

**A Global Epidemic of Rising Trend of Cesarean Section: Needed Serious Efforts by All Stakeholders to Curb It**

Cesarean section (CS), a life-saving surgical procedure, has now been a public health concern due to substantial rise in its rate (12% in 2000 to 21% in 2015) which has exceeded the WHO recommendation (i.e., 10-15%), above which it does not reduce maternal or neonatal mortality.<sup>1,2</sup>

As per the WHO, CS rate should not be greater than 10% or lower than 5%, as both extremes are associated with adverse maternal and neonatal outcomes.<sup>3</sup>

CS rate has been rising in an unprecedented manner even in South Asian countries with profound socioeconomic disparities<sup>3</sup> and the reason is multifactorial.

In South Asia, CS rate reached 18.1% during 2015.<sup>4</sup> The rate is high in private facilities for non-medical reasons and in public health centers, it is more due to referral from peripheries.

Most frequently cesarean delivery has been done for labor dystocia, fetal distress, previous CS, cephalopelvic disproportion, multiple gestation, malpresentation, associated medical diseases and nonetheless, maternal request which has further augmented the rate of CS.<sup>3,5</sup>

Maternal request for CS is found to be influenced by own's previous bitter experience of childbirth, and also by tales shared by others and sometimes by cultural factors (scheduled birth on a day of astrological significance). Also, the fear of labor pain, disrespectful behavior of medical staff in labor rooms, chances of physical impact of vaginal birth to neonate and pelvic floor and lack of awareness about various modes of delivery also favor cesarean delivery. Studies have shown that the area of residence (urban versus rural), women's educational level and employment (directly generating women's autonomy), advanced maternal age and wealth index are strongly associated with having a CS.<sup>3,5</sup>

Similarly, improvement in access to maternity care services and increment in institutional delivery has also aided to the increased CS rate. The unusual upsurge in CS rate is also due to over-medicalization of childbirth by private sectors due to financial benefit. Doctors also get inclined towards CS because of professional convenience due to quick and scheduled confinement saving both time and dedicated efforts. Practice of preventive medicine and fear of litigation has pushed a doctor to opt for CS.

Booming CS rates in South Asia is to be faced by avoiding 'Too Much Too Soon' in otherwise healthy urban women and avoiding 'Too Little Too Late' in those living in remote areas.<sup>6</sup>

Advantages of CS in general include lack of perception of labor pain, intact pelvic floor, and avoidance of uncomfortable pelvic examination, and convenience of delivery as per time and place.<sup>5</sup>

However, CS has short- and long-term negative impact on mother and child's physical and mental health—increased surgical complications during subsequent CS (risk of uterine rupture and abnormal placentation), complications due to anesthesia and common neonatal complications like iatrogenic respiratory distress syndromes, low Apgar scores, weak immunity and respiratory issues in later life.<sup>1,3,5</sup>

There must be global efforts to fight this epidemic. Pregnant ladies during their antenatal visits should be made aware about the physiological changes of pregnancy, possible medical complications, mode of deliveries and indications of CS and help them develop coping skills through *yoga* and meditation to allay their fear and anxiety related to vaginal birth. For the same, various apps (like iMumz in India) have been launched which provide holistic care to pregnant women through scientific week-by-week pregnancy and baby care program.<sup>7</sup> This technical platform helps pregnant women allay their fear and anxiety through live sessions with doctors. Also, pregnancy and childbirth should involve the partners and family, thus providing psychological support to the pregnant lady.

There should be respectful maternity care which further inclines a lady towards vaginal birth. Only convenience and pain factor should not justify the females to opt for CS. Institutions should develop facilities of painless vaginal deliveries as per feasibility. Similarly, there should be improvement in the quality of care during childbirth including better intrapartum monitoring and training (especially to midwifery) to sharpen the lost art of assisted vaginal deliveries. Similarly, efforts should also focus on encouraging Vaginal Birth After CS (VBAC) and practicing the art of breech delivery.

Financial incentives should be increased to those who conduct vaginal deliveries and medically unjustified CS should be questioned and discouraged. Campaigns similar to one in Bangladesh (launched by Save the Children) to reduce unnecessary CS can be helpful, too. As advised by WHO, Robson's classification should be used to classify the indication of CS and work more on that particular reason.

There should also be uniform and updated clinical protocols, full-time availability of trained midwives and obstetricians, regular monitoring and supervision of indications of CS. Efforts should be focused to decrease the primary CS rate in the first place. All in all, CS should be considered a necessity, not a luxury.

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