Continuing Concerns:

An Assessment of Quality of Care and Consequence of Female Sterilization in Bundi District of Rajasthan in 2009-10

- Swarup R Pal, Bajrang Singh, Shreeti Shakya[1]

BACKGROUND

Female sterilization is the mainstay of India's Family Planning Program. It has been argued that target based approach to family planning is a well entrenched practice in the public health system in India (Ved and Dua; Media Clippings). According to the last round of the National Family Health Survey (NFHS III, 2005-06), out of the total women aged between 15-49 years in Rajasthan who were using any modern method of contraception for family planning, 77% had undergone sterilization, while at the national level the same figure was 66%. Though female sterilization has been the main stay issues around provisioning quality services have remained an issue of concern in the past (Das, Rai and Singh; Syed; Noopur & Sharma; Ramachandran). The Government of India had revised the quality of care guidelines (MOHFW, 2006) subsequent to the Supreme Court directions in the Ramakant Rai and others vs Union of India (Das, Chowdhury, et al.). This study reviews the quality of care currently made available to women undergoing female sterilization in Rajasthan.

Manjari is an organization working in Nainwa block of Bundi district since 2009. During interactions with women, workers of Manjari came across cases of failures and 'complications' after female sterilization. This experience motivated the organization to inquire in detail into the issue of process and outcomes of sterilization among women.

While there have been studies on the quality of sterilization services in India, little evidence exists on the rate of adverse consequences (failure, complication, side effects) and quality of follow up care of female sterilization in the country. The studies indicate poor quality of services at sterilization camps and large scale flouting of Government of India's Guideline on female sterilization. According to international authorities, the failure rate (chance of becoming pregnant after the operation) of female sterilization is around one in 200, the rate of complication around one in 100, and the risk of death around three in 100,000 procedures. Authors have also drawn attention to the fact that short interval failures should be considered 'negligent failures'. There are also reports of increased risk of hysterectomy among women who undergo tubectomy, and that women aged below 30 years with pre-existing histories of menstrual dysfunction are at increased risk of some post-tubal sterilization symptoms.

STUDY OBJECTIVES

1. To assess the quality of care provided to women prior to sterilization.
2. To estimate the rate of post sterilization adverse consequences among women- major side effects, complications, failure.
3. To assess the quality of follow up care of sterilization services received by women.

STUDY SETTING

Bundi district is located at the south-eastern part of Rajasthan and is overwhelmingly rural with 97% of the geographical area being considered rural. According to the 2011 census, the district has population of 1.11 million with a sizeable scheduled caste (SC) and scheduled tribe (ST) population (SC – 18%; ST – 20% as per 2001 census). The primary livelihood of the people is agriculture, wage labor, keeping and grazing livestock. The area is socially backward with high rate of early marriage of girls, low education of women (47% female literacy rate as per 2011 census) and an adverse sex ratio (922).

METHODOLOGY

The study is quantitative, cross sectional and retrospective in nature. All the women who had undergone sterilization during 2009-10 at public health facilities (PHC/CHC/Camp) in Nainwa block of Bundi district of Rajasthan were taken as study population. The list of the women was collected from Block Medical Office at Nainwa. However, out of the total 954 women listed, only 749 women could be interviewed. Due to incomplete data 79 women could not be traced and the rest could not be interviewed due to different reasons. The interview was conducted using a structured schedule between February to April 2011. The data entry was done in EPI Info and analysis has been done using SPSS version12.

Operational definition of 'Quality of care': The survey questionnaire was prepared based on the "Standards for Female and Male Sterilization Services" issued by Research

[1] Swarup R Pal and Bajrang Singh are associated with Manjari, Rajasthan. Shreeti is associated with CHSJ, New Delhi.

Studies and Standard Divisions of Ministry of Health and Family Welfare, Government of India (GOI) in October 2006.

Limitation: Although efforts were made as much as possible to maintain the privacy of the women during the interview, curious onlookers and family members were difficult to disband. Due to logistical reason and lack of local female staff, male staff were involved in data collection. The staff were adequately oriented and trained before data collection. There may be recall bias of the women in the study. The current study has been done within one year of sterilization which could limit the estimate of overall sterilization failure rates.

Ethical aspects: The study proposal has undergone the ethical review process by Ethics Group of School of Public Health, SRM University, Chennai. A consent form was read out to all respondents prior to the interview informing them about the purpose of the study, confidentiality and the choice to opt out during the interview.

FINDINGS

Profile of women

Socioeconomic: The study found the mean age at sterilization was 29.6 years. More than three fourth received no formal education and only about 8% went beyond 5th standard. More than 40% of the sample was from the marginalized sections of the society (SC – 15%; ST – 28%).

Fertility of women: More than 70% women underwent sterilization after having 3 or more children and the mean number of children at the time of sterilization was 3.21. If the data is further disaggregated by number of sons (table 1), one can see a strong son preference. Except one woman all other underwent sterilization after having at least 1 son.

Table 1
Percentage distribution of women by number of total children and number of sons, Bundi, 2009-2010

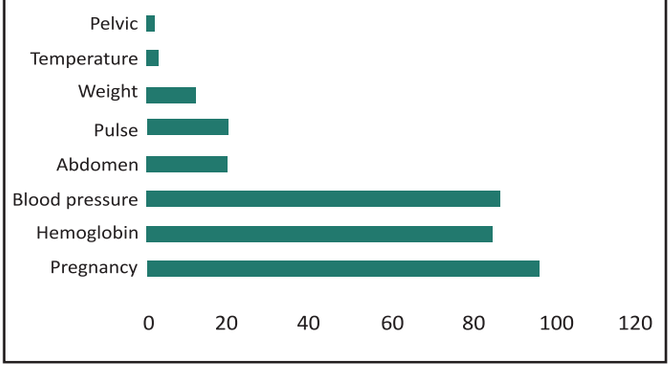
Total children	Number of sons			Total
	0-1	2	3 or <	
1 to 2	42.0	29.7	0	29.8
1 to 4	47.6	59.0	73.4	57.3
5 & <	10.4	11.3	26.6	13.0
Total	100 (231)	100 (424)	100 (94)	100 (749)

Pre sterilization quality of care

Counseling and consent: Only 12% women were counseled about other available choices of contraception while about 42% reported that they were not counseled about the permanency of sterilization. 88% women reported that they were not informed about the likelihood of complications, failures or side effects after sterilization. The women have responded that primarily ASHA, ANM and AWW had counseled them. All the women except one reported that consent form was not read out or explained to them before signature or thumb impression, which is essential for informed consent.

Medical screening and medical history of women: The Guideline on Female Sterilization of Government of India (GOI) stipulates about 11 mandatory physical examinations and laboratory tests and a list of medical history to be taken of the women. But the study found that not a single woman underwent all the mandatory medical screenings. Only 3 of the 11 mandatory screenings were being done viz. pregnancy test, hemoglobin and blood pressure (Fig 1).

Fig. 1 : Percentage distribution of women for different physical examinations & laboratory tests before sterilization, Bundi, 2009-10



Post sterilization quality of care

Care at the health facility: Almost all the women reported that they were discharged within 4 hours after sterilization

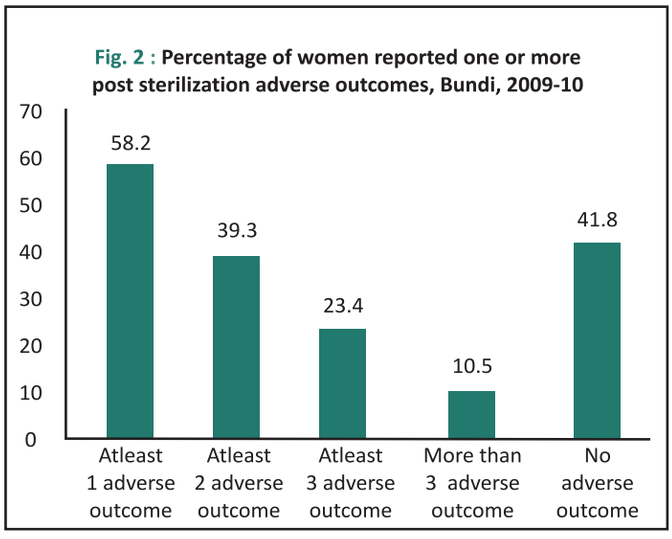
Table 2
Percentage distribution of women by types of advice/care received after sterilization, Bundi, 2009-2010

As per GOI Guideline		%
i	Rest for the remaining part of the day	13.5
ii.	Resume only light work after 48 hours	14.7
iii.	Gradually return to full activity by two weeks	2.0
iv.	Bathe after 24 hours following the surgery	22.7
v.	Keep the incision clean and dry	36
vi.	Resume normal diet as soon as possible	24.6
vii.	Use medicine as advised	18.3
viii.	Report to the doctor for any discomfort	4.1
ix.	***No visit by health worker at all***	***27.2***
x	First contact with health worker within 48hrs.	53.7
xi.	Atleast 3 contact with health worker within 1 month	40.5
Not as per GOI Guidelines		
i.	Not to pick up heavy items	11.5
ii.	Take rest for 1-2 months	2.0
iii.	Have milk	30.0
iv.	Light food intake	9.3
v.	Sexual abstinence for 1-2 months	23.9

procedure in violation of the GOI guideline which stipulates that women be discharged 4 hrs after sterilization. About 8% women reported that they hadn't regained consciousness at the time of their discharge and some regained consciousness only on the next day. One fifth of the women reported being checked by the doctor at the time of discharge. The type of advice/care received by women at discharge or contact with women is given in Table 2.

Contact by health worker: The health workers are supposed to make follow up contacts with the women at regular intervals following sterilization. Only 40.5% women had 3 contacts within 1 month of the operation mandated by the guideline. 27% women were not visited by any health worker following the operation at their home.

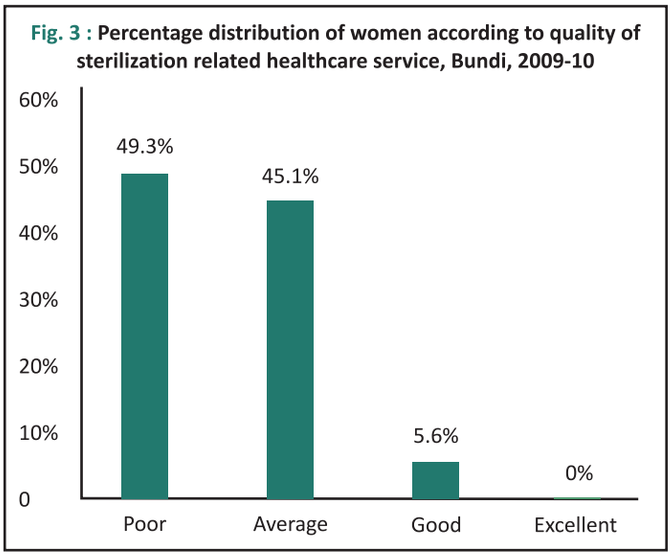
About 58.2% women who had sterilization during 2009-10 at Nainwa block reported at least one kind of side effect after the sterilization. The most common complaint reported by women (36%) was persistent abdominal pain (Table 3) followed by abdominal distension or tenderness. Also a significant proportion of women experienced problem to move and waist pain. About 40% women reported multiple adverse outcomes after sterilization (Fig 2) with 10% reporting more than 3 physical problems.



Nineteen or 2.5% women reported getting pregnant after sterilization in the study which is far higher than the international standard of 0.5%.

Quality of sterilization related healthcare

In order to rate the quality of services received by woman, a quality of care scale was constructed. If a service was received, a score of 1 was assigned. The questionnaire included 28 such questions giving a maximum value of 28 for the scale. For rating the services a score of 12 or below was considered to be 'Poor', a score of 13 to 17 as 'Average', a score of 18 to as 'Good' while a score of 23 or above was considered as 'Excellent'. According to this scale, about half the women received 'poor' healthcare services while another 45% received 'average' quality of sterilization healthcare services. Only about 6% women received 'good' healthcare services. None received 'excellent' service (Fig 3).



Out of the women who had received 'Poor' healthcare service, 72% reported one or more adverse health outcomes, while 47% of the women who had received 'Average' healthcare service reported to have one or more adverse health outcome subsequently. Only 24% of the women who had received 'Good' healthcare service reported one or more adverse health outcome (Table 4). Bivariate analysis was conducted to understand the chances of having an adverse outcome due to 'poor' services as compared to 'good' services. It was found that the chance of an adverse outcome was about 5 times more when the service was poor [Odds ratio 4.85 (CI 2.25-10.72)]. This finding also compares with the rate of sterilization failure estimated in the current study (2.5%) which is five times the international standard of 0.5%, when quality is expected to be good or excellent.

Table 4
Percentage distribution of women by quality of healthcare service and adverse health outcome (%), Bundi, 2009-10

	Quality of service			Total
	Poor	Average	Good	
No adverse outcome	27.8	52.8	76.2	41.8
At least 1 adverse outcome	72.2	47.2	23.8	58.2
Total	**100.0 (370)**	**100.0 (337)**	**100.0 (42)**	**100.0 (749)**

CONCLUSION AND RECOMMENDATIONS

The study highlights that there are continuing concern around the poor quality of care and the consequent adverse outcomes that the five million women who undergo

sterilization every year in India may be facing across the country

- This study indicates over half the women (58%) who have undergone sterilization experience at least one type of adverse health condition after sterilization.
- The rate of sterilization failure found in the current study is 2.5% which is far higher than the international standard 0.5%.
- The quality of care at the pre and post operative state was found to be wanting with very poor counseling, absence of informed consent, limited pre operative screenings, early discharge without any post operative check-up and even in unconscious state, lack of post operative counseling and care.
- A clear relationship appears to exist between the quality of healthcare service and incidence of adverse health outcome with 72% of the women who had received 'Poor' healthcare service reporting at least one adverse health outcome subsequently.
- The poor quality of care was found to be statistically related to the quality healthcare received by women with statistical tests confirming the relationship between poor quality adverse outcomes after sterilization.

These findings indicate that much needs to be done to strengthen the family planning programme and to improve the experience of women who choose to use female sterilization as their method of contraception.

- There needs to be a greater emphasis on temporary methods while strengthening the quality of sterilization services.
- Service providers need to be trained and monitored about the importance of counseling and informed consent not only because of their human rights dimensions but because of their relationship with adverse outcomes.
- Reporting of the cases of failures, complications and other adverse outcomes needs to be made mandatory for reviewing quality of care and these reports should be publicly accessible.
- The quality assurance mechanism which is supposed to exist at the district level needs to be strengthened and publish its review and compliance reports which are publicly accessible.
- Information about symptoms of complication and failure and statutory entitlements eg. Family Planning Insurance Scheme should be widely publicized including printing at the back of the discharge certificate.
- Data maintenance systems need to be strengthened.

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About the Organization: Manjari is a newly formed social organization working in Nainwa block of Bundi district in Rajasthan on women's and adolescent health issues and is supporting NRHM implementation.. Manjari is an active member of Rajasthan State Child Rights Protection Campaign. Contact: bundi.manjari@gmail.com or 09829096288

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CHSJ
New Delhi

SPH, SRM University
Kattankulathur, TN

UNFPA India
New Delhi

Centre for Health and Social Justice
Basement of Young Women's Hostel No. 2, Avenue 21, G Block, Saket, New Delhi 110 017
Phone : 91-11-26511425, 26535203, 26536163 Telefax : 91-11-26536041 E-mail: chsj@chsj.org Website: www.chsj.org