

Effectiveness of self-instructional module regarding Janani Shishu Suraksha Yojana among antenatal mothers in Rajasthan

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Abstract

Introduction: Strategies and interventions must be customised according to particular needs as well as circumstances and provide service under the Yojana in order to decline the Maternal Mortality Rate (MMR) as well as Infant Mortality Rate (IMR). As a result, service packages must be created for mother and her newborn. Therefore, the aim of this study was to increase mother's knowledge by providing a self-instructional module about the Janani Shishu Suraksha Yojana (JSSY). **Methodology:** A quantitative approach of single group, pre- post-test research design were used in this research. Using a purposive sampling technique, the researchers chose 80 pregnant women to participate in the study. **Results:** The findings show that the average knowledge score before the intervention was 17.65 ± 1.3 , and after the intervention, it increased to 25.63 ± 0.85 . Antenatal mothers' knowledge score improved considerably between the pre- and post-tests ($p \leq 0.05$). The pre-test knowledge scores were not significantly associated ($p > 0.05$) with any prenatal mothers' demographic factors. **Conclusion:** Present research highlights that antenatal mother's knowledge towards JSSY is much needed among antenatal mothers for better and safe care of both mother and newborn.

Keywords: Effectiveness, Antenatal mothers, knowledge, self-instructional module, JSY, JSSY

Introduction

Pregnancy is a vital occurrence in the life of a woman. It requires specific care from the moment of conception till the period after birth. During pregnancy, it is essential for the woman to get optimum medical care and access to appropriate health services. The government has introduced fully funded maternal health benefit systems that encompass the complete well-being of the mother. Maternal health includes the well-being of women during pregnancy, labor, and the postpartum period. Access to sufficient healthcare can greatly enhance the gratifying nature of pregnancy^(1,2). Safe parenting has the potential to avert a significant number of infant deaths. Maternal mortality can be prevented by implementing antenatal and community-based interventions, ensuring that women have easy access to high-quality critical obstetric care, and providing them with sufficient information about the available maternal health benefits programmes in the country⁽³⁾.

The Family Planning Programme was initiated in India in 1951 and later converted into RCH programme. The programme aims to enhance the well-being of women in the reproductive age and children aged up to five years. Antenatal care (ANC) refers to the medical attention provided to women during pregnancy, with the primary objective of ensuring the well-being of both the mother and the baby by

the end of the pregnancy⁽⁴⁾. The primary goals of the Janani Suraksha Yojana (JSY) were to decrease maternal and neonatal mortality rates by promoting hospital deliveries and prioritising healthcare services for women from economically disadvantaged families. The JSY programme offers cash incentives to expecting women who undergo three institutional prenatal check-ups and choose to deliver their baby in a healthcare facility. Average expenditure of Rs. 1619 crores was incurred under the Janani Suraksha Yojana (JSY) during the fiscal year 2010-11⁽⁵⁾.

The JSY programme was initiated by the Rajasthan State Government on 12 September 2011, in all 33 districts. A component of child care was added to JSY Program and was renamed as Janani Shishu Suraksha Yojana (JSSY). The objective of the scheme is to decline maternal and child mortality rates. As part of the programme, the government would offer complimentary medical care and transportation services to pregnant mothers and ill newborns. In addition, all pregnant women will receive complimentary medications and other necessary items prior to, during, and up to six months following childbirth. On a daily basis, over 800 women and adolescent girls perish due to the difficulties arising from pregnancy or childbirth. In 2010, almost 287,000 women lost their lives either during or after pregnancy due to a lack of resources, which accounted⁽⁶⁾ for nearly all of these deaths (99%). As per the report from the

Sample Registration System (SRS) office of India on 20 December 2013, the maternal death rate in India reduced from 212 to 178 per 100,000 live births⁽⁷⁾. As per the National Rural Health Mission (NRHM) Guidelines (2011), more than 5300 women in Rajasthan died annually owing to delivery problems, while 98500 newborns in the state die within one year after being born.

The World Health Organisation (WHO) in 2010 advised that a minimum of four prenatal visits should be made throughout each pregnancy. However, data from WHO between 2005 and 2010 reveals that only 53% of pregnant women globally, specifically in low-income countries, actually attended the recommended four antenatal visits. Approximately half of the women in low- and middle-income countries did not receive sufficient prenatal care⁽⁸⁾.

A study conducted by Kumar (2005) in rural areas of Andhra Pradesh, Gujarat, Bihar, and Rajasthan found that mothers who had two to five ANC visits were more likely to give birth in a medical institution compared to mothers who did not have any antenatal check-ups⁽⁹⁾. Kumar et al. (1997) found that just 2.8% of moms were aware of at least one objective of prenatal care, although 98.2% of women had sought antenatal care from health workers. The delivery was carried out by traditional birth attendants in 76.1% of instances at the sub centre, 75.6% in villages without a health centre, and 49.8% in the PHC village⁽¹⁰⁾.

The decline in the rate of maternal and newborn mortality is crucial for the advancement and progress of the nation. Despite the fact that the facilities are provided to citizens free of charge, still they are not fully utilising them to their full potential. Therefore researchers conducted the present study to create awareness among antenatal mother about the JSSY.

Primary Objective

To assess the effect of the self-instructional module on the knowledge towards JSSY among pregnant women

Secondary Objectives

1. To evaluate pre- & post-test knowledge scores of the mothers regarding JSSY
2. To find the association between pre-test knowledge scores and selected demographic variables

Material and Methods

An evaluative research approach was applied in this study. Single group pre-test and post-test research design was found suitable for present research. The study was conducted in Madri Primary Health Center, Rajasthan in 2013-14. Study population consisted 80 antenatal mothers residing under selected Primary Health Center area. The sample size was limited because of limited time for data collection. The participants were recruited in the study through purposive sampling technique. In this study, two instruments were utilised for data collection: the first was a socio-demographic tool and the second was a structured knowledge

questionnaire. The knowledge questionnaire had 30 questions designed to evaluate the extent of understanding pertaining to JSSY. The knowledge score range was 0-30. The obtained scores were further divided in three grades as adequate (22-30), moderate (15-21) and inadequate knowledge (0-14) as per previous research and tool validation's comments. The reliability and validity of the tool was established.

Intervention module

Before data collection process, the self-instructional module about JSSY was prepared. The module was developed by the researchers after assessing existing literatures, opinion and suggestions of the experts. The module had different aspects of JSSY. It included concept of JSSY and JSY, need of the Yojanas, facilities provided under the JSSY and JSY and their impact. The pilot study was conducted to evaluate the tool, the module and feasibility to conduct the final study. As per outcomes of pilot study, the tool and module were found reliable and valid for the final study.

Data collection and analysis

For final study, the permission was obtained from Medical Officer Madri Primary Health Center prior to data collection. In the main study, 80 respondents were selected. After acquisition of the permission, the investigator met the respondents and built rapport. A written informed consent was taken from each respondent separately. Before administering the instrument, all participants were provided with an information sheet and questionnaires that detailed the goal. The seating arrangement was made in the room of the Madri Primary Health Center. The respondents were oriented about the study aim, maintaining confidentiality, security and identity of the respondent and the nature of the questionnaire. The pre-test was performed using questionnaire for 80 antenatal mothers and socio demographic variables collected from antenatal mothers. The self-instructional module was given to all 80 antenatal mothers. After seven days of intervention, the post-test was done with same questionnaire to all the antenatal mothers. The data was analyzed with help of descriptive and inferential statistics.

Results

Out of 80 mothers, 41.25% mothers were of age 21-24 years and 21.25% respondents belonged to the age group of 29-32 years. The majority of the respondents, i.e., 47 (58.75%) were Hindus. In all, 26 (32.5%) had no formal education level, 33 (41.25%) were unemployed and 41.25% of participants had a monthly income below Rs. 5,000. With regards to any knowledge regarding JSSY, 30 (37.5%) had knowledge and 50 (62.5%) did not had any knowledge regarding JSSY. In terms of source of information about JSSY, 56.67% mothers received knowledge from health team members, 5 (16.66%) from mass media, 5 (16.66%) from family members and 3 (10%) from friends (Table 1).

Table 1: Distribution of participants according to socio demographic variables (N=80)

| Demographic Variables | n (%) | Demographic Variables | n (%) |
|----------------------------|------------|--|------------|
| Age (in years) | | Monthly income of the family | |
| 21-24 | 33 (41.25) | Below Rs. 5,000 | 33 (41.25) |
| 25-28 | 30 (37.50) | Rs. 5,000-10,000 | 24 (30) |
| 29-32 | 17 (21.25) | Rs. 10,001-15,000 | 23 (28.75) |
| Religion | | Above Rs. 15,001 | 0 (0) |
| Hindu | 47 (58.75) | Awareness about JSSY | |
| Muslim | 33 (41.25) | Yes | 30 (37.5) |
| Educational status | | No | 50 (62.5) |
| No formal education | 26 (32.50) | Source of information regarding JSSY (n=30) | |
| Primary education | 27 (33.75) | Mass Media | 5 (16.66) |
| Secondary education | 27 (33.75) | health team members | 17 (56.67) |
| Occupational Status | | Friends | 3 (10) |
| Government | 0 (0) | Family members | 5 (16.66) |
| Private | 47 (58.75) | | |
| Unemployed | 33 (41.25) | | |

Table 2 reveals that among 80 antenatal mothers, no respondents had adequate knowledge on JSSY and 74 (92.5%) mothers had moderate knowledge and 7.5% mothers have inadequate knowledge on JSSY in pre-test. After the

intervention, 93.75% mothers had adequate knowledge on JSSY whereas 5 (6.25%) respondents had moderate knowledge.

Table 2: Pre-test and post-test level of knowledge among antenatal mothers regarding JSSY (N=80)

| Levels of Knowledge | Scores | Pre-Test | Post-Test |
|----------------------|--------|-----------|------------|
| | | n (%) | n (%) |
| Inadequate knowledge | 0-14 | 6 (7.5) | 0 (0) |
| Moderate knowledge | 15-21 | 74 (92.5) | 5 (6.25) |
| Adequate knowledge | 22-30 | 0 (0) | 75 (93.75) |

The pre-test score mean was 17.65 and post-test score mean was 25.63 with the standard deviation of 1.3 and 0.85 respectively. The mean difference was 7.98 and obtained 't'

value was statistically significant at ($p < 0.0001$). Thus, the module was significantly effective in improving knowledge scores of the mothers towards JSSY (Table 3).

Table 3 : Comparison of Pre-test and post-test level of knowledge among antenatal mothers regarding JSSY (N=80)

| Test | Mean | Standard Deviation | Mean Difference | 't' value | p-value |
|-----------|-------|--------------------|-----------------|-----------|----------|
| Pre-Test | 17.65 | 1.3 | 7.98 | 5.7614 | <0.0001* |
| Post-Test | 25.63 | 0.85 | | | |

* $p < 0.0001$: Statistically significant

As per chi square test results, no variable was found significantly associated ($p>0.05$) with pre-test knowledge score of antenatal mothers regarding JSSY (Table-4).

Table 4: Association between pre-test knowledge scores and demographic variables (N=80)

| Variables | Pre-test knowledge scores (Median) | | Chi-square value | p-value |
|---------------------------------|------------------------------------|-------|------------------|---------|
| | Below | Above | | |
| Age in years | | | | |
| 21-24 | 15 | 18 | 0.96 | >0.05 |
| 25 -28 | 16 | 14 | | |
| 29 - 32 | 9 | 8 | | |
| Religion | | | | |
| Hindu | 25 | 22 | 0.465 | >0.05 |
| Muslim | 15 | 18 | | |
| Educational status | | | | |
| No formal education | 14 | 12 | 0.524 | >0.05 |
| Primary education | 12 | 15 | | |
| Secondary education | 14 | 13 | | |
| Occupation of the mother | | | | |
| Government | 0 | 0 | 0.464 | >0.05 |
| Private | 22 | 25 | | |
| Unemployed | 18 | 15 | | |
| Monthly Income | | | | |
| Below Rs. 5,000 | 18 | 15 | 0.464 | >0.05 |
| Rs. 5,001-10,000 | 11 | 13 | | |
| Rs. 10,001-15,000 | 11 | 12 | | |
| Above Rs. 15,001 | 0 | 0 | | |
| Awareness of JSSY | | | | |
| Yes | 18 | 12 | 0.274 | >0.05 |
| No | 27 | 23 | | |

Discussion

Our study findings revealed that among 80 antenatal mothers, none of the respondents have adequate knowledge on JSSY in pre-test. Present results were supported by Patel et al. (2007)⁽¹¹⁾, the research highlighted that 70% of the respondents were not aware of at least aim or vision of JSY, either one. Our results were also supported by, Sharma et al. (2010)⁽¹²⁾ with similar finding in assessing knowledge level regarding safe motherhood practices among pregnant mothers. Gupta et al. (2011)⁽¹³⁾ also revealed that only 23.11% population had adequate knowledge, 56.23% had moderate knowledge and 21.66% were having inadequate knowledge regarding JSY in the descriptive study conducted on 300 JSY beneficiaries in N.S.C.B. Medical College, Jabalpur (M.P. - India) during 2006-07. Studies conducted by Iyengar et al. (2011)⁽¹⁴⁾, Vishwanath et al. (2011)⁽¹⁵⁾ and Sharma et al. (2011)⁽¹⁶⁾ have similar results in their studies.

The present research explored that in post-test. In support of present research, Bhosale et al. (2019)⁽¹⁷⁾ stated that their study reported knowledge level of antenatal mothers towards JSY through planned teaching program. Singh et al. (2016)⁽¹⁸⁾ had similar finding in their study in which, mean post-test knowledge scores of respondents (19.28) was higher than the overall pre-test mean knowledge score (13.42). Tak et al. (2022)⁽¹⁹⁾, Mall et al. (2021)⁽²⁰⁾, Kumar et al. (2021)⁽²¹⁾, and Pareek et al.⁽²²⁾ had revealed the effectiveness of educational intervention.

Additionally, we highlighted that lack of association of pre-test knowledge scores of antenatal mothers and any socio-demographic variable. These results were contrast with study conducted by Singh M, Soni N (2016)⁽¹⁸⁾. The present research highlights the need of such interventions that are needed to enhance the knowledge of the mothers towards government initiated benefit schemes.

Limitations

The present study has a single arm without any comparison group. The limited amount of participants posed challenges in making generalisations. A structured questionnaire was used for data collection, which limited the scope of information that could be gathered from the respondents. The assessment focused solely on knowledge and did not include an evaluation of their attitudes, as this would have required more time and resources.

Conclusion

The research findings concluded that the intervention significantly enhanced the knowledge of the mothers towards JSSY. There is a requirement for implementation of education package to enhance JSSY's awareness and benefit program regarding reproductive child health among antenatal mothers. Overall coverage in rendering total healthcare services to the mother and newborn can be achieved by educating antenatal mothers only. Moreover, the awareness towards JSSY will be helpful in reducing the maternal and neonatal morbidity and mortality.

Conflict of Interest: Nil

Sources of funding: Researchers had self-financed the present study.

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Ethical consideration

The permission for present study was obtained from Ethical committee of Geetanjali college of Nursing, Udaipur as per letter no. GCN/2014/08. The confidentiality of the participant was maintained and not disclosed with anyone.

Authors' Contribution

GS: Conceptualization and conduction of the study, data analysis, preparing and designing the manuscript; DC: Conceptualization and conduction of the study, data analysis, preparing and designing the manuscript; BC: Conceptualization and conduction of the study, data analysis, preparing and designing the manuscript; KS: Conceptualization and conduction of the study, data analysis, preparing and designing the manuscript; SP: Conceptualization and conduction of the study, data analysis, preparing and designing the manuscript;

Data availability statement

Data will be available with corresponding author on request

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