

Improving Birth Rate in Iran with Minimizing Cesarean Deliveries: Less Maternal Mortality and Better Health and Education for the Next Generation

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Although birth is a physiological process in human life, it has once been associated with a high rate of mortality both to the mother and fetus. Cesarean delivery has been introduced to the medical practice to decrease both the mentioned deaths. This surgical procedure decreases maternal and fetal mortality and morbidity in certain complicated pregnancies. However, in Iran, cesarean delivery has become more a luxury procedure that is mostly proposed by gynecologists to mothers, without explanation on the procedures' potential harms. In fact, in several cases this is not just a suggestion, and mothers leave with no other choice getting informed that if they want vaginal delivery, they should find some physician else. This obstacle is not only observed in our country, and in Southern Italy, where the cesarean delivery rate is too much high has reportedly the same problem [1]. The rate of cesarean section in our country is too high and comprises almost 42% of the deliveries

(according to an official report by the Iranian Ministry of Health and Medical Education) [2]. The single most rationale behind the high rate of cesarean delivery in Iran is mothers' fear from pain and damage to the anatomy of sexual system [3]. This is, probably due to a misconception on the safety and dangers of either vaginal or cesarean deliveries among Iranian mothers. The rising rate of cesarean delivery is a global concern, and even in the industrialized countries it has been a matter of concern [4]. Evidence suggests that the advantages of cesarean delivery is almost exclusively reserved for high risk pregnancies, and a study of over 2 million pregnancies from Canadian National data registry showed that cesarean section, even in indicated cases of lower risk, is associated with higher rates of morbidities, especially severe maternal morbidities compared to a planned vaginal delivery [5]. Considering the mortality rate associated with cesarean delivery, the situation



would be even worse. In a report from the Netherlands, the risk of maternal death after a cesarean birth was 0.53/1000 which was over 13 times larger than vaginal births (0.04/1000) [6]; so authors suggested that cesarean birth should be kept as low as possible. The hazards of cesarean section would be more prominent for a mother with a previous cesarean history. In Iran maternal mortality rate is 21/100,000 which is higher than Qatar (7/100,000) and United Arab Emirates (12/100,000) as local countries [7]. The question is what's different in Iran?

Recently, the birth rate in Iran has become a concern of the authorities, and there is a tendency to increase the birth rate in this country, and accordingly, the Iranian Parliament has urgently legislated a law to increase the birth rate by providing especial facilitations for postpartum period for employed mothers [8]. In this article, we do not aim to argue on whether increasing birth rate in Iran is right; nor do we want to evaluate all the potential factors that adversely affect birth rate in this country. Instead, in this debate, we evaluate the impact of restricting non-indicated cesarean section which can be employed to improve the birth rate. To address this issue, we firstly assess it in a province of the country that has very recently been reported as having the oldest population with the least birth rate in the country [9]. Guilan Province which is located in the North of Iran, unfortunately, has one of the highest rates of unemployment in the country, as well [10]. On the other hand, according to a report by the Iranian National Statistics Center, this province has one of the highest rental and buying rates for an apartment in the country [11]. However, as mentioned above, we herein aim to only evaluate medical factors that can help us to improve the birth rate in our country. Fars News recently reported from the Deputy of Health of the Guilan Province that the increasing rate of cesarean delivery in Guilan is "worrisome" [9]. A

global expert panel has recently recommended minimizing the first cesarean delivery to the least rate possible [12]. Due to potential hazards of a vaginal delivery for a mother with a previous history of cesarean, it is highly likely that these mothers, if go on to a second pregnancy would undergo repeat cesarean [13]; although even in mothers with a history of cesarean, a vaginal delivery has been suggested safer, preventing mortality, despite a higher morbidity [14]. All the mentioned factors have increased the rate of cesarean to the mind-blowing rate of over 85% in a public hospital in Tehran [13]. In Guilan Province, the situation has been reportedly as bad as that in Tehran [15]. According to a study on the epidemiology of mothers giving a cesarean birth in Iran, compared to those who undergo a vaginal delivery, they are better educated with less parity [16]. Moreover, over 70% of mothers have no idea on the dangers of a cesarean section, and they consider it a safe procedure [15]. Even among professionals, there is almost no major study evaluating long-term consequences of cesarean deliveries in Iran, and so, we recommend a prospective cohort study to be conducted on this critical issue. Considering a recent report by the Iranian forensic medicine, gynecologists receive highest rates of legal action among all other medical colleagues [17] which we believe is mostly due to the unexpected cesarean postpartum morbidities. After the first cesarean delivery and experiencing its morbidities, most mothers are probably less likely to have an intention to repeat it; and therefore, they would be left with only one child. And since mothers who undergo non-indicated cesarean are of higher financial levels; as a result, a large share of the next generation would possess limited financial support and potentially less education. Considering all the abovementioned evidence, we suggest to decrease the cesarean section rate in our country, especially at the first delivery as far

as possible, which we believe it would not only substantially improve mother and child health, but also it improves the overall birth rate in the country; especially in families who have enough financial resources to support their children for a better health, education and life.

References

1. Barbadoro P, Chiatti C, D'Errico MM, Di Stanislao F, Prospero E. Cesarean delivery in South Italy: women without choice. A cross sectional survey. *PLoS One*. 2012;7(9):e43906. doi: 10.1371/journal.pone.0043906.
2. URL <<http://behdasht.gov.ir/index.aspx?siteid=1&pageid=10970&newsview=3192>> [Retrieved on 27 Feb 2013].
3. Ranae F. Reasons for choosing cesarean among women referred to bea'sat hospital of Sanandaj. 2004 URL <[http://www.sid.ir/En/ViewPaper.asp?ID=82269&varStr=9;RANAE%20F.;BEHBOOD;FALL%202006;10;3%20\(30\);277;286](http://www.sid.ir/En/ViewPaper.asp?ID=82269&varStr=9;RANAE%20F.;BEHBOOD;FALL%202006;10;3%20(30);277;286)> [Retrieved on 27 Feb 2013].
4. Declercq E, Young R, Cabral H, Ecker J. Is a rising cesarean delivery rate inevitable? Trends in industrialized countries, 1987 to 2007. *Birth*. 2011 Jun;38(2):99-104. doi: 10.1111/j.1523-536X.2010.00459.x.
5. Liu S, Liston RM, Joseph KS, Heaman M, Sauve R, Kramer MS; Maternal Health Study Group of the Canadian Perinatal Surveillance System. Maternal mortality and severe morbidity associated with low-risk planned cesarean delivery versus planned vaginal delivery at term. *CMAJ*. 2007 Feb 13;176(4):455-60.
6. Schuitemaker N, van Roosmalen J, Dekker G, van Dongen P, van Geijn H, Gravenhorst JB. Maternal mortality after cesarean section in The Netherlands. *Acta Obstet Gynecol Scand*. 1997 Apr;76(4):332-4.
7. URL<http://www.who.int/gho/maternal_health/countries/en/index.html> [Retrieved on 27 Feb 2013].
8. URL<<http://www.mehrnews.com/detail/News/2002232>> [Retrieved on 27 Feb 2013].
9. URL <<http://www.farsnews.com/newstext.php?nn=13910929001436>> [Retrieved on 27 Feb 2013].
10. URL <<http://www.mehrnews.com/detail/News/2004420>> [Retrieved on 27 Feb 2013].
11. URL <<http://www.ebinews.com/news/38664/>> [Retrieved on 27 Feb 2013].
12. Spong CY, Berghella V, Wenstrom KD, Mercer BM, Saade GR. Preventing the first cesarean delivery: summary of a joint Eunice Kennedy Shriver National Institute of Child Health and Human Development, Society for Maternal-Fetal Medicine, and American College of Obstetricians and Gynecologists Workshop. *Obstet Gynecol*. 2012 Nov;120(5):1181-93. doi: <http://10.1097/AOG.0b013e3182704880>.
13. Badakhsh MH, Seifoddin M, Khodakarami N, Gholami R, Moghimi S. Rise in cesarean section rate over a 30-year period in a public hospital in Tehran, Iran. *Arch Iran Med*. 2012 Jan;15(1):4-7. doi: 012151/AIM.004.
14. Wen SW, Rusen ID, Walker M, Liston R, Kramer MS, Baskett T, Heaman M, Liu S; Maternal Health Study Group, Canadian Perinatal Surveillance System. Comparison of maternal mortality and morbidity between trial of labor and elective cesarean section among women with previous cesarean delivery. *Am J Obstet Gynecol*. 2004 Oct;191(4):1263-9.
15. Seyed Nouri T, Jamshidi Avanaki F. Assessment of relation between knowledge and attitudes of pregnant women requesting a cesarean delivery in Rasht medical centers and their rationale for choosing Cesarean. *Guilan Med J*. 2006;15(59):75-84.
16. Ahmad-Nia S, Delavar B, Eini-Zinab H, Kazempour S, Mehryar AH, Naghavi M. Cesarean section in the Islamic Republic of Iran: prevalence and some sociodemographic correlates. *East Mediterr Health J*. 2009 Nov-Dec;15(6):1389-98.
17. URL<<http://www.khabaronline.ir/detail/158615/>> [Retrieved on 27 Feb 2013].

