



## Fear, blame and transparency: Obstetric caregivers' rationales for high caesarean section rates in a low-resource setting



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### ARTICLE INFO

#### Article history:

Received 13 October 2014

Received in revised form

28 August 2015

Accepted 3 September 2015

Available online 5 September 2015

#### Keywords:

Tanzania

Caesarean section

Low-resource setting

Attitudes

Caregivers

Transparency

### ABSTRACT

In recent decades, there has been growing attention to the overuse of caesarean section (CS) globally. In light of a high CS rate at a university hospital in Tanzania, we aimed to explore obstetric caregivers' rationales for their hospital's CS rate to identify factors that might cause CS overuse. After participant observations, we performed 22 semi-structured individual in-depth interviews and 2 focus group discussions with 5–6 caregivers in each. Respondents were consultants, specialists, residents, and midwives. The study relied on a framework of naturalistic inquiry and we analyzed data using thematic analysis. As a conceptual framework, we situated our findings in the discussion of how transparency and auditing can induce behavioral change and have unintended effects. Caregivers had divergent opinions on whether the hospital's CS rate was a problem or not, but most thought that there was an overuse of CS. All caregivers rationalized the high CS rate by referring to circumstances outside their control. In private practice, some stated they were affected by the economic compensation for CS, while others argued that unnecessary CSs were due to maternal demand. Residents often missed support from their senior colleagues when making decisions, and felt that midwives pushed them to perform CSs. Many caregivers stated that their fear of blame from colleagues and management in case of poor outcomes made them advocate for, or perform, CSs on doubtful indications. In order to lower CS rates, caregivers must acknowledge their roles as decision-makers, and strive to minimize unnecessary CSs. Although auditing and transparency are important to improve patient safety, they must be used with sensitivity regarding any unintended or counterproductive effects they might have.

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## 1. Introduction

In recent decades, caesarean section (CS) rates have risen globally (Betrán et al., 2007). As a result, there has been growing attention to the under- and over-use of CSs within different settings and the problems unnecessary CSs might cause (Althabe and Belizán, 2006). Unnecessary CSs can put strains on both institutional and individual resources and threaten health equity in low- and middle-income countries (Gibbons et al., 2012). CS performed on non-medical indications in low-resource settings is associated

with higher maternal risks than vaginal delivery (Souza et al., 2010) and the CS scar can cause problems in subsequent pregnancies (Silver, 2012). CS might also have psychological implications for the mother, with slower recovery, more time away from her family, and increased pain (Wendland, 2007).

Although there has been a media rhetoric of women being “too push to push”, implying that women want CS to avoid labor pains and have an “easier” birth (Lynn Bourgeault et al., 2008), most research on women in both high- and middle-income countries (Hopkins, 2000; Lynn Bourgeault et al., 2008; Mazzoni et al., 2011), as well as low-income countries (Chigbu and Iloabachie, 2007; Khan et al., 2012), argue that there is little evidence for such a declaration. Instead, previous literature suggests that obstetrical policies, a change in doctors' perceptions of CS, and a lower threshold for performing CS can explain the current trend (Bagheri et al., 2013; Bailit, 2012; Habiba et al., 2006; Hopkins, 2000; Lynn

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Bourgeault et al., 2008; Maaløe et al., 2012; Monari et al., 2008; Murray, 2000). Reasons for obstetric caregivers to perform CSs on doubtful indications are suggested to be convenience (Bagheri et al., 2013; Bailit, 2012; Murray, 2000), economic incentives (Bagheri et al., 2013; Hopkins, 2000; Murray, 2000), fear of legal consequences (Bagheri et al., 2013; Fuglenes et al., 2009; Habiba et al., 2006), and a wish to keep private patients happy (Murray, 2000), but there are also reports that staffing patterns affect CS decision-making (Bailit, 2012). As high CS rates have been a concern mostly for high- and middle-income countries, there is little research from the developing world exploring doctors' and midwives' perceptions of high CS rates (Chigbu et al., 2010).

In light of a high CS rate at a university hospital in Tanzania (Litorp et al., 2013), we wished to explore obstetric caregivers' rationales for their hospital's CS rate in order to identify factors that might cause CS overuse. We conceptualize our study based on three empirical observations at the hospital. First, the CS rate has increased rapidly among low-risk groups, for example multipara without previous CS scars, suggesting that many CSs are performed on questionable indications (Litorp et al., 2013). Second, the maternal mortality ratio has increased (Litorp et al., 2013) and CS complications account for a large proportion of the hospital's severe maternal morbidity and deaths (Litorp et al., 2014). Third, women often fear to undergo CS, while caregivers are prepared to take high maternal risks in order to guarantee a good perinatal outcome (Litorp et al., 2015).

In the current study, we situate our discussion within the debate of how transparency and auditing (Strathern, 2000) can have unintended effects through reactivity mechanisms (Espeland and Sauder, 2007; McGivern and Fischer, 2012). These concepts have not, to our knowledge, been applied before to understand high CS rates. In the following section we explain transparency, auditing, and reactivity mechanisms. We then present our research methods and findings. Finally, by taking a social constructionist approach (Erlandson et al., 1993; Menzies, 1960; Waring, 2009) and using our conceptual framework, we outline a model to explain what role transparency might have in CS overuse.

### 1.1. Transparency and reactivity

Transparency is fixed and published rules within a clearly demarcated field of activity that are accessible to everyone (Hood, 2007). It advocates openness, independent scrutiny, and accountability, and make activity visible to the public (McGivern and Fischer, 2012), but can also involve reporting within smaller groups of experts (Hood, 2007). Transparency can include rankings (Espeland and Sauder, 2007) or auditing, of which the latter has become widespread both inside and outside medical practice (Strathern, 2000; The Cochrane Collaboration, 2005). In a medical audit cycle, care is critically analyzed and measured against standards, and feed-back is continually provided to the staff (The Cochrane Collaboration, 2005). In recent years, the use of audit has been increasingly promoted to reduce the number of adverse outcomes within obstetric care (World Health Organization, 2004), and audits are currently becoming more common in developing countries (Richard et al., 2009).

Despite its potential advantages, there are, however, reports that auditing may be associated with a "blame game" (Combs Thorsen et al., 2014) and have unintended, and even counterproductive, effects (McGivern and Fischer, 2012; Strathern, 2000; The Cochrane Collaboration, 2005). The notion among professionals that they are continually observed, evaluated, and measured, can induce so called reactivity mechanisms (Espeland and Sauder, 2007; McGivern and Fischer, 2012). These can include emotional reactions, such as fear, anxiety, guilt, and shame, which might lead to

tension, distress, and uncertainty (Menzies, 1960; Nicolini et al., 2011), but reactivity might also encompass a reconstruction of truth. In an organization or group, diverging realities are constructed to form convergent conclusions and realities, which act as a framework for the way in which people behave (Erlandson et al., 1993; Menzies, 1960), and when staff share narratives and notions with each other, new truths, norms, and customs can develop (Waring, 2009). Previous literature has described how staff cope with anxiety and fear by detachment and denial of feelings (Menzies, 1960). But staff might also react with a shift in focus, for example by concentrating on the work made visible in the auditing process whilst neglecting other obligations (McGivern and Ferlie, 2007), prioritizing to safeguard themselves over what is best for their clients, or focusing on the outcome of the evaluation process rather than the outcome of the client (Espeland and Sauder, 2007; McGivern and Fischer, 2010, 2012).

## 2. Methods

### 2.1. Setting

We performed our study at a university hospital in Dar es Salaam, Tanzania. The Tanzanian health care system has a hierarchical structure, in which most deliveries take place at health centres and peripheral hospitals and the university hospital serves as a teaching and referral institution. After an upgrade of the peripheral hospitals in Dar es Salaam in the first years of the 21st century, the proportion of referred patients at the university hospital increased (Litorp et al., 2013), and the hospital strengthened its position as a tertiary institution. Still, however, two-thirds of the hospital's 9,000 annual deliveries are self-referred. Since 2004, the obstetric department runs as a public-private partnership, where costs for public patients are covered by the government and costs for private patients are debited to patients or their insurance companies. After its introduction, private practice has gradually increased and currently accounts for 25% of the deliveries. Women with private status are attended by the same staff as public patients, but they select a specialist whom they see continually during antenatal care and who is responsible for their delivery. During labor, women with private status are allocated to separate wards. When a private patient undergoes CS, doctors receive extra economic compensation. In recent years, the hospital's CS rate has increased from 16% in 2000 to 51% in 2011 among public patients, and from 36% in 2004 to 50% in 2011 among private patients.

The obstetric department is well-staffed with senior consultants (specialists with more than ten years' experience), specialists, residents (medical doctors doing their three-year specialist training), interns (medical graduates doing their one-year practical training), and midwives. CS decisions are formally taken by a doctor. The on-call team consists of one specialist, two residents, and one intern who are on duty for a 24 h shift. During the night, the specialist can rest either at home or at the department, but should be available for phone consultations and be able to come to the hospital within two hours. All specialists can delegate the responsibility of their private patients to the residents on call. After each call, residents and interns report at the doctors' morning meeting and midwives report at the midwives' meeting. Maternal death audits are conducted monthly since 1973 by a maternal mortality committee comprised of obstetricians, midwives, nurses, and the heads of the pharmacy and the central laboratory services. The committee has to comment on quality of care, identify gaps in the management, and decide if negligence, lack of resources, or understandable circumstances led to the death. All of the committee's recommendations are noted and handed to the hospital management for action, and every week, cases are discussed at a meeting with the department staff. In

addition, perinatal audit was introduced in 2007 (Kidanto et al., 2009) and is currently performed every two to three months. The audit process handles adverse outcomes among both public and private patients. Apart from audits, if staff members are involved in adverse outcomes that might be due to misconduct, they are required to write a statement to the hospital management. Patients and relatives can also file complaints on care providers to a special unit, which might investigate their query.

## 2.2. Study procedures

Since firsthand experience is both the starting point and filter through which data are interpreted (Wolcott, 2008), we began with participant observations. During six months in 2012, and briefly in 2010 and 2014, the main researcher, a PhD-student and resident in obstetrics, took part in meetings, rounds, antenatal clinics, and work at the labor ward at the university hospital and in one of the peripheral hospitals. Through this work, she was both an active and passive member of the medical team (Erlandson et al., 1993). Most observations were done with an “hang around” approach (Wolcott, 2008), while other included detailed note-keeping.

In addition, we performed semi-structured individual in-depth interviews and focus group discussions (FGD) with obstetric caregivers, in order to reflect individual experiences and perceptions as well as capture opinions in light of social norms and expectations. Caregivers were approached and orally informed about the study by two research group members employed as obstetricians at the department. In the recruitment, we tried to obtain variation in sex, age, professional status, and working experience. The main researcher interviewed informants in English in January 2014 at different private locations at their work place. As we saw that midwives' responses were less expansive than those from doctors, possibly resulting from language barriers and the main researcher's position as a physician and “outsider”, additional interviews with midwives were conducted in Kiswahili in June 2014 by a PhD and midwife. Questions posed were open-ended and included respondents' experiences of CS, perceptions about the hospital's CS rate, and the CS decision process. Probing follow-up questions explored their opinions on reasons for the high CS rate, the working environment, and the interaction between staff. FGDs were held in English with midwives and doctors in separate groups. To initiate the discussions, participants were asked to reflect on the hospital's CS rate after being shown a graph of the CS rate between 2000 and 2011. The main researcher kept field notes and a reflexive journal (Erlandson et al., 1993) throughout data collection and analysis.

## 2.3. Participants

We performed 22 individual interviews and 2 FGDs with 5–6 participants in each. Interviews and FGDs were audio recorded and lasted 35–80 min. The age range of the respondents was 27–70 years and their working experience in obstetrics was 2–45 years. Respondents were midwives (14), residents (11), specialists (5), and senior consultants (2). All midwives and a third of the doctors were female. No-one asked to participate refused.

## 2.4. Analysis

The study relied on a framework of naturalistic inquiry, in which the design of the study is not fully established when the study begins (Erlandson et al., 1993). Analysis started during the early interview phase in order to develop additional questions that could be incorporated into subsequent interviews. After ten interviews with doctors, five interviews with midwives, and two FGDs, no new information was retrieved, and we decided that we had met

saturation. The last interviews were mainly used for member-checks, where we verified data with the new respondents. The main researcher transcribed the interviews and FGDs verbatim shortly after they had been conducted. Interviews in Kiswahili were transcribed in Kiswahili and translated to English by one of the research group members. During analysis, repeated discussions were held between members of the research team, including both medical professionals and a professor in medical anthropology. Through these discussions, data were peer checked for authenticity with the two research group members working at the department, and findings were also presented to and peer checked with the hospital staff at a work shop in January 2015. After multiple readings of the transcripts, a list of codes was generated that reflected interesting aspects of the data, and repeated similarities, patterns, and differences across the respondents were identified and interpreted into candidate themes using thematic analysis (Braun and Clark, 2006). Themes were then reviewed and revised repeatedly until they cohered meaningfully but with clear distinctions between them. After this analysis was done, we combined the concepts of transparency (Hood, 2007; McGivern and Fischer, 2010, 2012; Strathern, 2000) and reactivity mechanisms (Allsop and Mulcahy, 1998; Espeland and Sauder, 2007; McGivern and Fischer, 2012) to outline a model from which we could understand and discuss our findings.

## 2.5. Ethics

Clearance to conduct the study was obtained from the Ethics Board at the University to which the hospital is affiliated, and we received oral informed consent from all respondents. Since two of the research group members were employed at the department, we were concerned that residents and midwives might feel uncomfortable to talk freely, knowing that their responses would be shared with these senior colleagues. Therefore, recordings and transcripts were made anonymous before they were shared with other research group members.

## 3. Results

Caregivers had divergent opinions on reasons for the hospital's high CS rate, whether it was a problem or not, and whether CS was overused among both private and public, or only private, patients. Caregivers witnessed of a range of situations where CSs were performed on doubtful indications: diagnoses such as fetal distress and obstructed labor were misused, doctors and midwives were reluctant to let women with previous scars try labor, induction of labor was seldom practiced or usually disrupted at an early stage, and the declining experience in instrumental deliveries led to unnecessary operations. Some respondents witnessed that CS indications were made up, so that unjustified CSs could be performed without being questioned. The reasons for the medically unjustified CSs were, in different ways, linked to the concepts of transparency and reactivity mechanisms, which will be discussed in-depth later. In the following paragraphs, we present five themes that we identified as caregivers' rationales for the high CS rate: factors outside caregivers' control, private practice, the specialist–resident interaction, the resident–midwife interaction, and fear and blame.

### 3.1. Factors outside caregivers' control

While a few caregivers reflected on their own role in the high CS rate, most respondents pointed to external factors; “So many reasons are coming from outside. Our hospital is not the source of the CSs” (Midwife B). The most prominent reason caregivers emphasized was the university hospital's status as a referral institution,

admitting complicated cases requiring CS. Caregivers stated that personnel at antenatal clinics were too inexperienced to detect danger signs, which caused delays, aggravation of illness, and eventually CS. Peripheral hospitals were described as overcrowded, under-equipped, under-staffed, and unable to provide the required CSs. Negligent personnel at these hospitals, in combination with an inefficient referral system, caused delays that left caregivers at the university hospital no other option than CS. Also women were mentioned as a cause for rising CS rates. Because the age of first-time mothers had increased, births had become more complicated, which led to more CSs. Changes in lifestyle and nutrition required more CSs because women had become more obese and suffered from “western diseases”. Caregivers also stated that women's low educational level made them arrive to hospital late, when complications had already arisen. Another problem frequently mentioned was lack of equipment, such as ultrasound and cardio-tachograph-machines, which made diagnoses imprecise, and shortage of staff, which made it difficult to monitor labor adequately and encouraged the use of CS.

### 3.2. Private practice

Doctors were generally outspoken regarding the economic incentive for CSs in private patients. Some considered CS to involve more work, which justified the payment, while others regarded the extra income as a compensation for their low salary. Caregivers had different opinions to what extent money affected decisions, but most thought it made them do more CSs. CS was, by some, considered faster, easier, and more convenient; *“With CS – I minimize my time and I earn more!”* (Specialist C). Many stressed that as they were personally responsible for the delivery outcomes in their private patients, and adverse events might lead to patient complaints or bad reputation, private practice promoted the use of CS. CS decisions in private patients were taken by the specialist alone, and there was no consensus on what indications CSs in private patients should be performed. All caregivers declared maternal request among private patients to be one of the largest reasons for the high CS rate, since they believed women wanted to assure a good perinatal outcome and avoid labor pains; *“In the end of the day, when they come to deliver, they are so weak, they cannot push the babies (...) So the patients themselves are the ones requesting for CS, because they cannot tolerate the labor pain”* (Resident E). Some specialist were afraid of losing their private patients if they refused to perform CS on maternal request; *“What are you going to do? Then I'll do it [CS]! Because she has already decided! Or she will go to someone else.”*(Specialist D). In the FGD with residents, however, there was a debate whether CS on demand in private patients should be considered malpractice.

### 3.3. Specialist-resident interaction

Senior and junior doctors agreed that residents could take CS decisions without consulting the specialist in straight-forward cases, but should call the specialist regarding complicated patients. When probed about their opinion of residents' CS decisions, however, most specialists thought that decisions during calls were often taken on vague indications. Specialists were concerned that residents were inexperienced, had poor skills in instrumental delivery, and either had false confidence or were too anxious; *“Maybe they say that it was ‘fetal distress’ but it was not fetal distress, it was ‘doctor's distress’ ... [laughter]”* (Specialist D). Specialists described the residents, but also other specialists, as impatient; *“People don't want to wait too long. Rather than waiting the whole night, they take a short-cut.”* (Senior consultant B). All specialists wanted the residents to consult them more often, and some felt confused why they were

not called. Other specialists identified the working environment, with a strong hierarchical structure and a practice of scolding junior staff for unnecessary questions or faults they might have made, as a main barrier for consultations; *“I think we should realize that we are the ones who have done them that way”* (Specialist A).

Residents had divergent opinions of the support from specialists, but most stated that specialists were absent from the practical work. The majority of residents wanted to have a closer communication with the specialist, but feared that calling the specialist would mark them as “incompetent” and “disturbing”. Midwives witnessed that residents were often “put down” during rounds, and that they were reluctant to phone specialists during calls because the specialist might get angry. This could also be observed during participant observations. Some residents felt uncomfortable in handling the specialists' private patients during the night, and stated that when they contacted the specialists, they were often advised to perform CS despite lack of medical indication. Some residents stressed that most specialists were uncomfortable with instrumental deliveries, and therefore unable to teach it to the residents, which led to unnecessary CSs.

### 3.4. Resident–midwife interaction

Although both residents and midwives stated that CS decisions were taken in consensus, there appeared to be tension between the groups. This tension seemed partly to originate in a notion that the responsibility of poor outcomes after vaginal delivery would fall on the midwife, while poor outcomes after CS were the residents' problem. Many residents perceived midwives as negative towards conservative management and operative vaginal delivery, and felt pushed to perform CS; *“Sometimes you can be called by a midwife and maybe she has already seen the woman and thinks that ‘this woman has to go for CS.’ And when you discuss with her, you see that there is no good reason. Now you enter into some sort of friction and conflict. Maybe the beds are full, maybe the midwives don't want to have many patients to monitor, to deliver normally, so they want to decongest [the labor ward] a little (...) You might enter into a situation of decision of unnecessary CS because of the, you know, friction with the midwives”* (Resident C). According to residents, midwives had several strategies to make the woman undergo CS. One was to neglect doctors' orders of augmentation of labor, which could lead to poor progress and eventually CS. Another was to prepare women for operation without discussing with the resident first, something that was also observed by the main researcher. Residents stated that if there were disagreements around the CS decision, the midwife who had opted for CS noted her standpoint in the medical record; *“They write them [notes in the medical record] for their own, for their own purposes. To clean their hands”* (Resident D). If there was a poor outcome, the resident's assessment would stand against the midwife's assessment, and the midwives always supported each other; *“And you will find yourself alone”* (Resident F).

Midwives in both interviews and FGD emphasized their own expertise, experience, and role in CS decisions. They often felt, however, that their profession was not recognized, and there were sometimes conflicts with the residents, especially during the residents' first years; *“When residents come in, we are their teachers, you see? Many times they follow what we tell them. When these junior doctors come in, they come with an attitude. (...) When we tell them stuff, they pretend they know this and that. Those who listen to us, things usually go well for them. The stubborn ones get very bad outcomes. This is why they later change and cooperate with us”* (Midwife D). Midwives confirmed that they sometimes pushed residents to do CS, but only for what they perceived were genuine indications. They rejected the idea that CS would relieve their workload, as preparing and taking a woman for CS meant more work for them.

Midwives confirmed that they sometimes prepared the mother for operation before discussing with the doctor, as they felt they were competent to take such decisions; *“Even in the labor ward we do not wait until the doctor comes to tell us what to do. I tell my colleagues that how it is done here, to be honest, I don't like it. Our profession is disrespected! A patient changed condition and I ask ‘What did you do?’ They say ‘I called the doctor.’ And I say ‘You called the doctor? So what? What did you do as a professional? You should do this and this and then you call a doctor!’”* (Midwife H). If residents disagreed with midwives' advice to perform CS, midwives stated that they sometimes called directly to the specialist to get support for a CS decision, as seniors appreciated midwives' experience. Midwives saw documentation as one way to solve conflicts around CS decisions, as it would free them from responsibility if their CS advice was not followed.

### 3.5. Fear and blame

All caregivers expressed a pronounced fear of poor outcomes, especially related to situations with signs of fetal distress or poor progress of labor, trial of labor in a woman with a previous scar, induction of labor, or instrumental delivery. Generally, fear seemed to focus more on poor perinatal outcomes after vaginal delivery than maternal complications after unnecessary CS. Some caregivers mentioned that fear of litigation or patient complaints led to medically unjustified CSs, however, no-one had experience of such a case, and given women's low status, most regarded the risk as low. On the other hand, caregivers stated that the regular meetings and statements to the hospital management affected their decisions. The morning meetings, where residents and interns on the on-call team reported outcomes during the last 24 h, were described as “intense”, “hot”, and “condemning”; *“unfortunately it is never, never, a learning session”* (Resident F). Through observations, the main researcher could see how junior staff were scolded by seniors in these meetings. While a few respondents considered the weekly maternal mortality meetings as useful for pinpointing and preventing mistakes, most described them as uncomfortable; *“If you are the one who attended that patient, you won't feel good. Most of the time you will keep quiet. And sometimes they will ... yeah. There is no need to mention the names ...”* (Midwife I, FGD). Caregivers also expressed discomfort with the statements they should write to the hospital management for adverse outcomes, and, as illustrated in the following quote, caregivers tried to avoid adverse outcomes not only for the sake of their patients, but also to avoid the evaluation process; *“Every low-score [newborn with signs of distress at birth], there must be a reason why. So the statement should answer this. (...) Everyone should be able to go back to see why; why low-score? That is why we don't want a low-score.”* (Midwife J, FGD). None of the respondents mentioned useful changes that had resulted from these sessions or statements, or that they had received support from the management in difficult situations.

The fear of blame from colleagues involved all respondents, but was most pronounced among residents and midwives. There seemed to be a notion among residents that they could avoid blame by doing CS without proper indication instead of waiting for vaginal delivery and risk a poor perinatal outcome; *“They [the residents] just go to the theatre so that they will not to be called in the meetings”* (Resident E) and that this was more or less accepted among the senior staff; *“If the woman went to CS and she comes out safe and the baby is safe, there is no very big harm on that. Despite that the indication was not appropriate. (...) It is not so bad compared to if CS was supposed to be done and it was not done in time”* (Specialist D). Residents feared that if they were involved in poor outcomes, specialists might be harder on them in the exams. Specialists confirmed that residents involved in repeated adverse outcomes

could be “*put in the black book*” (Specialist A), something that might affect their future career and force them to interrupt their studies.

## 4. Discussion

By exploring obstetric caregivers' rationales of their hospital's high CS rate, we have identified aspects in the health care milieu that could explain CS overuse. All caregivers rationalized the high CS rate by referring to factors outside their control. In private practice, economic incentives, apprehensions of patient complaints, and maternal request, contributed to unnecessary CSs. Residents stated that they often had insufficient support from their senior colleagues, and felt pushed by midwives to perform CS. Many of these issues, as well as the medically doubtful CS indications, seemed to be related to caregivers' fear of being blamed by colleagues and management in the case of poor outcomes.

### 4.1. Withdrawing from and dislocating responsibility

As stated by our respondents, due to an extensive shortage of resources at the peripheral hospitals, the university hospital handles a high proportion of Dar es Salaam's needed CSs. Maternal age has also increased during latter years (Litorp et al., 2013), which increases the risk of CS. The hospital's CS rate is, however, still high after adjusting for referral status and maternal age (Litorp et al., 2013). Caregivers also stressed that maternal request among private patients was a major reason for CS overuse, and some seemed to have adopted the “too posh to push-”rhetoric (Bagheri et al., 2013; Lynn Bourgeault et al., 2008). Women, however, often perceive CS as more painful than vaginal birth and react with shock and fear when faced with a CS decision (Khan et al., 2012; Litorp et al., 2015), which contradicts a large maternal demand. Caregivers' overestimation of maternal request (Hopkins, 2000; Lynn Bourgeault et al., 2008), and the way in which our respondents withdrew from their responsibility in the hospital's high CS rate by pointing to external factors, draws on theories about blame avoidance and defense strategies (Allsop and Mulcahy, 1998; Hood, 2007; Mizrahi, 1984). Previous literature has described such strategies and reported how health care professionals use them to dislocate responsibility for their actions to circumstances outside their control (Allsop and Mulcahy, 1998; Mizrahi, 1984). Given medical professionals' responsibility for life-and-death decisions, and the way in which wrong decisions might have catastrophic consequences, these strategies can act to lessen feelings of guilt, maintain a sense of control, and reinforce professional identity (Allsop and Mulcahy, 1998; Mizrahi, 1984).

### 4.2. Miscommunications and the lonely resident

Although many respondents emphasized the team-work, the team spirit appeared stronger among midwives than between midwives and doctors, or among doctors. Residents, who were responsible for CS decisions during calls, seemed to be lonely and mistrusted by both seniors and midwives, and there appeared to be competing roles between residents and midwives regarding who was the final decision maker. Midwives' drive for CS was an unexpected finding, as midwives are often less enthusiastic about CS than physicians (Monari et al., 2008). This drive seemed to arise mainly from a fear of poor perinatal outcomes after vaginal delivery, in which case blame would be directed to the midwife. The competition between residents and midwives might also result from residents' insufficient support from seniors and management, midwives' feeling that their competence was not recognized, and a lack of guidelines on what responsibilities each staff has. Failure in team-work and communication are among the top causes of

adverse obstetric events (Guisse and Segel, 2008), and in Fig. 1 we illustrate how caregivers' assumptions about each other's characteristics and behavior might create misconceptions, communication barriers, and CS overuse.

### 4.3. Transparency, reactivity, and CS overuse

Previous literature has described how fear of litigation can lead to defensive practice and medically unjustified CSs (Allsop and Mulcahy, 1998; Bagheri et al., 2013; Fuglenes et al., 2009; Habiba et al., 2006; Monari et al., 2008), but we also suggest that the way in which staff were observed and evaluated contributed to CS overuse. In Fig. 2, we illustrate how transparency might induce reactivity mechanisms, alter behavior, and have unintended effects (McGivern and Fischer, 2010, 2012; Strathern, 2000). The transparency process, with meetings, audit sessions, and written

statements, created fear, anxiety and distress: specialists with private practice feared patient complaints and bad reputation, residents feared disciplinary actions but at the same time hesitated to consult their seniors as this might mark them as incompetent, midwives feared poor perinatal outcomes after vaginal delivery. Caregivers had also reconstructed (Erlandson et al., 1993; Waring, 2009) their view of CS. Despite evidence that CS without medical indication is associated with increased maternal risks (Souza et al., 2010), CS had become a “rescue”, a safe procedure that would protect caregivers from blame. Senior doctors seemed to react to the emotional distress with detachment, and instead of sympathetically supporting junior colleagues and midwives, they responded with repression and reprimand (Menzies, 1960). Caregivers had also shifted their focus from prioritizing to avoid maternal CS complications to prioritizing to avoid poor perinatal outcomes after vaginal delivery, of which the latter were more

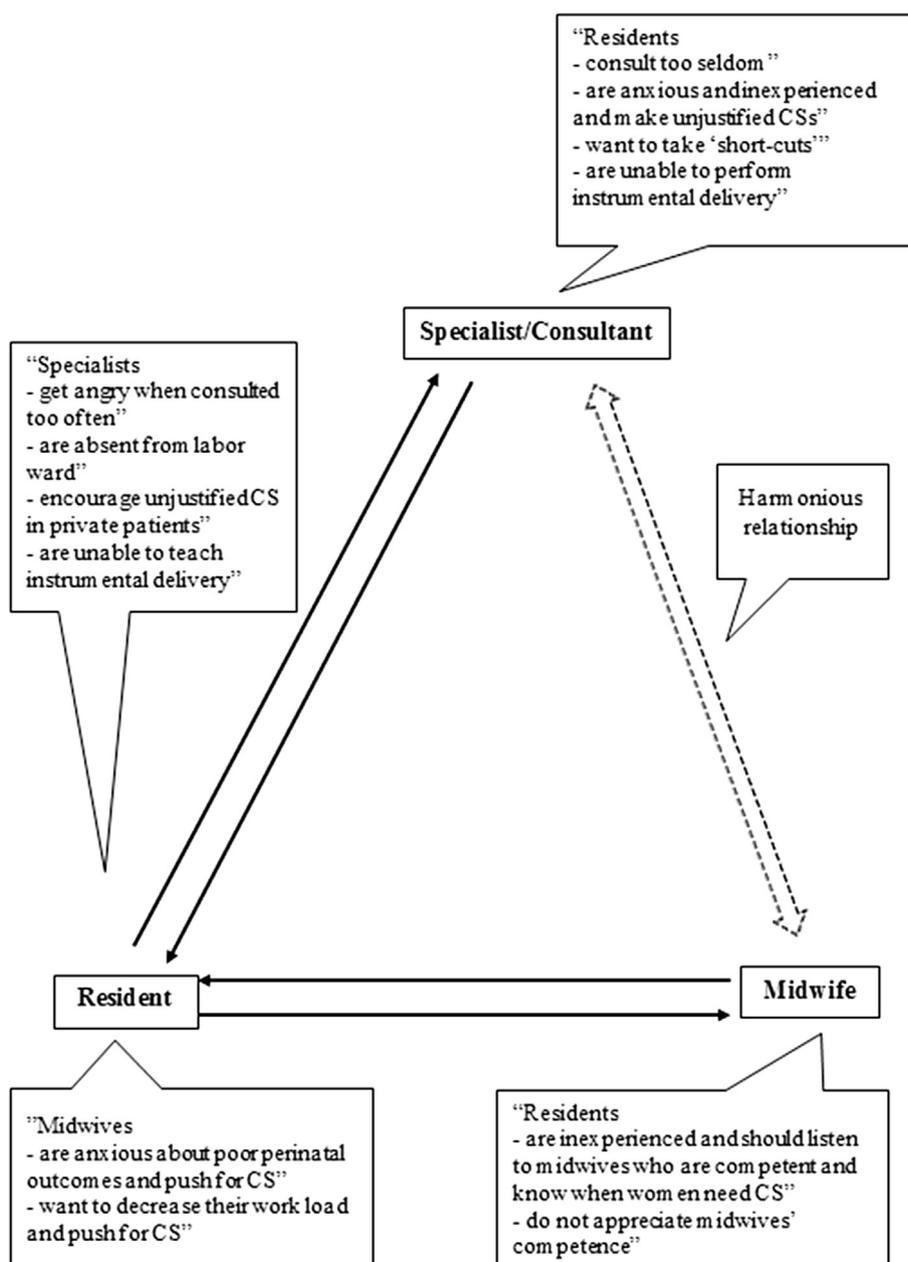
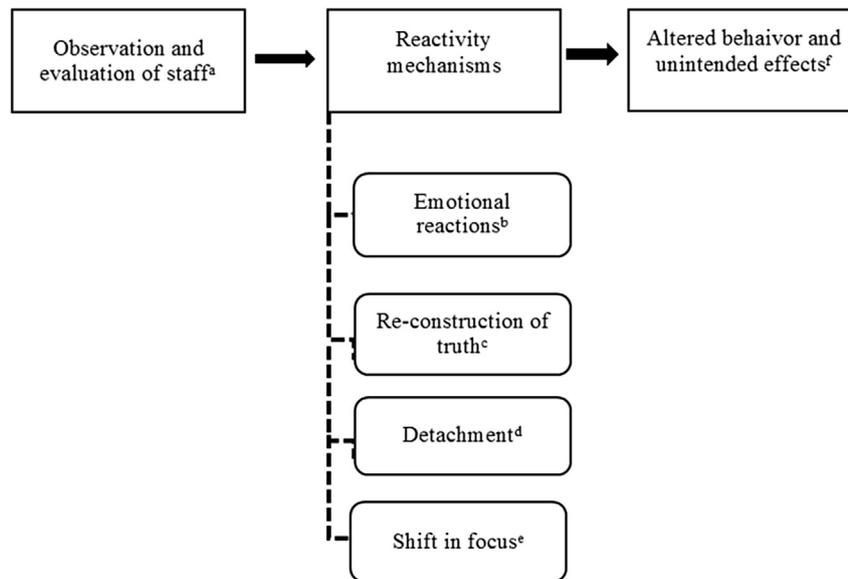


Fig. 1. Obstetric caregivers' assumptions about each other's characteristics and behavior, which may create misconceptions and communication barriers, and lead to CS overuse.



**Fig. 2.** Model of how transparency might induce reactivity mechanisms and have unintended effects, such as an overuse of caesarean section (CS) (examples from our data given as footnotes a–f). <sup>a</sup> Staff meetings, audits of adverse events, statements to the hospital management. <sup>b</sup> Fear, anxiety, guilt, distress. <sup>c</sup> “CS without medical indication is not harmful”, “CS protects the care-giver from blame”. <sup>d</sup> Management and senior staff use repression, disciplinary action, and reprimand to handle adverse events. <sup>e</sup> Staff prioritize perinatal outcomes over maternal outcomes, staff prioritize documentation, staff prioritize to safe-guard themselves over making medically correct decisions, staff prioritize short-term complications visible in the evaluation process over long-term complications of CS overuse. <sup>f</sup> CS overuse: CS decision in cases with dubious signs of fetal distress or obstructed labor, reluctance to let women with previous scar try labor, reluctance to perform induction, reluctance to try instrumental delivery.

common and visible in the audit process (McGivern and Ferlie, 2007). To illustrate this, the CS rate increased from 36% in 2007, when perinatal audit was introduced, to 51% in 2011, perhaps partly due to an increased attention on perinatal outcomes. However, in a recent, yet unpublished, study from 2014, 46% of CSs performed due to “fetal distress” did not meet the criteria for such diagnosis (Andrew Mgaya, personal communication). In the same manner, caregivers focused more on the short-term outcomes for which they were individually accountable, rather than on the long-term consequences of CS overuse (Litorp et al., 2015). Thus, the transparency process had created a new performance orientation, where the outcome of the evaluation had become equally, or even more, important than the outcome of the patient (Espeland and Sauder, 2007; McGivern and Fischer, 2010, 2012). This working environment, where conservative management and alternative interventions to CS might lead to blame, contributed to CSs that were socially sanctioned but medically doubtful.

Our findings call for a critical assessment of the leadership at higher levels. Hospital managements have the outermost responsibility for implementing changes suggested by the audit process, as well as guaranteeing that the evaluation of staff does not have perverse effects. Lack of accountability among managements and political authorities does, however, often transfer responsibility of adverse outcomes on individual caregivers. Audit systems that fail to identify and address real causes of adverse events, including underlying conflicts and emotional reactions, are likely to create disengagement and suggest ineffective interventions (Nicolini et al., 2011). Despite recent years' focus on “objective” auditing, informal supervision and sharing of knowledge between staff should not be underestimated as contributors to patient safety and learning (Waring and Bishop, 2010), but require the presence and commitment of seniors. By collective responsibility, checking decisions against set, commonly agreed criteria, or checking between individuals through shared decision making or obligatory second opinion (Althabe et al., 2004), professional's individual anxiety might decrease (McGivern and Ferlie,

2007; Menzies, 1960).

#### 4.4. Strengths and limitations

The qualitative design of this study allowed us to get a deeper understanding of the mechanisms behind CS overuse. The main researcher's position as an “outsider”, yet a colleague who had spent six months in the study context, appeared to enhance openness and trust during interviews. Validity of findings was sought in several ways (Erlandson et al., 1993). Prolonged engagement started in 2010, when we conducted a quantitative study at the hospital. Member checks, including peer-checks, were done to verify our results. We triangulated our findings by including different categories of respondents (specialists, residents, and midwives) and by using different methods (interviews, FGDs, and observations). Although opinions varied, responses from specialists, residents, and midwives largely cohered and complemented each other, as did data collected through interviews, FGDs, and observations. By having a multi-professional team, different angles and inputs were provided, which stimulated our discussions.

As all qualitative findings are defined by the specific context in which they occur (Erlandson et al., 1993), generalizability is limited. Our findings are of particular interest to other low-income countries, in which the use of clinical audit is increasing (Richard et al., 2009) and blame during the audit session has been described previously (Combs Thorsen et al., 2014). The phenomena might, however, be applicable also in other settings globally, as we recognize several of these aspects from our own work as obstetric caregivers in high-income countries. One of the study's limitations is that data from FGDs were not as rich as those from individual interviews, which might be due to caregivers' high workloads and colliding schedules. For these reasons, we did not attempt to arrange a FGD with specialists. Translated transcripts can also introduce bias since meaning may get lost in translation. In our study, we kept culture-specific quotes in Kiswahili and transcription, translation, and analysis were done by research group

members in constant dialogue to retain authenticity.

## 5. Conclusion

We have presented how caregivers withdraw from their responsibility of rising CS rates, the role of private practice in high CS rates, how dysfunctional team-work can lead to unnecessary CSs, and how transparency and auditing can create a new performance orientation where staffs prioritize to safeguard themselves. In order to address the problem with medically unjustified CSs, caregivers need to acknowledge their role as decision-makers and medical experts and strive to minimize unnecessary CSs. Incentives and policies related to private practice should be arranged so that CSs without proper indications are not promoted. Junior doctors need to be supported and empowered by both management and senior colleagues, for example by introducing mandatory second opinion on CS decisions and having guidelines on what criteria should be fulfilled for CS decisions. Conflicts and competition between different categories of staff might decrease if each player's competence and autonomy is respected. Lastly, instituting a learning climate free of blame is crucial, as fear of blame from colleagues might lead to CS overuse. Although transparency and auditing are important to improve patient safety, they must be used wisely and with sensitivity for any unintended effects they might have. The management has the outermost responsibility for guaranteeing that audit sessions illuminate and attend to structural problems, rather than blame individual caregivers.

## Acknowledgments

We wish to thank the respondents who volunteered to participate in this study. The study was funded by the Faculty of Medicine, Uppsala University; Swedish Research Council; and Uppsala University Hospital, Sweden. The funding sources had no involvement in the study design; collection, analysis, or interpretation of data; in the writing of the article; or in the decision to submit it for publication.

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