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An Overview on Cesarean delivery on maternal request (CDMR)

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Abstract

The rate of cesarean delivery has risen worldwide substantially over the past few decades, despite the national goal of reducing rates of cesarean delivery to 15% of births as part of Healthy People. There has been considerable attention focused on how best to decrease the national cesarean delivery rate. Part of the increase in the cesarean delivery rate seems to arise from an increase in cesarean delivery requested by mothers in the absence of any medical or obstetric indications. Estimates of cesarean delivery on maternal request range from 4–18% of all cesarean deliveries, a rate that seems to be increasing. Women most commonly request cesarean delivery because of extreme tocophobia, or fear of child birth, a previous cesarean section, and previous negative birth experience as well as smaller family size and insurance liability concerns. How and whether these and other issues underlie the increase in the rate of cesarean delivery on maternal request remains to be determined.

Keywords: Cesarean delivery, maternal request, CDMR, C-sections

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1. Introduction:

Cesarean delivery on maternal request (CDMR), defined as a primary cesarean delivery for a singleton pregnancy on maternal request at term in the absence of medical or obstetrical indications [1]. There has been a rise in the frequency of C-sections performed at the request of the mother, even if the majority are performed for legitimate medical reasons. Different nations and cultures have different rates of cesarean deliveries at the desire of the mother. Because of reasons like fear of labor pain, indecent exposure, convenience or scheduling concerns, the belief that C-sections offer more control over the birthing process and are more common in primigravidas delivering privately and perceived benefits like a lower risk of perineal trauma [2]. Worldwide, there are differences in the occurrence of cesarean deliveries at the request of the mother due to a variety of reasons, including individual preferences, healthcare practices, and cultural conventions. Studies have revealed notable differences in the rates of cesarean delivery at the desire of the mother across various nations and regions, notwithstanding the difficulty in determining precise numbers. There are notable differences in the CDMR rate depending on the nation. The rate for all deliveries is more than 24% in China, 8% in Sweden, 5.1% in Switzerland, 3.2% in Denmark, 5% in the US, and 3% in Australia. A rate of 10.1% for CDMR was reported in Saudi Arabia by a single study that used medical records as the basis for a retrospective cohort study design [3].

The absolute proportion of CDMR was 11-fold higher in upper middle-income countries than in high-income countries. The Middle East had the highest CDMR rates followed by East Asia between five geographical regions. It is significant to remember that the frequency of cesarean deliveries at the request of mothers can vary over time and can be impacted by a variety of factors, including patient education, medical guidelines, and healthcare policies that support evidence-based practices. In the end, healthcare professionals and legislators work to guarantee that decisions on delivery methods are well-informed, secure, and considerate of the mother's autonomy while taking the mother's and the child's best interests into account [4].

- **Benefits of CDMR**

Maternal benefits

The two main psychological factors that support the benefits of cesarean delivery for mothers are tocophobia, or the fear of pain, and the demand for autonomy or control over the birth process. These questions have been discussed by ethicists from the perspectives of the patient, the practitioner, and the population, but a clear consensus has not yet developed [3]. The prevalent biological rationale that suggests caesarean birth benefits mothers is one of perineal preservation. Numerous research indicate that having a cesarean delivery can reduce urine incontinence in the short term, however long-term population studies with consistent corroboration have not shown this to be true [5].

Neonatal Benefits

The prevention of birth stress and timely delivery are two advantages of cesarean delivery for the baby. The danger of hypoxia due to labor is reduced. Although the precise percentage is unknown, it is estimated to be 0.005% based on literature on vaginal birth after cesarean surgery (VBAC). Additionally, waiting for the start of labor to manage an expectant mother may theoretically reduce the incidence of stillbirth [6]. According to a retrospective analysis of 66 226 nulliparous women in China CDMR was associated with neonatal benefits, including a lower risk of birth trauma, infection, meconium aspiration syndrome and NICU admission [7].

- **Motives of cesarean delivery on maternal request**

Fear of giving birth, fear of the pain during labor, fear for their own and their baby's health or the perception of a safer option, a history of a difficult delivery, maintaining the integrity of the pelvic floor, a doctor's recommendation, the time of delivery, the experience of a previous difficult delivery, a history of infertility, anxiety related to gynecologic examinations, anxiety related to losing control during labor, anxiety related to staff lack of support, fear related to fecal aspects, practical, According to reports, women seek cesarean sections mostly to maintain their sexual function and to provide moms and doctors the option to schedule the time of delivery [8]. Furthermore, the availability of ultrasound exams throughout pregnancy, the absence of painkillers and social support during labor, and other factors may influence women to select caesarean sections (CSs) as a safer method of delivery. Previous surgical deliveries and miscarriages are observed to be strongly correlated with the CS at the request of the mother [9].

Factors Influencing Cesarean Delivery Request

A. Maternal Factors:

1. Sociocultural factors

A number of causes, including media impact and economic, social, and cultural ones, can be attributed to women's growing demand for cesarean sections. Additionally, women's evolving attitudes toward the procedure have led them to see it as a means of avoiding the unpredictability of childbirth. Furthermore, the views of medical professionals toward cesarean sections have evolved, especially for younger obstetricians, which has led to a global rise in the number of caesarean deliveries at the request of mothers [9].

A number of research investigations have demonstrated a robust association between rising rates of cesarean sections and rising mother ages. There is a growing percentage of women over 34 who may indicate an underlying trend toward increased childbearing at older ages [10]. Occupation was another one of the demographic reasons of elective cesarean section. Women who worked were found to elect cesarean sections more commonly based on their vocational backgrounds [9]. Women belonging to higher economic class with better education went through C-section more than women having a formal education and low economic level. Similarly, women who prefer private facilities over the government for delivery suffer more C-sections [11].

Obesity and overweight were another demographic factor leading to elective cesarean sections. Obese and overweight women had the greatest rates of cesarean sections performed at the request of the mother. Obese women may be more inclined to desire a cesarean delivery if they have greater anxiety about giving birth vaginally [12].

Social and cultural issues could be additionally implicated in demanding caesareans. According to certain studies, women who are nulliparous are more likely to give birth by cesarean section at the mother's request. Furthermore, in terms of family status (married versus single), single mothers were more likely than married women or single mothers with a partner to undergo a cesarean section at the request of the mother. These ladies might worry that they won't have a companion to help them throughout childbirth [13].

A pregnant woman's choice of delivery method was influenced not only by her own personal variables but also by those of those around her. It was discovered that the likelihood of a cesarean delivery was cut in half if vaginal delivery was the primary delivery method used by the surrounding moms. While some women may have chosen a cesarean delivery out of fear of vaginal delivery after a failed labor trial, other parturient women may have felt more confident in

their ability to deliver a baby through vaginal means due to their successful experiences. The current research has mostly focused on families and friends when it comes to how other people's choices about a pregnant woman's mode of delivery affect her [14].

Many women connect cesarean section with prestige. This idea is fundamental to how women make decisions. People with a higher socio-cultural class and level of education were more likely to choose cesarean section as their technique of birth since it was seen as a higher-class choice and a social norm: "... and given the prevalence of cesarean sections, it is preferable to perform CS at this time [15].

Authors have found that women are requesting cesarean sections when there is no medical need for them because of the significant lack of appropriate technology, supportive care, and adequate pain relief (including non-pharmacological pain management) in low-income countries [16].

2. Psychological Factors

The most significant event in a woman's life is her vaginal delivery, which leaves a permanent emotional, social, and psychological mark on her memories. Several factors were known for birthing negative experience that result in higher fears and anxieties in pregnant women and may prompted an unpleasant childbirth experience. Unfavorable delivery experiences lead to an increase in elective cesarean sections performed to prevent potentially unpleasant vaginal birth experiences [15]. Dysfunctional beliefs about childbirth, previous traumatic births, depression, other psychiatric and psychosomatic issues can lie behind a decision to undergo CDMR. Numerous studies have demonstrated that fear for the health and life of the fetus, fear of the process of labor and childbirth, and doubts about the competence and behavior of the maternity staff, along with fear of parenthood and family life were the strongest factors associated with seeking elective Cesarean delivery [9].

Women are becoming less confident in their capacity to give birth spontaneously in a medicalized setting. These women develop coping mechanisms to survive in an unsupportive environment as a result of their lack of confidence and the low quality of care they receive [17]. Fear of mistreatment during labor, such as physical abuse (such as slapping or pinching during delivery), sexual abuse, verbal abuse (such as using harsh or rude language), stigma and discrimination based on age, ethnicity, socioeconomic status, or medical conditions, failure to meet professional standards of care (such as neglect during delivery), and poor rapport between women and providers (including ineffective communication, lack of supportive care, and loss of autonomy) are some of the psychological factors that encourage women to choose cesarean delivery over vaginal birth The limitations of the health system, such as the absence of funding required to give women privacy [18]. Policy makers need to pay attention to this systemic violence if they hope to reduce the mistreatment of women. Mistreatment of women giving birth in medical institutions can be life-long distressing and can happen not just during interactions between the lady and the healthcare provider but also as a result of institutional systemic failures [18].

3. Provider-patient communication and decision-making

When it comes to making decisions, women are susceptible to the influence of doctors. Specifically, how a doctor communicates the advantages and disadvantages of cesarean sections can sway a woman's decision to "choose" to have one. Women are disempowered by this structural disparity, which is especially pertinent in labor and delivery units where women may be particularly vulnerable. Thus, there is an imbalance of power between doctors and women [10].

B. Health professionals' factors:

I. Personal beliefs

1-Perception of risk

It is possible that factors associated with the physician, such risk mindset, will affect the choice. One definition of risk attitude is a person's inclination for varying degrees of risk. In the context of obstetrics, risk aversion is the readiness 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) [19].

2-Being safe option

Women, health workers, and medical professionals all stated that they now view CS as a secure, convenient substitute for vaginal birth. The operation's accessibility and availability were connected to the degree of belief. Women said they were no longer required to endure the "twice pain" of labor culminating in an emergency CS in the areas where CS was most prevalent [20].

3-Lack of cooperation and trust

Lack of confidence Some women stated that their choice of delivery mode was influenced by how much they trusted their doctor. A few expressed skepticism about the advice provided by their physicians, which left them uncertain about which course of action to take. Some medical professionals said that patients mistrusted them and blamed them for problems, saying things like "If the sutures were infected, they don't may be caused due to my obesity." They believe the doctors are to blame [21]. Six investigations found that obstetricians with varying

levels of experience (residents/registrars versus specialists/consultants) and between them, as well as between them and midwives, lacked trust and collaboration [22].

4. Belief in relation to maternal request

The opinions of doctors on "women's request for CS" as a determining factor were documented in 26 research. The main factors influencing decision-making were sociocultural viewpoints, women's preferences and expectations, obstetricians' views on women's autonomy and right to select a CS, and their assessment of women's dread and anxiety [22].

II. Health care systems

1. Fear of litigation

If difficulties arise during a vaginal delivery, obstetricians run the possibility of receiving complaints and litigation; also, there are perceived liability concerns associated with vaginal deliveries as opposed to scheduled elective cesarean deliveries. Ambiguity, in the form of uncertainty of length and outcome of vaginal birth, was a justification for preferring CS to avoid litigation consequences in 16 studies [23]. This tendency to avoid ambiguity is what leads professionals to perform CS, especially in the context of CDMR or vaginal birth after CS (VBAC) or risk of uterine rupture. This ambiguity also may lead providers to shift the responsibility of decision making to the women and their families, rather than giving their professional opinion, as a means of avoiding litigation in case of complications; a CS becomes a sort of insurance policy. Some authors note that this behavior is reinforced by the fact that women and their families are increasingly perceiving adverse events in maternity care as unacceptable [24]. Regardless of restrictions on non-economic damages, a history of litigation in obstetrics leads to more defensive medicine and a higher probability of recommending a caesarian section. Compared to those who "rarely worry about litigation," clinicians who worry about getting sued frequently are more likely to recommend cesarean sections [25]. A study also reveals that Romanian obstetricians frequently perform defensive caesarean sections. In general, the term "defensive medicine" refers to the steps done by medical professionals rather than with the intention of aiding the patient to lessen the possibility of being sued. Defensive medicine presents health hazards in addition to impairing the ability to treat patients. Defensive medicine lowers healthcare expenses and shatters the patient-doctor bond [26].

2. Resources

In addition to impacting the decision to conduct CS, a shortage of skilled medical professionals, accessibility to staff during the longer time required for a vaginal made women feel stressed and unsatisfied ,which in turn made them ask for a CS in their next pregnancies [27]. The prompt availability of anesthesia and/or emergency CS personnel were considered to be significant determinants in US obstetricians' decision-making about the modality of delivery for women who had previously undergone CS. Also it's believed that inadequate access to emergency care resources, such as blood banks and theaters, made it more difficult to provide women in labor with the treatment they needed and affected the decision to conduct C-sections, particularly in rural locations [23].

3. Private vs public payment

Regarding the financial incentive for CSs in private patients, doctors were largely vocal. Some thought that because CS required more labor, the reward was acceptable, while others saw the additional money as a way to make up for their poor salaries. While caregivers differed in their assessments of the degree to which money influenced their choices, the majority said it led to more CSs. Some people believed that CS was quicker, simpler, and more practical; they said, "With CS, I minimize my time and I earn more!" Many emphasized that private practice encouraged the use of CS since they were personally accountable for the delivery outcomes in their private patients and negative events might result in patient complaints or a damaged reputation. There was no agreement on the indications for performing CSs on private patients; decisions on CSs were made solely by the specialist. According to all caregivers, one of the main causes of the high CS rate among private patients was maternal request, as they felt that women wanted to ensure a positive perinatal result and prevent labor difficulties. If certain specialists refused to perform CS at the mother's request, they feared losing their private patients [28].

III. Clinicians' characteristics

1. personal convenience

Another factor that influenced the obstetricians' decision to perform CS or strive for a vaginal birth was the "personal convenience of performing CS." This factor was related to or attributed to the obstetricians' perception that CS was an organized, orderly, convenient, and controlled birthing option in comparison to attempts at vaginal birth and that it was necessary to be available throughout a trial of labor [29].

2. Clinicians' demography

Age: A German study on the approval of CS on demand revealed that younger obstetricians approved CS at higher rates (70%) than older obstetricians (56%) whereas the other study, in Russia, identified a 4% increased risk of approving and performing CS with increasing age of the obstetricians. As regards to

gender: Male obstetricians were more willing to conduct CS than their female colleagues, according to three studies that looked into the influence of gender in this area. Compared to their female counterparts, male obstetricians in the Russian study were three times more likely to suggest a CS [23]. Professional status: Two studies showed that the risk of performing or approving a CS increased with seniority and experience of obstetricians. In a study in the Netherlands, consultants (more than registrars) and experienced doctors (more than less experienced doctors) performed CS more frequently, similar to findings from an Australian study where obstetric residents/registrars 83%, encouraged 'trial of labour' more than consultants or senior colleagues [23].

3. Confidence and skills

The degree of experience, assurance, and competence that clinicians possessed in managing challenging vaginal births and handling any complications many of which were linked to apprehension about potential legal repercussions also played a role in shaping their decision-making [30].

According to Yazdizadeh et al., The absence of cohesive education and training programs for obstetricians and midwives, as well as the development of knowledge and expertise in handling challenging vaginal births and associated complications, were identified as contributing causes [31].

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