

ORIGINAL ARTICLE

WOMEN'S PREFERENCE OF VAGINAL OR CAESAREAN DELIVERY: A CROSS SECTIONAL STUDY FROM A TERTIARY CARE HOSPITAL IN DISTRICT RAWALPINDI, PAKISTAN.

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Background: In the wake of growing c- section rates around the developing world and likewise in Pakistan, there is paucity of knowledge about the preference of Pakistani women for the mode of delivery. Therefore, this study explored the reasons behind their preference. **Methods:** A cross-sectional study was conducted with a non-probability consecutive sampling technique including 232 pregnant women. **Results:** Majority (87.5%) would prefer a vaginal delivery because it is the natural way of giving birth and its recovery is faster. Moreover, women perceive that it would be easier to provide immediate care and breastfeeding to the newborn. Fear of surgery was the main deterrent for a c-section. Nonetheless, there were 12.5% women in favour of caesarean section, among whom a majority feared birth trauma to the newborn, labour pain, or complications of vaginal delivery such as possible faecal or urinary incontinence. **Conclusion:** Pakistani women at large prefer a normal vaginal delivery and therefore the rising trends of c- section cannot be attributed to the demand of the expecting women. Hence, there is a need for elucidating and explicating the real and perhaps the undisclosed reasons for the rising rates of caesarean section as a mode of delivery in Pakistan.

Keywords: Mode of delivery; Caesarean section; Vaginal Delivery; Pregnant women; Pakistan

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INTRODUCTION

Over the past few years, we have seen a rise in the trend of caesarean section (also known as c-section) without any justification. This is particularly common in middle- and high-income countries.¹ This rise is a major concern. C-section is a lifesaving procedure that is done to prevent the poor maternal and foetal outcomes.² Initially, it was considered unsafe and was rejected due to the limited medical knowledge and research available on the subject. However, with the significant advancement in medical field, it is now considered as a recommended method of delivery for several obstetrical complications.³ Preference of women for a c-section is said to be one of the contributing factors to the rising global trend towards c- section. During the past few years the rate of c-section has risen up to 50%.⁴ World Health Organization states that the rate of c-section around 10-15% of all the deliveries is considered optimal and a rate of more than 15% is considered as inappropriate, irrelevant and does not reflect better health system performance.⁵ The rate of c- section in Pakistan ranges between 17-28%.²

Globally, there has been a lot of debate on the c-section performed due to non- medical

reasons. Professional satisfaction, safety of this procedure, maternal request and desire are the main arguments presented.⁶ Different studies have documented an increasing preference of women towards a c-section.⁷ A study from Turkey found that 53% of the women preferred a c- section due to fear of labour pain.⁸ Another study from Chile found 77.8% of the women preferring a normal vaginal delivery.⁹ In Nigeria, 80% of the women perceived that caesarean section is done for medical reasons and 65% said that they would accept this method of delivery.

It is important to note that the understanding of best mode of delivery is also influenced by the educational status of the women.¹⁰ Another study from Nigeria reported low willingness of women (6.6%) to accept caesarean section because of criticism by their partners.¹¹ In India, 91.5% of women still preferred birth through vaginal delivery and 61.5% had very little knowledge of caesarean section.¹² Research from Iran documented that the reason behind the request of c-section was fear of labour pain, and complications after a vaginal delivery (such as urinary incontinence, vaginal prolapse and sexual dysfunction).¹³ Women in Taiwan surprisingly

demand for c-section without any medical indication.¹⁴ A study from US reports the preference for c-section because of fear of pain during the child birth.¹⁵ Argentinian women would opt for a c- section because of its safety as a procedure.¹⁶ In Sweden, caesarean deliveries are also performed on maternal requests.¹⁷

In Pakistan, public sector hospitals lack responsiveness, so most health care seeking is seen in the private sector.¹⁸ Hence, large number of unregulated private hospitals, the unethical acts of the doctors in these hospitals and sometimes owing to the preference of patients, c-sections are conducted irrationally.¹⁹ The proportion of births delivered by c-section has rapidly increased in the past 5 years, from 14% in 2012-13 to 22% in 2017-18.²⁰ In the light of limited knowledge on reasons for preferring vaginal or caesarean delivery, this study endeavours to document the same to add to the body of existing knowledge in the south Asia and Eastern Mediterranean region.

MATERIAL AND METHODS

A cross-sectional study was conducted during the period of June to August 2019 in the outdoor patient clinics of the Department of Gynaecology & Obstetrics, Fauji Foundation Hospital, a tertiary health care facility in the District Rawalpindi, Pakistan. Non probability consecutive sampling technique was used to collect data from the pregnant women in outdoor patient clinics of the Gynaecology & Obstetrics department. A sample of 232 women was interviewed during the three months study period.

Patients who presented with history of any major disease or serious complications were excluded from the study so as to avoid giving them a discomfort. Patients were informed about the objectives of the study before commencement of the interview. They were given the right to ask questions or quit the study if they wanted to. The open-ended questionnaire with multiple answers allowed was used to ask reasons of preference for normal vaginal delivery or a c-section. Data was entered and analysed in SPSS version 22.0. Frequencies and percentages were calculated for the reasons regarding the women’s preference for either normal vaginal delivery or a delivery through the caesarean section.

Research Ethics Committee of the Fauji Foundation Hospital, Rawalpindi granted the formal approval to conduct the study, after thorough scrutiny of the research proposal and design. All respondents gave a written consent to participate in the study, after they were briefed

about the aim and objectives of the research; and ensuring confidentiality of study participants.

RESULTS

Total 232 pregnant women were included in the study. Mean age (years) of women interviewed was 30.07±5.98 with ranges from 18–50 years. Besides age, education and socio-economic status were crossed for ascertaining any relationship with preferred mode of delivery but no association was found.

These women were asked about their preference of mode delivery: vaginal delivery or a delivery through c-section. Two hundred and three (87.5%) women were for the vaginal delivery; whereas 29 (12.5%) women responded that they would opt for the caesarean delivery. These women were asked about reasons for their preference of mode delivery. Among women who preferred vaginal delivery, all of them (100%) perceived that it is a natural way of birth and its recovery is faster and better, and that they can provide better care to the baby after normal vaginal delivery; and that they can be immediately available for the baby for breastfeeding. Fear or avoidance of surgery (80.8%) and feeling of no pain after delivery were other reasons for preference of vaginal delivery over caesarean section, as shown in table -1.

Among women who would prefer a c-section shared that mainly it is the fear of labour pain that would deter them from going to a normal vaginal delivery. Some mentioned health issues and therefore their choice would be c-section. They were also scared of possible anal or urinary incontinence which might result due to the vaginal delivery. Several women would choose the c-section because of certainty about the timing of delivery. There were women who would have the c-section so as to better plan their maternity leave. Table-2 shows various descriptive frequencies.

Table-1: Reasons of preference for vaginal delivery

Reasons	n=203 (%)
It is natural, the recovery is faster / better	203 (100)
Immediate and better care of the baby	203 (100.0)
Able to breastfeed my baby as soon as possible	197 (97.0)
It is safer for me	195 (96.1)
I will not have pain after delivery	195 (96.1)
Fear / avoidance of surgery	164 (80.8)
Feel childbirth / Experience delivery	162 (79.3)
I want to have many babies	158 (77.8)
I will have no scar	154 (75.9)
My pregnancy is going well	144 (70.9)
It is nicer	122 (60.1)
Partner / husband will be at the delivery room	53 (26.1)
Don't know	31 (15.3)

Table-2: Reasons of preference for c-section

Reasons	n=29 (%)
Birth trauma to the newborn	29 (100.0)
Avoid episiotomy	28 (96.6)
Fear of Labour pain	28 (96.6)
Maternal health	26 (89.7)
Women should have the right to choose	26 (89.7)
Faster / more convenient method of delivery	24 (82.8)
Certainty about the timing of the delivery	23 (79.3)
Possible anal / urinary incontinence due to VD	21 (72.4)
Better planning for maternity leave	16 (55.2)
Large baby	12 (41.4)
Advanced age for childbirth	12 (41.4)
Twins /triplets	11 (37.9)

DISCUSSION

Provision of obstetric care has become more patient focused and opinion of the expecting mother is given due importance. However, International Federation for Gynaecology & Obstetric recommends that c-section should not be performed on preference but only on medical grounds.²¹ Our results revealed that only a few women preferred to have birth through c-section. This is generally a global trend.^{16,22} In our study, fear of labour pain anal and urinary or fecal incontinence was the most common reasons expressed for this preference, a finding which corroborates with a systematic review conducted on the subject.²³

Another reason for this preference was the certainty of the timings of delivery in view of planned maternal leave. Similar reasons were documented in studies from Turkey and Iran where c-section was preferred due to fear of labour pain.^{8,13} Moreover, in our study, a large majority of the women were inclined towards normal vaginal delivery, being the natural mode. Similar results were shown by other studies in which the preference for vaginal delivery was very high. The women willing for birth vaginally endorsed it because they thought that it was a safer mode of delivery, can start breastfeeding immediately and take better care of their baby after delivery.^{9,24,25} It is evident that in the absence of medical reasons, the normal vaginal delivery ought to be promoted, even if the woman had the previous history of c-section.^{26,27} As regards the fear of labour pain, this highlights the need for health education of expecting mothers by the health professionals during the ante-natal period.²⁸ Regardless of preferred mode of delivery, women's concerns must be addressed through supportive counselling and transferring the right amount of information so as to facilitate her decision.²⁹ Therefore, refresher training is required for the health care personnel for developing their skills on client centered counselling to facilitate patient's decision.

CONCLUSION

Public health advocates encourage greater use of vaginal birth. It is heartening to learn that Pakistani women do not prefer c-section to vaginal delivery. Therefore, we conclude that rising rates of c-section are not related to the preference of pregnant women for the mode of delivery. It was anecdotally hypothesized that women are demanding more for the c-section but our study results are suggestive of contrary to this hypothesis. C-sections have serious implications on health outcomes of the mother and child, greater chances of post-operative infection, nosocomial and hospital acquired infections due to longer stay, economic burden on the household, loss of productive time and burden on the health care system by and large. This highlights the need for regulating the medical practices in the hospitals, sensitization of the physicians and mass awareness in the general public for addressing the issue of rising incidence of c-sections. Furthermore, there is a need for more empirical research for elucidating and explicating the real and perhaps the undisclosed reasons for the women's preference for a certain mode of mode of delivery.

AUTHORS' CONTRIBUTIONS

MKQ was responsible for defining the initial research question; MKQ, AKQ and YKQ developed the protocol & study design and later were involved in the collection of data. MKQ and BTS took lead in writing the manuscript. BTS and AA did the statistical analysis; BTS added the literature in discussion and reviewed successive drafts of the manuscript. All authors read and approved the final manuscript.

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REFERENCES

1. Betrán AP, Ye J, Moller AB, Zhang J, Gülmezoglu AM, Torloni MR. The increasing trend in caesarean section rates: global, regional and national estimates: 1990-2014. *PLoS One* 2016;11(2):e0148343.
2. Belizán JM, Minckas N, McClure EM, Saleem S, Moore JL, Goudar SS, *et al.* An approach to identify a minimum and rational proportion of caesarean sections in resource-poor settings: a global network study. *Lancet Glob Health* 2018;6(8):e894-e901.
3. Long Q, Kingdon C, Yang F, Reneclé MD, Jahanfar S, Bohren MA, *et al.* Prevalence of and reasons for women's, family members', and health professionals' preferences for cesarean section in China: A mixed-methods systematic review. *PLoS Med* 2018;15(10):e1002672.
4. Stjernholm YV, Petersson K, Eneroth E. Changed indications for cesarean sections. *Acta Obstet Gynecol Scand* 2010;89(1):49-53.

5. Betrán AP, Torloni MR, Zhang JJ, Gülmezoglu AM. WHO statement on caesarean section rates. *BJOG* 2016;123(5):667–70.
6. Lumbiganon P, Laopaiboon M, Gülmezoglu AM, Souza JP, Taneepanichskul S, Ruyan P, *et al.* World Health Organization Global Survey on Maternal and Perinatal Health Research Group: Method of delivery and pregnancy outcomes in Asia 2007-08. *Lancet* 2010;375(9713):490–8.
7. Chong YS, Kwek KY. Safer childbirth: avoiding medical interventions for non-medical reasons. *Lancet* 2010;375(9713):440–2.
8. Akarsu RH, Mucuk S. Turkish women's opinions about cesarean delivery. *Pak J Med Sci* 2014;30(6):1308–13.
9. Angeja AC, Washington AE, Vargas JE, Gomez R, Rojas I, Caughey AB. Chilean women's preferences regarding mode of delivery: which do they prefer and why? *BJOG* 2006;113(11):1253–8.
10. Jeremiah I, Nonye-Enyidah E, Fiebai P. Attitudes of antenatal patients at a tertiary hospital in Southern Nigeria towards caesarean section. *J Public Health Epidemiol* 2011;3(13):617–21.
11. Schemann K, Patterson JA, Nippita TA, Ford JB, Roberts CL. Variation in hospital caesarean section rates for women with at least one previous caesarean section: a population based cohort study. *BMC Pregnancy Childbirth* 2015;15(1):179.
12. Ajeet S, Jaydeep N, Nandkishore K, Nisha R. Women's knowledge, perceptions, and potential demand towards caesarean section. *Natl J Community Med* 2011;2(2):244–8.
13. Faisal I, Matinnia N, Hejar AR, Khodakarami Z. Why do primigravidae request caesarean section in a normal pregnancy? A qualitative study in Iran. *Midwifery* 2014;30(2):227–33.
14. Chu KH, Tai CJ, Hsu CS, Yeh MC, Chien LY. Women's preference for cesarean delivery and differences between Taiwanese women undergoing different modes of delivery. *BMC Health Serv Res* 2010;10(1):138.
15. Stoll K, Edmonds JK, Hall WA. Fear of childbirth and preference for cesarean delivery among young American women before childbirth: a survey study. *Birth* 2015;42(3):270–6.
16. Mazzoni A, Althabe F, Gutierrez L, Gibbons L, Liu NH, Bonotti AM, *et al.* Women's preferences and mode of delivery in public and private hospitals: a prospective cohort study. *BMC Pregnancy Childbirth* 2016;16(1):34.
17. da Silva Charvalho P, Bittar MH, Stjernholm YV. Indications for increase in caesarean delivery. *Reprod Health* 2019;16(1):72.
18. Shaikh BT, Hatcher J, Haran D. Making healthcare systems more responsive to women in Pakistan. *BMJ* 2006;333(7575):971.
19. Ali Y, Khan MW, Mumtaz U, Salman A, Muhammad N, Sabir M. Identification of factors influencing the rise of cesarean sections rates in Pakistan, using MCDM. *Int J Health Care Qual Assur* 2018;31(8):1058–69.
20. National Institute of Population Studies & Macro International. *Pakistan Demographic & Health Survey 2017-18*. Islamabad: 2018.
21. Kosan Z, Kavuncuoglu D, Calikoglu EO, Aras A. Delivery preferences of pregnant women: Do not underestimate the effect of friends and relatives. *J Gynecol Obstet Hum Reprod* 2019;48(6):395–400.
22. Siabani S, Jamshidi K, Mohammadi MM. Attitude of pregnant women towards Normal delivery and factors driving use of caesarian section in Iran (2016). *Biopsychosoc Med* 2019;13:8.
23. Azam S, Khanam A, Tirlapur S, Khan K. Planned caesarean section or trial of vaginal delivery? A meta-analysis. *Curr Opin Obstet Gynecol* 2014;26(6):461–8.
24. Walana W, Acquah EK, Vicar E, Muhiba A, Dedume J. Preference of birth delivery modes among women attending antenatal and postnatal clinics in the Tamale Metropolis of Ghana. *J Preg Child Health* 2017;4(297):2.
25. Aali BS, Motamedi B. Women's knowledge and attitude towards modes of delivery in Kerman, Islamic Republic of Iran. *East Mediterr Health J* 2005;11(4):663–72.
26. Lothian JA. Promoting, protecting, and supporting normal Birth. *J Perinat Educ* 2002;11(3):1–5.
27. Abbasi AU. Vaginal birth after cesarean section. *J Ayub Med Coll Abbottabad* 2012;24(3-4):1–2.
28. Yee LM, Kaimal AJ, Houston KA, Erica WU, Thiet MP, Nakagawa S, *et al.* Mode of delivery preferences in a diverse population of pregnant women. *Am J Obstet Gynecol* 2015;212(3):377.e1–24.
29. Maznin NLB, Creedy DK. A comprehensive systematic review of factors influencing women's birthing preferences. *JBI Libr Syst Rev* 2012;10(4):232–306.

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