Knowledge and Attitude regarding Antara (DMPA) Scheme among the Reproductive Age Women in Selected Rural Areas of Uttar Pradesh

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Abstract

The Antara scheme (dispensing Depot medroxyprogesterone acetate/ DMPA) was introduced for women in India to increase the space between children in 2017. The study was planned to assess the knowledge and attitude regarding Antara for mothers of reproductive age mothers. The objective of the study was to identify the knowledge and attitude of mothers regarding Antara contraceptive methods in rural populations. A quantitative research approach and descriptive research design were used. A sample of married women was selected by a probability convenient sampling method from a rural area of the Etawah district; the sample size was 50 mothers. Structured questionnaires and a rating scale were used to collect the information. Content validity was obtained from experts, and the reliability of the tool was calculated by the Spearman split-half method. Ethical permission was obtained before the study. The socio-demographic information of the study revealed that the maximum (44%) of women were aged between 23-27 years, 92 percent Hindu, 86 percent housewife, 56 percent had 2 children. The majority (60%) of women had inadequate knowledge, whereas 66 percent of women had a favourable attitude. The correlation between the knowledge and attitude of reproductive women regarding Antara injection was a weak positive correlation, and there was no significant association of knowledge and attitude with the selected demographic variables. The majority of women who used Antara had inadequate knowledge and were not having strong attitude towards further use. The findings indicated that knowledge needs to be increased before practice by the health workers (ASHA, ANM, Community health officer, Nurses) in rural areas.

Key words: Antara (Depot medroxyprogesterone acetate/ DMPA), Health workers, reproductive-age women

The population of India is continuously increasing and has become the second most populated country in the world (Registrar General & Census Commissioner, India, 2022). To regulate the population of India, the country has been trying since independence with launch of first National Family Planning programme in 1952. Over the years, the programme expanded to every nook and corner of the country. It penetrated at grass root level health services mostly through primary health centres and sub centres in rural areas, urban family welfare centres and post-partum centres in the urban areas (Park, 2015). Population growth rate is still more than expected; So in early decades the population control strategy shifted from terminal methods to spacing methods. Among them, DMPA (depot medroxyprogesterone acetate) is one choice for females, which was launched by the Government of India in 2017 as ANTARA. The ANTARA scheme aimed to space out their pregnancy effectively for three months, which can be extended after repeated doses of injection every three months (Reference Manual for Injectable Contraceptive, 2022).

Uttar Pradesh is the most populated state of India (Census, 2011), and it is estimated that the current population of the state is 23.7 crore. The highest population density of the state reflects the need to control the population through family planning methods (Registrar General & Census Commissioner, India 2022; Annual Report Family Planning, 2022).

A benchmark survey conducted by WHO in Uttar Pradesh revealed that females belonging to nuclear types of households showed a slightly

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higher average number of children than those born in joint type of household (DMPA-SC, 2017; India Health Action Trust, 2016).

Lack of literacy, accessibility and availability of health services also led to uncontrolled population growth. A study on the use of contraception revealed that only 55.2 percent of subjects were aware of contraceptive methods, and among them, acceptance was very low, whereas overall contraceptive prevalence in India was 45.2 percent, of which 34.2 percent were using a permanent method. Poor availability of health services makes barriers in controlling to desirable population growth of country. A study revealed that the majority of women (70.5%) followed the family planning method after reaching their desired family size (India Health Action Trust, 2016). The lack of information about family planning methods such as Antara may affect the use of the method, so this study aimed to assess the knowledge and attitude of DMPA among reproductive-age women in selected rural areas.

Objectives

The study was carried out with following objectives.

1. To assess knowledge and attitude regarding Antara among reproductive-age women in rural areas of Uttar Pradesh.
2. To find out the relationship between the knowledge and attitude of Antara among reproductive-age women in rural areas of Uttar Pradesh.
3. To find out the association of knowledge and attitude on Antara with the selected demographic variables of mothers in rural areas of Uttar Pradesh.

Review of Literature

Antara was relatively recently launched in India, so the literature was very limited in the public domain, and only a few were relevant to study. A prospective, longitudinal and single-centred study on acceptance of DMPA as a contraceptive at Kasturba Hospital in 2018 concluded that Antara was a safe, convenient and effective long-acting contraceptive method which also needs appropriate pre-use counselling and provider support during follow-up to increase the continuation rate and acceptance amongst users (Singh et al, 2022). Another study on acceptability and compliance of DMPA among rural women in Sitapur in UP, concluded that acceptability was very good in rural women because of convenience of dosing, coital independence and privacy, and its usage can be increased with counselling and diligent follow-up (Mishra & Gupta, 2019). A prospective study was conducted on DMPA as postpartum contraception in a tertiary care hospital of FM. Medical college, Odisha, which concluded that intramuscular DMPA injection was considered to be a safe, convenient, and highly effective postpartum contraceptive method (Nayak Kumar et al, 2021).

Methodology

A quantitative research approach with non-experimental descriptive research design was used to assess knowledge and attitude among Antara users. The setting of the study was villages of Etawah district. The population of the present study was women of reproductive age (married women) in rural areas who used the Antara family planning method. The sample consisted of 50 reproductive-age women with inclusive criteria such as married women (18-45 years), used only Antara before three months as contraceptive method. The study excluded unmarried women with menopause, using another method of family planning, had repeated abortion. The size of the sample was selected based on the time and requirements of the graduation level research project work, availability of samples, piolet study, etc. Samples were selected in two phases. A simple random lottery method was used for selecting the sample frame, and the sample frame of the study was the village panchayat. The probability convenience sampling technique was used to select the sample, which was chosen as per convenience, accessibility and proximity to the researcher.

Table 1: Tool and Techniques with score and category

Variable	Tool	Techniques	No. of items	Score	Category with score
Knowledge	Structured questionnaire	Interview	15	Max score-15, Min score-0	• Inadequate knowledge (0-5) • Adequate knowledge (6-10) • Good knowledge (11-15)
Attitude	Rating scale (3-point)	Interview	15	Max score-45, Min-1	• Unfavorable attitude (1-15) • Favorable attitude (16-30) • Strongly Favorable attitude (31-45)

The data collection tool consists of two parts: Part-1, which had demographic variables, and Part-2, which consists of a self-structured knowledge and attitude rating scale. Table 1 describes the study's tools and techniques with scores and score-wise categories.

Content validity was obtained from the experts of community health nursing, obstetrics and gynaecology and public health experts. Reliability of the tool was obtained by the Spearman split-half method to make sure the reliability of the tool. Data was collected from 15 September to 30 September 2022. After approval from the ethical committee of the university and written consent was obtained before data collection.

Results

Socio-demographical information of the study revealed that majority of women i.e. 22 (44%) were aged between 23-27 years; 46 (92%) women were Hindu, 16 (32%) had completed primary education and of and total family monthly income was up to Rs.15000/. As for occupation, 43 (86%) were housewife, 28 (56%) had 2 children.

Findings further showed that 40 (80%) of women got information regarding knowledge and accessibility of Antara at government hospitals, and the majority of women 25 (50%) got detailed information about Antara from ASHA workers, whereas mothers also got information from doctors, nurses, and CHO. The results also brought out that 14 (28%) women used another contraceptive method, whereas 36 (72%) women did not use any contraceptive method earlier.

Table 2: Level of knowledge and attitude regarding Antara

Level	Knowledge		Attitude	
	Inadequate knowledge	Adequate knowledge	Favourable attitude	Strongly favourable attitude
No. of mothers	30	20	33	17

Table 2 showed that 30 (60%) women had inadequate knowledge about Antara, 20 (40%) women had adequate knowledge of Antara family planning method, whereas none of the mother had good knowledge. Attitude score shows that 33 (66%) women had a favourable attitude towards Antara, 17 (34%) women had a strongly favourable attitude towards the Antara family planning method, whereas none of the mother showed negative attitude towards Antara use.

Table 3: Comparison of mean and SD for knowledge and attitude score regarding Antara injection (DMPA)

Descriptive Statistics		
Variables	Mean	SD
Knowledge	5.24	3.47
Attitude	27.38	4.06

Table 3 shows that the knowledge mean score was 5.24, and the standard deviation was 3.47, whereas the attitude mean score was 5.24, and the standard deviation was 3.47.

The correlation between the knowledge and attitude of reproductive women regarding the Antara injection is about 0.03962. This was a fairly low or weak positive correlation, whereas association data after calculating with chi-square value of demographic variables was less than tabulated value, so that the test hypothesis was rejected. So, there was no significant association between knowledge and attitude with selected demographic variables.

Discussion

The present study found that 30 (60%) women had inadequate knowledge about Antara, whereas 20 (40%) women had adequate knowledge of the Antara family planning method. Attitude regarding Antara use: 33 (66%) women had a favourable attitude towards Antara, whereas 17 (34%) women had a strongly favourable attitude towards Antara family planning method**.** The correlation between the knowledge and attitude of people regarding the Antara injection is about 0.03962. This is a fairly low or weak positive correlation. A study by Kasa et al (2018) and another by Samantaray et al (2020) found similar results.

In the present study, there was no significant association of knowledge and attitude with selected demographic variables. The finding of the study was contrary to the study conducted by Samantaray et al (2020). Another study by Wani et al (2020) showed a significant relationship with the demographic variables. The study result was not similar to the present study (Purohit R et al, 2020; Wani et al, 2019).

Implication

Most mothers did not have good knowledge regarding Antara even after the practice. So, it indicates that the CMO (Chief medical officer) and health officers/incharges should plan proper training for health workers such as Nurses, ANM, Community health officer/ Mid-Level Health care providers, ASHA etc.

Recommendation

Study recommends that the knowledge of ASHA or village health workers should be regularly monitored regarding knowledge about family planning methods through the periodical survey and proper action to be taken timely to fill the gaps in knowledge and changes in attitude among reproductive-age women regularly.

Conclusion

The study concluded that the majority of the mothers had inadequate knowledge regarding Antara, which reflects that the majority of mothers do not have a strong attitude regarding Antara contraceptive also. The correlation between the knowledge and attitude of mothers regarding Antara contraceptive was very poor, and none of the demographical variable was significantly associated with knowledge and attitude score.

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'अंतरा': एक सुई दिला रही है गर्भधारण से मुक्ति: जनसंख्या के नियंत्रण और परिवार नियोजन भारत सहित अनेक देशों की खासी चुनौती है। अभी तक गर्भ टालने के लिए हर सप्ताह झंझटिया गोली खाने या गर्भनिरोधक उपकरण लगाने के विकल्प बतौर अंतरा योजना में महिलाओं को तीन माह में एक बार सुई की हल्की सी चुभन झेलने के बाद बिना कुछ किए तीन महीने तक गर्भधारण से मुक्ति मिल रही है। स्वास्थ्य विभाग द्वारा 'अंतरा नाम' से इंजेक्टेबल कांट्रेसेटिव मेड्रोक्सी प्रोजेस्टेरोन एसीटेट (एमपीए) इंजेक्शन आ चुके हैं जो महिलाओं के बीच लोकप्रिय हो रहे हैं। संभागी महिलाओं को एमपीए कार्ड जारी किए जाते हैं जिसमें दिए गए, और अगले इंजेक्शन की तारीख, वजन आदि का उल्लेख होता है ताकि स्वास्थ्यकर्मी तथा लाभार्थी दोनों को पता रहे कि अगली डोज कब लेनी है। इसके साइड इफेक्ट नगण्य होते हैं। संभागी महिला मासिक धर्म शुरू होने पर स्वास्थ्य केंद्र में साधारण स्वास्थ्य जांच के बाद हर बार मासिक धर्म आरंभ होने के एक सप्ताह के भीतर यह इंजेक्शन लगवाती है। जब भी महिला गर्भधारण करना चाहे, डोज लेना बंद कर सकती है।