusion

This study unveiled four story types about how clients experienced transfers of care. Transfers of care during pregnancy and childbirth affect clients greatly and influence their experiences with perinatal healthcare. Vice versa, previous experiences influence how clients proceed and expect the next pregnancy, childbirth, and possible transfers of care. Quality aspects highlighted in the narratives compare well with the quality aspects the NPCF developed. However, identifying story types provides a much richer insight into what clients think is important, what caused the most impact and what they want to see differently. Healthcare providers could use the story types to determine certain types of clients and situations and better prepare them for potential transfers. Good communication, seamless transfers, and maintaining clients' autonomy can all contribute to improving the transfer process for clients.

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PART II

Professional experience

CHAPTER 5

Through the professional's eyes: transfers of care during pregnancy,
childbirth and the postpartum period

*This chapter has been submitted as: Van Stenus CMV, Poorthuis MB MSc,
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Abstract

Introduction

In the Netherlands, the obstetric and neonatal healthcare system consists of multiple healthcare organizations. Due to this system, transfers between healthcare professionals are inevitable. Transfers can interrupt the continuity of care, which is an important aspect of care quality. The aim of this study is to examine how professionals transfer their clients and aim at continuity of care.

Methods

We conducted 15 semi-structured interviews with community midwives (4), obstetricians/clinical midwives (4), maternity care assistants (4), and youth healthcare nurses (3) between June and September 2016. After discussing the meaning of transfers of care, we introduced a vignette on the care process of a pregnant woman and asked about the methods the professional would use to transfer a client and about factors that facilitate or impede continuity of care.

Findings

Obstetric and neonatal healthcare professionals mentioned 19 factors that facilitate or impede continuity of care. The facilitating factors regarding provider-connectedness were usage of protocols and standard formats, transfers in person, being accessible, and multi-disciplinary meetings. Impeding factors included acute situations, experienced hierarchy, insufficient knowledge of protocols, and privacy concerns.

Conclusion

Professionals' experiences with continuity of care was that it benefits from a situation where all involved professionals know and trust each other. Professionals were satisfied with how they transfer their own clients and how they receive transferred clients from their colleagues.

Introduction

The healthcare system that provides care during pregnancy, childbirth and the postpartum period in the Netherlands is somewhat different from healthcare systems in other countries [1]. The obstetric care system consists of three levels of care between which pregnant women can be transferred, depending on their risk level [2]. Primary care is provided by community midwives, who guide pregnant women with a low-risk pregnancy from the beginning of their pregnancy until the postpartum period [3].

If the pregnancy and childbirth proceed without complications, women and their partners can choose where to give birth [4]. Childbirth can take place at home, at the outpatient department in the hospital, or at a birth hotel [5]. Community midwives will guide all low-risk childbirths. If complications arise (or if the risk of complications increases), a community midwife transfers women to the secondary care level, where they are guided by obstetricians and/or clinical midwives [6,7]. Severely ill women or women with a severely ill unborn child are transferred to a tertiary care level, which is a care facility with highly specialized care [8]. Women with an increased risk level always give birth at a hospital.

Criteria for transfer between primary and secondary care levels are listed in the “List of Obstetric Indications” [5]. After giving birth, Dutch mothers receive maternity care at home for at least a week. During childbirth in a primary care setting, the maternity care assistant supports the midwife. After childbirth, the maternity care assistant guides the new parents and support them to take care of the newborn [9]. Following maternity care, the care of the newborn child and the parents is transferred to the youth healthcare [10].

The youth healthcare contributes to children (0-18 years) growing up healthy and safe in the Netherlands. Their core tasks are: 1) monitoring the physical, social, psychological, and cognitive development of children, 2) assessing the social, pedagogical, and physical environment of children and the family they grow up with, 3) identifying problems and specific disorders timeously, and 4) giving preventative information, vaccinations, advice, instructions, and guidance to children and parents individually or in groups, while focusing on empowering the parents and the child [11].

The obstetric and neonatal healthcare system in the Netherlands is complex, due to clearly demarcated care levels with corresponding healthcare professionals and a large number of healthcare facilities. A consequence of the Dutch system is that all women will most likely experience several transfers during their pregnancy, childbirth, and the postpartum period, because of the process described above [12]. In this article, we look at how these transfers of care can influence the continuity of care of the Dutch obstetric and neonatal healthcare system.

Continuity of care, an important aspect of care quality, can be interrupted by transfers of care [13,14]. In general, interrupted continuity of care is noticeable to clients when they experience gaps in their care provision, which will occur when the coordination between healthcare professionals and between healthcare professionals and the client is inadequate

[15]. Price and Lau explored professional perspectives on continuity of care in a health-care system [15]. An extended model of continuity of care, derived from the continuity of care model Haggerty and Reid portrayed, was presented with four elements of a health-care system that influence continuity: 1) Circle of care, which Price and Lau defined as “an individual patient’s healthcare system,” in which there is system continuity between the healthcare professionals involved with a single client; 2) Environmental factors that indirectly influence the circle of care and continuity; 3) Provider connectedness that enables continuing care between professionals; 4) Communication patterns that support continuity between professionals and between professionals and their clients. Price and Lau formulated 10 communication patterns which they then combined as one element [15,16].

Figure 1: Extended continuity of care model by Price and Lau [15].

Table 1. Extended continuity of care model [15]

Elements		Description
1. Circle of care		An individual patient's healthcare system
2. Environmental influences		Factors outside the circle of care that can influence continuity of care – factors that are not related to the patient, professionals, or information repositories
3. Provider connectedness		Cohesiveness of the relationships between professionals in a circle of care
4. Communication patterns	Transfer care	Handing off care responsibilities between care professionals of a similar capability
	Provide information	Ensuring that other professionals are aware of current findings and plans by sending information directly to named members of the circle of care
	Communicate with patient and family	Communicating with the patient to examine the patient's condition share information, educate, and to develop a common understanding or plan
	Request historical information	Seeking additional information from a particular professional, care team, or organization
	Document in shared record	Documenting findings/plans in a location that is accessible to others (who have access)
	Review shared record	Review information shared by other members of the circle of care to increase knowledge of a patient's condition
	Request advice	Request information and advice about options related to a patient case
	Request assessment/ treatment	Contact another professional to request an action to assess and provide treatment recommendations to a patient, based on their assessment
	Order	Request that specific activity be delegated to or performed by another professional
	Coordinate as care team	To review, in real time with more than two individuals, the status and plans for the clients from multiple viewpoints

Several studies showed that transfers of care can negatively influence clients' experiences with obstetric and neonatal healthcare [17-21], especially when the transfers take place during labor or childbirth [8,17,18,22]. Feelings of losing self-control, being fearful of what will happen and unfulfilling expectations were negative outcomes of transfers of care concerning clients' psychological well-being [17,18,22]. On the other hand, experiences from healthcare professionals with continuity of care are underexposed [23]. The research question addressed in this paper is therefore: What are healthcare professionals' perceptions of the relevant factors that influence the continuity of care in the Dutch obstetric and neonatal healthcare system?

Methods

Study design

We conducted a vignette study combined with exploratory interviews with 15 obstetric and neonatal healthcare professionals who work on all three levels of care between which preg-

nant women can be transferred from June to September 2016. These professionals all work at an obstetric or neonatal healthcare organization covering one of the eastern provinces (Overijssel) in the Netherlands. According to the criteria of the Dutch Medical Research Involving Human Subjects Act, this study did not need to be submitted for ethical approval by a Medical Ethics Committee [24]. The study was reviewed and approved by the institutional ethics committee on April 19, 2018 (reference number 18384).

Procedure

For the interviews, we approached professionals who were actively involved in the process of providing obstetric and neonatal healthcare and transferring women during their pregnancy, childbirth, and/or the postpartum period. To be eligible for participation, professionals needed to (1) be involved in the process of transferring clients to other obstetric and neonatal healthcare professionals, or (2) work in the province Overijssel in the eastern part of the Netherlands. Professionals were selected purposefully, based on their profession and the organization they work for.

We first approached four community midwife practices – two were located in a rural area (clients who mainly live in villages or on the countryside) and two in an urban area (clients who mainly live in bigger cities). We then invited secondary healthcare professionals who work at the maternity ward from two different hospitals to participate in our study. We also contacted regional care managers from one large and one smaller organization that provide maternity care during childbirth and in the first week thereafter, requesting whether they wanted to participate in our research. We sought contact with two youth healthcare organizations, and phoned and emailed potential participants. If they were interested in participating, we sent an information letter and made an appointment for the interview.

Participants

The study population consisted of 15 professionals. From the four midwife practices, four community midwives participated in the study. Two of them worked in small midwife practices (one or two midwives), while the other two worked in larger midwife practices (four to ten midwives). From the secondary healthcare professionals, a resident obstetrician, two clinical midwives, and a nurse participated. The regional care managers from the maternity care organizations provided us with four maternity care assistants who were prepared to share their experiences. Three youth healthcare nurses from two youth healthcare organizations also agreed to an interview. All but one of the participants were women with an average of ten years' experience as obstetric and neonatal healthcare professionals. Table 2 presents a summary of the participants' characteristics.

Table 2. Characteristics of research participants

Participants N=15	
Profession	
Community midwife	4
Obstetrician/clinical midwife	4
Maternity care assistants	4
Youth healthcare nurses	3
Gender	
Male professionals	1
Female professionals	14
Average age	42.3 years
Average years of experience	9.8 years

Interview protocol

We used a semi-structured interview protocol based on the extended continuity of care model of Price and Lau to guide the interview (see the interview protocol in appendix belonging to chapter 5) [15]. Each interview consisted of three parts. In the first part, participants were asked personal questions such as age and how many years they have worked for the organization. The protocol included the topic ‘transfer of care’ to make sure that interviewer and interviewee used the same definition.

In the second part, the interviewer introduced a vignette (Figure 2) [25]. During the interview, the participants were asked to imagine the proposed vignette as their client. The vignette was the same for every participant, but the process of care was different for every profession, depending on their role in the care chain. Participants described which acts they would perform to transfer the client, how they would contact other professionals and how they would receive feedback from the professional who continued providing the care. In the final part of the interview, we asked targeted questions about how professionals experienced transfers of care.

Procedures

We conducted 14 interviews (with 15 participants) between June and September 2016. The interviews had an average length of 58 minutes (in a range from 38 to 81 minutes). The first author conducted 13 interviews, while an assistant researcher performed the 14th interview. Interviews were recorded, transcribed verbatim and anonymized immediately afterwards. There were 13 individual interviews, whereas two maternity care nurses participated simultaneously in the other one. The statements in this interview were transcribed separately. This was possible because the respondents answered the questions in turn. Their voices on the recordings could also be clearly distinguished. The statements from this interview are henceforth seen two separate interviews. Ten interviews were carried out face to face at the

organizations where the participants worked. In two cases, the participants offered to come to the researcher's organization. There were also three Skype interviews. Participants gave verbal consent to record the interviews.

Figure 2: Vignette interview protocol

Data analysis

Interview recordings were analyzed using the software package ATLAS.ti for Windows [26]. To ensure consistency of coding, the first author developed a coding scheme based on the extended continuity of care model of Price and Lau (Figure 1 and Table 1) [15]. The first and second author read each transcript independently. The first author selected text fragments from the transcripts. The second author read the transcripts and selected fragments and indicated to the first author if fragments were irrelevant or overlooked. Fragments were removed and/or added based on consultation between the first and second author.

All participants made statements about transfers of care, resulting in 701 fragments to be analyzed (mean 52.8 fragments per respondent, in a range from 25 to 87 fragments). At random, 10% of the fragments were selected to measure the inter-rater reliability. Statements about transfers of care were encoded according to the elements mentioned in the extended continuity of care model of Price and Lau [15]. The first and second authors analyzed the 10% of the fragments co-independently, using the coding scheme. The agreement on the elements between the two encoders was high, with Cohen's kappa at .85. Differences in classification were discussed between the two assessors until consensus was reached. Consequently, the analysis of the remaining 631 fragments was divided between the two encoders. Factors that according to the respondents influence the continuity of care facilitating or impeding were indicated as such by the respondents themselves.

Findings

All 15 participants mentioned each element of the extended continuity of care model, except the circle of care. No additional elements were identified to supplement the continuity of care model. In the following paragraphs healthcare professionals' perceptions of the relevant factors that influence continuity of care relating to the elements of the extended continuity of care model will be discussed, sorted by the number of fragments.

Environmental influences

Environmental influences refer to factors outside the circle of care that impact continuity of care – factors not related to the client, professionals, or information repositories. The 15 participants mentioned environmental influences in 86 fragments. The participants mentioned one facilitating environmental factor for continuity of care, the usage of protocols and four impeding environmental factors for continuity of care, multiple locations, acute situations and high workload, language barriers, and night shifts.

Facilitating factors

An environmental factor facilitating continuity of care, mentioned by four participants, is following additional education on how to transfer clients and collaborate as a team in acute situations. Protocols that describe this are already in use and workshops are provided regularly, but participants mentioned that it is important that all professionals learn how to work with the protocols.

A resident obstetrician explains how his team uses a protocol after following a workshop: *"The clinical midwives recently had training which included workshops to improve collaboration between themselves and to improve communication. An SBAR (situation, background, assessment, recommendation) workshop was also held to practice this. Nowadays in the delivery rooms SBAR guidelines specifically for obstetrics are available on notepads."*(C1)

Impeding factors

Three participants mentioned that some healthcare organizations have multiple locations (for example, youth healthcare clinics are situated in several neighborhoods of a city). It is therefore difficult to find the professional that will take over healthcare provision.

A maternity care nurse described this impeding factor:

"She [community midwife] says on the phone: 'Then you just go to the Well baby clinic.' But I do not know that. I don't know where the Well baby clinics are located in the neighborhoods. That is outside my catchment area. Do I first have to get a list with the locations of all the Well baby clinics? That's impossible. That is too unclear." (B1)

Four participants mentioned that due to acute situations and high workload, transferring care can be difficult. Distracted professionals during a transfer are undesirable, illustrated by this community midwife:

"I think that work pressure on the other end of the phone is not good – hastiness is not good. If I have an emergency and I call for something, I can hear whether the transfer is acute or not. Especially if I'm thinking I have to consult, you can see that the person on the other end of the phone is distracted, which is not good." (A4)

A clinical midwife also mentioned a language barrier between her and resident obstetricians who originate from Flanders, the northern part of Belgium. Flemish is a variety of the Dutch language. This barrier was especially noticeable for her in acute situations, because during those moments communication needs to be quick and clear.

"We have a lot of Flemish resident obstetricians here and sometimes you cannot understand them. That is really the language. They use different words. For example, you say: 'About who are we talking now? Can you spell the name?'. Then you repeat it five times and they still do not know who you are talking about. Literal language barrier." (A4)

A community midwife and a maternity care assistant mentioned how working night shifts can impede the continuity of care.

"Especially at night, if you are drowsy. Then you have to call someone and wake them up, and that person is not immediately ready to listen attentively [transfer at night]." (A2)

According to the participants, protocols can facilitate professionals in transferring a client. Acute situations, especially at night, and consequences such as high workload can however impede the continuity of care.

Provider connectedness

Provider connectedness describes the cohesiveness of the relationships between professionals in a circle of care. In 78 fragments, all 15 healthcare professionals mentioned their relationship with other members of the circle of obstetric and neonatal healthcare. They mentioned three facilitating factors (working together as a team, feeling connected, having mutual trust, and knowing colleagues in person) and two impeding factors (presence of hierarchy and not knowing who to contact).

Facilitating factors

The provider connectedness factor facilitating continuity of care, mentioned by four participants, was taking care of a client together, as a team. This was illustrated by a maternity care nurse:

"You notice people thinking, 'you are really a team,' that they know exactly what the other one brings." (B3)

Seven participants talked about feeling connected to other professionals and how mutual trust is extremely important in working together as a team. Six participants expressed that knowing the other professionals in person facilitates care, especially when they work with the same people more often and in the same surroundings. One of the youth healthcare nurses explained that, because she knows the other professionals well, she contacts them more easily.

The following quotes by a maternity care assistant and a youth healthcare nurse depict these facilitating factors:

"No, it is really a strong collaboration. You know each other personally, you trust each other because you work together so often. The midwife knows what you bring." (B1)

"If you know someone, their name and face, and you also know how to find them easily, of course the connection is easily made. Then you will seek contact a lot sooner." (D1)

Impeding factors

A provider connectedness factor that four participants identified as impeding was the hierarchical levels between healthcare professionals. A perceived hierarchical difference between professions prevented a maternity care assistant from contacting another professional for additional information.

"But who was present [childbirth], who do I need. I need to know exactly who was there at the time. Yes, but I am not going to speak to that person on the phone. The obstetrician was supervising, I will not get that person on the phone at all. Let it go." (B2)

Four participants mentioned another factor that may impede continuity of care – not knowing who to contact when asking for additional information. It takes more time to find out who the right person is to answer their questions.

"And then she says: 'Well, I can ask a colleague if she can call you back.' But then I think: 'Then it will go through another person - again.' And then I do not know for sure if it is at the place where it should be. I want that certainty. Because if I have serious concerns, I think that I am obliged to know if my concerns end up with the right person." (B1)

The participants communicated that feeling connected to other professionals in the circle of care is extremely important. The more often the professionals see each other and work together, the smoother a transfer of care goes. Perceiving hierarchy and not knowing who to contact are two factors that prevent professionals from collaborating.

Communication patterns

Price and Lau themed ten communication patterns that were seen between care professionals, between healthcare organizations and between professionals and clients. The pattern "transfer of care" was mentioned often, in 193 fragments, which is why we will elaborate

on this pattern in a separate paragraph. The same is done for the frequently mentioned patterns “Provide information” (93 fragments) and “Communicate with patient and family” (87 fragments). The remaining seven communication patterns will be discussed in one paragraph, due to the lower numbers of fragments.

Transfer of care

The pattern “Transfer of care” entails handing off care responsibilities between care professionals of a similar capability. All 15 participants, in 193 fragments, mentioned how they transfer care to other professionals. Four participants explained two facilitating factors (warm transfer and tools to make adequate choices) and one impeding factor (insufficient knowledge of protocols). Most statements about transfers of care explained between which healthcare professionals their clients are transferred. Three participants were more specific and explained their scope of practice – when their care provision ends and another healthcare professional takes over. Two participants mentioned that they let go of that client as soon as the transfer takes place. Other participants mentioned that they keep track of former clients and ask for feedback.

Facilitating factors

Participants described their views on how cold transfers and warm transfers influence the continuity of care for their clients. A cold transfer happens when a client is transferred on paper (for instance sending a letter), by telephone or via email. The healthcare professionals don’t meet each other in person to hand over the care. The reason for transferring the client is mentioned in said letter, telephone call, or email. This method is described as easy and time-saving. The opposite of this is the warm transfer, where the current and new healthcare professional meet each other to transfer their mutual client. The transfer reason is exchanged during the conversation and backed up with the client’s files. Four participants explained why they find warm transfers more facilitating for continuity of care, compared to cold transfers.

A maternity care assistant described why she favors a warm transfer for herself, but also for her clients:

“Yes, absolutely [warm transfer is better than cold]. You write it piece by piece; if you do it verbally, you can explain a bit more than just on paper. It will also be remembered better because you are communicating it verbally.” (B3)

“What I experience with clients when I do a warm transfer, is that people find it less disturbing. At that moment, both maternity care nurses are there – one says goodbye and the other one becomes acquainted with the patient. I could tell that the client was thinking: ‘Oh nice, I do not have to say anything, because it has already been arranged. It feels so familiar that I did not even notice the transfer at all. It is continuous.’” (B3)

According to ten participants, protocols and care pathways are tools to make adequate choices when transferring clients. The protocol those ten participants mentioned most often is the SBAR method (situation, background, assessment, recommendation). This method is used to bring structure to any form of communication between healthcare professionals, especially in acute situations that require immediate attention and action.

A community midwife explained how using the SBAR method helped her with transferring clients:

"If I follow that structure [SBAR], the transfer will go more smoothly. In another manner, the information will also be transferred, but this is a bit neater." (A2)

The SBAR method gives the healthcare professionals tools to communicate clearly with each other.

Impeding factor

Four participants mentioned as an impeding factor that the execution of the protocol does not always go smoothly. According to a community midwife, this is due to insufficient training possibilities with all members of the circle of care.

"Yes, training with SBAR [room for improvement]. In city A there are joint training sessions and we do not have them here. We can participate in city A, but that is not convenient." (A2)

Participants could name numerous ways, situations, and tools how they transfer their clients. Noteworthy was the difference in transfer method, where clients are transferred in person or on paper/digitally.

Providing information

According to Price and Lau, providing information is about ensuring that other professionals are aware of current findings and plans by sending information directly to members of the circle of care [15].

In 93 fragments, all 15 participants shared several methods they use to transfer information. Nine participants also identified one facilitating factor (usage of standard formats) and one impeding factor (usage of different registration systems). Participants transfer information by using letters, emails, telephone calls, faxing, meeting in person or letting clients transfer their own information.

Facilitating factor

Nine participants mentioned that they use standard formats to register information about their clients, which facilitates information transfer. Some use a paper register system and other digital systems to store information.

Impeding factor

An impeding factor four participants mentioned is the usage of different digital registration systems. At the moment, organizations in the circle of birth care purchase software where they register information about their clients. Transferred information can be incomplete – either the healthcare professional or the client needs to request the prior professional to transfer the missing information.

Four participants expressed their wishes for a uniform data registration system, such as these community midwives:

“Yes, that we do not have a uniform data system [obstacle]. That would be cool. Then it was settled.” (A1)

“It would be ideal if we had one file, so that we really only have to send the referral letter, or a telephone call, like: ‘I want to send or transfer this woman for a consultation.’ Then they would click and see what we have already done. I do not know if I’m going to experience that.” (A2)

Providing and registering information about clients is achieved in many ways, depending on the organization a professional works for. When information needs to be transferred to other professionals, there is no uniform method of sharing.

Communicate with patient and family

The pattern ‘Communicate with patient and family’ explains that professionals communicate with clients to examine their condition, share information, educate, and develop a common understanding or plan. All 15 participants, in 87 fragments, gave examples of how they communicate with their clients. Eight participants pinpointed one facilitating factor (24-hour service point of contact) and two impeding factors (communicating in acute situations and honoring privacy).

Facilitating factor

After transferring a client, one community midwife and three maternity care assistants always tell the client that they can contact a professional if they have any questions.

“If there is something, you can always call. We try to do this in the practice, that people can call us without hesitation. It is a bit silly that they have to worry unnecessarily, while I can explain it in one phone call, or sometimes they say: ‘I want to hear the heartbeat.’” (A2)

Impeding factors

Two community midwives told us that they find it hard to communicate an acute situation or a pregnancy complication to their clients. On the one hand they want to inform the client about her situation and the reason why she needs to be transferred to a hospital, but on the other hand they don’t want to frighten the client and cause extra stress.

As illustrated by the following quotes:

"Yes, one should prepare them a little for what they can expect. Sometimes it happens really fast. I can imagine that, because at that moment you are feeling like you are losing control and because of that you can end up with negative feelings." (A2)

"Then I say clearly that I am going to transfer her and that a group of doctors in white coats will be coming into the room. That is normal procedure and she should not be afraid of that." (A2)

Another impeding factor six participants mentioned was honoring the privacy of their clients. Participants mentioned that if they want to consult another professional about a treatment plan, the client needs to give their permission. If this permission is not given, the professional is not permitted to discuss the client's records.

As to communicating with patient and family, the participants think it is important that clients know that they can contact them at any given time. They find it hard that honoring the privacy of their clients can impede the continuity of care, if they want to consult other colleagues.

Remaining components

The participants mentioned the seven remaining communication patterns much less often (Request historical information; Document in shared record; Review shared record; Request advice; Request assessment/treatment; Order; Coordinate as care team). Although voiced in the interviews, the participants often did not mention facilitating or impeding factors for these patterns; they only illustrated their activities.

The only notable facilitating factor for continuity of care that community midwives, three secondary healthcare professionals and two youth healthcare nurses all shared was the importance of attending multidisciplinary meetings. During these meetings, multiple healthcare professionals discuss the situation and care plan for particular clients that need to be monitored (for example complications with the pregnancy/labor/maternity period or a complicated home situation).

A youth healthcare nurse shares her experiences with these meetings:

"You can easily contact them and say something like, 'What do you know about that family, what can I do, what is being done? Should we perhaps plan an MDG [multidisciplinary group meeting] to discuss with all professionals how to gain insight into what we can do?' This way creates contact more easily. And I must say, it works very well." (D1)

To conclude, the participants did not often mention facilitating or impeding factors for these seven remaining communicating patterns. However, meeting other professionals and sharing feedback, planning and implementing decisions about a client facilitates care.

Discussion

Through using a vignette that described the care process of a pregnant woman and semi-structured interview questions, we studied how healthcare professionals transfer their clients, aim at continuity of care, and which factors influence the continuity of care. In general, our participants were satisfied with how they transfer their own clients and how they receive transferred clients from their colleagues. Participants mentioned nine factors that facilitate continuity of care: the usage of protocols, working together as a team, feeling connected and having mutual trust, knowing colleagues in person, warm transfer, tools to make adequate choices, using standard formats, 24-hour service point of contact and attending multidisciplinary meetings. They also mentioned 10 factors that impede continuity of care: multiple locations, acute situations and high workload, language barriers, night shifts, different hierarchical levels, not knowing who to contact, insufficient knowledge of protocols, usage of different registration systems, communicating in acute situations and honoring privacy.

The extended continuity of care model by Price and Lau, which consists of four elements (circle of care, environmental influences, provider connectedness, and communication patterns) of which the latter consists of 10 patterns, was used in this study to investigate which factors facilitate and impede the continuity of care in the Dutch obstetric and neonatal healthcare system [15]. During the interviews, participants mentioned the three elements 'environmental influences', 'provider connectedness', and 'communication patterns'. The participants did not (or hardly) mention one element and some communication patterns of the Price and Lau model, namely 'circle of care' and the communication patterns 'request historical information', 'document in shared record', 'review shared record', 'request advice', 'request assessment/treatment', and 'order'.

Circle of care

In the Netherlands, the obstetric and neonatal healthcare system is more often described as a chain of care than a circle of care surrounding an individual patient [27]. This system is seen as a succession of healthcare organizations and healthcare professionals who provide healthcare to their clients in a continuous manner [27]. This can explain why our participants did not have any fragments with facilitating and/or impeding factors about the circle of care (individual patient's healthcare system).

Environmental influences

This element refers to factors outside the circle of care that influence continuity of care. Our participants mentioned multiple factors not related to the client, professionals, or information repositories. 'Acute situations' was a factor that stood out for us because, unlike regular transfers, acute transfers of care require different proceedings from healthcare providers.

Wiegers et al (2013) showed in their research that professionals usually know how to contact other professionals in acute situations, but they are not always aware of the current protocols and agreements [8]. Especially in these acute cases, it is of the utmost importance that professionals communicate well with each other [17]. Our participants fear that information may get “lost in translation” during an acute transfer. This fear increases when the acute situation happens at night and the professional already has a high workload. Acute transfers between professionals, especially during childbirth, are risk factors for a negative birth experience [12,18]. Women who are giving birth and experience an acute transfer can have feelings of uncertainty about what is happening to them and their babies, where they are going and who is taking care of them [12]. Therefore, good communication with the client and family is just as important as proper communication between professionals for the continuity of care.

Provider connectedness

This element describes the cohesiveness of the relationships between professionals in a circle of care. All participants in our study mentioned relationships with colleagues in the Dutch obstetric and neonatal healthcare system and the ability of such relationships to influence the continuity of care. Continuity of care appears to go more smoothly if the healthcare professionals feel connected to each other - if they function as a team, experience mutual trust, and know each other in person.

Multiple studies have concluded that it is of vital importance for professionals who are involved in transfers to know and trust each other, which not only benefits the provider-connectedness but also the experiences of the clients regarding the care provision [8, 19]. With these abilities, professionals are able to give adequate responses to each other [8].

Our participants mentioned two examples about how to start knowing colleagues in person: participating in combined courses for all professionals in the obstetric and neonatal healthcare chain aimed at improving continuity of care by using protocols, and participating in multidisciplinary group meetings. Wiegers et al. (2013) also concluded that multidisciplinary group meetings improve communication and cooperation between members [8]. According to our participants, continuity of care can be compromised if some professionals in the healthcare system are not aware of the protocols.

Hierarchical differences between professionals in the healthcare system are perceived as impeding for provider connectedness and impact continuity of care. Colvin et al (2013) supported this view, having stated that a hierarchical relationship is a barrier for positive collaboration in an obstetric and neonatal healthcare system [28]. An obstetric and neonatal healthcare system with professionals who work together as a team without hierarchal differences therefore contributes to continuity of care.

Communication patterns

The participants did not mention all communication patterns, but elaborated substantially on how they transfer their clients. This concerns two of the communication patterns – ‘transfer of care’ and ‘providing information’). All participants used standard forms to transfer clients. The forms are provided by the organizations they work for, but the instruments they use to transfer the content of the forms are different. While some participants use digital instruments (email or digital registration systems), others send the forms via regular post. Participants agreed that a uniform registration system to which all involved healthcare professionals have access would be ideal. This idea was also mentioned in a Dutch guideline from 2016 in which it is stated that the efficiency of healthcare provision would not only improve but would also prevent errors or interpretation mistakes when entering data [29].

All participants encouraged the usage of protocols, with SBAR the one that was mentioned most often, especially for acute transfers. Our participants were clear about their preferences for warm transfers (where clients are transferred face-to-face between colleagues, backed up by medical files) instead of cold transfers (where clients are transferred on paper, via telephone, email, or letter). No evidence was found to support conclusions about the effectiveness of transfer styles (warm versus cold transfers) for facilitating continuity of care [30,31]. It has been investigated that transfers where the client is present (bedside transfers) increase the involvement of clients regarding their treatment, which can improve client satisfaction and experiences, and manage expectations better [32].

The communication pattern ‘communicating with patient and family’ explains that professionals communicate with clients about their condition, they share information, educate, and develop a common understanding or plan. Our participants explained that by being transparent about possible complications that may affect their clients and by taking the time to explain their actions, they manage clients’ expectations. They don’t find this easy to do, because they don’t want to frighten their clients or worry them unnecessarily.

Other measures our participants took to reassure their clients is by explaining that healthcare professionals are accessible 24 hours a day. In some cases, participants wanted to exchange client information with other healthcare professionals for feedback or advice. Privacy regulations were mentioned as an impeding factor in this process. However, with the client’s consent, the situation may be discussed between involved healthcare professionals.

The participants involved in our study mentioned that continuity of care benefits from a situation where communication between healthcare professionals and between healthcare professionals and their clients is optimal. The relationship between professionals is strengthened when the professionals regularly work with each other and know each other personally.

Strengths and limitations

A strength of this study is that the experiences of almost all involved professional groups in the Dutch obstetric and neonatal healthcare system could be analyzed. As such, the study provides a sample picture of professionals' experiences with factors that influence the continuity of care.

One limitation of the project is that a vignette study does not monitor real proceedings regarding the transfer of a client, but only portrays the perspectives of healthcare providers. The answers given during the interview are therefore vulnerable to social desirability bias. However, questions about the real proceedings professionals undertake when they transfer their clients were included in the semi-structured interview. Another limitation is that more professionals who find transfers of care interesting or are highly involved with client transfers may have agreed to participate in this study than professionals who transfer clients less often. Non-responders are probably less interested in properly transferring their clients, which may have resulted in a too favorable or unfavorable picture of healthcare providers' experiences

Recommendations

We would advise obstetric and neonatal healthcare organizations to invest resources in providing regular multidisciplinary training sessions on transferring clients by using protocols, especially in acute situations. As a result, professionals will maintain their skills on how to efficiently transfer clients, and they will get to know the other professionals in person.

A uniform digital registration system for all involved obstetric and neonatal healthcare providers could be beneficial. Due to privacy and security concerns, a digital registration system is not yet available. However, because of the upcoming integrated Dutch obstetric and neonatal healthcare system, which entails close collaboration between the involved professionals, the chances of developing such a system have increased.

Conclusion

We found a broad variety of factors facilitating and impeding continuity of care. In order to determine which factors should be included in the development of new protocols and agreements on transfers, it is important to know which factors have the most impact. Future research should investigate which factors significantly predict the continuity or discontinuity of care, using quantitative research methods.

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CHAPTER 6

Discussion and conclusion

Introduction

Client experiences are an important aspect of obstetric and neonatal healthcare. In the Netherlands, various healthcare providers guide pregnant women and new mothers. These professionals are responsible for a part of the care provision in the care pathway. When their scope of practice ceases, clients are transferred to another healthcare provider. More than 80% of pregnant women are cared for by various healthcare professionals at some point during their pregnancy, which makes it challenging to examine their experiences [1].

Pregnant women in the Netherlands will generally experience pre-known transfers of care. These transfers occur between healthcare professionals who work for different organizations, such as from community midwife to obstetrician, from community midwife to maternity care assistant, and from maternity care assistant to youth healthcare physician. Other pre-known transfers are those between healthcare professionals who work for the same organization and take place when, for example, a shift in the hospital ends while a woman is giving birth.

In addition, unexpected transfers occur between healthcare professionals who work at different care levels due to complications during pregnancy, childbirth, and the post-partum period. Unexpected transfers also occur when clients wish to change their healthcare professionals, or when a client relocates. Studies showed that women who experienced an unexpected transfer during childbirth were less satisfied with the obstetric healthcare than women who did not experience a transfer during childbirth [2,3,4].

These studies mostly focused on unexpected or acute transfer journeys between two places, such as from a home setting to a hospital, and used instruments to measure satisfaction that are not specifically focused on obstetric and neonatal healthcare. These instruments did not consider different time periods, care settings, and all involved healthcare professionals we see in the Dutch obstetric and neonatal healthcare system.

The aim of this thesis was to investigate clients' and professionals' experiences with Dutch obstetric and neonatal healthcare by highlighting their experiences with transfers of care. To achieve this aim, different methods were used to examine how pregnant women and women who had just given birth experienced their provided care and, especially, whether and how they experienced transfers of care. First, client experiences with obstetric and neonatal healthcare and transfers of care were explored for women with a low risk level (Chapter 2). Then, differences in client experiences were investigated between low-risk and high-risk women (Chapter 3). Experiences with pregnancy and childbirth are incredibly diverse and different per client. For that reason, a storyline study was performed which provided in-depth data on experiences with transfers of care (Chapter 4). As collecting multiple perspectives contributes to a picture involving all relevant actors, a qualitative study explored the experiences of professionals involved in transfers of care (Chapter 5).

This chapter describes the main findings of the study, followed by a general discussion, a conclusion, and implications for practice and research.

Main findings

Part I. Client experiences and satisfaction

Chapter 2 describes the effects of transfers across care levels during childbirth on the experiences with obstetric and neonatal healthcare of women with uncomplicated pregnancies. A quantitative survey among women who gave birth in an eastern Dutch region was used to measure client satisfaction with the care provision. This chapter aimed to: a) compare the client satisfaction of women with uncomplicated pregnancies at the onset of labor, but who were transferred across care levels during childbirth, with that of women with uncomplicated pregnancies at the onset of labor, but who were not transferred across care levels, and b) examine the extent to which sociodemographic characteristics, pregnancy and childbirth characteristics, and clients' experiences with the care process explain differences in the client satisfaction of transferred and non-transferred women.

Of the 842 respondents, 277 (32.9%) women were transferred from primary to secondary/tertiary care, while 565 (67.1%) women were not transferred. Client satisfaction of transferred women across care levels during childbirth (mean 8.04, scale between 1 and 10) was significantly lower than that of women who were not transferred across care levels during childbirth (mean 8.78, scale between 1 and 10). This study found seven determinants that largely explained the difference in client satisfaction between transferred women and women who were not transferred.

Women who experienced medical interventions while giving birth were less satisfied with the care provision. Lower satisfaction scores were also found for women who perceived health problems after giving birth. Women who had 'non-positive' experiences with the following five care process characteristics were less satisfied with the care provision during pregnancy, childbirth and the postpartum period: respect, prompt attention, quality of basic amenities, social consideration, and choice and continuity. In conclusion, women were generally satisfied with the provided care. Managing expectations about care paths and transfers of care could help prepare pregnant women and their partners for the impending childbirth.

Chapter 3 presents the results of a quantitative study that researched the differences in client experiences with the obstetric and neonatal healthcare of low-risk and high-risk women. The same questionnaire and population as the ones in Chapter 2 were used in this study, although the outcome variables differed.

The following research questions were answered: a) Do client experiences with obstetric and neonatal healthcare differ between high-risk and low-risk women who gave

birth to a live born child in an eastern region of the Netherlands?; b) If so, which, if any, background characteristics, pregnancy circumstances, childbirth, or follow-up care characteristics explain these differences?; c) What are the characteristics of women who had 'notably bad' experiences with obstetric and neonatal healthcare?

The results showed that 915 women (65.9%) had a high-risk pregnancy and/or childbirth, while 473 women (34.1%) had a low-risk pregnancy and/or childbirth. Client experiences with obstetric and neonatal healthcare showed small variations, with a significantly lower mean score for women who were high-risk (3.75) compared to low-risk women (3.84).

A higher incidence of unplanned medical interventions and pain relief during childbirth in the high-risk group could partially explain the difference. Single mothers and women with a non-Dutch background were more likely to report less positive experiences. Seventy-six women (5.5%) reported 'notably bad' experiences (mean score ≤ 3.32) with obstetric and neonatal healthcare.

Notably bad experiences were more common among women with a high-risk pregnancy and/or childbirth, non-Dutch ethnicity, an unplanned pregnancy, who had pain medication during childbirth, and who were unfamiliar with the healthcare provider who guided childbirth. These findings highlight the need for healthcare providers to be aware of who is susceptible to negative experiences. We advised that healthcare provision should be altered to tailor to the needs of these women.

In **Chapter 4**, a qualitative method was used to measure client experiences. Women wrote narratives about their experiences with obstetric and neonatal healthcare. The research question answered in this chapter was: How do clients experience transfers of care during pregnancy, childbirth, and the neonatal period, and how do these experiences compare with the established quality of care aspects that the Dutch Patient Federation developed?

Seventeen narratives described the clients' experiences in detail. A comparative analysis was performed, identifying differences and similarities between existing quality criteria and those clients mentioned. Storyline analysis was used to identify story types. These story types portrayed patterns that indicate how clients experienced transfers between healthcare professionals. Four story types were identified: 1) disconnected transfers of care lead to uncertainties; 2) seamless transfers of care due to proper collaboration lead to positive experiences; 3) transfers of care lead to disruption of patient-provider connectedness; 4) transfers of care the client initiated make pregnancy and childbirth dreams come true.

Most of the quality aspects derived from these story types were similar or complementary to the Dutch Patient Federation list. A new aspect identified in the clients' stories was the influencing role of prior experiences with transfers of care on current expectations, fears, and wishes. We found that women who previously experienced transfers between healthcare professionals had positive experiences during the pregnancy, childbirth, or post-

partum period they wrote the story about. We saw this for women who previously had positive or negative experiences. These women knew what to expect and were able to adapt their care process to their wishes.

The importance of the impact of previous experiences has not yet been observed in comparable studies. For professionals, it is important to be aware of past experiences, because knowing these experiences might help them to adjust their care provision to client needs. For this reason, it is important to discuss previous experiences during contact moments between clients and professionals.

Part II. Professional experiences

Chapter 5 describes the results of a qualitative study of obstetric and healthcare professionals on how they aim for continuity of care and how they transfer clients. The following research question was answered: What are healthcare professionals' experiences with factors that influence the continuity of care in the Dutch obstetric and neonatal healthcare system?

During 14 interviews, 15 healthcare professionals shared how they strive for continuity of care and which factors facilitate or impede this. In general, professionals were satisfied with the manner in which they transfer clients to other professionals. Positive thoughts were also shared about how clients were transferred to them from other professionals.

The obstetric and neonatal healthcare professionals mentioned 19 factors that facilitated or impeded continuity of care. Factors that were mentioned most often as facilitating included the usage of protocols, working together as a team, feeling connected and having mutual trust, knowing colleagues in person, warm transfer, tools to make adequate choices, usage of standard formats, 24-hour service point of contact, and taking part in multidisciplinary meetings. Impeding factors that stood out were multiple locations, acute situations and high workload, language barriers, night shifts, presence of hierarchy, not knowing who to contact, insufficient knowledge of protocols, usage of different registration systems, communication in acute situations, and privacy concerns.

Efforts to improve continuity of care should focus on providing multidisciplinary training on efficiently transferring clients. Continuity of care benefits from a situation where all healthcare professionals in the care pathway are familiar with each other. Working towards a uniform digital data registration system is also one of the possibilities that may improve continuity of care for clients.

General discussion

Measuring experiences

As mentioned in the introduction of this thesis, different research methods were used to measure the experiences and satisfaction of clients and professionals regarding transfers of care. Experiences and satisfaction with the provided care are relevant indicators of quality of care in addition to indicators used to evaluate obstetric and neonatal healthcare, such as the Big 4 indicators.

The aim of this thesis was to better understand how clients experience transfers of care by (1) measuring transfers in the entire obstetric and neonatal care pathway, besides measuring experiences and satisfaction with transfers during childbirth, (2) utilizing research methods worthy of clients' rich and detailed experiences, and (3) featuring professionals' experiences when they transfer clients.

In the introduction, we distinguished the different transfers of care that women in the Netherlands can experience during pregnancy, childbirth, and the postpartum period. In our research, we could not make this distinction in our quantitative studies. Transfers occur many times during pregnancy, childbirth, and the postpartum period. In practice, the questionnaires would have become too long if we requested the reasons for the transfers. As a result, we could not distinguish whether the transfers were pre-known or unexpected. We assume that there is a difference in experience between these types of transfers. In the studies of Rowe et al., Christiaens et al., and Waldenström we mainly see negative experiences with unexpected transfers during childbirth [2,3,5].

Further research is needed to see if there are differences in experiences between women who had a pre-known or an unexpected transfer. Research to investigate if clients experience transfers differently when they take place during various periods, such as, during pregnancy, childbirth, or the postpartum period is also needed. With this information, professionals can further personalize their care provision.

In conclusion, we can say that the results of the approaches in this mixed method research (quantitative and qualitative) complement each other in studying clients' experiences and satisfaction with a complex care system like the Dutch obstetric and neonatal healthcare system. In a large population sample the choice of a quantitative method using a validated and specific questionnaire aimed at obstetric and neonatal healthcare is appropriate [6].

Complementary to the quantitative studies, the qualitative studies we performed in this thesis were necessary to go in-depth into the topic of transfers of care. In the past, studies used qualitative methods to study the meaning of childbirth, the experiences of pain during childbirth, fear of giving birth, and expectations [7,8,9]. A qualitative approach was particularly useful for our study to measure the experiences of women with pregnancy, childbirth, and the postpartum period, as we were interested in a wide range of client experiences with transfers of care, which is difficult to encompass in a questionnaire.

We therefore asked women to write down their experiences, to get in-depth information about how they experience obstetric and neonatal healthcare regarding transfers of care. The added value of this method is that women who participated in the study were given the space to share their experiences with the researchers, without the researchers being able to cause a bias due to their presence or pre-formulated questions [10,11,12]. In addition, women who participated in our research enjoyed writing down their experiences, which is why narrative research is regularly used in clinical and health psychology [13].

Interpreting experiences

Our research yielded insights into the experiences of clients and healthcare professionals regarding transfers of care during pregnancy, childbirth, and postpartum care. In the studies elaborated on in Chapters 2 and 3, we concluded that lower client satisfaction, less positive experiences, and notably bad experiences were associated with medical interventions. These results were consistent with previous studies that showed that medical interventions have a negative effect on client satisfaction [14,15,16]. In Chapter 5, professionals mentioned medical interventions as an impeding factor for continuity of care. With the findings from our studies, we cannot conclude which medical intervention has the most influence on client experiences or client satisfaction. Further research is needed to investigate this in-depth, and the outcomes can help healthcare professionals to manage client expectations and adapt their care provision.

Managing client expectations is a recurring phenomenon in this thesis. In Chapter 4, we saw that women who are unfamiliar with the reasons why they were being transferred – often combined with an unclear and stressful period – had more negative experiences with their care provision. In Chapter 5, we could also observe the struggle of healthcare providers when managing their clients' expectations. It is important to inform clients about possible outcomes of the pregnancy, childbirth, and postpartum period, and the possibly unwanted medical interventions or transfers that accompany it.

Explaining these situations can cause fear and stress for pregnant women and their partners, which is of course unwanted. Healthcare professionals may feel as if they have to choose between two evils. Explaining all possible outcomes can lead to unnecessary fearfulness; on the other hand, not sharing all possible outcomes may result in situations where women feel insufficiently informed. Contact moments between professionals and clients are often tightly scheduled, including the necessary medical check-ups, which means that there is not a lot of time for extra explanations.

Klomp et al. identified three approaches of women towards pain management during childbirth: pragmatic natural, deliberately uninformed, and planned pain relief [17]. They recommended that healthcare professionals should consider the three approaches towards pain management to improve client-centered care. Further research is needed to examine the demand of expectation management regarding transfers of care and how this can be implemented in the health policy of Dutch obstetric and neonatal healthcare.

General conclusion

The studies of this thesis investigated the experiences with Dutch obstetric and neonatal healthcare through the eyes of clients and professionals, highlighting experiences with transfers of care. The experiences of clients with Dutch obstetric and neonatal healthcare, included in several chapters of this thesis, showed that mothers in the Netherlands are in general very satisfied with the healthcare they received during pregnancy, childbirth, and the postpartum period.

We gained a better understanding of how transfers of care can influence satisfaction with the obstetric and neonatal healthcare of women with uncomplicated pregnancies. Women who experienced a transfer during childbirth were less satisfied with the provided healthcare than women who did not experience a transfer of care. Health problems perceived after birth, medical interventions, and seven care process factors were found to be associated with lower client satisfaction.

When taking a closer look at the differences in client experiences between women with a high-risk pregnancy and those with a low-risk pregnancy, we observed a lower mean score on client experiences with obstetric and neonatal healthcare for women who had a high-risk pregnancy and/or childbirth than for women with a low-risk pregnancy and/or childbirth. Lower mean scores were most prominent among non-Dutch women, single mothers, women who had planned or unplanned interventions during childbirth, or those who had pharmacological pain relief during childbirth.

In a series of written narratives, women shared their experiences with transfers of care during pregnancy, childbirth, or the postpartum period. Four story types about experiences with transfers could be identified: 1) Disconnected transfers of care lead to uncertainties; 2) Seamless transfers of care due to proper collaboration lead to positive experiences; 3) Transfers of care lead to disruption of patient-provider connectedness; 4) Transfer of care is initiated by the client to make pregnancy and childbirth dreams come true. The stories also show that previous experiences influence clients' expectations for the next pregnancy, childbirth, the postpartum period, and transfers of care.

Besides measuring clients' experiences with transfers of care, professionals' experiences with transferring clients were also included in a study. Just like the clients, the professionals were in general satisfied with how they transferred clients and how colleagues transferred clients to them. Continuity of care benefits from a situation where professionals know one another in person and trust one another's capabilities. This is attainable by providing multidisciplinary training on how to transfer clients efficiently, especially in acute situations. Implementing a uniform digital data registration system is also said to improve clients' continuity of care.

Recommendations

In general, our participants had positive experiences with the obstetric and neonatal healthcare they received. However, in our quantitative study (Chapter 3), 5.5% of the women were

classified as having had 'notably bad experiences' with the care provision. Logically, obstetric and neonatal healthcare professionals want their clients to look back on their healthcare experiences as positively as possible. This is of course idealistic, but taking into account the long-term effects associated with negative experiences (feelings of failure, grief, loss, problems with mother-infant interaction, and influence on reproductive choices [18,19,20]), this is definitely something to work towards.

The studies in this thesis support the opinion that obstetric and neonatal healthcare professionals need to become more aware of the expectations, needs, and wishes of their clients and partners to be able to improve their experiences and the quality of care. The study on women's experiences, low-risk pregnancy, and/or childbirth using written narratives (Chapter 4) revealed that prior experiences with transfers of care influenced the expectations of the current pregnancy, childbirth, or the postpartum period. This was the case for clients with previous negative experiences as well as those with previous positive experiences. These clients knew what to expect and could therefore express their expectations, fears, and wishes to their healthcare professionals.

A first recommendation in this thesis is that healthcare professionals should inform themselves about their clients' prior experiences with obstetric and neonatal healthcare, either positive or negative, so that they can adapt their care provision accordingly. Prior experiences can be discussed during the first contact moments between client and healthcare provider. A second recommendation to healthcare providers is to provide clients with information regarding complications and situations which lead to transfers of care. This prepares clients for possible outcomes, even negative ones. Clients (Chapter 4) as well as professionals (Chapter 5) have indicated that being aware of all possible outcomes has advantages as well as disadvantages. Anxiety, fear, and fear of losing control can affect expectant parents' mental state. However, discussing these feelings can help professionals to manage client expectations.

As illustrated in Chapter 2, women who experienced a transfer across care levels during childbirth were less satisfied with the care provision than women who did not experience a transfer across care levels. One of the factors that explained this difference was medical interventions during childbirth. As expected, medical interventions were more prevalent in the group of transferred women, because these interventions have to be performed by healthcare professionals in secondary and tertiary care.

Furthermore, we found that women with a high-risk pregnancy and or childbirth had less positive experiences with obstetric and neonatal healthcare. Medical interventions were also more prevalent in the group of women with a high-risk pregnancy/childbirth (Chapter 3). This effect was stronger when medical interventions were unplanned, such as episiotomy, forceps, vacuum extraction, or unplanned caesarean sections. Less positive experiences were also seen in the group of women who experienced pharmacological pain relief during childbirth.

Healthcare providers should be aware that these events can negatively influence

their clients' experiences. We recommend that healthcare providers clearly explain the purpose of all relevant medical interventions, in particular unplanned ones, to the expectant parents. By discussing these events, expectant parents know what to expect and misconceptions can be clarified.

An integral patient file forms part of the integrated obstetric and neonatal healthcare system that is being implemented in the Netherlands. In such a digital system, healthcare providers who work in close collaboration share their joint client/patient files. The likelihood of losing important information during a transfer will then be less, because each healthcare provider will have access to the same system that contains all information. Clients will not have to explain their situation and medical history several times like they currently have to do, with every organization having its own system. We would recommend the VSV (Verloskundig samenwerkingsverbanden) to work towards creating an integral digital patient file system. Professionals themselves desire such a system, as they mentioned this during the interviews (Chapter 5). Of course, privacy regulations and security issues need to be considered.

Pregnancy, childbirth, and the postpartum period are major life events and the obstetric and neonatal care given to women has the potential to affect them physically, mentally, and emotionally in the short and longer term [21,22]. Positive experiences with obstetric and neonatal healthcare can contribute to an optimal start to parenthood and the life of the newborn.

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SUMMARY

Client experiences are an important aspect of obstetric and neonatal healthcare. In the Netherlands, various healthcare professionals guide pregnant women and new mothers. These professionals are responsible for a part of the care provision in the care pathway. When their scope of practice ceases, clients are transferred to another healthcare provider. Different healthcare professionals providing guidance and treatment can lead to discontinuity of care. This can negatively influence client satisfaction and therefore quality of care.

Clients will generally experience pre-known transfers of care. These pre-known transfers occur between healthcare professionals responsible for clients in the subsequent obstetric and neonatal healthcare period. Clients can also experience unexpected transfers whose frequently abrupt nature characterize them. These transfers occur between healthcare professionals working on different care levels due to (impending) complications. This thesis, and literature, suggests that women transferred during childbirth are less satisfied with the care provision and the quality of care than those not transferred. Dissatisfaction with the care provided during pregnancy, childbirth and the postpartum period can have serious adverse effects on the physical, mental, and physiological state of the client. As an indicator of the quality of the care, client experiences and satisfaction are becoming more important. Client experiences and satisfaction provide in-depth information about how the obstetric and neonatal healthcare system performs, which in turn can be used to improve the quality of care. Clients' input is required to ensure that the Dutch obstetric and neonatal healthcare system remains demand-driven instead of supply-oriented. Therefore, Dutch obstetric and neonatal healthcare professionals work towards maintaining and improving client experiences and satisfaction. Nevertheless, it can be challenging to study the Dutch obstetric and neonatal healthcare systems' quality of care by means of the experiences of its clients. This challenge is due to the multiple healthcare levels, various healthcare professionals, and the long pregnancy, childbirth, and postpartum period. Also, pregnancies, childbirths, and postpartum periods are unique to every woman and experiences with the provided care therefore vary immensely. The value of this study's mixed methods approach is that the results of the different sub-studies complement one another and endeavor to provide an in-depth examination of the research aim. Little is known about how the professionals experience and undertake their clients' transfers, which we therefore also studied. The aim of this thesis is to investigate clients' and professionals' experiences with Dutch obstetric and neonatal healthcare by highlighting their experiences with transfers of care.

Chapter 2 describes the effects of transfers across care levels during childbirth on the experiences with obstetric and neonatal healthcare of women with uncomplicated pregnancies. A quantitative survey among women who gave birth in an eastern Dutch region was used to measure client satisfaction with the care provision. The aims of this chapter were: a) to compare the client satisfaction of women with uncomplicated pregnancies at the onset of labor, but who were transferred across care levels during childbirth, with that of

women with uncomplicated pregnancies at the onset of labor, but who were not transferred across care levels, and b) to examine the extent to which sociodemographic characteristics, pregnancy and childbirth characteristics, and clients' experiences with the care process explain the differences in client satisfaction of transferred and non-transferred women. This study found seven determinants that largely explained the difference in client satisfaction between transferred women and women who were not transferred. Women giving birth who experienced medical interventions were less satisfied with the care provision. Lower satisfaction scores were also found for women who perceived health problems after giving birth. Women who had 'not positive' experiences with the following five care process characteristics were less satisfied with the care provision during pregnancy, childbirth and postpartum period: respect, prompt attention, quality of basic amenities, social consideration, and choice and continuity. In conclusion, women were generally satisfied with the provided care. Managing expectations about care paths and transfers of care could help prepare pregnant women and their partners for the impending childbirth.

Chapter 3 presents the results of a quantitative study that researched the differences in client experiences with the obstetric and neonatal healthcare of low-risk and high-risk women. The following research questions were answered: a) do client experiences with obstetric and neonatal healthcare differ between high-risk and low-risk women who gave birth to a live born child in an eastern region of the Netherlands?, b) if so, which, if any background characteristics, pregnancy circumstances, childbirth or follow-up care characteristics explain these differences?, and c) what are the characteristics of women who had 'notably bad' experiences with obstetric and neonatal healthcare? Client experiences with obstetric and neonatal healthcare showed small variations, with a significantly lower mean score for women who were high risk compared to low-risk women. A higher incidence of unplanned medical interventions and pain relief during childbirth in the high-risk group could partially explain the difference. Single mothers and women with a non-Dutch ethnicity were more likely to report less positive experiences. Notably bad experiences were more common among women with a high-risk pregnancy and/or childbirth, non-Dutch ethnicity, and unplanned pregnancy, who had pain medication during childbirth, and who were unfamiliar with the healthcare provider who guided childbirth. These findings highlight the need for healthcare providers to be aware of who is susceptible for negative experiences. We therefore advised that healthcare provision should be altered to tailor the needs of these women.

For chapter 4, a qualitative method was used to measure client experiences. Women wrote narratives about their experiences with obstetric and neonatal healthcare. The research question answered in this chapter was: how do clients experience transfers of care during pregnancy, childbirth, and the neonatal period, and how do these experiences compare with the established quality of care aspects that the Dutch Patient federation developed? Seventeen narratives described the clients' experiences in detail. Storyline analysis was used to identify story types. These types portrayed patterns that indicate how clients expe-

rience transfers between healthcare professionals. The four identified story types were: 1) disconnect transfers of care lead to uncertainties, 2) seamless transfers of care due to proper collaboration lead to positive experiences; 3) transfers of care lead to disruption of patient-provider connectedness; 4) transfers of care initiated by the client make pregnancy and childbirth dreams come true. Most of the quality aspects derived from these story types were similar or complementary to the Dutch Patient federations list. A new aspect identified in the clients' stories was the influencing role of prior experiences with transfers of care on current expectations, fears, and wishes. We found that women who previously experienced transfers had positive experiences during the pregnancy, childbirth, or postpartum period they wrote the study about. We saw this for women who previously had positive or negative experiences. These women knew what to expect and were able to adapt their care process to their wishes. For professionals it is important to be aware of past experiences, because knowing these experiences might help them to adjust their care provision to the clients' needs. For this reason, it is important to discuss previous experiences during contact moments between clients and professionals.

Chapter 5 describes the results of a qualitative study of obstetric and healthcare professionals on how they aim for continuity of care and on how they transfer clients. The research question answered was: what are healthcare professionals' experiences with factors that influence the continuity of care in the Dutch obstetric and neonatal healthcare system? During fourteen interviews, fifteen healthcare professionals shared how they strive for continuity of care and which factors facilitate or impede this. In general, professionals were satisfied with the manner in which they transfer their clients to other professionals. Factors mentioned as facilitating included the usage of protocols, working together as a team, feeling connected and having mutual trust, knowing colleagues in person, warm transfer, tools to make adequate choices, usage of standard formats, 24-hour service point of contact, and taking part in multidisciplinary meetings. Impeding factors that stood out were: multiple locations, acute situations and high workload, not knowing who to contact, insufficient knowledge of protocols, usage of different registration systems, communication in acute situations, and privacy concerns. Efforts to improve continuity of care should focus on providing multidisciplinary training on efficiently transferring clients. Continuity of care benefits from a situation where all healthcare professionals in the care pathway are familiar with each other. Working towards a uniform digital data registration system is also one of the possibilities which improves the continuity of clients.

The experiences of clients with Dutch obstetric and neonatal healthcare, included in several chapters in this thesis, showed that, in general, Dutch mothers are very satisfied with the provided healthcare during their pregnancy, childbirth and postpartum period. We gained a better understanding about how transfers of care can influence the satisfaction with obstetric and neonatal healthcare in women with uncomplicated pregnancies. Namely, women who experienced a transfer during childbirth were less satisfied with the provided healthcare than women who did not experiences a transfer of care. Just like the clients,

professionals were in general satisfied with how they transferred their clients and how colleagues transferred their clients to them. Continuity of care benefits from a situation where professionals know each other in person and trust each other's capabilities. Logically, obstetric and neonatal healthcare professionals want their clients to look back on their healthcare experiences as positively as possible. This is of course idealistic, but taking into account the long-term effects associated with negative experiences, this is definitely something to work towards. Recommendations made in this thesis are: 1) healthcare professionals should inform themselves about their clients' prior experiences, either positive or negative, so that they can adapt their care provision accordingly, 2) healthcare professionals should provide clients with information regarding complications and situations which lead to transfers of care, thus preparing clients on possible outcomes, 3) healthcare professionals should clearly explain the purpose of all relevant medical interventions, in particular the unplanned interventions, to the expectant parents, so they know what to expect and misconceptions can be clarified when these events are discussed, and 4) VSV's should work toward creating an integral digital patient file system.

SAMENVATTING

Cliëntervaringen zijn een belangrijk onderdeel van de geboortezorg. In Nederland worden zwangere en pas bevallen vrouwen begeleidt door verschillende zorgverleners. Deze zorgverleners zijn allemaal verantwoordelijk voor een bepaalde zorgperiode in de geboortezorg keten. De cliënt wordt overgedragen naar de volgende zorgverlener als de zorgperiode is beëindigd. De verschillende zorgverleners en de overdrachten die daarbij horen kunnen ervoor zorgen dat de zorg niet meer continue verloopt. Dit kan de cliënt ervaringen en tevredenheid negatief beïnvloeden, wat vervolgens nadelig kan zijn voor de kwaliteit van de zorg.

Cliënten ervaren over het algemeen overdrachten waar ze van tevoren mee bekend zijn. Deze al bekende overdrachten vinden plaats tussen zorgverleners die elkaar opvolgen in de geboortezorg keten (van obstetrische zorgverlener, zoals de verloskundige en de gynaecoloog, naar kraamverzorger en van kraamverzorger naar jeugdgezondheidszorg verpleegkundige of arts). Cliënten kunnen ook onverwachte overdrachten ervaren. Deze overdrachten vinden gewoonlijk plaats als gevolg van complicaties. Zo'n onverwachte overdracht vindt vaak plaats tussen zorgverleners die niet in dezelfde zorglijn werken, oftewel een overdracht tussen een eerstelijns zorgverlener (verloskundige) en een tweedelijns zorgverlener (gynaecoloog). Dit proefschrift, en andere literatuur, suggereren dat vrouwen die onverwachts overgedragen zijn tijdens de bevalling minder tevreden zijn met de zorgvoorziening en kwaliteit van zorg dan vrouwen die niet onverwachts overgedragen zijn. Ontevredenheid met de aangeboden zorg tijdens de zwangerschap, bevalling en postpartum periode kan serieuze nadelige gevolgen hebben voor de lichamelijke, mentale en psychosociale gezondheid van de cliënt. Cliëntervaringen en cliënttevredenheid worden steeds belangrijkere indicatoren voor de kwaliteit van de geboortezorg. Cliëntervaringen en tevredenheid leveren gedetailleerde informatie over hoe de geboortezorg presteert door de ogen van de cliënt. Deze informatie kan vervolgens weer gebruikt worden om de zorg te verbeteren. De input van cliënten is nodig om ervoor te zorgen dat de Nederlandse geboortezorg vraaggericht blijft werken in plaats van aanbodgericht. Daarom werken de zorgverleners naarstig om ervoor te zorgen dat de ervaringen en tevredenheid van de cliënten zo positief mogelijk blijven.

Het meten van de kwaliteit van de Nederlandse geboortezorg door te kijken naar de ervaringen en de tevredenheid van de cliënten is een uitdaging. Deze uitdaging komt door de verschillende organisatiestructuren van de geboortezorgketen, de verschillende zorgverleners en de lange zwangerschaps-, bevallings- en postpartum periode. Ook zijn zwangerschappen, bevallingen en postpartum periodes uniek voor elke vrouw en kunnen ervaringen hierover uitermate variëren.

De meerwaarde van de mixed-methods benadering toegepast in dit proefschrift is dat de resultaten van de verschillende deelonderzoeken elkaar aanvullen waardoor het onderzoeksdoel van meerdere kanten belicht wordt. Er is nog weinig bekend over hoe zorgverleners de overdrachten van cliënten uitvoeren en hoe de professionals dit zelf ervaren.

Vandaar dat wij de ervaringen van de professionals, naast dat van de cliënten, hebben onderzocht. Het doel van dit proefschrift is om de ervaringen van cliënten en professionals met de Nederlandse geboortezorg te onderzoeken door, met name, te kijken naar hoe zij overdrachten in de zorg hebben ervaren.

Hoofdstuk 2 beschrijft het effect van een overdracht tussen eerstelijns- en tweedelijns zorgverleners tijdens de bevalling op de tevredenheid met de geboortezorg van vrouwen met ongecompliceerde zwangerschappen. Een kwantitatieve vragenlijst is afgenomen onder pas bevallen vrouwen woonachtig in Oost-Nederland. Met deze vragenlijst werd de cliënttevredenheid met de ontvangen zorg gemeten. De onderzoeksdoelen van dit deelonderzoek zijn: a) het vergelijken van de cliënttevredenheid van vrouwen met ongecompliceerde zwangerschappen tot het moment van de bevalling, die overgedragen zijn tussen eerstelijns- en tweedelijns zorgverleners tijdens de bevalling, met vrouwen die ongecompliceerde zwangerschappen hadden tot het moment van de bevalling die niet overgedragen zijn, en b) het onderzoeken tot in welke mate sociaal demografische karakteristieken, zwangerschaps- en bevallingsverschijnselen, en cliëntervaringen met zorgproces factoren de verschillen in cliënttevredenheid tussen overgedragen en niet-overgedragen vrouwen kunnen verklaren. De studie vond zeven determinanten die grotendeels de verschillen in cliënttevredenheid konden verklaren tussen overgedragen en niet-overgedragen vrouwen. Bevallende vrouwen die medische interventies ondervonden waren minder tevreden met de geboortezorg. Lagere tevredenheid cijfers werden ook gevonden bij vrouwen die gezondheidsproblemen ontwikkelden na de bevalling. Vrouwen waren minder tevreden met de volgende vijf zorgproces factoren: respect, tijd tot hulp, kwaliteit van faciliteiten, sociale ondersteuning en keuze en continuïteit. Concluderend zijn vrouwen over het algemeen tevreden met de ontvangen zorg. Zwangere vrouwen voorbereiden op de verschillende zorgpaden en eventuele overdrachten kan vrouwen en hun partners helpen met het voorbereiden op de naderende bevalling.

Hoofdstuk 3 presenteert de resultaten van een kwantitatieve studie die de verschillen in cliëntervaringen met de geboortezorg onderzoekt tussen vrouwen met ongecompliceerde zwangerschappen en vrouwen met gecompliceerde zwangerschappen. De volgende onderzoeksvragen zijn gesteld: a) verschillen cliëntervaringen met de geboortezorg tussen vrouwen met een gecompliceerde zwangerschap en vrouwen met een ongecompliceerde zwangerschap die bevallen zijn in Oost-Nederland?, b) zo ja, welke achtergrondkenmerken, zwangerschapsomstandigheden, bevallingsomstandigheden en doorverwijzingen naar een medisch specialist na de bevalling kunnen deze verschillen verklaren?, c) wat zijn de karakteristieken van de vrouwen die “opvallend” slechte ervaringen hadden met de geboortezorg? Significante lagere cliëntervaringen werden gevonden bij vrouwen die een hoog risico hadden voor complicaties vergeleken met vrouwen die een laag risico hadden. Het vaker voorkomen van medische interventies en pijnbestrijding tijdens de bevalling bij de hoge risico groep, kan dit verschil in ervaringen gedeeltelijk verklaren. Alleenstaande moeders en vrouwen

met een niet-Nederlandse achtergrond waren eerder geneigd om minder positieve ervaringen te rapporteren. “Opvallend” slechte ervaringen kwamen vaker voor bij vrouwen met een verhoogd risico op een gecompliceerde zwangerschap of bevalling, niet-Nederlandse achtergrond, die ongepland zwanger waren, die pijnmedicatie hadden tijdens de bevalling, en die de begeleidende zorgverlener tijdens de bevalling niet kende. Deze bevindingen benadrukken de noodzaak voor zorgverleners om zich bewust te maken wie er gevoeliger zijn voor negatievere ervaringen. We hebben daarom geadviseerd om de zorgvoorziening zo aan te passen dat ze in de behoeften van die vrouwen voorzien.

Voor **hoofdstuk 4** is een kwalitatieve methode gebruikt om cliëntervaringen te meten. Vrouwen hebben narratieven (verhalen) geschreven over hun ervaringen met de geboortezorg. De onderzoeksvraag in deze studie was: Hoe ervaren cliënten overdrachten tijdens de zwangerschap, bevalling en postpartum periode in vergelijking met de kwaliteitscriteria geboortezorg opgesteld door de Nederlandse Patiënten Consumenten Federatie (NPCF)? Zeventien narratieven beschreven de cliëntervaringen in detail. Verhaallijnanalyse is gebruikt om de verhaaltypes te identificeren binnen deze narratieven. Verhaaltypes geven patronen weer die laten zien hoe cliënten overdrachten ervaren. De vier geïdentificeerde verhaaltypes waren: 1) meerdere losstaande overdrachten leiden tot onzekerheden, 2) naadloze overdrachten als gevolg van goede samenwerking leiden tot positieve ervaringen, 3) overdrachten zorgen voor een ontwrichting van de patiënt-zorgverlener band, 4) cliënt initieert zelf een overdracht om een droom scenario uit te laten komen. De meeste kwaliteitscriteria afgeleid van de verhaaltypes zijn vergelijkbaar of complementair aan de NPCF lijst. De beïnvloedende rol van eerdere ervaringen met overdrachten op de huidige verwachtingen, angsten en wensen was een nieuw aspect die wij in de narratieven vonden. We vonden dat vrouwen die eerder overdrachten meegemaakt hadden, positievere ervaringen hadden met de huidige zwangerschap, geboorte of postpartum periode. We zagen dit zowel bij positieve en negatieve ervaringen. Deze vrouwen wisten wat ze konden verwachten en waren in staat om hun zorgproces aan te passen aan hun wensen. Voor zorgverleners is het belangrijk dat ze op de hoogte zijn van ervaringen uit het verleden, omdat het kennen van deze ervaringen hen kan helpen hun zorgaanbod aan te passen aan de behoeften van de cliënt. Daarom is het belangrijk om eerdere ervaringen tijdens contactmomenten tussen cliënten en professionals te bespreken.

Hoofdstuk 5 beschrijft de resultaten van een kwalitatieve studie over hoe geboortezorg zorgverleners omgaan met continuïteit van zorg en hoe zij hun eigen cliënten overdragen. De onderzoeksvraag was: wat zijn de ervaringen van geboortezorg zorgverleners met factoren die de continuïteit van de Nederlandse geboortezorg beïnvloeden? Tijdens veertien interviews beschreven vijftien zorgverleners hoe zij streven naar continue zorg en welke factoren dit volgens hen bevorderen en belemmeren. Over het algemeen waren de zorgverleners tevreden met de manier waarop zij hun cliënten overdragen naar

andere zorgverleners. Bevorderende factoren zijn onder andere: het gebruik van protocollen, samenwerken als een team, verbondenheid voelen en elkaar kunnen vertrouwen, collega's persoonlijk kennen, een warme overdracht, handvatten hebben om geschikte keuzes te maken, gebruik maken van standaard formulieren, contactpunt voor cliënten die 24 uur per dag te bereiken is en plaatsnemen in multidisciplinaire overleggen. Belemmerende factoren waren: verschillende zorglocaties, acute situaties en een hoge werkdruk, niet weten met wie er contact opgenomen moet worden, onvoldoende kennis van protocollen, gebruik van verschillende registratiesystemen, communicatie in acute situaties en privacywetten. Inspanningen om de continuïteit van de zorg te verbeteren zouden gericht moeten worden op het efficiënt overdragen van cliënten door middel van multidisciplinaire trainingen. Continuïteit van zorg profiteert van een situatie waarin alle zorgverleners binnen een zorgpad bekend zijn met elkaar. Een uniform digitaal registratiesysteem is één van de mogelijkheden die de continuïteit verbetert.

De ervaringen van cliënten met de Nederlandse geboortezorg, geïncludeerd in meerdere hoofdstukken in dit proefschrift, hebben laten zien dat Nederlandse vrouwen in het algemeen erg tevreden zijn met de ervaren zorg tijdens hun zwangerschap, geboorte en postpartum periode. We begrijpen nu beter hoe overdrachten de tevredenheid met de geboortezorg beïnvloeden. Net zoals de cliënten waren de professionals ook tevreden met hoe zij hun cliënten overdragen en overgedragen krijgen van collega's. Continuïteit van zorg is gebaat bij een systeem waarbij de professionals elkaar kennen en elkaars capaciteiten vertrouwen. Idealiter willen geboortezorg zorgverleners dat hun cliënten zo positief mogelijk terugkijken op hun ervaringen met de geboortezorg. Rekening houdend met de langetermijneffecten die gepaard gaan met negatieve ervaringen, is dit zeker iets om naartoe te werken. Aanbevelingen in dit proefschrift zijn: 1) zorgverleners zouden zichzelf moeten informeren over de vorige ervaringen van hun cliënten, zowel negatieve als positieve, zodat zij hun zorgaanbod kunnen aanpassen, 2) zorgverleners zouden hun cliënten moeten informeren over mogelijke complicaties en situaties die kunnen leiden tot overdrachten, en aldus cliënten voorbereiden op mogelijke uitkomsten, 3) zorgverleners zouden duidelijk het doel van alle relevante medische interventies, met name de ongeplande interventies, moeten uitleggen aan de aanstaande ouders, zodat ze weten wat ze kunnen verwachten en misvattingen weggenomen kunnen worden, en 4) verloskundige samenwerkingsverbanden zouden moeten werken naar een uniform digitaal registratiesysteem.

APPENDICES

Appendix belonging to chapter 2

Appendix 1. Multivariate analyses using linear regression to explore the association between client satisfaction of women with uncomplicated pregnancies until the onset of labor and transfers across care levels during childbirth.

	Model 1a			Model 2b		
	b	95%-CI	P	b	95%-CI	P
Transfers across care levels during childbirth	-.74	-.91 to -.58	.00**	-.74	-.91 to -.58	.00**
Socio-demographic characteristics						
Age (years)				-.01	-.02 to .02	.88
Education						
Low				.04	-.23 to .31	.75
Middle				.12	-.05 to .28	.16
Ethnicity				-.22	-.63 to .19	.29
Pregnancy and childbirth characteristics						
Parity						
Medical interventions during childbirth						
Planned pregnancy						
Pharmacological pain relief						
Adverse pregnancy outcome (baby)						
Perceived health problems (mother)						
Familiarity with healthcare providers						
Clients' experiences with the care process***						
Respect ('positive')						
Autonomy ('positive')						
Confidentiality ('positive')						
Communication ('positive')						
Prompt attention ('positive')						
Social consideration ('positive')						
Quality of basic amenities ('positive')						
Choice and continuity ('positive')						
Adj. R2				.09		
Sig.				.00		
Notes. * p<.05 (two-tailed), ** p<.01 (two-tailed), *** 'positive' = 4.0 Likert score (scale 1-4).						
a Client satisfaction; Transfers across care levels during birth						
b Model 1 + Age; Education; Ethnicity						
c Model 1 + Parity; Medical interventions; Planned pregnancy; Pharmacological pain relief; Adverse outcome pregnancy (baby), Perceived health problems (mother); Familiarity with healthcare providers						
d Model 1 + 8 care process variables (Respect; Autonomy; Confidentiality; Communication; Prompt attention; Social consideration; Quality of basic amenities; Choice and continuity)						
e Client satisfaction; Transfers across care levels during birth; Age; Education; Ethnicity; Parity; Medical interventions; Planned pregnancy; Pharmacological pain relief; Adverse outcome pregnancy (baby), Perceived health problems (mother); Familiarity with healthcare providers; 8 care process variables (Respect; Autonomy; Confidentiality; Communication; Prompt attention; Social consideration; Quality of basic amenities; Choice and continuity)						

Model 3c			Model 4d			Model 5e		
b	95%-CI	P	b	95%-CI	P	b	95%-CI	P
-.30	-.55 to -.05	.01*	-.40	-.56 to -.24	.00**	-.05	-.29 to .18	.66
						-.01	-.03 to .01	.48
						-.05	-.30 to .20	.69
						.02	-.13 to .17	.82
						-.12	-.49 to .25	.53
.12	-.06 to .30	.17				.09	.08 to .26	.31
-.36	-.55 to -.16	.00**				-.31	-.49 to -.14	.00**
.13	-.09 to .35	.23				.09	-.11 to .30	.36
-.28	-.54 to -.02	.04				-.23	-.47 to .01	.07
-.22	-.61 to .18	.28				-.25	-.61 to .11	.18
-.65	-1.1 to -.24	.00**				-.60	-.97 to -.23	.00**
-.29	-.51 to -.08	.00**				-.20	-.40 to .01	.05
			.38	.18 to .58	.00**	.37	.17 to .56	.00**
			.02	-.13 to .17	.81	.02	-.14 to .17	.85
			.13	-.05 to .32	.15	.10	-.08 to .28	.28
			.15	-.01 to .32	.07	.14	-.02 to .31	.09
			.35	.17 to .53	.00**	.37	.19 to .54	.00**
			.28	.06 to .50	.01*	.29	.07 to .51	.01*
			.34	.12 to .57	.00**	.32	.09 to .55	.00**
			.30	.13 to .47	.00**	.28	.11 to .45	.00**
.12			.25			.27		
.00			.00			.00		

ceived health problems (mother); Familiarity with healthcare providers

Quality of basic amenities; Choice and continuity)

nancy; Pharmacological pain relief; Adverse outcome pregnancy (baby); Perceived health problems (mother);

tion; Social consideration; Quality of basic amenities; Choice and continuity)

Appendix belonging to chapter 3

Appendix B. Questionnaire

Dear respondents, Thank you in advance for your cooperation. Your experiences with the care surrounding pregnancy and childbirth are very important to us. We can use them to improve the obstetric and neonatal healthcare in the Netherlands. This study is completely anonymous. Your responses will go directly to the researchers, without being seen by your healthcare providers. We will only share the mean results of the entire group. The unique code, at the right-hand corner on the first page, will be used to check how many questionnaires have been filled in. Completing the questionnaire will take 15-20 minutes. Thank you in advance for your cooperation.

(A) Childbirth and postpartum period

1. With whom did you have the first antenatal check-up?

- ◇ Community midwife
- ◇ Obstetrician
- ◇ General Practitioner
- ◇ Other healthcare professional

2. With whom did you have the antenatal check-ups until you went into labour?

- ◇ From beginning to just before labour with the community midwife
- ◇ From beginning to just before labour with the obstetrician
- ◇ From beginning to just before labour with the General Practitioner
- ◇ Alternating between community midwife and obstetrician
- ◇ First with community midwife, then transferred to obstetrician
- ◇ First with obstetrician, then transferred to community midwife
- ◇ First with general practitioner, then transferred to obstetrician
- ◇ First with general practitioner, then transferred to community midwife

3. Who guided you when you went into labour?

- ◇ Community midwife
- ◇ Clinical midwife
- ◇ Obstetrician
- ◇ General Practitioner

4. Who guided u when your baby was actually born?

- ◇ Community midwife
- ◇ Clinical midwife
- ◇ Obstetrician
- ◇ General Practitioner

5. How is your baby born? Multiple answers are possible.

- ◇ Naturally (no medical interventions)
- ◇ Episiotomy
- ◇ Forceps delivery
- ◇ Vacuum extraction
- ◇ Planned caesarean section
- ◇ Unplanned caesarean section

6. Did you receive pharmacological pain relief during labour?

- ◇ No
- ◇ Yes

7. After childbirth did you need to visit a medical specialist for your yourself or your baby?

- ◇ No
- ◇ Yes

8. Did you know the healthcare professional who was in charge of your childbirth?

- ◇ Yes, I have met and spoken to him/her
- ◇ Yes, but only by name
- ◇ No, I did not know him/her
- ◇ No, I did not know who was in charge

(B) Respect

When answering the following questions, please keep in mind the healthcare professional that influenced your experiences the most.

	Always	Mostly	Some-times	Never	N/A
9. Did your healthcare professionals take your privacy into account?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
10. Did your healthcare professionals treat you with respect?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
11. Did you receive personal attention from your healthcare professional?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
12. Were your healthcare professionals friendly?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
13. Did your healthcare professionals take your wishes concerning your pregnancy and childbirth into account?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(C) Autonomy

	Always	Mostly	Some-times	Never	N/A
14. Did you have input regarding your treatments? (this excludes emergency situations)					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
15. Could u refuse a proposed treatment? (this excludes emergency situations)					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(D) Privacy

	Always	Mostly	Some- times	Never	N/A
16. Did your healthcare professionals discuss your medical situations with your family, only when you gave permission?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
17. Could you discuss important issues with your healthcare professionals without others hearing it?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
18. Did your healthcare professionals handle your medical files with care					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(E) Communication

	Always	Mostly	Some- times	Never	N/A
19. Did your healthcare professionals answer your questions?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
20. Did your healthcare professionals give the same advice?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
21. Did you understand the explanations the healthcare professionals gave you?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
22. Did the healthcare professionals tell you what was going to happen?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(F) Prompt attention

	Always	Mostly	Some-times	Never	N/A
23. Were you helped quickly when u needed it urgently?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
24. Were you helped quickly even when it was not an emergency?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
25. Did your healthcare professionals had time for you when you asked for it?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
26. Was the place where you received care accessible? Think about: hospital, birth centre, parking spaces, road signs.					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
27. Were the healthcare professionals accessible? Think about: telephone, hospital bell.					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(G) Social support

	Always	Mostly	Some-times	Never	N/A
28. Were your partner and/or family involved by your healthcare professional?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
29. Did your healthcare professionals take into account your family and household?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
30. Did you feel supported by your partner/family or others?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(H) Accommodations

When answering the following questions think about the rooms where you received care or where you stayed for treatments. Such as: hospital rooms, shower, toilet, waiting rooms.

	Always	Mostly	Some-times	Never	N/A
31. Were the treatment rooms comfortable?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
32. Were the treatment rooms clean?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
33. Were the treatment rooms accessible?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(I) Continuity of care

	Always	Mostly	Some-times	Never	N/A
34. If you were transferred between healthcare professionals during birth, was your new health-care professional informed about your situation?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
35. If you were transferred to the hospital during birth, was your new healthcare professional informed about your situation?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
36. Did you receive the healthcare professional that you wanted?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇
37. Was it clear which healthcare professional was in charge?					
During childbirth	◇	◇	◇	◇	◇
First week after childbirth (maternity care)	◇	◇	◇	◇	◇
First month after month (first visit well baby clinic)	◇	◇	◇	◇	◇

(j) Prior experiences and background information

38. Have you given birth before?

- ◇ No
- ◇ Yes, I gave birth before, one time
- ◇ Yes, I gave birth before, two times
- ◇ Yes, I gave birth before, three times or more

39. Was this a planned pregnancy?

- ◇ Yes it was planned
- ◇ Not planned, but wanted
- ◇ Not planned, and unwanted

40. What is the highest level of education that you've completed?

- ◇ None (yet)
- ◇ Lower education/primary school
- ◇ Lower General Secondary education
- ◇ Higher General Secondary education
- ◇ Pre-university education
- ◇ Vocational Education
- ◇ University of applied sciences
- ◇ University
- ◇ Education abroad

41. How many years of education did you follow?

.....

42. What is the relationship with the father of your child?

- ◇ Married or co-habiting
- ◇ Not co-habiting, but in a relationship
- ◇ None
- ◇ Other,

43. What is your date of birth?

.....

44. What is your ethnical background?

	You	Father of child
Dutch	◇	◇
Antillean-Aruban	◇	◇
Cape-Verdean	◇	◇
Turkish-Kurdish	◇	◇
Surinamese-Creole	◇	◇
Surinamese-Hindustani	◇	◇
Surinamese-other	◇	◇
Moroccan- Berbers	◇	◇
Moroccan-Arabic	◇	◇
Indonesian	◇	◇
East-European	◇	◇
Asian	◇	◇
Other	◇	◇

45. How old is your baby now?

..... weeks

Thank you for your participation.

Appendix belonging to chapter 4

Appendix C. Instructions writing a narrative

Experiences with transfers of care during pregnancy, childbirth, or the postpartum period

Thank you for your interest in sharing your experiences with transfers during pregnancy, childbirth and postpartum period. By writing down your experiences and submitting it to be analyzed in our study, you make an important contribution to the improvement of the obstetric and neonatal healthcare. To thank you for writing your story, you will receive a gift coupon worth 15 euros.

Instructions

Our request is that you describe your experiences. Imagine that you are telling your own story to a friend or that you want to share your story on a forum for (expecting) women. We are interested in your personal experience when you were transferred from one healthcare professional to another. The specific transfer we are referring to was disclosed in the letter we sent to your home address, together with the informed consent form.

We would like to know how you experienced the transfer, which aspects you thought were important, and the impressions you had at the time. Please do not only describe the events that took place, but also explain the effect on you. Describe the kind of situation you found yourself in at that time, the thoughts and feelings you had when the transfer took place, and how you feel right now. Please create your own story and try to not only recite medical events.

If you do not have the letter with the specific information about your transfer, or if you have questions regarding the study, please contact the researchers at the details of the letterhead.

Good luck with writing your story. We look forward to receiving it!

Sincerely, on behalf of the research team at Pregnancy and Birth Overijssel

Appendix belonging to chapter 5

Appendix D. Interview protocol professionals

Interviewguide

(A) General information

1. Are you a man or a woman?

◇ Man

◇ Woman

2. What is your age?

..... years old

3. What is your position in your organization?

.....

4. Can you describe your position?

.....

5. How many years have you worked for this organization?

..... years

6. The subject of this study is transferring clients between healthcare professionals. How would you describe the term 'transfer of care'?

.....

7. Can you share with us the importance of a good transfer in your daily work?

.....

(b) Scenario (see next page for illustration)

We provide you with a fictional case. Please answer the questions as if the persona is your own client. Mrs. Visser is a woman of 30 years old. She has an intermediate vocational education, is of Dutch origin and married. Mrs. Visser is in good health and hereditary conditions are not present in her family. This is her first pregnancy. She lives in a medium-sized town with her husband.

Scenario for community midwife

Mrs. Visser wants to give birth at home. She discussed this with her community midwives

and because there are no increased risks for complications, this is not a problem. During pregnancy, the community midwife estimates that the fetus is smaller than usual for its gestational age and decides to transfer the woman to the obstetrician for further evaluation. The obstetrician judges after multiple ultrasound examinations that the growth is adequate for the gestational age and that she, as she wishes, can give birth at home.

Questions for community midwife

- ◇ How would u transfer Mrs. Visser to an obstetrician? (how to contact healthcare provider in secondary care?, how do you take into account the wishes of the client?)
- ◇ Do you receive feedback from the secondary healthcare professional? (how do they contact you?)

Around the due date, Mrs. Visser's water breaks. Once labor starts, Mrs Visser wishes pain relief. As a result, Mrs Visser has to go the hospital for further guidance of her childbirth.

Questions for community midwife

- ◇ In the case of Mrs Visser, what steps would you take in order to transfer Mrs. Visser to the hospital (how to contact someone from secondary care, do your stay with your (previous) in the hospital?, how do you transfer information?)
- ◇ Does a transfer take place, from the obstetrician to you as an community midwife, after childbirth?
- ◇ Do you see Mrs. Visser after childbirth? (if so, how do you receive information about childbirth?)

Scenario for resident obstetrician

Mrs. Visser really wants to give birth at home. She has discussed this with her community midwives and because there are no increased risks for complications, this is not a problem. During pregnancy, the community midwife estimates that the fetus is smaller than usual for its gestational age and decides to transfer the woman to the obstetrician for further evaluation. The obstetrician judges after multiple ultrasound examinations that the growth is adequate for the gestational age and that she, as she wishes, can give birth at home.

Questions for resident obstetrician

- ◇ How would Mrs. Visser be transferred from the community midwife to you? (type of contact, feedback)
- ◇ What do you do if information about the client is missing? (do you contact the prior healthcare professional or ask Mrs. Visser?)
- ◇ How do you transfer Mrs. Visser to the community midwife after you decide that she can give birth at home?

Around the due date, Mrs. Visser's water breaks. Once labor starts, Mrs Visser wishes pain relief. As a result, Mrs Visser has to go the hospital for further guidance of her childbirth. Mrs. Visser gave birth under supervision of a resident obstetrician. She receives pain relief. Childbirth has gone well and Mrs. Visser and her newborn child have to stay in the hospital a couple of hours for observation.

Questions for resident obstetrician

- ◇ How would Mrs. Visser be transferred from the community midwife to you? (type of contact, feedback)
- ◇ What do you do if information about the client is missing? (do you contact the prior healthcare professional or ask Mrs. Visser?)
- ◇ How do you transfer Mrs. Visser to the community midwife and/or maternity healthcare after childbirth?

Scenario for maternity care assistant

After childbirth, Mrs. Visser receives maternity healthcare for 8 days. The newborn is putting on weight, but is somewhat restless and cries continuously. The maternity care assistant observes some issues with Mrs. Visser, she is very tired and depressed.

Questions for maternity care assistant

- ◇ How is Mrs. Visser transferred to you after she gave birth in the hospital?
- ◇ What do you do if information is missing about the client or her newborn? (do you contact the previous healthcare professional or ask the client herself?)
- ◇ Who do you contact after observing the mentioned problems?
- ◇ How do you transfer Mrs. Visser to youth healthcare?

Scenario for youth healthcare nurse

In the second week after childbirth the well baby clinic plans a home visit. A youth healthcare nurse visits the new family to introduce the healthcare organization. Everything goes well with the newborn and Mrs. Visser feels better too.

Questions for youth healthcare nurse

- ◇ How do you come into contact with a new client, such as Mrs. Visser and her newborn? (how is information transferred?)
- ◇ Do you have contact with previous healthcare professionals?
- ◇ What do you do if information about your client is missing?

(C): questions transfers of care

1. On a scale of 1-10, how do you rate the quality of transfers that you receive?
.....
2. On a scale of 1-10, how do you rate the quality of transfers that you provide yourself?
.....
3. In your opinion, what is important for a good transfer / what are "good practices"?
.....
4. What can you do yourself to make the transfer as good as possible?
.....
5. Are there instances that you cannot influence regarding transfers of care?
.....
6. What problems do you experience when transferring clients? Is there room for improvement?
.....

Thank you for participating

DANKWOORD

Wauw wat een bevalling! Oké ik heb nog geen ervaring met het echte werk, maar een proefschrift schrijven is ook geen makkie. De afgelopen zes jaar, waarvan vier jaar fulltime, heb ik met veel plezier aan dit promotietraject gewerkt. Net zoals de meeste promovendi heb ik regelmatig van vrienden en familie de vraag gekregen: “wat is promoveren, wat doet een promovendus?”. Nu de afronding van mijn project heel dichtbij is kan ik daar eindelijk goed antwoord op geven. Promoveren is jezelf vastblijven in een onderzoek, een bijdrage leveren aan de wetenschap en jezelf ontwikkelen als beginnend wetenschapper. Nu vergeet ik vast nog een aantal andere zaken, maar ik denk dat het kiezen van een leuk en interessant onderwerp het hoofdingrediënt voor een geslaagde promotie is. Zo heb ik mezelf jaren lang ondergedompeld in de wereld van de geboortezorg en heb ik vele gepassioneerde onderzoekers en zorgverleners ontmoet. Een proefschrift wordt nooit zonder hulp van anderen geschreven. Met dit dankwoord wil ik dan ook allen bedanken die betrokken zijn geweest bij dit proefschrift.

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Amsterdam gegaan voor reünies, feestjes en etentjes. Joy, helaas zien we elkaar wat minder de laatste tijd. Maar als we elkaar opzoeken dan is het altijd als vanouds. Uren kletsen, shoppen en gezellig uiteten. En dan in de trein terug nog het idee hebben dat je niet alle nieuwtjes hebt verteld. Volgend jaar begin je aan je eigen promotietraject in Amsterdam. Ik kan niet wachten om jouw artikelen te lezen.

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Biography

Cherelle van Stenus was born on September 13, 1990 in Hilversum. After finishing high school at Het Baken Park Lyceum in Almere, she started her studies Health sciences at the Vrije Universiteit in Amsterdam. She finished her bachelor degree in 2011 and completed the master Health Sciences with the track International Public Health in 2012. Her master thesis was performed at the Netherlands institute for health services research (NIVEL) in Utrecht. The article was titled "Late start of prenatal care by non-western women in the Netherlands". By writing this article it became apparent that she wanted to pursue her career in science and particularly researching neonatal and postpartum healthcare in the Netherlands. After graduation, Cherelle started her PhD in March, 2013 at the departments of Public Administration (PA) and Health Technology and Services Research (HTSR) at the University of Twente. In 2017, Cherelle worked as a research coordinator for the departments Orthopedics and Obstetrics at Deventer hospital. Since January 2018, Cherelle works at the GGD Twente as an epidemiologist/researcher public health. Here she is involved in monitoring, protecting and promoting the health of the population in the 14 municipalities of the Twente region.

THROUGH THEIR EYES

Cherelle M.V. van Stenus