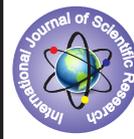


Association between Janani Suraksha Yojana and low birth weight



Paediatrics

KEYWORDS: newborn, low birth weight, Janani Suraksha Yojna

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ABSTRACT

Background: Janani Suraksha Yojana (JSY) is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional deliveries. **Aim:** The present study was done to see the impact of JSY on the birth weight. **Settings:** Retrospective observational study conducted at a tertiary care hospital. **Methodology:** The information related to all the deliveries at the centre two years before and two years after the launch of JSY (i.e. from 2003 to 2006) was collected and analysed. Appropriate statistical tests were applied for the test of significance. **Results:** There is a significant decrease in the percentage of low birth weight (LBW) babies from 44.50% in 2003-04 (before the launch of JSY) to 40.10% in 2005-06 (after the launch of JSY) (p value <0.001). **Conclusion:** There is a significant decrease in the birth of LBW babies after the launch of JSY.

BACKGROUND:

Nearly 30% of neonates—7.5 million—are born with a low birth weight (LBW) (<2500g) in India. This accounts for 42% of the global burden, the largest for any country. Community-based studies indicate that the LBW infants are at 11–13 times increased risk of dying than normal birth weight infants. Almost >80% of total neonatal deaths occur among LBW/preterm neonates [3].

Lowbirth weight can be tackled by providing adequate antenatal care to pregnant women in time [4].

Janani Suraksha Yojana (JSY) is a safe motherhood intervention launched under the National Rural Health Mission (NRHM) on 12th April 2005. It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among the poor pregnant women. The Yojana is implemented in all the states and UTs with special focus on low performing states and integrates cash assistance with delivery and post-delivery care [1].

OBJECTIVE:

The present study has been conducted to assess the association between Janani Suraksha Yojna (JSY) and low birth weight of the newborn.

STUDY DESIGN:

This is a retrospective observational comparative study.

PLACE OF STUDY:

The study has been carried out at Kamla Raja Hospital, Gwalior (Madhya Pradesh). It is a tertiary centre where the beneficiaries of JSY irrespective of the BPL certification come for child birth. Being a tertiary care centre, patients are also referred here from the adjoining districts.

METHODOLOGY:

The entire data related to all the deliveries in the centre two years before and two years after the launch of Janani Suraksha Yojana i.e. from the year 2003 to the year 2006 was collected from registers maintained at the medical record division, and the birth records maintained at the department of Pediatrics and the department of Obstetrics and Gynaecology at Kamla Raja hospital, Gwalior (Madhya Pradesh).

This data included all the details related to child birth, including total number of deliveries in the centre in the aforementioned study period, number of rural & urban deliveries, total number of booked or unbooked antenatal cases, total number of cases referred to the hospital for delivery, the mode of delivery of newborns, total number of live births, total number of still births and intrauterine deaths, and the birth weight of newborns and the outcome of neonate till 28 days of life.

The data collected was organized and tabulated. The results obtained

were analysed to see change in the total number of LBW babies and the percentage of LBW babies born before and after the implementation of JSY. Appropriate statistical tests were then applied to the observed values for the test of significance.

RESULTS:

Table number 1 shows that the total number of LBW babies born over two years before the launch of JSY (i.e. in years 2003-2004) is 3382 as compared to 4081 LBW newborns delivered over two years after the launch of JSY (i.e. in years 2005-2006). There is an increase in number of birth of LBW newborns born after the launch of JSY by 699.

Table No. 1: Comparison of Low Birth Weight (LBW) Babies Delivered

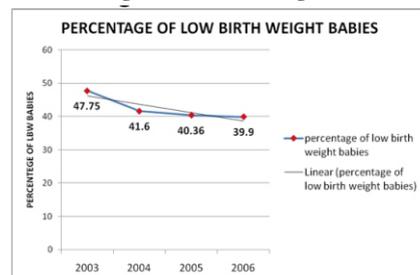
S. No.	Total Number of Newborns	2003	2004	2005	2006
1	Total number of LBW newborns	1741	1641	1609	2472

Table number 2 shows that there is an increase in the total number of deliveries from 7972 in the year 2003-2004 to 10504 in the year 2005-2006. So there is a significant increase in the number of institutional deliveries by 31.76% over two years after the implementation of JSY. Also there is an increase in the total number of live births by 2577 in the same period.

Table No. 2: Comparison of total number of deliveries and live births

S. No.	Total Number of Deliveries	2003	2004	2005	2006
1	Total number of deliveries (vaginal and caesarean)	3820	4152	4130	6374
2	Total number of live births	3647	3945	3987	6182

Graph No. 1: Percentage of Low Birth Weight Babies



The percentage of LBW babies delivered has decreased significantly from 44.50% in the year 2003-2004 to 40.10% in the year 2005-2006 (p value <0.001). Thus although there is an increase in the absolute number of LBW babies born two years after the launch of JSY, the percentage of LBW babies has decreased significantly.

DISCUSSION:

The present study is a hospital-based retrospective observational comparative study carried out at a tertiary care centre in Gwalior

which is covered by Janani Suraksha Yojna (JSY). It was done to assess the association between JSY and the birth weight of newborns. It is carried out by analysing the relevant data related to all the deliveries in the centre two years before and two years after the launch of JSY.

This study found that there is a significant decrease in the percentage of low birth weight babies born from 44.50% to 40.10% in the centre two years following the launch of JSY.

Coffey D in his study mentions that there should be a substantial rethinking into the program.

Lim SS et. al. in his study found that JSY payment was associated with a reduction of 3.7 (95% CI 2.2-5.2) perinatal deaths per 1000 pregnancies and 2.3 (0.9-3.7) neonatal deaths per 1000 live births.

A Gaur in a study on JSY found that the percentage of still births has decreased from 4.76 to 2.99%, 2.22%; perinatal mortality was 64.86 in 2003-04 and has declined to 51.54 in 2006-07 and 31.97 the year 2010-11. He also found that percent of booked cases, referred cases and women belonged to rural areas increased significantly.

CONCLUSION:

There is a significant decrease in the percentage of low birth weight babies born two years after the launch of JSY. There is also a significant increase in the total number of institutional deliveries as well as an increase in the total number of live births in the institute over the same study period.

The decrease in the percentage of low birth weight newborns born could be an indirect pointer towards better antenatal and perinatal care services delivered through JSY.

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