# **ORIGINAL ARTICLE**

# **Increasing Trends of Cesarean Section in Pakistan**

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# ABSTRACT

**Background:** Women's health is compromised through many factors; one of those is the poor reproductive health practices. Many women die during the process of delivering baby. Birth is a more complex phenomenon encompassing multiple outcomes. Excessive rate of cesarean births affect maternal as well as neonatal health causing increased morbidity and mortality.

Aim: To explore the factors responsible for increased CS rate in Pakistan.

**Methodology:** A Prospective cross sectional study was conducted in obstetrics and gynecology unit of two health care sector of Pakistan. Data was collected from one government and one private sector. Sample size included 2330 women selected for investigating the factor of CS. Study was carried out in 6 months from June 2018 to December 2018. Data was analyzed on SPSS version 23.0.

**Results:** Results show a variety of factors responsible for CS delivery in women. Outcomes reveal that most of CS was related to female own choices may be due to fear related to labor pain. 66.7% CS done due to previous history related to delivery. Hypertensive disorders were also a cause of CS. Results depict that multiple factors contributed towards cesarean delivery. Some were more significant like female desire, previous CS, high BP, fetal distress amniotic fluid disorders etc.

**Conclusion:** Multiple factors play a role in increasing the trends of CS among Pakistani women. Some of these are modifiable factors like female preferences that could be eliminated through counseling and education. This study gives the implications for educational interventions as a strategy to overcome this devastating situation associated with increase CS rate.

Keywords: Trends, CS, Female, Pakistan

# INTRODUCTION

The health of States and society is strongly linked with Women's health. Disease or death of a single woman can bring serious consequences to her children and family health. A healthy woman is a guarantee for the production of healthy child<sup>1</sup>. So we can say that if we want healthy families and happy nation, great attention is required to keep the women health. Women's health is compromised through many factors; one of those is the poor reproductive health practices. Pakistan is amongst the high populated countries where the population needs are greater than the available resources<sup>2</sup>. Pakistan is sixth most populous country of the world. The population of Pakistan is increasing at rate of 3% per year. It is a huge burden on country's economy<sup>3</sup>.

Many women die during the process of delivering baby. Birth is a more complex phenomenon encompassing multiple outcomes<sup>4</sup>. Pakistan contributes 7% of worldwide death rate ensuing from c section that results in 348 maternal deaths per 1 million babies. Death is an obvious outcome of pregnancy related complications<sup>5</sup>. In developed countries, picture is somewhat different due to skilled and competent health care professionals providing excellent health facilities during the period of pregnancy. So, mortality rate in developed countries is low as compared to developing countries<sup>6</sup>. The process of C section may cause dangerous consequences like loss of life. The issue of increasing trends of C section is under debate in many

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Received on 23-10-2020 Accepted on 17-02-2021 countries like Pakistan. In developing countries, another associated factor causing raising trends of C section is high income generation in private sector<sup>7</sup>.

Among multiple approaches, C-section associated births are raising day by day. Multiple factors account for increased ratio of cesarean sections in developing countries ranging from personal choices to medical indication<sup>8</sup>. Excessive rate of cesarean births affect maternal as well as neonatal health causing increased morbidity and mortality. Also, in developing countries the increase rate of c sections result in escalation of economic burden on families<sup>9</sup>. One third of C sections take place without any particular medical cause leading to intensification of cesarean rate.

There is an increase in CS rate annually crossing the guidelines recommended by WHO i.e CS rate should be low than 15%<sup>10</sup>. But, data from health records denote an increase of 10-15% in CS rate recently attributable to multiple etiologies globally<sup>11</sup>. Compared to urban areas, again CS cases are low in rural areas. In early times, CS births were started as a step to save precious lives but now a day they are undergoing as a trend to deliver baby<sup>12</sup>. Cesarean births were thought as a miracle to decrease mortality and improve health standards of newly coming life<sup>13</sup>.

Numerous maternal as well as neonatal factors provide a pathways for cesarean delivery like fetal distress, advance maternal age, obesity etc<sup>14</sup>. Common one reason is previous CS carried out due to any purpose. Increase cases of cesarean delivery are linked with previous CS carried out without any specific cause as, fear of delivery process like labor pains. Other factors also contribute to

this increased rate like educational and socio economic status, living style, residence etc. leading to high rate of CS now a days<sup>15</sup>.

Cesarean delivery without any connotation from health provides proves risky as compared to vaginal birth giving a way to many complications for mother as well as newborn. As researches provide evidences that cesarean births are mean of raising maternal mortality rate as chances of death rate are 3 times more in CS than vaginal birth<sup>16</sup>. Public concern reveal the concept that CS is a way to decrease newborn mortality as, risk of newborn wellbeing is more in this mode of birth compared to vaginal delivery but studies depict that CS deliveries are more risky and cause 4% increase chances of newborn mortality<sup>17</sup>.

Multiple studies suggest a vast array of indicators contributing to increased CS rate. This study is undertaken to explore the factors responsible for increased CS rate in Pakistan.

# METHODOLOGY

A Prospective cross sectional study was conducted in obstetrics and gynecology unit of two health care sector of Pakistan. Data was collected from one government and one private sector. An inclusion criterion waswomen vising for antenatal care.Sample size included 2330 women selected for investigating the factor of CS. Study was carried out in 6 months fromJune2018 to December 2018. Pregnant women visiting the heath facility having gestational age of 24 weeks were included in this studyThis data was consists of mothers age, parity, history of any medical illness etc. complete health history was obtained to follow the women till birth. Confidentiality was maintained and ethical considerations were followed. Both direct and indirect causes leading to CS were identified. Data was analyzed on SPSS version 23.0.

### RESULTS

In this study, 2330 women participated. Demographic characteristics are given in the table given below.

Table	# 1:	Demogra	phics of	Partici	pants
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Characteristics	Frequency	%age	
Mothor' ago	<20 Year	879	37.7
Mouner age	>20 Year	1451	62.3
Number of Children	None	939	40.3
	One	725	31.1
	Two	363	15.5
	Three	303	13
Obosity	Yes	1505	64.5
Obesity	No	825	34.5
History of providuo CS	Yes	1140	49
HISTORY OF PREVIOUS CS	No	1190	51
Eatal Procentation	Cephalic	1731	74.2
Felai Flesentation	Other	599	26.8
History of high PD	Yes	856	36.7
HISTOLY OF HIGH BP	No	1474	63.2
History of Disbatas	Yes	671	28.7
HISTOLY OF DIADETES	No	1659	72.3
History of Anomia	Yes	1820	78.1
Thistory of Anerria	No	510	21.8
History of early onset of	Yes	975	41.8
labor	No	1355	58.1

Table findings reveal that most of the women belong to age group more than 20 years. Most of the study participants have no children as figures in table provide evidence that 939 women had no children. History of CS was present in 1140 women. In most of cases presentation was cephalic. Most of the study participant had history of low Hb level.

Out of 2330 women included in this study, CS was done in 1245. Below given table reveals the factors contributed towards CS in 1245 women.

Characteristics	Frequency	%age
Abnormal fetal presentation	393	31.5
Fetal distress	713	57.2
Mothers' desire	834	75
Previous CS	831	66.7
Placenta complication (Previa/ malposition)	636	51
Hypertensive Disorder	749	60.1
Post date	507	40.7
Amniotic fluid disorder	656	52.6
Prolonged/ Obstructed labor	435	34.9

Table 2: Determinants of Cesarean Section

Results given in table # 2 show a variety of factors responsible for CS delivery in women. Outcomes reveal that most of CS was related to female own choices may be due to fear related to labor pain. 66.7% CS done due to previous history related to delivery. So, previous history of CS was another major contributor. Hypertensive disorders were also a cause of CS. Results in about table depict that multiple factors contributed towards cesarean delivery. Some were more significant like female desire, previous CS, high BP, fetal distress amniotic fluid disorders etc.

### DISCUSSION

This study was done to investigate the causes involved for increase CS in Pakistan. Finding gave a connotation that multiple etiologies play a role in CS rate. In this study total 2330 females participated, out of which CS was done in 1245 participants.

Findings show that most of CS deliveries were linked with women preferences. As, in this study significant results related to CS were attributable to female desire. These findings may be due to discomfort of vaginal birth or labor pains. So, Female choice was a major contributor in this study. Other studies also reveal similar results related to female wishes for CS<sup>18</sup>.

History of previous CS was also a prominent figure in this study. Results show that most of CS was done in females having CS deliveries previously. If a female had already CS done due to any of reason, she is more liable for next CS. Other researches also give similar outcomes<sup>19</sup>.

Findings of this study give an idea that high blood pressure is also attributable to increase trends of CS. High BP adversely affects the child' health leading to devastating circumstances. Other studies also depict that high BP is link with both maternal and newborn morbidity<sup>20</sup>.

Fetal distress was also a leading cause of CS delivery in this study. As, results indicate that most of CS cases were done because of fetal condition. Newborn is a precious gift for a female so; no one would be willing to take any risk related to new birth. Similar studies also provide evidences that fetal distress is a contributor of CS rate<sup>21</sup>.

Other factors like abnormal presentation, placental complications, post-date pregnancies, amniotic fluid disorders and prolonged labor also raise the chances of CS. Other researches also provide similar evidences<sup>22</sup>.

### CONCLUSION

Multiple factors play a role in increasing the trends of CS among Pakistani women. This study identified a vast array of causalities including female preferences, history of previous CS, fetal distress, high BP, abnormal complications, presentation, placental post-date pregnancies, amniotic fluid disorders and prolonged labor. Some of these are modifiable factors like female preferences that could be eliminated through counseling and education. Women should regularly visit for antenatal care to keep BP in normal limit. So, this study gives the implications for educational interventions as a strategy to overcome this devastating situation associated with increase CS rate.

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