

OBSTETRICS

Obstetricians' choice of cesarean delivery in ambiguous cases: is it influenced by risk attitude or fear of complaints and litigation?

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OBJECTIVE: The aim of this study was to test the hypothesis that obstetricians' choice of delivery method is influenced by their risk attitude and perceived risk of complaints and malpractice litigation.

STUDY DESIGN: The choice of delivery method in ambiguous cases was studied in a nationwide survey of Norwegian obstetricians ($n = 716$; response rate, 71%) using clinical scenarios. The risk attitude was measured by 6 items from the Jackson Personality Inventory-Revised.

RESULTS: The proportion of obstetricians consenting to the cesarean request varied both within and across the scenarios. The perceived risk

of complaints and malpractice litigation was a clear determinant of obstetricians' choice of cesarean in all of the clinical scenarios, whereas no impact was observed for risk attitude.

CONCLUSION: Obstetricians' judgments about cesarean request in ambiguous clinical cases vary considerably. Perceived risk of complaints and litigation is associated with compliance with the requested cesarean.

Key words: cesarean section, fear of litigation, maternal request, risk attitude

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Although the proportion of deliveries by cesarean section was approximately 2-7% during the 1960s, it is now between 15-30% in most industrialized countries. The most common indications for cesarean deliveries are fetal stress, failure to progress, previous cesarean, breech, and maternal request.^{1,2} The emergence of patient autonomy and shared decision making may partly explain increasing cesarean

★ EDITORS' CHOICE ★

rates, and patient-requested cesarean may constitute up to 1 of 5 cesareans.^{1,3}

Confronted with relative indications (eg, fetal stress, failure to progress, and previous cesarean delivery) obstetricians' attitudes and experience may influence their decision making when faced with a request for cesarean deliv-

ery. In this context, decisions made will include some degree of uncertainty for both patient and obstetrician: pain and birth complications on the part of the patient, and complaints and litigation on the part of the obstetrician. It is conceivable that physician-related factors, such as risk attitude, may influence the decision.

Risk attitude has been defined as a person's preference for different levels of risk (risk propensity).⁴ Exemplified in an obstetric frame, risk aversion represents the willingness to accept an outcome that is not necessarily the best (optimal; cesarean section with its downsides) in exchange for avoiding a poor outcome (eg, vaginal delivery with potentially fetal injury and subsequent malpractice complaints). Previous research has shown that physicians' risk attitude may influence decisions in relation to use of laboratory tests,⁵ higher patient costs,^{6,7} or referrals/hospitalization.^{8,9}

It is conceivable that risk attitude may influence obstetricians' willingness to perform patient-requested cesarean deliveries. Increasing risk aversion¹⁰ and performing defensive medicine¹¹⁻¹³ have

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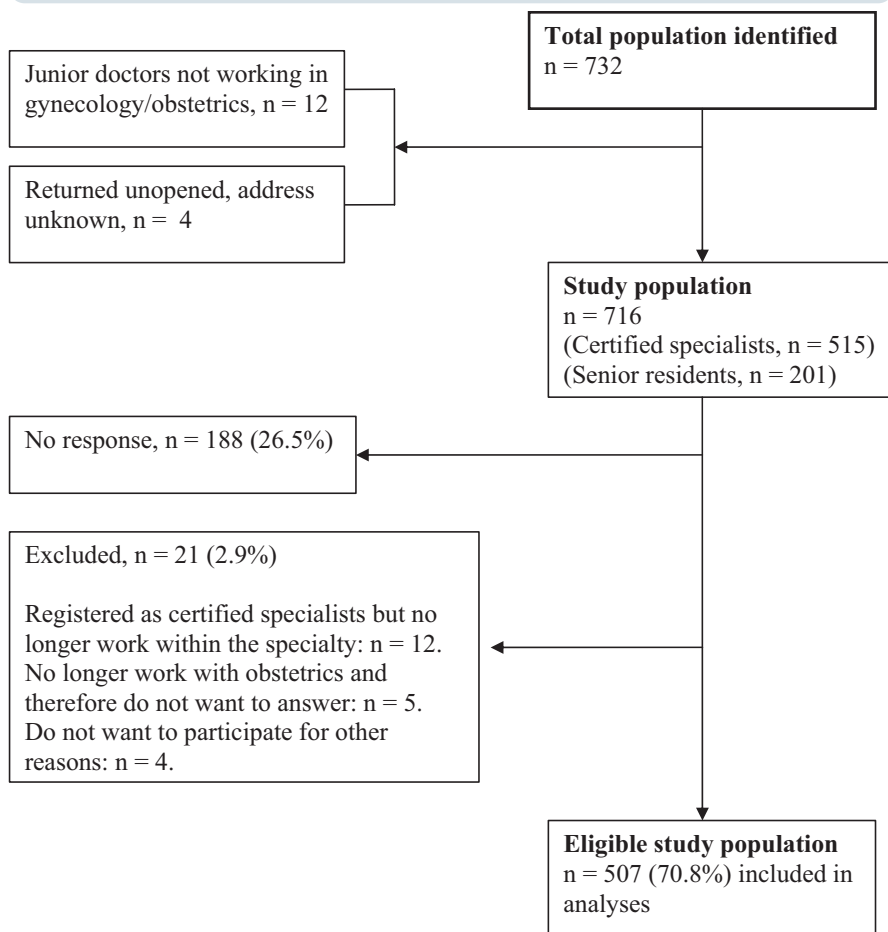
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FIGURE

A flow chart illustrating the total study population



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been mentioned as explanations in professional forums.

Although a small proportion of deliveries have an absolute medical indication for cesarean, the rest are open to discretion. We hypothesize that obstetricians' decisions when faced with requests for cesarean deliveries are influenced by their risk attitude as well as their perceived risk of complaints and malpractice litigation. The aim of this study was first to describe the variation in obstetricians' choice of delivery method when faced with identical "paper patients" who request cesarean delivery, and second, to explore the determinants of such variation.

MATERIALS AND METHODS

In this study, we targeted all board-certified specialists in obstetrics and gynecology and all those training for this specialty. We used 2 registers to identify the study population: the register of the Norwegian Medical Association and a commercial physician register. The name lists were merged and duplicates removed, along with persons without a known address. This left us with 732 potential respondents (516 board-certified specialists and 216 senior residents).

In October 2006, we mailed a 7-page questionnaire and a prepaid return envelope to each of the 732 physicians. The survey was approved by the Regional Committee for Medical Research Ethics (S-06218) and the Norwegian Data Inspectorate (NSD14901). Nonresponders were followed up twice. No incentives were offered for participation in the study. We performed pilot testing of the questionnaire among 25 physicians dif-

fering in age, experience, and speciality (interalia, 12 gynecologists). The responses from the pilot were not included in the final analyses.

In the first part of the questionnaire, we presented 5 clinical scenarios in which the pregnant woman requested a cesarean. The scenarios, all modified examples from a clinical practice, were collected by the authors and designed in line with previous studies.^{14,15} In each scenario, we briefly described a clinical "situation" with a relative medical indication for a cesarean, for example, previous negative delivery experiences, slow progress, pelvic pain, and breech (Appendix 1). For 2 of the scenarios, additional information was provided to a random half of the respondents. In scenario 2, half of the respondents were told that the patient's husband was a lawyer, whereas the others were not. In scenario 5, the same random half was informed that the patient was a physician.

The second part of the questionnaire encompassed questions regarding decisions under uncertainty and risk. We used 6 items from the Jackson Personality Inventory-Revised (JPI-R),¹⁶ originally adapted and validated by Pearson et al,⁹ to measure risk attitude (Appendix 2). This inventory has been used in several studies of medical decision making.^{8,9,17-19} We translated the 6 items into Norwegian and translated them back twice into English to ensure correct translation. All items were scored on a 6-point Likert scale, and the scores were added into an index, with possible range from 6 (very risk averse) to 36 (very risk seeking). Respondents with missing values (n = 26) were excluded. Individuals who scored lower than 1 standard deviation (SD) below the mean were classified as risk averse, whereas those who scored 1 SD above mean were classified as risk seeking. The others were classified as risk neutral.

Respondents were asked to rank the degree to which their decisions about cesarean delivery were influenced by concerns about 6 different situations: complaints to employers, criticism by colleagues or in the media, litigation threats, complaints to the Norwegian System of Compensation to Patients (an

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TABLE 1

Distribution of physicians' choice of delivery method (%) (n = 507)^a

Clinical Scenarios	"Strongly prefer cesarean delivery"			↔	"Strongly prefer vaginal delivery"			Proportion consenting to cesarean ^b
	1	2	3		4	5	6	
Case 1. Maternal request for elective cesarean because of previous complicated deliveries and shoulder dystocia, patient obese and with asthma.	23.7	23.3	13.1	7.4	10.5	15.5	6.6	60
Case 2. Maternal request for cesarean intrapartum because of slow progress. "Threats" regarding filing a complaint from her lawyer husband.	3.4	5.8	5.4	8.5	14.1	37.2	25.6	14
Case 3. Maternal request for elective cesarean because of previous negative delivery experience (vacuum extraction and sphincter rupture).	9.3	9.7	8.5	5.6	13.3	29.2	24.3	28
Case 4. Maternal request for elective cesarean based on pelvic pain and bad experience in previous birth (ie, a feeling of not having been given proper care).	8.4	12.6	8.0	10.6	17.2	24.4	19.0	29
Case 5. Maternal uncertainty regarding delivery method because of a breech, although criteria for vaginal delivery were fulfilled.	1.8	3.4	2.6	3.8	6.2	31.2	51.1	8

^a The number of missing responses was 6 in case 4, and 4 for the remainder cases. ^b Consent to cesarean delivery was defined as 1-3 on the Likert scale.

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independent public body that processes compensation claims from patients), or complaints to the Norwegian Board of Health Supervision (a public supervisory institution that can impose various levels of sanctions, from warnings to withdrawal of privileges, against organizations or health care personnel). The responses to the 6 situations were captured on a 4-point scale (0 = never, 1 = seldom, 2 = sometimes, 3 = often; Appendix 3); the total score (0-18) was subsequently added to an index of perceived risk of complaints and malpractice litigation ("fear index").

The remaining parts of the questionnaire gathered information regarding professional experience and sociodemographic background.

Data were analyzed with SPSS version 14.0 (SPSS, Inc, Chicago, IL). We used the χ^2 test for bivariate analyses of categorical variables, and *t*-tests for continuous ones. Predictors for delivery method for the 5 scenarios were analyzed by using logistic regression. The responses were dichotomized such that response levels 1, 2, and 3 on the 7-point Likert scale were classified as cesarean (1), whereas responses 4, 5, 6, and 7 were classified as vaginal (0) preference. Dif-

ferent ways of dichotomizing the dependent variable were performed, but the regression results were quite similar. *P* < .05 was considered statistically significant. Observations with missing values for any of the variables in these models were excluded.

RESULTS

Among the 732 physicians, 12 did not work in the field of gynecology or obstetrics and 4 had an unknown address. From the remaining 716 surveys (515 board-certified physicians and 201 senior residents), we received 528 (74%) responses, of which 21 respondents (2.9%) declined to participate in the study. We consequently had responses from 507 members (71%) of the study population (Figure 1). The female proportion was 58.4% among the responders vs 60.4% among nonresponders ($\chi^2 = 0.621$). We have no further information about nonresponders.

The mean age of the respondents was 46 years (range, 26-70 yrs). There was a female majority among obstetricians less than 50 years of age. Thirty percent of the respondents were senior residents, whereas the remaining were board-certified

specialists with an average of 15 years of professional experience. Obstetrics was the main field of interest for 29% of the participants and gynecology for 20%, whereas the remaining were generalists.

For the 5 clinical scenarios, the proportions that would prefer cesarean delivery (score 1-3 on the Likert scale) varied from 8-60% across the 5 scenarios (Table 1). For each of the cases, there was a considerable variation in the strength of preference for cesarean section. For scenario 1, 24% strongly preferred cesarean delivery, whereas 7% strongly preferred vaginal delivery.

In scenario 2, 16% of the respondents chose cesarean section when they were informed that the husband was a lawyer, and 12% when they were not (*P* = .181). In scenario 5, 11% of the respondents chose cesarean delivery when informed that the patient was a physician, in contrast to 5% when they were not (*P* = .014).

Of the 507 respondents, 95% (n = 481) answered all risk attitude statements (Table 2). The risk attitude index varied from 6-32 (mean, 15.6; SD, 5.4; 95% CI, 15.1-16.1). Among the respondents, 70% (n = 336) were classified as

TABLE 2
Distribution of responses to the risk attitude statements (%)

Risk attitude statements	n	Strongly disagree				Strongly agree	
		1	2	3	4	5	6
a. I enjoy taking risks.	498	36.5	29.7	14.7	13.5	5.2	0.4
b. I try to avoid situations that have uncertain outcomes. ^a	496	8.5	17.9	16.3	17.3	23.6	16.3
c. Taking risks does not bother me if the gains involved are high.	497	20.7	28.2	15.5	20.3	12.1	3.2
d. I consider security an important element in every aspect of my life. ^a	495	3.6	7.7	10.1	17.2	32.3	29.1
e. People have told me that I seem to enjoy taking chances.	491	52.7	25.7	7.1	9.0	4.5	1.0
f. I rarely, if ever, take risks when there is another alternative. ^a	496	5.6	14.1	19.6	12.3	27.8	20.6

^a In construction of the risk attitude index, statements b, d, and f were reversely scored.

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risk neutral (ie, their sum score was 15.6 ± 5.4); 16.2% (n = 78), risk averse; and 14% (n = 67), risk seeking.

The fear index ranged from 0-18 (mean, 5.4; SD, 4.4; 95% CI, 5.0-5.8). A low score indicates a low perceived risk of complaints and malpractice litigation. The 6 items addressing different aspects of complaints and malpractice litigation were highly correlated, and factor analysis showed only 1 factor. We therefore created a summary scale, as an index of perceived risk of complaints and malpractice litigation, rather than analyzing each item separately. The fear index score was significantly higher among senior residents than board-certified physicians ($x = 6.05$ vs $x = 5.16$; $P = .040$; 95% CI, 0.04-1.75).

In the logistic regressions, we analyzed responses to each of the 6 clinical scenarios separately. We included age, sex, region of work (Norway has 5 health regions), whether the physician was board certified, risk attitude, and fear index as independent variables. The fear index was significantly associated with the choice of cesarean for all 5 scenarios, with odds ratios ranging from 1.05-1.10. Sex, health region, and board certification were associated with the choice of cesarean delivery in case 1, cases 3 and 4, and case 4, respectively, but a clear pattern throughout all the cases was not apparent. For 1 of the scenarios (case 4), the odds of complying with patients' wishes were lower for risk-seeking obstetricians, whereas no effect was observed for the risk averse. There was no association be-

tween risk attitude and choice of delivery in the remaining cases (Table 3).

COMMENT

The fear index (ie, perceived risk of complaints and malpractice litigation) was a clear determinant of obstetricians' choice of cesarean in ambiguous cases, whereas no impact was observed for risk attitude.

When interpreting these results, the limitations of the cross-sectional design should be considered. Because of the lack of a time dimension, cross-sectional studies cannot establish causal directions with certainty. For example, we do not know whether litigation fear influences choice of delivery mode or whether previous decisions about delivery mode may have caused litigation fear. It should also be noted that a randomized trial is inconceivable, because we cannot randomize respondents to personal traits such as risk attitude or litigation fear.

The validity of "paper patients," who were used in this study as a surrogate measure for actual behavior, has been questioned. Although the method has proven valid in some studies,²⁰ others report conflicting results.^{21,22}

A strength of this study is the high response rate (71%). Nonresponders may have different opinions than the responders, but the sex distribution does not indicate serious selection bias.

To the best of our knowledge, this is the first study that explores the impact of risk attitude on choice of delivery

method. To measure risk attitude is a challenge, with several different questionnaires and no "gold standard" technique.²³ We chose to use the JPI-R, because this instrument is well validated¹⁶ and has been shown to predict medical decisions.⁷⁻⁹ Although previous publications have suggested that increasing risk aversion among obstetricians may influence cesarean rates,¹⁰ our study could not confirm this hypothesis. One explanation may be that the JPI-R does not capture those aspects of risk attitude that may influence medical decisions. This explanation, however, is not supported by the fact that the inventory has been shown to predict other types of medical decisions.

Obstetricians face the risk of complaints and lawsuits after a vaginal delivery if complications occur, and the liability concerns seem stronger in connection with a vaginal than a planned elective cesarean delivery. Lawsuits have been more prevalent in the United States. Some surveys report that 80-90% of obstetricians have experienced complaints or lawsuits.^{24,25} Among those who experienced financial claims, approximately one-third settled without payment, one-third agreed to pay, and the remaining one third proceeded to trial. The liability concerns have a negative impact on both job satisfaction and recruitment to the speciality.²⁶

In Europe, there has been less focus on financial claims, but fear of litigation has become an increasingly common issue.²⁷ In our study, senior resi-

TABLE 3
Logistic regression analyses of preference for delivery^a

Variables in the equation	Case 1 (n = 450), OR (95% CI)	Case 2 (n = 450), OR (95% CI)	Case 3 (n = 451), OR (95% CI)	Case 4 (n = 450), OR (95% CI)	Case 5 (n = 450), OR (95% CI)
Age (y)					
< 29	1	1	1	1	1
30-39	0.64 (0.21-1.99)	0.18 (0.03-1.15)	1.21 (0.31-4.75)	0.51 (0.13-2.12)	0.22 (0.03-1.41)
40-49	0.77 (0.21-2.80)	0.16 (0.02-1.41)	1.58 (0.34-7.37)	0.50 (0.10-2.46)	0.38 (0.04-4.20)
50-59	0.68 (0.18-2.61)	0.70 (0.08-6.18)	3.49 (0.72-17.05)	0.84 (0.17-4.29)	1.10 (0.09-13.18)
≥ 60	1.47 (0.35-6.13)	0.48 (0.05-4.56)	2.86 (0.55-14.87)	0.84 (0.16-4.49)	0.84 (0.06-11.51)
Sex					
1 = male, 0 = female	1.92 ^c (1.23-3.01)	1.52 (0.81-2.85)	0.83 (0.51-1.34)	1.34 (0.82-2.20)	1.77 (0.74-4.26)
Region					
South	1	1	1	1	1
East	0.94 (0.55-1.61)	1.51 (0.72-3.15)	0.70 (0.41-1.21)	0.96 (0.55-1.68)	0.53 (0.20-1.41)
West	0.78 (0.42-1.45)	0.61 (0.23-1.67)	0.47 ^b (0.24-0.93)	0.50 (0.25-1.01)	0.26 (0.06-1.27)
Middle	0.66 (0.34-1.28)	0.80 (0.29-2.21)	0.53 (0.25-1.10)	0.37 ^b (0.18-0.84)	1.31 (0.45-3.79)
North	1.58 (0.69-3.60)	1.23 (0.40-3.77)	0.75 (0.33-1.70)	0.29 ^b (0.10-0.82)	0.84 (0.21-3.43)
Board certified					
1 = board certified					
0 = senior resident	1.27 (0.64-2.54)	3.33 (0.75-14.83)	0.80 (0.35-1.81)	2.65 ^b (1.09-6.42)	0.78 (0.12-4.85)
Risk attitude					
Risk neutral	1	1	1	1	1
Risk averse	0.66 (0.38-1.14)	1.31 (0.60-2.85)	0.85 (0.47-1.54)	1.43 (0.79-2.58)	0.91 (0.31-2.70)
Risk seeking	1.12 (0.63-2.00)	1.40 (0.64-3.07)	0.56 (0.28-1.10)	0.45 ^b (0.21-0.95)	1.43 (0.53-3.90)
"Fear index"					
0 = not at all/never					
18 = often	1.07 ^c (1.03-1.13)	1.09 ^b (1.02-1.16)	1.05 ^b (1.00-1.11)	1.06 ^b (1.01-1.12)	1.10 ^b (1.01-1.20)

CI, confidence interval; OR, odds ratio.

^a Dichotomized as following: preference for cesarean delivery = 1-3. ^b P .05 < .01. ^c P .01 < .001.Fuglenes. Obstetricians' choice of cesarean delivery in ambiguous cases. *Am J Obstet Gynecol* 2009.

dents were more concerned about complaints and litigation (ie, higher average score on the fear index), but otherwise there were no differences with the board-certified physicians. We found a significant association between obstetricians' fear index and their willingness to consent to a cesarean request for all 5 scenarios. This is in accordance with the work of Habiba et al¹¹ from some other European countries. Norway has traditionally had a low medicolegal burden, and the fear of complaints and litigation among obstetricians has not been explored. Our

results indicate that the perceived risk of complaints and litigation may explain variation, in clinical practice even in the context of a mild medicolegal climate. In Norway, there were in total 34 lawsuits, namely, professional liability because of obstetric malpractice, from 1988 up to 2008 (written communication from managing director Trygve Harvold, The Lovdata Foundation, Jan. 23, 2008). Since the establishment of the Norwegian System of Compensation to Patients (NPE) in 1988, 1169 cases regarding obstetrics have been processed as of

December 2006, and compensation has been rewarded in 374 cases.²⁸ These numbers imply 0.03 lawsuits per 1000 deliveries, 1.03 complaints to NPE per 1000 deliveries, and compensation rewarded in 0.3 complaints per 1000 deliveries. In the United States, during the period 1990-2002, the rate of payment because of obstetrics-related malpractice was approximately 0.3 per 1000 deliveries. (We estimated the US numbers based on annual birth rates and information regarding medical malpractice payments.)^{29,30} In Norway, obstetricians are not respon-

sible for financial compensation because the government funds hospitals and NPE. The low number of complaints and the approximate absence of financial risk for obstetricians may indicate that they overstate the risks associated with complaints and litigation. It should be noted, however, that people's behavior is influenced by the perceived risk rather than the real risk. Also, potential self-reproach and loss of status after complaints may be more important for physicians than the financial consequences. A formal complaint or a lawsuit may entail lack of self-confidence and esteem among peers and patients, whereas financial losses or loss of authorization (medical license) is an unlikely outcome.

In the majority of the clinical scenarios (4/5 cases), the obstetricians decided against a cesarean delivery, with compliance rates in the range of 8-29% (Table 1). In a similar study from the Netherlands, a country comparable with Norway with respect to cesarean rates, the compliance rates varied from 17-81%.¹⁵ In a clinical scenario with previous history of vacuum extraction and sphincter rupture, 28% of Norwegian obstetricians accepted the request for cesarean delivery in contrast to 60% of Dutch obstetricians faced with a similar case design. (Cases 3 and 5 in our study have the same relative indication and case design as 2 scenarios in the Dutch study.) Interestingly, although 81% of Dutch obstetricians were willing to perform a cesarean in a primiparous woman with breech presentation, only 8% of their Norwegian colleagues complied with a similar request. It should be noted that obstetricians in other countries may have quite different opinions about what constitutes indication for cesarean delivery.

Maternal request is frequently mentioned as 1 potential driving force leading to higher cesarean rates. However, when presented with identical cases, there is a considerable variation in the decisions regarding delivery method, indicating that factors on the supply side also influence the decision. We did not find any strong effect of obstetricians' age, sex, professional status, or

geographic (health) region on the preference for cesarean, but previous studies have indicated a higher consent if the patient has high socioeconomic status,¹⁴ if the obstetrician is male,^{14,31} or if s/he is a specialist rather than a resident.³²

Ideally, patients' socioeconomic characteristics should not influence decisions about cesarean. Our results indicate that obstetricians were more likely to comply with cesarean request when informed that the patient was a physician, which is in contrast to previous findings.¹¹ Interestingly, no similar effect was observed for the law profession (case 2).

In the management of lawsuits and complaints, it may be tempting to blame obstetricians retrospectively for poor outcomes. The judges and medical expert witnesses who are involved should be aware of the large variability in opinions regarding cesarean deliveries, even when obstetricians are confronted with identical cases. It may not be easy to decide what an appropriate action is when obstetricians disagree as much as they do. In this context, hindsight bias may be an important psychological phenomenon. Hindsight bias means that a judgment, for instance, about the appropriateness of a vaginal delivery, may be unconsciously influenced by knowledge of the adverse outcome. To keep practice variation at a minimum level and to reduce medical uncertainty, "best-practice" guidelines can be 1 step to develop support and security for clinicians in their decision making, to avoid further increase in cesareans because of obstetricians' medical uncertainty and malpractice fear.

In conclusion, the results of this study indicate that obstetricians' judgments about cesarean requests in ambiguous cases vary considerably. The perceived risk of complaints and malpractice litigation was a clear determinant of the choice of cesarean in all of the clinical scenarios, whereas no impact was observed for risk attitude. ■

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APPENDIX I

Scenarios presented in the questionnaire:

Case 1

At an antenatal check-up you meet a woman aged 36 years. She is gravida 5, para 4. Her first 4 infants all had birthweights between 4200 g and 4600 g. Her first infant was born vaginally with shoulder dystocia and brachial plexus injury, remission after 6 months. In her second pregnancy she was delivered by elective cesarean because of breech presentation. Her third infant was born vaginally without complications. The fourth infant was born vaginally, complicated birth with shoulder dystocia and brachial plexus injury, remission after 6 months. The woman is now 37 weeks' pregnant with her fifth child, uncomplicated pregnancy, the woman's weight is 140 kg, and the baby's estimated birthweight is 4200 g. The woman is requesting a cesarean because of her previous birth experiences. What do you do?

Case 2

You are on call on a maternity ward and are asked to come and see a 28-year-old nulliparous woman with spontaneous labor, week 40, uncomplicated pregnancy. Symphysis-fundus measurements are within the normal range. The woman has been worried that her infant could sustain brain injury during the birth and has mentioned this at several of her antenatal check-ups. To begin with, she did not want to give birth vaginally but after close follow-up by an experienced midwife and gynecologist the woman decided to go ahead with a vaginal birth. You are called to see her by the midwife because of slow progress. Labor has lasted for 19 hours. On examination the cervix is fully dilated, the fetal head is below the ischial spine, but not on the pelvic floor. Sagittal suture is in the right occiput anterior or left occiput anterior position; you think you can feel the posterior fontanelle at 2 o'clock. Some molding of the fetal head. CTG shows uncomplicated variable decelerations. The woman asks for a cesarean and says she is worried about her infant. Her husband, a lawyer, says he will make a complaint if a cesarean is not carried out immediately. On the basis of this information, how would you deal with the situation?

Case 3

A 31-year-old woman, gravida 2, para 1, 37 weeks' pregnant, no complications. Fetus in cephalic presentation. Symphysis-fundus measurements in lower normal range. In her first labor uterine hypertonicity and bradycardia occurred, after which her infant was delivered by vacuum extraction because of fetal stress. The infant's weight was 3900 g, Apgar score 7/9, normal pH in umbilical cord blood. The woman sustained a third-degree perineal rupture that was repaired under general anesthesia. She has not had problems with incontinence or anal incontinence as a result of the rupture. The patient wishes to have an elective cesarean. What do you do?

Case 4

A 29-year-old woman, gravida 2, para 1, gestational age 38 weeks, no complications, fetus in cephalic presentation, Symphysis-fundus measurements within normal range. After her first pregnancy and labor, the woman had pelvic pain (though there has been no significant deterioration in the present pregnancy). Examinations have been carried out (radiography, ultrasound, and magnetic resonance), but no pathologic findings have been made. The woman thought she was badly treated during her last labor and has made a complaint about your colleague at her last place of birth. The case is being dealt with by the Norwegian Board of Health Supervision. The patient seems determined and insistent and is not interested in discussing delivery methods. The woman refuses to give birth vaginally because she is of the opinion that this will cause further damage to her pelvis, and she wants to have a cesarean. What do you do?

Case 5

At an antenatal check-up you meet a 26-year-old woman, gravida 1, pregnancy duration 39 weeks, fetus in breech presentation, uncomplicated pregnancy. The fetus has an estimated weight of 3200 g, conjugata vera is 11.7 cm, total pelvic outlet is 32.8 cm, in other words, satisfactory for a vaginal breech birth. External cephalic version has been attempted but was not successful. The woman, who is a doctor, is well informed of the advantages and risks of vaginal birth and cesarean section. She is still very unsure of which delivery method she should choose and asks for your advice. What do you do?

Fuglenes. Obstetricians' choice of cesarean delivery in ambiguous cases. Am J Obstet Gynecol 2009.

APPENDIX 2

The risk attitude measure:^a

The decisions we make in many areas of life, in both private and professional contexts, will often contain an element of uncertainty and risk. Our attitudes to risk (ie, the probability of an undesirable situation occurring) vary greatly. The following is a list of 6 statements concerning attitude to risk. We would like you to answer according to how true these statements are for you, using a scale from 1 to 6, in which 1 is “totally disagree” and 6 is “totally agree.”

For each statement below please place an x in the box that most closely describes your attitude.

	Totally disagree					Totally agree
a. I enjoy taking risks.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
b. I try to avoid situations that have uncertain outcomes.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
c. Taking risks does not bother me if the gains involved are high.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
d. I consider security an important element in every aspect of my life.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
e. People have told me that I seem to enjoy taking chances.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6
f. I rarely, if ever, take risks when there is another alternative.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6

In construction of the risk attitude index, statements b, d, and f were reversely scored, so risk seeking is correlated with high scores.

^a Permission to use the Jackson Personality Inventory-Revised is granted by Sigma Assessment Systems Inc.

Fuglenes. Obstetricians' choice of cesarean delivery in ambiguous cases. *Am J Obstet Gynecol* 2009.

APPENDIX 3

Index of perceived risk of complaints and malpractice litigation:

When you make decisions about type of delivery (both vaginal and cesarean), would you take into consideration the risk of experiencing any of the following:

Please choose 1 option for each line by placing an x in 1 box.

The risk of. . .	Often	Occasionally	Rarely	Never
A complaint being made to your employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A complaint being made to the Norwegian Board of Health Supervision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A case being reported to the Norwegian System of Compensation to Patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A case being taken to court (litigation threat)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A case being the object of negative discussion at a morning meeting/on a ward (criticized by colleagues)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A case receiving negative attention in the mass media (being criticized in mass media)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Answers to these 6 items were made up into an index of fear of patient complaints and malpractice litigation (“fear index”).

Fuglenes. Obstetricians' choice of cesarean delivery in ambiguous cases. *Am J Obstet Gynecol* 2009.