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ORIGINAL RESEARCH ARTICLE

Obstetric claims in Finland 2012–2022—A nationwide patient insurance registry study

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Abstract

Introduction: Maternal and infant mortality rates in Finland are among the lowest in the world, yet preventable obstetric injuries occur every year. The aim of this study was to describe obstetric claims, their compensation rates, and temporal trends of claims reported to the Patient Insurance Centre.

Material and Methods: A nationwide, register-based study was conducted. Data consisted of obstetric claims reported to the Patient Insurance Centre between 2012 and 2022. Data analyzed included the year of injury, compensation criteria, maternal age, birth hospital, delivery method, reported causes of injury, and maternal or neonatal injury. The data were analyzed with descriptive statistics and logistic regression models.

Results: A total of $n = 849$ obstetric claims were filed during the study period, of which $n = 224$ (26.4%) received compensation. The rate of claims was 0.15%, and the rate of compensation was 0.04% in relation to the total volume of births during the period. Substandard care was the most common (97.3%) criterion for compensation. There was a curvilinear increase in the claims rate and a linear increase in compensation rates from 2013 to 2019. More claims were filed and compensated for cesarean and vacuum-assisted deliveries than for unassisted vaginal deliveries. Delayed delivery (18.7%) and surgical technique failure (10.9%) were the most reported causes of injuries. Retained surgical bodies were the induced cause of injury with the highest rate of compensated claims (86.7%). The most common maternal injury was infection (17.9%) and pain (11.7%). Among neonatal injuries, severe (19.2%) and mild asphyxia (16.6%) were the most frequent. Burn injuries (93.3%) and fetal or neonatal death (60.5%) had the highest rate of compensated claims.

Conclusions: The study provided new information on substandard care and injuries in obstetric care in Finland. An increasing trend in claims and compensation rates was found. Identifying contributors to substandard care that lead to fetal asphyxia is important for improving obstetric safety. Further analysis of the association of claims

Abbreviations: AIC, Akaike information criterion; PIC, Patient Insurance Centre.

and compensation rates with operative deliveries is needed to determine their causality. Frequent review of obstetric claims would be useful in providing more recent data on substandard care and preventable injuries.

KEYWORDS
compensation, injury claim, obstetrics, operative delivery, patient safety, register-based study, substandard care

1 | INTRODUCTION

Maternity care and obstetrics have very high safety expectations and rare cases of serious harm.[1] Nevertheless, there is always a risk of adverse events and complications. Although neonatal birth injuries have decreased in Finland over the past two decades,[2] delays in diagnosis, initiation of treatment, and use of ineffective treatments have been found to contribute to preventable cases of serious adverse events, such as maternal death.[3] A previous study analyzing 2865 births found adverse events in as many as 659 (23%) cases, of which 13% may have been preventable.[1]

The safety of obstetric care is often studied from the perspective of obstetric organizations[4] and healthcare providers.[5,6] Adverse events and near misses can be reported to an organization's incident reporting system, but this reporting is voluntary and does not cover all cases. A previous study in Norway showed that the reporting and analysis of adverse events as part of quality assurance and patient safety work in Norwegian obstetric units were suboptimal[7] and that it can be assumed that the situation is similar in Finland. The quality of obstetric and perinatal care in Finland is considered to be high, and there is a long tradition of high-quality medical birth registration and outcome reporting at the national level. However, these datasets are limited and underused for patient safety and quality improvement purposes.[8]

In Finland, the Patient Insurance Centre (PIC) handles all patient claims for injuries related to medical treatment and health care. The system is based on a no-fault compensation system, similar to other Nordic countries.[9–11] The PIC operates and makes decisions in accordance with legislation. From 1987 to 2020, the legislation was based on the Patient Injury Act and, from 2021, on the Patient Insurance Act, the Patient Insurance Centre Act, and the Traffic and Patient Board Act.

An up-to-date analysis of obstetric claims in Finland is necessary as the most recent study reporting findings is outdated.[12] Patient-reported adverse events and outcomes in obstetric care provide a valuable perspective on obstetric safety. To address this, a nationwide, retrospective, register-based study was conducted that provides significant insight into obstetric safety over the past decade based on obstetric claims. The aim of this study was to describe obstetric claims, compensations, reported causes of the injury, and injuries filed to the PIC from 2012 to 2022. The study also examined differences in claims and compensation rates among delivery methods, birth hospitals with different birth volumes, and years.

Key message

In Finland, 0.15% of births result in obstetric claims. Of these claims, 26% receive compensation most often due to substandard care. This finding underscores the need for continuous improvement in obstetric care quality.

2 | MATERIAL AND METHODS

This was a nationwide, retrospective, register-based study. During the study period, the number of birth hospitals in Finland decreased from 31 to 23,[13] and the total fertility rate declined from 1.80 to 1.32 children per woman, which is currently the lowest among the Nordic countries.[14] Tertiary-level obstetric care (high-risk pregnancies) for very preterm births (<32 weeks of gestation) and births of very small fetuses (<1500 g) or small-for-date fetuses is provided only by university hospitals ($n = 5$), and secondary-level care is provided by local and central birth hospitals ($n = 18$). To ensure the quality and safety of obstetric care, the Ministry of Social Affairs and Health issued new regulations on obstetric care in 2015. According to the regulations, birth hospitals in Finland are required to have a minimum of 1000 births per year and continuous readiness for obstetric emergencies, including appropriate availability of obstetricians, anesthesiologists, pediatricians, and a surgical team. As a result, many low-volume units (<1000 annual births) have been closed in recent years to ensure the safety of obstetric care.[15]

All patients who have received treatment in Finland may claim compensation for a suspected patient injury by filing a notice of injury to the PIC within a period of 3 years of the date from when the injured party first knew, or should have known, of the injury. The PIC registers the claim, obtains information and the patient's medical records from the healthcare providers involved, and requests an opinion from a medical expert. Substandard care is defined from a medical point of view and is assessed by medical experts. According to the law (Patient Insurance Act), to receive compensation, there must be a probable causal relationship between substandard care and injury.

There are eight criteria defined in the patient insurance legislation for which the patient can receive compensation, and compensation can only be paid for injuries that fall under one of the criteria (Table 1). A written claim decision is sent to the patient and

the healthcare provider(s). In the case of a favorable claim decision, the patient is entitled to compensation for the additional costs and losses caused by the patient's injury. The amount of compensation varies considerably depending on the nature and consequences of the injury. The PIC regularly publishes statistics on patient injuries.

The initial data consisted of 920 obstetric claims reported to PIC between June 4, 2012 and December 31, 2022. Claims reporting a minor or major obstetric, obstetric surgery, or obstetric anesthesia injury at a birth hospital before, during, or after delivery were included. Claims related to antenatal or postnatal care in primary healthcare facilities and claims related to neonatal care were excluded. A total of 71 claims were excluded from the analysis, mainly duplicates or claims with a focus on neonatal or pre- or postnatal care in community maternity services. Finally, $n = 849$ claims were included in the study and analyzed (Figure 1).

TABLE 1 The Patient Insurance Centre criteria for compensation.

(1) Treatment injury (substandard care)
(2) Infection injury
(3) Accidental injury
(4) Equipment-related injury
(5) Accidents relating to permanently installed medical devices
(6) Injury arising from damage to premises or treating equipment
(7) Injury due to incorrect delivery of pharmaceuticals
(8) Unreasonable injury

The data obtained from the PIC included information on the year of injury, compensation criteria, delivery method, maternal age, birth hospital, and a brief description of the events following the injury. In addition, the first author supplemented the data from the PIC electronic database by extracting data from two documents in the database: a notice of injury submitted by the patient (narrative description of the event and the injury) and a decision letter from the PIC that reported whether the injury was compensated/not compensated and on what basis. The claims were further divided into four categories based on when the cause of the injury occurred (timing): pregnancy, during or immediately after labor and delivery, or postpartum at the hospital. Claims that reported multiple causes occurring at different times were placed in a separate category.

Causes of injuries and maternal and neonatal injuries were inductively categorized. Two researchers (the first and last authors) categorized the data. Any disagreements were resolved through discussions. If more than one cause or injury was reported in a claim, a maximum of three causes or injuries were extracted from each claim based on a three-point criterion:

1. A physical, psychological, or cosmetic injury was reported in the claim (excluding those causes or injuries that did not involve any of these).

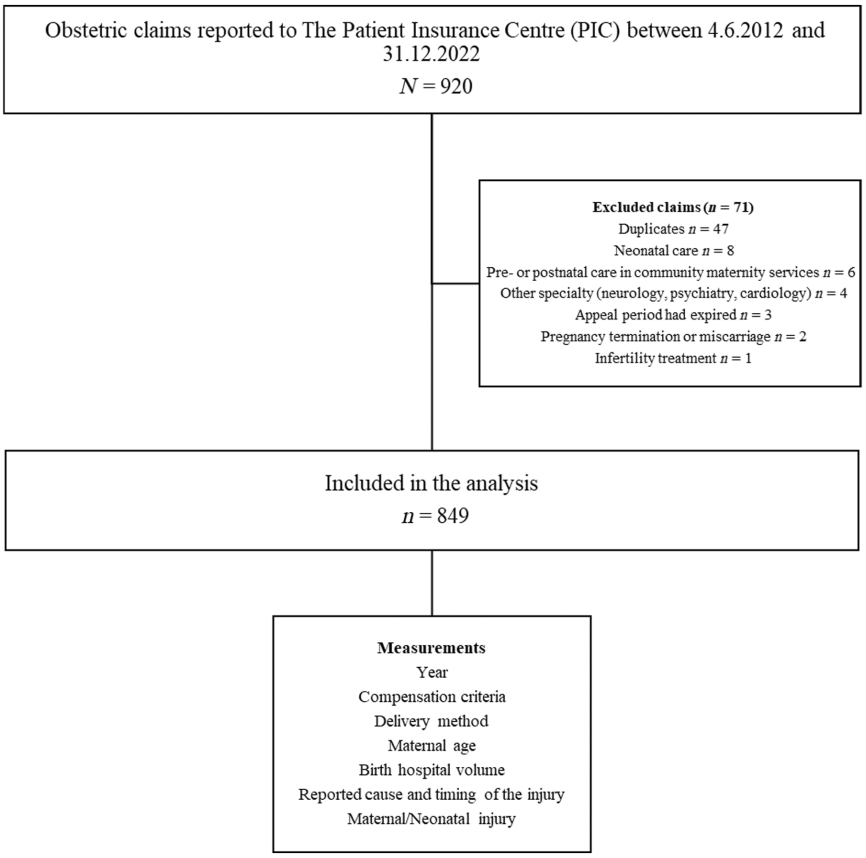

FIGURE 1 Flowchart on data collection and measurements of the study.

2. The extracted causes and injuries were aligned (e.g., a failure in surgical technique in cesarean delivery caused a bladder or bowel injury).
3. Only the primary cause or injury was recorded (e.g., claims that reported a failure to estimate fetal weight resulting in failure to assess appropriate mode of delivery, where only a failure to estimate fetal weight was recorded as a cause, not assessment of mode of delivery).

In addition to the PIC data, reference data, including the number of births per delivery method, birth hospital, and year, were obtained from the Medical Birth Register, which is controlled by the Finnish Institute of Health and Welfare.

2.1 | Statistical analyses

Descriptive analysis was performed, and results were presented as frequencies and percentages. Claims and compensation rates were calculated and presented as percentages in relation to the total volume of births. The 10-year average number of births over the last 10 years (2012–2022) was calculated for each birth hospital, and hospitals were classified into three categories based on their volume (<1000, 1000–1999, and ≥2000 annual births).

The statistical dependence of various elements of obstetrical claims was analyzed using three separate logistic regression models. The models were named by their dependent variable: claims rate model, compensated claims rate model, and compensation rate model. In each model, the only explanatory variable was method of delivery, with classes of unassisted vaginal/vacuum-assisted/cesarean delivery. Pairwise comparisons between groups were made using generalized hypothesis testing.

Time trends were analyzed using logistic regression. The relationship of the explanatory variable "year" was considered curvilinear, linear, or nonexistent in the logistic regression. Curvilinear regression was implemented using polynomial spline regression (B-splines). Akaike information criterion (AIC) was used as a tool for selecting statistical model, and it is defined by equation $AIC = 2k - \ln(L)$, where k is the number of parameters in the model, $\ln(x)$ is the natural logarithm of x, and L is the value of the model's maximized-likelihood function. Smaller AIC value indicates better model fit.

The claims rate model is a model for proportion claims, the compensated claims rate models the proportion of compensated claims of all claims, and compensation rate model is a model for a proportion of compensated claims out of all deliveries. For all models, the delivery method was the only explanatory variable, with classes of unassisted vaginal, vacuum-assisted, or cesarean delivery. The reference level in all models was unassisted vaginal delivery.

Hospital size was analyzed using logistic regression with pairwise comparisons. Data were statistically analyzed using IBM SPSS Statistics for Windows, version 29.0. Armonk, NY: IBM Corp. Logistic regression and pairwise comparisons were performed using the R programming language with the R package multcomp.

3 | RESULTS

3.1 | All claims and compensation rates

A total of $n = 849$ obstetric claims meeting the inclusion criteria were filed between June 4, 2012, and December 31, 2022, which was 0.15% of all births ($n = 564\,056$) in Finland during 2012–2022 (Table 2). Compensation was awarded in $n = 224$ claims (26.4%), of which $n = 132$ (59.0%) involved injury to the mother and $n = 92$ (41.0%) to the neonate. The compensation rate was 0.04% of all births in the study period. The mean age of mothers filing for compensation was 30.9 years (SD 5.4).

The claims rate increased curvilinearly (AIC 52.53) instead of linearly (AIC 53.71), and the compensation rate increased linearly (AIC 40.47) instead of curvilinearly (AIC 44.03) during the years

TABLE 2 The claims and compensation rates per year.

Year	Births/year, *n*	Compensated/All claims, *n*	Compensated claims rate, %	Claims rate, %	Compensation rate, %
2012[a]	59 039	15/57	26.3	0.10	0.03
2013	57 728	15/87	17.2	0.15	0.03
2014	57 019	22/78	28.2	0.14	0.04
2015	55 007	17/72	23.6	0.13	0.03
2016	52 870	22/88	25.0	0.17	0.04
2017	50 151	27/98	27.6	0.20	0.05
2018	47 272	25/100	25.0	0.21	0.05
2019	45 279	24/87	27.6	0.19	0.05
2020	46 034	22/70	31.4	0.15	0.05
2021	49 068	27/79	34.2	0.16	0.06
2022	44 589	8/32	25.0	0.07	0.02
Total	564 056	224/849	26.4	0.15	0.04

[a]June 4 to December 31, 2012.

2013–2019. In the compensation rate model, the linear growth with respect to time was statistically significant ($p=0.005$). However, there were no significant changes in the compensated claims rate trend during the same period ($p=0.232$, AIC 38.49) when compared to linear (AIC 39.05) or curvilinear models (AIC 41.73). Thus, the compensated claims rate appears to be constant with respect to time.

All pairwise comparisons of claims and compensation rates between delivery methods were statistically significant ($p<0.0001$ in all three); the claims and compensation rates for vacuum-assisted deliveries and cesarean deliveries were higher than for unassisted vaginal deliveries ($p<0.0001$). For the compensated claims rate, neither vacuum-assisted births ($p=0.208$) nor cesarean births ($p=0.587$) differed from unassisted vaginal deliveries (Table 3).

In terms of hospital size, the only statistically significant difference was found in the compensation rate between large- and medium-sized hospitals ($p=0.0178$) (Table 4).

Compensation was most often awarded for the provision of substandard care ($n=218$, 97.3%). Only in a few claims was compensation awarded for medical device failure ($n=3$, 1.3%) or infection ($n=3$, 1.3%). Non-compensated claims were commonly denied compensation because the injury was unavoidable or tolerable ($n=302$, 48.3%), it was not related to care ($n=212$, 33.9%), or a tolerable infection was reported as the injury ($n=65$, 10.4%).

3.2 | The induced causes of injuries

Of 849 claims, 135 (15.9%) reported more than one cause and injury, resulting in $n=1003$ induced causes of injuries categorized into 23 categories (Table 5; Table S1). In the majority of claims ($n=707$, 83.3%), the induced cause of the injury occurred during or immediately after labor and delivery. The most reported causes were delayed delivery ($n=188$, 18.7%) and surgical technique failure during cesarean delivery ($n=109$, 10.9%). Retained surgical bodies (foreign objects left inside the mother after the operation) (e.g., perineal suturing or cesarean delivery) (86.7%), fetal monitoring not performed or misinterpreted leading to a delayed delivery (74.4%), and oxytocin or misoprostol administration failure (66.7%) caused with the highest compensated claims rate (Table 5). Three causes with no compensation awarded were delayed labor induction, hospital discharge error (e.g., too early hospital discharge), and misbehavior by the professional (e.g., disrespect for the mother's wishes or autonomy).

3.3 | Maternal injuries

A total of $n=559$ claims reported a maternal injury, with $n=115$ claims (20.6%) reporting more than one maternal injury, resulting in a total of $n=693$ reported maternal injuries categorized into 11 categories (Table 6). The most reported maternal injuries were infection ($n=124$, 17.9%) and pain ($n=81$, 11.7%). Burn injuries caused by heating pads for intrapartum pain relief (93.3%), urinary or bowel incontinence (80.0%), and bladder or bowel injuries during cesarean deliveries (28.3%) had the highest compensated claims rate among maternal injuries (Table 6).

3.4 | Neonatal injuries

A total of $n=290$ claims reported neonatal injury, with $n=12$ claims (4.1%) reporting more than one neonatal injury, resulting in a total of $n=302$ reported neonatal injuries categorized into six categories (Table 6). The most reported neonatal injuries were severe ($n=58$, 19.2%) and mild asphyxia ($n=50$, 16.6%). Among neonatal injuries, the highest rates of compensated claims were for fetal or neonatal death (60.5%) and asphyxia (56.9% for severe and 42.0% for mild asphyxia) (Table 7).

4 | DISCUSSION

This study provided an important and retrospective overview of obstetric safety in Finland, based on patient-reported insurance claims

TABLE 3 The claims, compensation, and compensated claims rates per delivery method.

Delivery method[a]	Volume years 2012–2022, *n*	Compensated/All claims, *n*	Compensated claims rate, %	Claims rate, %	Compensation rate, %
Unassisted vaginal	414 557	55/226	24.3	0.05	0.01
Vacuum assisted	52 425	46/155	29.7	0.30	0.09
Cesarean	96 995	123/468	26.3	0.48	0.13

[a]$n=79$ births with no information on the delivery method.

TABLE 4 The claims, compensation, and compensated claims rates per hospital's birth volume.

Birth volume (births/year)	Total number of births 2012–2022	Compensated/All claims, *n*	Compensated claims rate, %	Claims rate, %	Compensation rate, %
<1000	47 884	18/60	30.0	0.13	0.04
1000–1999	176 237	87/289	30.1	0.16	0.05
≥2000	336 764	119/500	23.8	0.15	0.04

TABLE 5 Compensated claims rates for the induced causes of injuries ($n = 1003$).

Cause	Compensated/All, *n*	Compensated claims rate, %
Retained surgical bodies (foreign objects left inside the mother after obstetric surgical operation, e.g., perineal suturing or cesarean delivery)	13/15	86.7
Failure in administration of oxytocin or misoprostol	8/12	66.7
Delayed diagnosis or treatment of bladder/bowel injury (e.g., perforation)	8/14	57.1
Failed or delayed suturing of vaginal/perineal tear or episiotomy	20/49	40.8
Inadequate pain management	15/45	33.3
Delayed delivery	86/188	45.7
Fetal monitoring not performed or misinterpreted leading to a delayed delivery	58/78	74.4
Other (e.g., use of overly hot heating pads for intrapartum pain relief or neglect of thrombosis prophylaxis)	25/102	24.5
Inadequate or delayed treatment of an infection (e.g., antibiotic prophylaxis neglected)	11/46	23.9
Delayed diagnosis or treatment of uterine rupture	1/5	20.0

TABLE 6 Compensated claims rates for maternal injuries ($n = 693$).

Maternal injury	Compensated/All, *n*	Compensated claims rate, %
Burn injury (burns caused by heating pads for intrapartum pain relief or by surgical equipment for hemostasis)	14/15	93.3
Urinary or bowel incontinence	12/15	80.0
Bladder or bowel injury (cesarean deliveries)	13/46	28.3
Other (e.g., nerve damage, cosmetic defect, pulmonary embolism, and prolongation of the infection or pain)	52/191	27.2
Uterine rupture	6/23	26.1
Pain	17/81	21.0
Second-degree vaginal or perineal tear	2/15	13.3
Psychological harm (e.g., posttraumatic stress disorder, depression, and fear of childbirth)	9/78	11.5
Infection	14/124	11.3
Anal sphincter tear	1/17	5.9
Hemorrhage/residual tissue	4/87	4.6
Death	0/1	0.0

for obstetric care in Finland over the past decade. The main finding of the study was that approximately one-quarter of obstetric claims resulted in compensation, and substandard care was the most common criterion for compensation. There was a curvilinear increase in claims and linear increase in compensation rates from 2013 to 2019. More claims were filed and compensated for cesarean and vacuum-assisted deliveries than for unassisted vaginal deliveries. Delayed delivery and surgical technique failure during cesarean delivery were the most reported causes of the injuries. Maternal infection and fetal asphyxia were the most reported injuries.

The increase in claims and compensation rates over the study period is interesting. The increase may reflect the changes that have occurred in obstetric practice and maternal characteristics over the past decade. The increase may be related to the growing number of cesarean deliveries in Finland in recent decades. In 2022, the proportion of cesarean deliveries in Finland was 19.6% and has shown a continuous increase since the late 2010s.[13] However, cesarean deliveries have lower compensation rates compared to other surgical procedures in Finland.[16] In addition, changes in maternal characteristics,[13] such as increased maternal obesity and age,[17] may be

TABLE 7 Compensated claims rates for neonatal injuries ($n = 302$).

Neonatal injury	Compensated/All, *n*	Compensated claims rate, %
Fetal or neonatal death	23/38	60.5
Severe asphyxia (permanent damage or long-term condition, e.g., cerebral palsy)	33/58	56.9
Mild asphyxia	21/50	42.0
Infection	7/38	18.4
Other (e.g., superficial lesions, mild respiratory problems, femur fractures, and scalp injuries)	6/78	7.7
Shoulder dystocia (a clavicle fracture and brachial plexus birth injury)	3/40	7.5

associated with the incidence of maternal and neonatal injuries[18,19] and thus with increased claims. Although there was no increase in the rate of compensated claims in this study, the rate was higher (19.5% vs 26.4%) than in a study reporting on obstetric claims in Finland from 1987 to 1995.[12] This may be related to advances in medical care that leave less room for unavoidable injuries than in the past.

As large maternity units are usually mainly responsible for a greater number of high-risk pregnancies and tend to carry a greater risk for complications, it has been stated previously that a greater number of adverse events with serious outcome will occur in birth units with larger volumes. It has been shown that medium and large maternity units had more adverse events per 1000 deliveries than small units; however, significant differences in substandard care between the different sizes of birth units were not found.[20] This raises the question of whether larger maternity units perform more unnecessary interventions as a matter of routine care, thereby increasing maternal and fetal morbidity and obstetric claims. However, this is not fully supported by the results of this study, as hospitals with different birth volumes only differed in the rate of compensated claims between large- and medium-sized hospitals. To assess differences between high- and low-volume hospitals, it may be more relevant to analyze the types and severity of injuries rather than to report the proportion of claims and compensation rates. In Denmark, lower rates of claims and claims for fatal injuries were associated with high-volume birth units, supporting the centralization of units to provide higher levels of patient safety.[11] Although the results of this study did not mainly show significant differences between hospitals with different birth volumes, a more robust analysis with different data would provide more accurate results regarding obstetric safety in different hospitals.

The higher rates of injuries following instrumental and cesarean delivery, compared with all other types of delivery, are in line with earlier research.[21,22] Although claims and compensation rates were significantly associated with operative deliveries (cesarean and vacuum assisted), further analysis is needed to determine their causality. The high prevalence of surgical technique failure and maternal bladder or bowel injury associated with cesarean delivery suggests that these are common and may need improvement. Although operative delivery is often necessary to improve neonatal outcomes, it is associated with increased maternal risks, including postpartum hemorrhage, infection,[23,24] and pelvic organ prolapse[25] as well as injuries to the fetus.[21] Maternal satisfaction and expectations with the birth experience may be compromised when an unassisted vaginal delivery is converted to a medically assisted operative delivery.[26–28] One could speculate whether dissatisfaction with the birth experience translates into an increased number of claims.[29] It has been stated that operative deliveries or cesarean was associated with negative birth experiences.[30,31]

Retained surgical bodies following obstetrical operations were the cause of the highest rate of compensated claims. This type of adverse event is considered a "Never Event," meaning that it is "*a serious incident that is entirely preventable because guidance or safety recommendations providing strong systemic protective barriers are available at a national level and should have been implemented by all healthcare providers.*"[32] Similarly, the high rate of compensated claims among maternal injuries related to the use of overheated heating pads for intrapartum pain relief may be considered a "Never Event" that is largely preventable with careful guidance and implementation of safety recommendations. Although the proportion of these injuries was small, preventing this type of injury is important as heating pads are a commonly used nonpharmacologic method of pain management during labor.[33]

The high rate of compensation for claims reporting inadequate fetal monitoring or fetal asphyxia demonstrates the importance of timely delivery followed by appropriate fetal monitoring and assessment to reduce intrapartum fetal asphyxia.[9,10,12] Adverse obstetric outcomes such as birth asphyxia are not affected by the busy day effect (busyness) in the Finnish obstetric ecosystem. Rather than increasing resources, it may be more relevant to improve the staff's ability to recognize and respond to suspected asphyxia.[15] Regular training and assessment of obstetricians' and midwives' competence in fetal monitoring are needed to reduce errors and delays in diagnosing fetal asphyxia. Although staff competence and the successful implementation of up-to-date clinical guidelines in routine care are important aspects to improve the safety of obstetric care, patient safety is a much more complex concept. Improving safety requires a multidimensional approach with multiple solutions to consider. Nontechnical skills, including cognitive skills, good teamwork, and effective communication,[34] are additional factors that can contribute to safe care. At the organizational level, an

optimal safety culture that practices a no-blame approach to addressing adverse safety events and outcomes plays a key role.[35] Therefore, further analysis of claims reporting inadequate or misinterpreted fetal monitoring should be conducted to identify contributing factors, such as human and system error, associated with these events.[9]

Most claims were denied because the injury was considered unavoidable or tolerable and not related to care. Infection and hemorrhage or residual tissue were maternal injuries with a high incidence but a low rate of compensated claims. Similarly, the low rate of compensated claims for shoulder dystocia indicates they are most often sudden and unexpected, underlining that these common adverse outcomes are often considered unavoidable in childbirth and not subject to compensation in Finland.[12]

Professional misbehavior was a frequently reported but uncompensated cause of alleged injury. Professional misbehavior included professionals treating mothers disrespectfully, such as disregarding their wishes or autonomy.[29] Similarly, psychological harms such as posttraumatic stress disorder, depression, and fear of childbirth were among the reported maternal injuries. This finding perhaps demonstrates that obstetric safety can be understood in a broad sense. It is not limited to medical interventions and physiological outcomes. The mother's experience of childbirth has increasingly become an important determinant of the safety of childbirth.[28,29] An important component of obstetric care is a satisfactory encounter and trustful relationship between the mother and the healthcare professional.[26,29] However, because the PIC does not review the behavior of professionals, claims of professional misbehavior are not subject to appeal. The high number of claims reporting professional misbehavior suggests that patients should be better informed about injuries that are the subject of filing a claim. Although these reports of misbehavior are not subject to filing a claim, they provide valuable qualitative data that could be used to improve women's childbirth experiences.

To improve the safety of obstetric care, an annual review of obstetrical claims could be conducted to obtain more current data on substandard care and preventable injuries.[9] To support this, a data extraction tool should be developed and implemented to systematically extract key data on the characteristics of claims to facilitate more efficient data collection, analysis, and reporting.[29]

A strength of this study is that it provides nationwide data on obstetric claims filed in a no-fault patient insurance system, which is implemented in only a few countries worldwide. To our knowledge, this is the most recent study to comprehensively report on obstetric claims in the Nordic countries over the past decade, demonstrating the importance of the findings. It is also the first study in Finland to provide a comprehensive description of the causes and injuries reported in obstetric claims.

The limitations of the study concern the data, which are solely based on what kind of injuries are being reported. Self-reported patient injuries include the possibility of bias in terms of who is in fact submitting claims and what kind of claims are being submitted as well as whether the reported claims correlate with the total rate of adverse events and quality of care.[11,36] With respect to that, the claims rate itself may not be informative enough to speculate on obstetric safety, but claims as an indicator have the potential to be applied in assessing quality of care.[36] Hence, the data are not an extensive description of all birth-related patient injuries in Finland. Some data for 2020–2022 are also incomplete, as the 3-year appeal period has not yet expired. Furthermore, this study was mostly descriptive, and further analysis of the reported causes and injuries is needed to provide more robust evidence on their causality as well as indications of patient safety.

5 | CONCLUSION

The data on obstetric claims provided significant findings on substandard care and injuries in obstetric care in Finland. However, these represent obstetric claims reported to the PIC and not a comprehensive description of all birth-related patient injuries. More evidence is needed to explain why claims and compensation rates showed an increasing trend. Identifying contributors to substandard care that lead to fetal asphyxia is important for improving obstetric safety. Further analysis of the association of claims and compensation rates with operative deliveries is needed to determine their causality. Data on obstetric claims should be reviewed more frequently to provide more current data on substandard care and preventable injuries.

AUTHOR CONTRIBUTIONS

Study conception and design, and draft manuscript preparation: Reeta Lamminpää, Jaana Lojander, Maiju Welling, Marja Härkänen, and Anna Axelin. Data collection: Jaana Lojander. Methodology, analysis, and interpretation of the results: Jaana Lojander, Reeta Lamminpää, Maiju Welling, and Juho Kopra. All authors reviewed the results and approved the final version of the manuscript.

CONFLICT OF INTEREST STATEMENT

None.

ETHICS STATEMENT

According to the guidelines of the Finnish National Advisory Board on Research Ethics,[21] the use of existing anonymous (register) data does not require approval from the National Committee of Research Ethics. Permission to use the data was granted by the Finnish PIC in May 2023.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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