

OBJECTIVE: To identify modifiable risk factors and their individual contribution to caesarean delivery

INTRODUCTION

LSCS is an operative technique to deliver a live fetus, placenta, and membranes. In this procedure, an incision in abdomen (laparotomy) and uterus (hysterotomy) is made. Over the past decade, increase in cesarean section rate has been observed globally. During the year 2013 the average rate which is documented from both developed and developing countries is 27%. Unnecessary cesarean section may have an adverse impact upon maternal, neonatal, and infant morbidity and mortality The indications for which LSCS are performed are multiple and they are divided into absolute and relative indications LSCS delivery rate is increasing worldwide beyond the WHO set criteria. There is no additional benefit of this high rate, as most of them are done due to non-medical indications. Because of conflicting literature and insufficient information in Pakistan regarding modifiable determinants of CS, the rationale of current study is to identify these contributors in order to reduce rate of unnecessary CS.

METHODOLOGY

It was a descriptive case series carried out in the Obstetrics and Gynecology Department Unit II Fauji Foundation Hospital Rawalpindi. Informed written consent was taken from subjects and they provided a number rather than using their names, and the data kept confidential. Subjects with previous one LSCS, who visited to antenatal clinic selected by consecutive non-probability sampling technique. A thorough clinical assessment performed after fulfilling inclusion criteria. Subject with non-recurrent cause of their previous LSCS who underwent repeat caesarean section either elective or emergency were included in the study. Their demographics, risk factors and indications for repeat caesarean section recorded on a predesigned preform. Analysis of the data done using SPSS 21

RESULTS

Total patients included in study were 491, out of them 103(21.4%) delivered through VBAC, 388(80.6%) had caesarean delivery. Among caesarean deliveries 243(62.6%) had undergone El. LSCS and 145(37.3%) Em. LSCS. Mean age of women who underwent El. LSCS was 32.7 ± 5.37 and mean gestational age was 38.65 ± 2 weeks. Mean parity was 1.97 ± 1.37. Among El. LSCS group 112 (46.1%) were booked, 70(28.8%) late booked and 61(25.1%) unbooked patients. There is significant contribution of modifiable risk factors in increased repeat LSCS rate (49.4%). The frequency of modifiable risk factors in El. LSCS group (n=243) was 155 (63.7%) and medical indications contributed only 88(36.2%). Statistically significant contribution of these modifiable risks were found for El. LSCS group as compared to Em LSCS (p value=0.0001). The most common modifiable risk factor found was refusal of TOLAC 94(38.6%, followed by, in descending order of their contribution, short inter-pregnancy interval 24(9.8%), private setup scars 20(8.2%), post-date 17(6.9%).

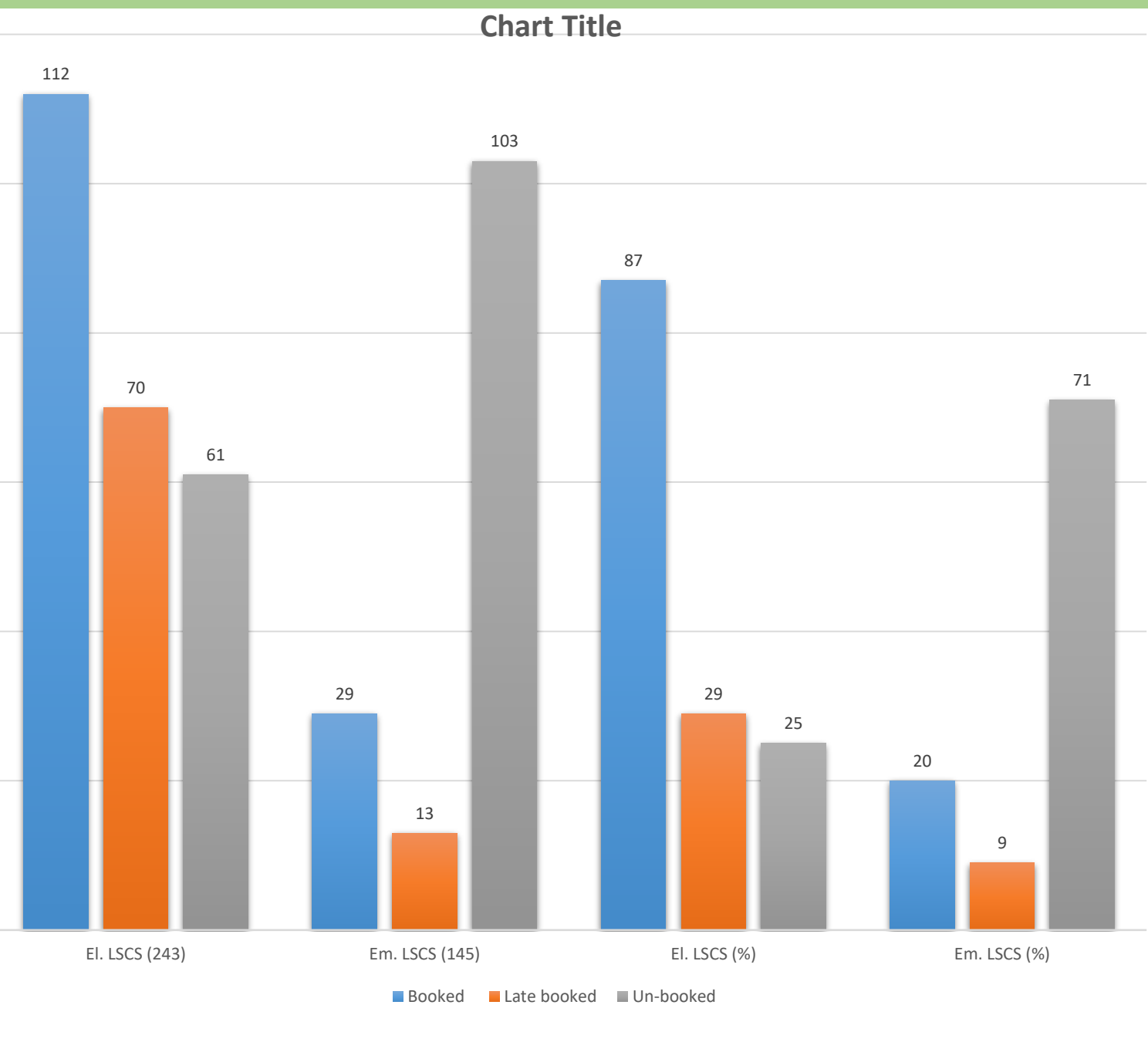
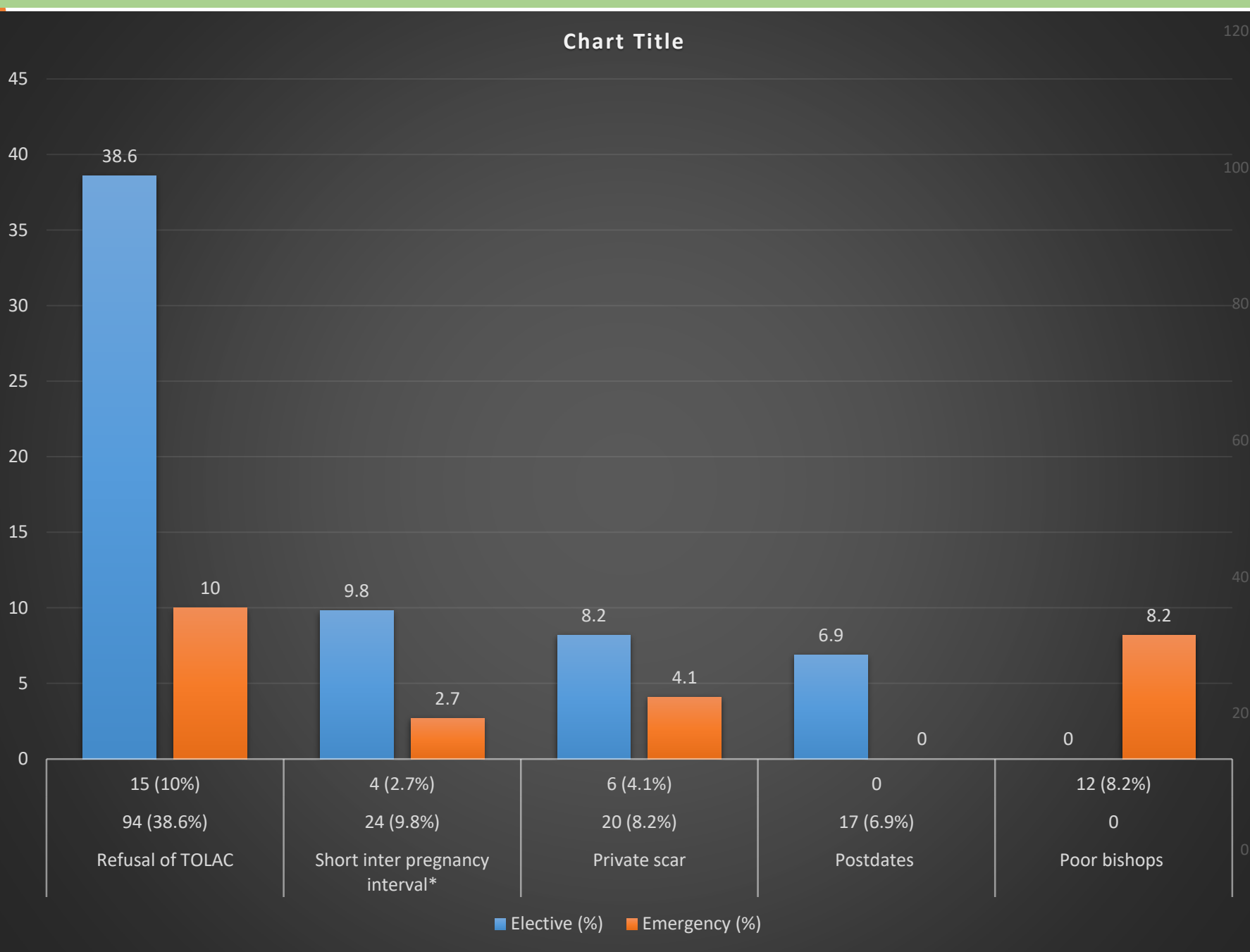
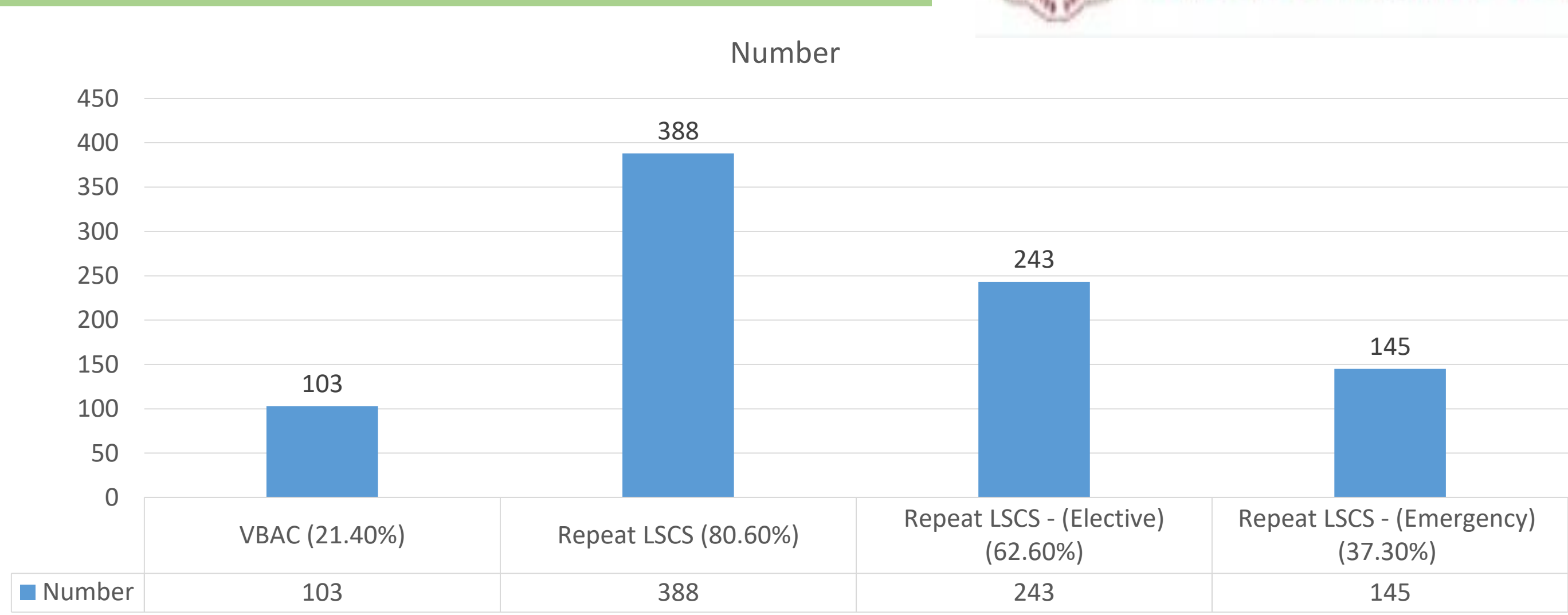


Table 3: Comparison of modifiable and non-modifiable factors

	Elective (n=243)	Emergency(n=145)
Modifiable factors	155 (63.7%)*	37 (25.5%)
Non-modifiable factors	88 (36.2%)	108 (74.4%)
	243	145

Demographics	El. LSCS (243)	Em. LSCS (145)
Mean Age	32.7 years ± 5.37	32.98 ± 5.29
Mean Gestation	38.65 ± 1.2 weeks	37.06 ± 2.0 weeks
Parity	1.97 ± 1.37	2.51 ± 1.93
Booked	112 (87%)	29 (20%)
Late booked	70 (29%)	13 (9%)
Un-booked*	61(25%)	103 (71%)



CONCLUSION

Our study concluded significant contribution of modifiable risk factor to increase in LSCS rate. As unnecessary CS is the major cause of maternal and neonatal morbidity and mortality, and unfortunately CS rate is increasing in our society. Therefore, during obstetric care of women it is important for obstetrician to do timely and accurate screening. Indication for cesarean section should be very clear, compelling and well-supported. For raising awareness, arrangement of intervention programs about the bad effect of LSCS and comparatively safe delivery by VBAC should be done especially among women with modifiable risk factors to reduce its rate and complications.

REFERENCES

1. W/Gebriel TK, Dadi TL, Mihrete KM. Determinants of unjustified cesarean section in two hospitals southwestern Ethiopia: retrospective record review. BMC Res Notes. 2018 Apr 3;11(1):219.
2. Słabuszewska-Jóźwiak A, Szymański JK, Ciebiera M, Sarecka-Hujar B, Jakiel G. Pediatrics Consequences of Caesarean Section-A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. 2020 Oct 31;17(21):E8031.
3. Ayalew M, Mengistie B, Dheresa M, Demis A. Magnitude of Cesarean Section Delivery and Its Associated Factors Among Mothers Who Gave Birth at Public Hospitals in Northern Ethiopia: Institution-Based Cross-Sectional Study. J Multidiscip Healthc. 2020 Nov;Volume 13:1563–71.
4. Singh N, Pradeep Y, Jauhari S. Indications and Determinants of Cesarean Section: A Cross-Sectional Study. Int J Appl Basic Med Res. 2020 Dec;10(4):280–5.
5. Abebe FE, Gebeyehu AW, Kidane AN, Eyassu GA. Factors leading to cesarean section delivery at Felegehiwot referral hospital, Northwest Ethiopia: a retrospective record review. Reprod Health. 2015 Dec;13(1):6.