

Janani Suraksha Yojana – cash assistance scheme for maternal and child health: Retrospective analysis of acceptance of postpartum intrauterine contraceptive device insertion among its beneficiaries

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ABSTRACT


Background: Janani Suraksha Yojana (JSY) was launched on April 12, 2005, under the National Health Mission for the benefit of maternal and child health. JSY is a centrally sponsored scheme, which integrates cash assistance with delivery and post-delivery care. Just after delivery, women are more receptive to accept a contraceptive method. With increased institutional deliveries influenced by JSY, the health-care providers have an excellent opportunity to counsel and provide them with safe and appropriate contraceptive method. The Government of India launched postpartum intrauterine contraceptive device (PPIUCD) services in the year 2000; although acceptance of PPIUCD in JSY beneficiaries is a real concern. **Objectives:** The objectives of this study were as follows: (1) To study the acceptance of PPIUCD in JSY beneficiaries and (2) to study the sociodemographic factors in relation to PPIUCD acceptance. **Materials and Methods:** The retrospective study was conducted in Rural Government Hospital in Maharashtra during 2016–2017. We studied sociodemographic variables of JSY beneficiaries and their acceptance to PPIUCD. The sample size was 353 ($n = 353$). The sociodemographic factors studied included age, type of delivery, sex of newborn, and educational status of patient and her husband. **Results:** The total postpartum women included in the study were 353 who had taken JSY benefit, of which, 116 (32.6%) accepted for PPIUCD, whereas 237 (67.4%) rejected the same. Around 43% of primipara patients were accepted PPIUCD. Among multiparous women with three living children, only 6% accepted it. The educational status of both, the postpartum women and their husband, showed statistically significant association with the acceptance of PPIUCD ($P < 0.05$) in JSY beneficiaries. **Conclusions:** The acceptance PPIUCD was low (32.6%) in JSY beneficiaries. Primipara or young age patients are easy to counsel about PPIUCD, and hence, the acceptance is high. All efforts should be made to increase acceptance of PPIUCD among JSY beneficiaries.

KEY WORDS: Janani Suraksha Yojana; Postpartum Intrauterine Contraceptive Device; Maternal and Child Health

INTRODUCTION

Janani Suraksha Yojana (JSY) is one of the most important programs under the National Health Mission for the benefit of

maternal and child health. The main objective of this program is to reduce maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. The scheme was launched on April 12, 2005, and this program is implemented in all states and union territories, with a special focus on low performing states (LPSs). JSY is a centrally sponsored scheme, which integrates cash assistance with delivery and post-delivery care. The JSY has identified accredited social health activist (ASHA) as an effective link between the government and pregnant women. This JSY scheme also introduced mother and child protection card.^[1]

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Eligibility for cash assistance for delivery patients in LPS is all pregnant women delivering in government health centers such as subcenters (SCs)/Primary Health Centres (PHCs)/Community Health Centers (CHCs)/First Referral Units (FRUs)/general wards of district or state hospitals. Eligibility for cash assistance for delivery patients in high performing states is all BPL/scheduled caste/scheduled tribe (SC/ST) women delivering in a government health center such as SC/PHC/CHC/FRU/general wards of district or state hospitals. In accredited private hospitals from both LPS and high-performance states, cash benefit is given to BPL/SC/ST women.^[2]

Assessment of JSY from various studies shows that there is definitely increase in number of institutional deliveries.^[3,4] This program is also helped to decrease Maternal Mortality in India. The World Health Organization (WHO) commends India for its groundbreaking progress in recent years in reducing the maternal mortality ratio by 77%, from 556/100,000 live births in 1990 to 130/100,000 live births in 2016. India's present MMR is below the millennium development goal target and puts the country on track to achieve the sustainable development goal target of an MMR below 70 by 2030.^[4]

According to National Family Health Survey (NFHS)-3, the prevalence of modern method of contraceptive use is 48.5% and all methods 56% in India.^[5] The postpartum period is a unique phase in the life of a woman and her baby. It is a time of transition, adjustment, and adaptation along with significant biological, social, and psychological changes. According to the WHO, the postpartum period starts after delivery of the placenta and includes the first 6 weeks after delivery when the body of the woman returns to its non-pregnant state. 65% of women are having unmet need of family planning in the 1st year of postpartum period.^[6,7]

Postpartum intrauterine contraceptive device (PPIUCD) is the only family planning method which is highly effective, reliable, inexpensive, non-hormonal, immediately reversible, and long-acting contraceptive that can be initiated during the immediate postpartum period and it has no a negative effect on lactation.^[8]

Just after delivery, women are more receptive to accept a contraceptive method. Contraception knowledge is influenced by health personnel efforts. Improvement in education regarding spacing methods will improve the prevalence of practising contraception as a spacing method too, not just a terminal method.^[9] With increased institutional deliveries, influenced by the Janani Suraksha Yojana (JSY), the contact of postpartum women with health care providers is increased. This provides an opportunity to counsel and provide them with safe and appropriate contraceptive method of their choice, for example, PPIUCD before they leave for home.^[10,11]

Objectives

The objectives of this study were as follows:

1. To study the acceptance of PPIUCD in JSY beneficiaries.
2. To study the sociodemographic factors such as parity, education status, and mode of delivery in relation to PPIUCD acceptance.

MATERIALS AND METHODS

Study Design

The study was a retrospective hospital-based study to assess the sociodemographic profile of postpartum women and to study the factors leading to the acceptance of PPIUCD.

Study Setting

The study was conducted at the Government Rural Hospital in Maharashtra State (India).

Inclusion Criteria

All women who delivered in selected Government Rural Hospital in Maharashtra State (India) during the year 2016, namely from January 1, 2016, to December 31, 2016, under JSY scheme are included in the present study.

Exclusion Criteria

1. Incomplete data records were excluded from the present study
2. Stillbirths
3. Patients had contraindications for PPIUCD such as postpartum hemorrhage, retained placenta, and previous history of complications due to PPIUCD.

Study Period

The period of the present study was 1 year, i.e., from January 2016 to December 2016.

Study Population

The study population included all women who delivered at maternity ward Government Rural Hospital during the study period. The acceptance of PPIUCD by the study population was also assessed. The sociodemographic variables and its association with the acceptance of PPIUCD among postpartum women were studied. The sociodemographic factors included age, type of delivery, sex of newborn, socioeconomic status, and educational status. The sample size was 353 ($n = 353$).

Data Collection and Analysis

The relevant data of the study population were taken from hospital records and personal identifiers were removed. The data are then entered into Microsoft Excel. The data are

analyzed using statistical software. Results are expressed in proportions, and Chi-square test was used wherever applicable. $P = 0.05$ or less is considered as a level of statistical significance. Ethical approval was not required as this was an analysis of secondary data.

Institutional Ethics Committee permission was not taken as study conducted from secondary data available from rural hospital.

RESULTS

In this study, the total sample size of JSY beneficiaries was 353 ($n = 353$). Majority of JSY beneficiaries are <25 years of age (67.98%), only 7.36% of patients are >30 years of age. As per parity-wise distribution, majority of JSY beneficiaries are primipara (50.14%). Education status of JSY beneficiaries showed that most of them are literate and only 5.94% are illiterate; similarly, only 6.79% of husbands of the JSY beneficiaries are illiterate.

Of total 353 JSY beneficiaries, 116 (32.6%) were accepted PPIUCD. Majority of patients were <25 years of age (Table 1). Of 240 patients, 85 (35.45%) were accepted PPIUCD in the age group <25 years. In the age group of 25–30 years and above 30 years, 28.74% and 23.08% were accepted PPIUCD, respectively. Age-wise association with the acceptance of PPIUCD showed no statistical significance ($P > 0.05$).

In parity-wise distribution of patients, we found that primipara or second para patients having more acceptance of PPIUCD. Of 177 primi patients, 75 (42.37%) accepted PPIUCD. Only 6.25% of patients out of 26 third para accepted it. In more than third para, no JSY beneficiary accepted PPIUCD. The parity-wise distribution with the acceptance of PPIUCD showed statistically significant association ($P < 0.05$). Mode of delivery or gender of newborn wise distribution was not associated with the acceptance of PPIUCD ($P > 0.05$).

As per educational status among JSY beneficiaries, the acceptance of PPIUCD was more common in secondary or higher secondary (or more) educated women (Table 2). Of 206 patients having education up to secondary level, 65 (31.65%) accepted the PPIUCD. Among the 101 patients with education more than secondary level, 45 (44.55%) accepted PPIUCD. Similarly, husbands who are educated secondary or higher secondary (or more) showed more acceptance of PPIUCD. The educational status of both women and their husband showed statistically significant association with the acceptance of PPIUCD ($P < 0.05$).

DISCUSSION

In the present study, the total sample size was 353 which included postpartum patients with JSY benefits. Majority of beneficiaries are of between 25 and 30 years (92.63%) and

primipara or second para (79.60%). Only 5.94% of patients are illiterate. Similar findings were shown by a study conducted in Orissa and showed that about 75% of JSY beneficiaries were between 20 and 29 years of age. About 18.1% of beneficiaries were illiterate according to this study. ASHA worker is an important source of information in these patients. Although 95% were counseled by ASHAs for institutional delivery, counseling about diet, rest, and family planning was least consulted.^[1]

According to the study conducted in Pune, the percentage of mothers paid JSY incentives for deliveries in public institutions rose sharply from 19.5% in 2012 to 43.2% in 2014. In the present study, we also analyzed the acceptance of PPIUCD in

Table 1: Sociodemographic variables and acceptance of PPIUCD in JSY beneficiaries ($n=393$)

Variable	PPIUCD (%)		Total	P value
	Accepted	Declined		
Age group				
<25 years	85 (35.42)	155 (64.58)	240	0.28
25–30 years	25 (28.74)	62 (71.26)	87	
>30 years	6 (23.08)	20 (76.92)	26	
Number of living children				
1	75 (42.37)	102 (57.63)	177	0.000
2	38 (36.54)	66 (63.46)	104	
3	3 (6.25)	45 (93.75)	48	
>3	0	24 (100)	24	
Mode of delivery				
Cesarean section	4 (22.22)	14 (77.78)	18	0.24
Vaginal	112 (33.43)	223 (66.57)	335	
Gender of the newborn				
Male	62 (29.95)	145 (70.05)	207	0.17
Female	54 (37)	92 (63)	146	

PPIUCD: Postpartum intrauterine contraceptive device, JSY: Janani Suraksha Yojana

Table 2: Educational status and acceptance of PPIUCD in JSY beneficiaries ($n=353$)

Variable	PPIUCD (%)		Total	P value
	Accepted	Declined		
Educational status of woman				
Illiterate	3 (14.28)	18 (85.72)	21	0.002
Primary	3 (12)	22 (88)	25	
Secondary	65 (31.56)	141 (68.44)	206	
HS or more	45 (44.55)	56 (55.45)	101	
Educational status of husband				
Illiterate	4 (16.66)	20 (83.34)	24	0.04
Primary	6 (21.43)	22 (78.57)	28	
Secondary	43 (31.39)	94 (68.61)	137	
HS or more	63 (38.41)	101 (61.59)	164	

PPIUCD: Postpartum intrauterine contraceptive device, JSY: Janani Suraksha Yojana

JSY beneficiaries. Of total 353 JSY beneficiaries, 116 (32.6%) were accepted PPIUCD which is lower than study conducted at Bhopal by Anjali Kanher *et al.*, which showed 36% women accepted PPIUCD in postpartum period.^[6] This is low because in implementation of JSY program comparatively less attention may be given to family planning, as compared to the promotion of institutional deliveries. According to the study conducted at Telangana, acceptance for PPIUCD is around 20%. The possible reason documented for non-acceptance of PPIUCD was that the beneficiaries wanted another contraceptive method in postpartum period (63%).^[7]

In the present study, we found a significant difference in parity-wise acceptance of PPIUCD in JSY beneficiaries. We found that of 177 primiparous patients, 75 (42.37%) accepted PPIUCD. However, the acceptance was less in multipara (4.16%). However, another study conducted in Assam State showed that maximum acceptance of PPIUCD was among multiparous women (39.32%).^[12]

Health education is an important tool in implementation of any program and the success of the program depends on it. In this study, we found that illiterate woman is more resistant for acceptance of PPIUCD. Furthermore, among JSY beneficiaries, the acceptance of PPIUCD was more common in secondary or higher secondary (or more) educated women. Of 206 patients having education up to secondary level, 65 (31.65%) were ready for PPIUCD. Among the 101 patients with education more than secondary level, 45 (44.55%) accepted PPIUCD. Similarly, husbands who are educated secondary or higher secondary (or more) showed more acceptance of PPIUCD. The educational status of both women and their husband showed statistically significant association with the acceptance of PPIUCD ($P < 0.05$). Similar study conducted in Guntur showed a significant difference in acceptance of PPIUCD as per the educational status.^[13]

The strength of this study is that it analyzes acceptance of PPIUCD among beneficiaries of JSY in rural area of Maharashtra. The study also highlights the socio-demographic factors associated with the acceptance of PPIUCD among JSY beneficiaries. The limitation of this study is that we were unable to get the information about the patients who were referred immediately after delivery. Also, the present study could not comment on the reasons for the refusal for PPIUCD among the JSY beneficiaries.

CONCLUSIONS

Majority of JSY beneficiaries were young, i.e., between 20 and 30 years. Most of the JSY beneficiaries with PPIUCD acceptance were primipara or had single living child. Hence, we need to focus on multiparous patients for acceptance of PPIUCD contraceptive methods by educating and counseling them. The overall acceptance PPIUCD in JSY was low (32.6%) in the present study. The reason may be the lack of knowledge and fears of complications toward

PPIUCD insertion. All efforts should be made to increase the acceptance of PPIUCD among JSY beneficiaries.

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