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RESEARCH ARTICLE

IMPROVEMENT IN BIRTHING EXPERIENCE FOLLOWING CHANGE IN EPISIOTOMY PRACTICES AT TEACHING HOSPITAL IN INDIA

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Abstract

Background:- Episiotomy or perineotomy is a minor surgical procedure performed in labour room to facilitate delivery of the baby and to prevent injury to perineum. The analysis of the labour room statistics revealed that the rate of episiotomy was extremely high (87%).The episiotomy wound related complications resulted in extended hospital stay and unsatisfactory birthing experience among the delivered women.

Methodology:- Different methods of root cause analysis like Fish bone analysis and Five Why method were used at Pravara Rural hospital,Loni a tertiary care hospital. Necessary educational programmes were implemented and policy decisions regarding indications of episiotomy were made. Regular monitoring and analysis was done to sustain the results.

Results:-The historical data of three months before project implementation revealed that the rate of episiotomy was 87.00% among 1691 deliveries conducted. The reduction in rate of episiotomy was predominantly observed in multipara. At the end of eight weeks of QI project, the rate of episiotomy in primipara and multipara was 70.20 % and 20.00% respectively. The overall incidence of surgical site infection (SSI) in the obstetric unit decreased from 3.2 percent to 2.5 percent.

Conclusion:- Implementation of quality improvement project helped in significant reduction in the rate of episiotomy. It indirectly helped in reduction of episiotomy related complications and hospital stay.

Introduction:-

Episiotomy or perineotomy is a minor surgical procedure performed in labour room to facilitate delivery of the baby and to prevent injury to the perineum due to excessive stretching due to presenting part,mainly head of the baby. It is an age old practice in hospital deliveries, especially in secondary and tertiary level care hospitals in India.

The analysis of the labour room statistics revealed that the rate of episiotomy was extremely high(87%).The episiotomy wound related complications resulted in extended hospital stay and unhappiness and unsatisfactory birthing experience among the delivered women. The literature search revealed that the rate of episiotomy ranged between 89% in nullipara to 39% in multi-parous women in India.Published literature from developed countries found no clear advantages of routine episiotomy while it reportedly increased frequency as well as severity of perineal damage.[1,2]Developed countries recommended episiotomy only for selected indications.[3,4,5]

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Aim

Labour room quality improvement project aimed at reduction in rate of episiotomy by 30 percent and improving birthing experience of women within 8weeks time at tertiary care teaching hospital

Methodology:-

Short term Quality improvement (QI) project was undertaken for a period of eight weeks at Pravara Rural Hospital,Loni, ,which is a tertiary care teaching hospital in central India. The nursing staff,resident doctors and faculty members participated in developing the QI project, using Point of Care Quality Improvement(POCQI) methodology. Historical data for previous three months was analysed to find out the existing rate of episiotomy.A brain storming was done to find out the root cause for high rate of episiotomy using different methods of root cause analysis like 5 Why's and Fish bone analysis**.(Fig,1)**All stake holders were involved in finding out the solutions for the problems that were identified. Labour room policy regarding episiotomy was formulated and implemented. The fear and apprehension in the mind of resident doctors regarding perineal tears, when episiotomy was not done, was removed by demonstrating the conduct of delivery without episiotomy.Daily monitoring was done at the end of duty hours to find out the number of women who were delivered with and without episiotomy.The indications for performing episiotomy were monitored.Residents doctors, who conducted deliveries without episiotomy were appreciated and encouraged for their efforts .

Faculty member on duty were asked to be vigilant about the episiotomy practices adopted by the on duty resident doctors.Episiotomy data was compiled on weekly basis, run chart was plotted and results were shared with all stakeholders. Necessary mid-term corrections were made as per the observations. All women,who had delivered either with or without episiotomy,were interviewed using pre-validated and pre-tested questionnaire before discharge from the hospital.The responses were noted using,7 point Likert scale.The episiotomy related data was analysed using descriptive statistical methods. Feedback was obtained from resident doctors, nurses and faculty members about their experience about implementation of QI project.

Results:-

The historical data of three months before project implementation revealed that the rate of episiotomy was 87.00% among 1691 deliveries conducted.The overall rate of episiotomy dropped down to 46.12 % in the initial four weeks period.The reduction in rate of episiotomy was predominantly observed in multipara.After eight weeks of intervention, the rate of episiotomy further dropped down to 43.33%.At the end of eight weeks of QI project,the rate of episiotomy in primipara and multipara was 70.20 % and 20.00% respectively**.(Fig 2)**

The hospital stay was reduced by 1 day in women, who did not have episiotomy.The level of satisfaction regarding birthing experience was assessed using 7 point Likert scale. The mean Likert scale score was 6.6 for women without episiotomy and 5.3 for women with episiotomy.The overall incidence of surgical site infection (SSI) in the obstetric unit decreased from 3.2 percent to 2.5 percent, due to significant decrease in the number of surgical procedure like episiotomy.

Successful implementation of QI project, generated interest in resident doctors in undertaking another QI project.With reduction in the number of episiotomy procedures, resident doctorsbecame happy as they started saving time, which they used to spend in performing and suturing the episiotomy.Nurses saved time,which they used to spend in taking care of episiotomy wound till discharge of the woman.

Discussion:-

Episiotomy help to reduce the duration second stage of labour and prevent perineal tears by widening the perineum.[6] A survey findings of eleven developing countries including India across the Global Network for Women's and Children's Health Research sites reported over 90 per cent episiotomy rates among nullipara, though overall rate was about 40 per cent.[7] Episiotomy is one of the most commonly employed procedures for women delivering in tertiary level public hospitals in India with an overall episiotomy rate of about 70 per cent.[8] In developed countries, efforts have been made to restrict episiotomy practice. The episiotomy rate among nullipara (95-98%) in our study was similar to that reported in a population based cross-sectional study from Chennai (83.4%).[9]

There is general consensus among various organizations and associations working in the field of maternal health and safe delivery,that an episiotomy should not be performed routinely. Guidelines in this regard has been issued by the American College of Obstetricians and Gynaecologists (ACOG), the Royal College of Obstetricians and Gynaecologists (RCOG),National Institute for Health and Care Excellence, the World Health Organization, the Royal Australian and New Zealand College of Obstetricians and Gynaecologists and the Royal College of Midwives, to mention but a few.[10]

Women who were delivered without episiotomy were more comfortable during second stage of labour and in immediate post delivery period, as they did not suffer from pain related to episiotomy during and after the procedure. These women could ambulate early, start breast feeding early in comfortable sitting position, could manage baby care independently as compared to women with episiotomy,did not require analgesic or antibiotic medication and did not suffer from any episiotomy related complications.Their hospital stay was shorter than women with episiotomy.Overall they had better birthing experience and less fear factor in their mind about birthing process while returning home safely with the baby.

Figure 1:- Fishbone analysis of the problem.

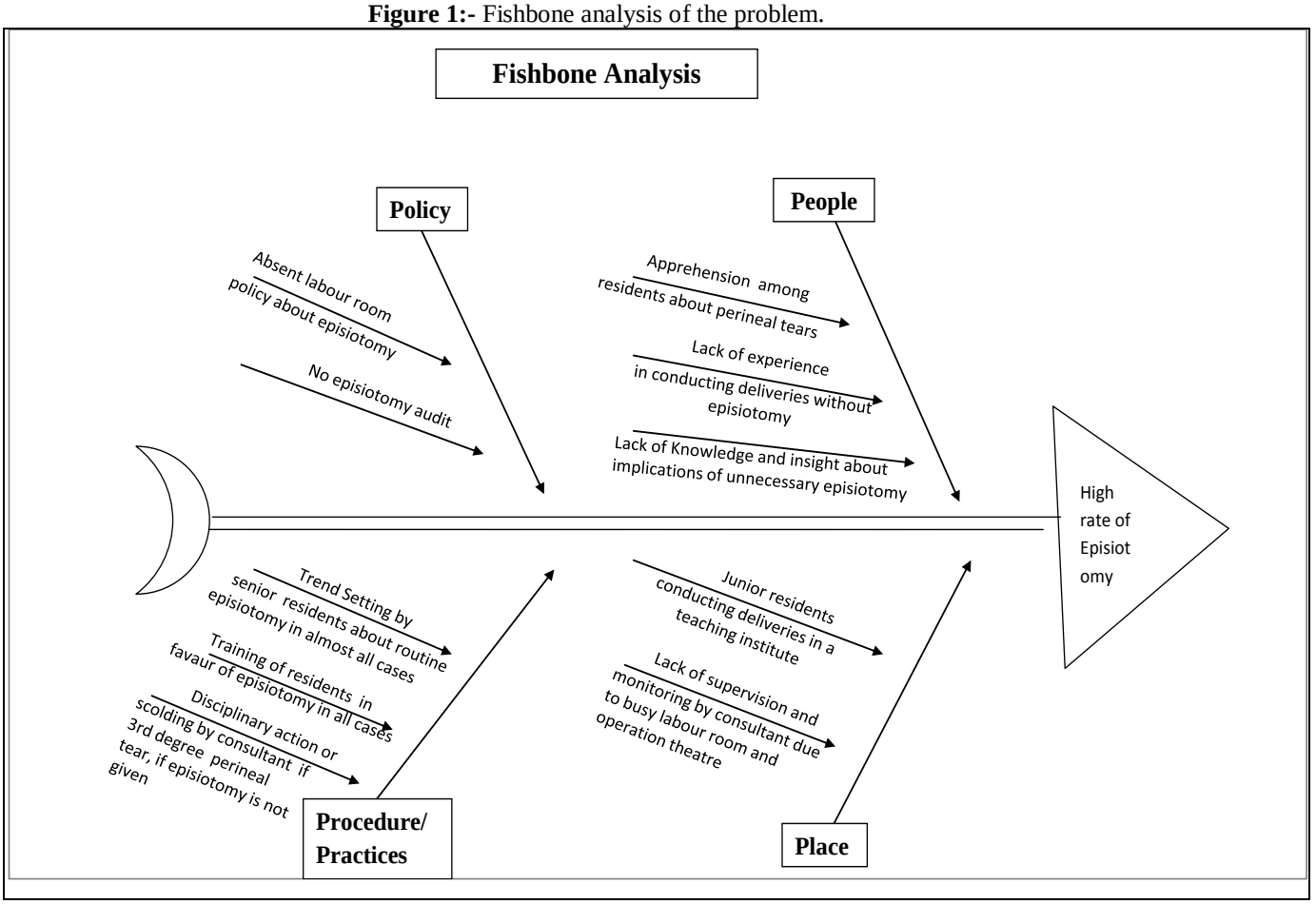
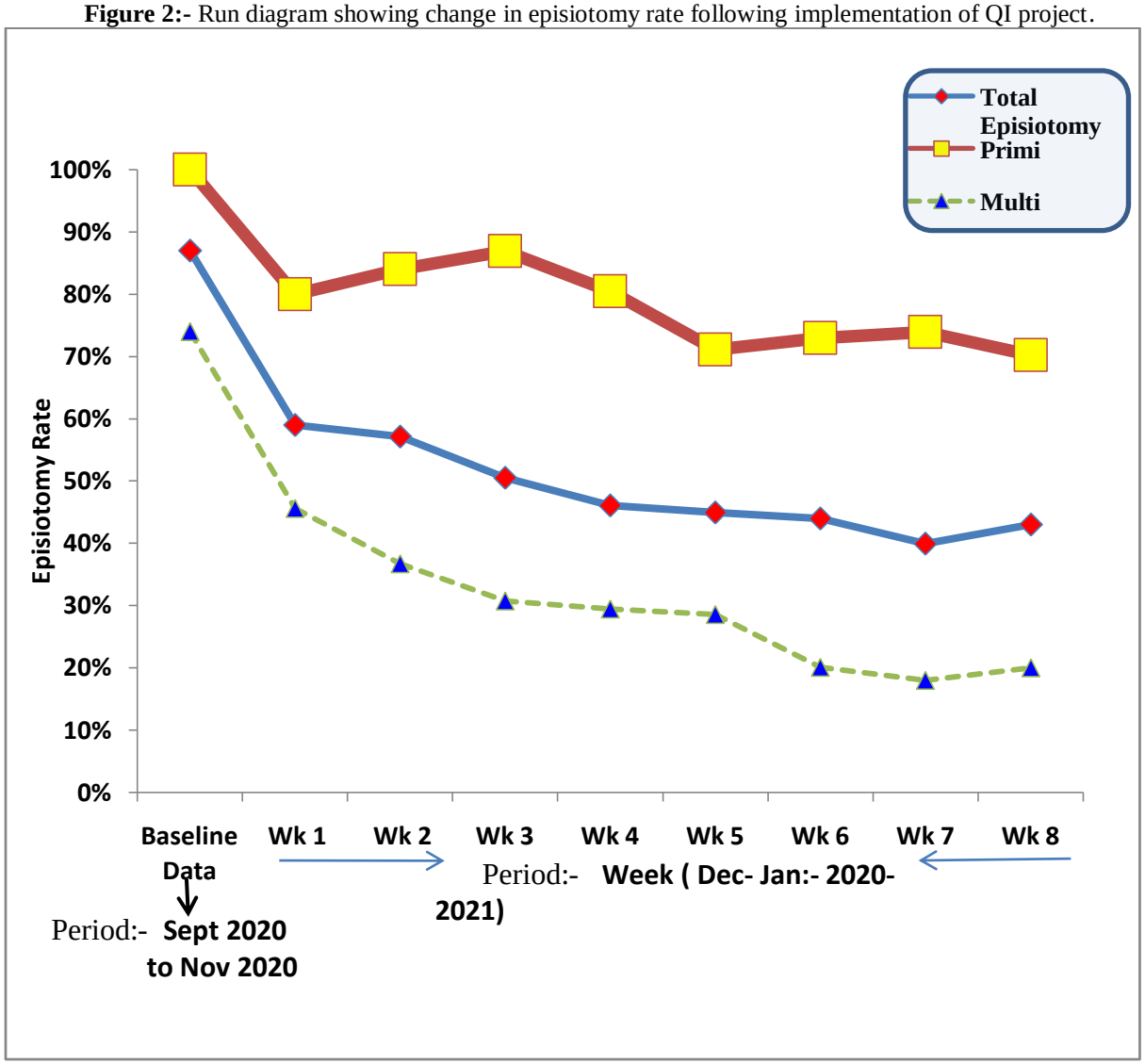


Figure 2:- Run diagram showing change in episiotomy rate following implementation of QI project.



Conclusion:-

Implementation of quality improvement project helped in significant reduction in the rate of episiotomy. It indirectly helped in reduction of episiotomy related complications and hospital stay. It resulted in positive birthing experience for women. Project helped resident doctors in learning about the steps of QI project, its benefits and its application in improving health care quality.

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