Dissertation Title

Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand

A dissertation submitted in partial fulfillment of the requirements for the award of

Post-Graduate Diploma in Health and Hospital Management

By

Rakesh Mehra

International Institute of Health Management Research

New Delhi -110075

April 2011

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By

Rakesh Mehra

Under the guidance of

Dr Hari Singh
Project Director
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New Delhi -110075

April 12, 2011

Certificate of Internship Completion

Date: 02/05/11

TO WHOM IT MAY CONCERN

This is to certify that Dr Rakesh Mehra have successfully completed his internship in our organization from February, 2011 to April, 2011. During this intern he has worked on **"Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand"** under the guidance of me and my team at Engenderhealth International.

(Signature)

Dr Hari Singh

Country Representative

Engenderhealth International.

Certificate of Approval

The following dissertation titled **"Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand"** is hereby approved as certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the under signed do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation

Name	Signature
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Certificate from Dissertation Advisory Committee

This is to certify that **Dr. Rakesh Mehra,** a participant of **Post Graduate Diploma in Health and Hospital Management,** worked under our guidance and supervision. He is submitting this dissertation titled **"Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand"** in partial fulfillment of the requirements for the award of the **Post Graduate Diploma in Health and Hospital Management.**

This dissertation has the requisite standard and to best of our knowledge and no part of it has been reproduced from any other dissertation, monograph, report or book.

Dr. SK Patel,
Assistant Professor,
IIHMR, New Delhi,

Dr. Hari Singh ,
Country Representative,
Engenderhealth International,

Abstract

Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand

By

Rakesh Mehra

Background and Methodology This study was conducted to assess the knowledge and perception of community based health workers regarding non – scalpel vasectomy. This quantitative pre – post test non experimental study was conducted in Simdega district of Jharkhand. From the seven blocks of Simdega, four blocks were chosen for the study and from the selected blocks 200 community based health workers were chosen randomly for the study. This study documented their knowledge about NSV and their perception related to the same.

Results It was found from the study that only 62.3 per cent were aware of the eligibility criteria for NSV, procedure, post operative care and after effect of non – scalpel vasectomy. After they got orientation on NSV there is a significant improvement in their knowledge about the same. Now 89 per cent community based health workers had the right knowledge of NSV.

Conclusion and Recommendation From the study it was found that community based health workers are lacking in the complete and correct knowledge of the procedure so that they are unable to convey the right information to the community and this result in low acceptance for the health services. So it becomes necessary that they should have complete and correct knowledge about the health services. Small orientation and re – orientations are useful for this kind of knowledge improvement.

ACKNOWLEDGEMENT

At every stage during the last three months, right from the conceptualization of the topic & this project to its completion, I have received constant support, guidance and encouragement from my respected faculty and guides.

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I am extremely grateful to my Director and Dean of IIHMR, New Delhi for taking time to share their vast knowledge with us. It is just because of these great teachers and guides; we are able to stand tall and able to complete this project.

I would like to articulate my regards to entire staff of EngenderHealth International & IIHMR for being answerable to my uncertainties and providing us with all the details required.

Last but not the least, I am honored to have the privilege to thank my family for their unparalleled love and for providing me all the opportunities and amenities I ultimately desired for.

To owe the debt individually would be an endless task.

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Abbreviation

ANM	Auxiliary Nurse Midwife
BPL	Below Poverty Line
CPR	Contraceptive Prevalence Rate
DLHS	District Level Household Survey
IEC	Information Education Communication
IUD	Intra – Uterine Devise
JSK	Jansankhya Sthirata Kosh
MCH	Mother and Child Health
NFHS	National Family Health Survey
NSV	Non – Scalpel Vasectomy
RCH	Reproductive and Child Health
SPSS	Statistical Package for Social Sciences
WHO/RHR	World Health Organization/Reproductive Health Research

PART I

INTERNSHIP REPORT

INTERNSHIP REFLECTION

Introduction to Organization:

EngenderHealth is a leading international reproductive health organization working to improve the quality of health care in the world's poorest communities. EngenderHealth empowers people to make informed choices about contraception, trains health providers to make motherhood safer, promotes gender equity, enhances the quality of HIV and AIDS services, and advocates for positive policy change. The non-profit organization works in partnership with governments, institutions, communities, and health care professionals in more than 25 countries around the world. Since 1943, EngenderHealth has reached more than 100 million people to help them realize a better life.

Mission:

EngenderHealth works to improve the health and well-being of people in the poorest communities of the world. Engenderhealth do this by sharing our expertise in sexual and reproductive health and transforming the quality of health care. We promote gender equity, advocate for sound practices and policies, and inspire people to assert their rights to better, healthier lives. Working in partnership with local organizations, we adapt our work in response to local needs.

History:

EngenderHealth's more than 65-year history is one of innovation, commitment, and dynamism. From our beginning as a small, local volunteer association advocating safe and legal sterilization in the United States, EngenderHealth evolved to the leading international organization dedicated to expanding high-quality, clinic-based, client centered reproductive health services in the poorest countries of the world. We achieved this by tackling tough issues that others shied away from, guided by optimism that when local needs are understood and met, a better life is possible anywhere.

Going Global:

During the 1970s EngenderHealth was transformed from a domestic advocacy and education organization focused on access to voluntary surgical sterilization to an organization at the forefront of defining quality reproductive health care for men and women in the world's poorest communities. We did this by transferring knowledge about clinical technique, safety, counseling, and informed consent to partners overseas. We created curricula and trained medical teams. We developed facility guidelines and identified technologies to ensure safety and infection prevention even in the most basic clinics in poor, remote regions. Building on our roots as advocates for services, we became the world's foremost technical authority on surgical sterilization and on the counseling and informed consent needed to protect individuals' rights and guarantee choice. Within 10 years of launching our global work, we had overcome the barriers posed by religion, law, and capacity to make voluntary sterilization part of numerous national family planning programs and, by the end of the 1970s, the most widely used contraceptive worldwide.

EngenderHealth can rightfully claim a role in the development of safe and voluntary sterilization services in 90 countries. In doing so, we established the fundamentals of quality care—informed choice, respect for clients' rights, and provision of safe services by well-trained providers. This set the stage for the introduction of other contraceptive technologies, including long-acting methods such as the IUD and implants, in places where many would not have dreamed that such methods would be accepted. Knowing that programs succeeded when communities participated in designing services and when individuals were empowered to use them, we championed a comprehensive approach to reproductive health care.

EngenderHealth Today:

While expanding family planning remained paramount, we started addressing the broader context of individuals' reproductive health, as reflected in our name. Today, our landmark Men As Partners® program fosters men's support of women's health and rights. Across the globe, we share our technical expertise to improve obstetric practices that help millions of women to give birth safely to healthy babies. We ensure access to prevention and care for people living with HIV, and we continue to advocate for policy changes that will increase reproductive health options.

For over 65 years, EngenderHealth's pioneering work has improved access to and quality of family planning and reproductive health services for more than 100 million people. Yet never in our history has the need for our work been greater. With 350 million couples needing family planning, hundreds of thousands of preventable maternal deaths occurring annually, and substandard HIV care impairing treatment, EngenderHealth is forging ahead to empower people in the world's poorest communities to realize health and well-being that last.

Location:

Made up of highly skilled medical personnel, health care trainers, and public health professionals, our staff works around the globe to help health care workers, counselors, administrators, and physicians deliver high-quality health care services in some of the world's poorest countries.

Based in New York City, EngenderHealth has 18 offices around the world, and 80% of our staff works in countries across Asia, Africa, and Americas.

Programmes:

Family Planning

Across the globe, we have proven that even in resource-poor settings, family planning services can be safe, effective and affordable.

Maternal Health

Our approach to maternal health is holistic, addressing women's sexual and reproductive health needs throughout their lives. We work to equip health facilities with medical supplies and well-trained staff to provide high quality services.

HIV, AIDS, and Sexually Transmitted Infections

To help overcome the global HIV epidemic, we train health providers, improve health services, and advocate for national and international policies that respond to the needs of people living with HIV.

Promoting Gender Equity

Addressing gender issues is essential to improving the health of both women and men. Through our Men As Partners® program and other initiatives, we mobilize men to support their partners' reproductive health, promote gender equity, and reduce gender-based violence.

Partnering with Youth

We believe all young people have the right to health, respect, and appropriate services that respond to their specific needs. In particular, we work to increase their access to critical sexual and reproductive health information and services.

Improving Clinical Quality

We improve the quality of health care in the world's poorest communities by training providers to be responsive and informative, preventing infection, and increasing communication among staff. Our pioneering COPE® process has been used around the world.

Advocacy and Policy

We work locally, globally, and in the United States to influence evidence-based policy change that will lead to lasting improvements in reproductive health care services.

Major Projects:

EngenderHealth is the managing partner of several major projects – consortiums of organizations working in partnership to achieve the maximum impact on public health. These projects are country-specific, regional, or global in scope, and capitalize on the complementary capabilities of each collaborating agency. As the lead organization, EngenderHealth oversees the projects' finances, strategies, and operations while managing the partnerships. In addition, EngenderHealth contributes its specialized technical expertise to each project.

- The APHIA-Nyanza Project works to improve the reproductive health of the people in Nyanza, a province in western Kenya, and focuses on HIV and AIDS, family planning, and many other areas.
- The ACQUIRE Tanzania Project (ATP) expands access to quality family planning services, with an emphasis on long-acting and permanent methods. ATP also increases access to comprehensive post-abortion care and prevention of mother-to-child HIV transmission services.
- AWARE II advances family planning, reproductive health, maternal and neonatal health, and HIV and AIDS prevention, care, and treatment throughout West Africa.

- The CHAMPION Project increases men's involvement in preventing the spread of HIV in Tanzania, by taking a holistic approach to HIV prevention and addressing the underlying gender issues that drive HIV transmission.
- Fistula Care is the largest U.S. government-funded effort to date to focus on treatment and prevention of obstetric fistula.
- The Maternal Health Task Force Project brings together existing maternal health networks and engages new organizations to facilitate global coordination of maternal health programs.
- The Male Circumcision Consortium improves and expands access to voluntary medical circumcision services in Kenya as part of an overall strategy to reduce HIV infections in men.
- The R3M Project (Reducing Maternal Mortality and Morbidity) supports family planning and long-term and permanent contraceptives in Ghana.
- The RESPOND Project aims to increase access to a range of contraceptives, with particular focus on long-acting and permanent methods. These effective methods (implants, IUDs, and male and female sterilization) remain underutilized in many developing countries, even though they are safe, convenient, and cost-effective.

Working Area:

The RESPOND Project – NSV Initiative in India

The RESPOND Project is a five-year USAID Leader with Associates Cooperative Agreement awarded in October 2009, the purpose of which is to address the need for family planning through expanding contraceptive choices and program services. RESPOND is led by EngenderHealth, in partnership with six other organizations: Johns Hopkins Bloomberg School of Public Health Center for Communication Programs (JHU/CCP), the Futures Institute, the Population Council, Family Health International, Meridian Group International, Inc., and Cicatelli Associates, Inc. As a Leader with Associates award, the project allows USAID missions to draw upon RESPOND's ability to provide technical leadership and assistance to advance knowledge, systems, and support for family planning programs.

In India, RESPOND partners EngenderHealth and JHU/CCP are providing technical assistance to the Government of Uttar Pradesh and Jharkhand and other local partners to expand awareness of, acceptance of, and access to no-scalpel vasectomy (NSV) services. RESPOND's technical assistance follows a holistic **Supply-Demand-Advocacy (SDA) model** that complements the Govt. of UP and Jharkhand strategic approach. On the **supply** side, strengthened service delivery components—NSV training, backstopping, and facilitation of service site readiness—will result in increased availability of male-friendly service sites with skilled, motivated, well-supported NSV service providers. On the **demand** side, engaging communities and providing up-to-date, accurate information about NSV not only will increase knowledge of NSV but will also improve the image of NSV services. **Advocacy** is incorporated for an improved policy and program environment for NSV, with policies based on evidence and maximizing resources to meet needs for NSV services. Together, these components lead to a better-resourced and more productive, supported, and sustainable program.

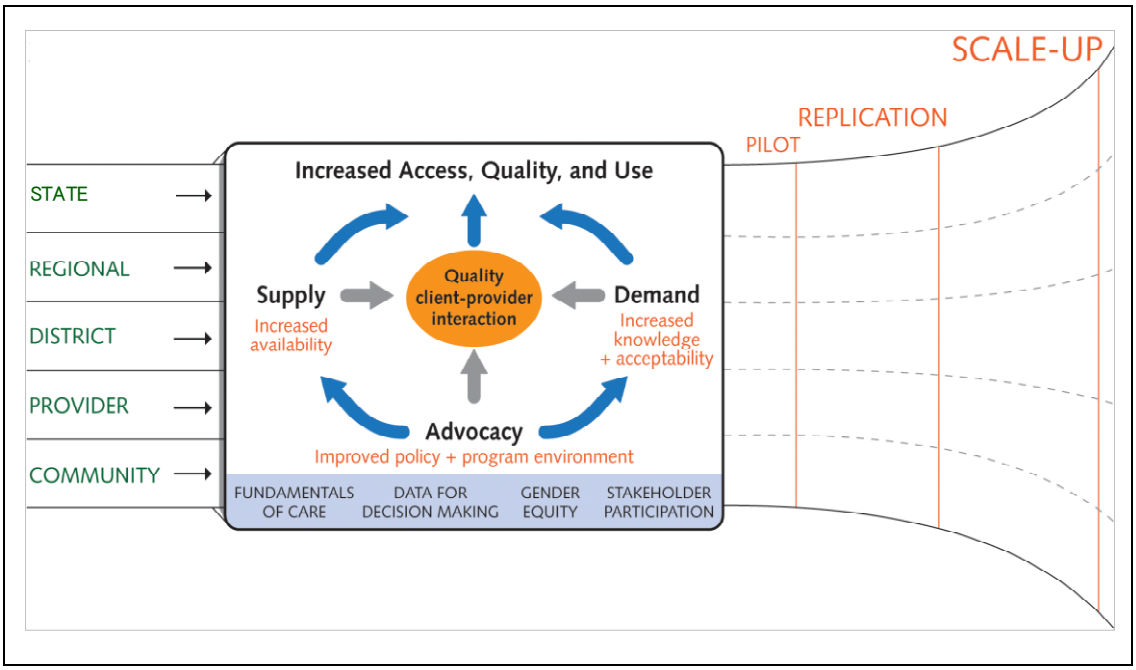
RESPOND works with local partners to expand awareness and acceptance of as well as access to NSV through three main results areas:

Result 1: Increased supply of quality NSV services

Result 2: Increased demand for NSV

Result 3: Improved advocacy and policy in support of NSV

RESPOND Expanded Supply-Demand-Advocacy Framework



JOB SUMMARY:

The Program Officer is responsible for timely implementation of the project's activities related to NSV and QA components as per work plan; for documentation, analysis, and reporting the results.

RESPONSIBILITIES:

- Participate in the development of the project workplans
- Liaison with district health officials- CMOs, DPOs, DPMOs; district health society; block health officials- MOICs, HEOs; Panchayati raj officials and other stakeholders to create supportive environment for the project
- Support district health officials and NSV providers in organizing NSV camps
- Provide guidance to the facility staff to improve the quality and utilization of NSV services in the NSV camps
- Observe and identify promising practices while organizing NSV camps
- Conduct orientation on NSV for ASHAs and other outreach workers
- Coach and support ASHAs in mobilizing NSV clients, including clients for NSV camps
- Identify and develop ASHA peer educators
- Together with the Senior Program Officers identify doctors from public and private sector for NSV training and facilitate their participation in the training
- Organize activities to follow up of trained providers
- Facilitate assessment of facility readiness to provide quality NSV services;
- Train facility staff on quality of NSV services
- Work closely with the Project's Senior Technical Advisor for Demand Generation and the BCC Specialist to provide input in IEC materials' development
- Assist the Project Manager in organizing and conducting orientation workshops for the stakeholders on quality improvement and quality assurance
- Organize and conduct QI and QA activities at the project's selected sites
- Organize and provide assistance in conducting training in facilitative supervision and COPE®

- Build capacity in local health officials in implementation of QI/QA activities and in involving staff in the QI process
- Collect district and facility level monitoring data; submit the data to be entered into a database; analyze the data to present the results of the project's interventions in NSV and QA areas, and provide recommendations for improvements
- Document project activities and prepare monthly progress reports; provide input in the quarterly progress and annual project's reports.
- Work closely with other project staff to coordinate efforts to support project's implementation
- Report to Senior Program Officer and assist him in all project implementation aspects

Reflective Learning:

Understanding different aspect of Health Care System

Conduction of training for ASHAs, ANMs, Link Workers

Behavior Change Communication and community mobilization strategies

Organizing camps and quality assurance of those camps

PART II

Study on “Pre & Post - Orientation Assessment of Knowledge and Perception of Community Based Health Workers Regarding NSV (Non-Scalpel Vasectomy) in Simdega District, Jharkhand”

Introduction

Background

Family planning allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility [1]. The vision of WHO/RHR is the attainment by all people of the highest possible level of sexual and reproductive health. It strives for a world where all women's and men's rights to enjoy sexual and reproductive health are promoted and protected, and all women and men, including adolescents and those who are underserved or marginalized, have access to sexual and reproductive health information and services [2]. And India was the first country in the world that recognized the need for population stabilization in 1951 as an essential prerequisite for sustaining a good quality of life and a National Family Planning Program was launched in 1952. The approach changed from clinic to extension education approach in third five year plan and later on it was an integral part of MCH activities but it could not make much impact. Program suffered a setback in 1976 due to element of coercion introduced in the program and its political fallout; the political support was lost [3].

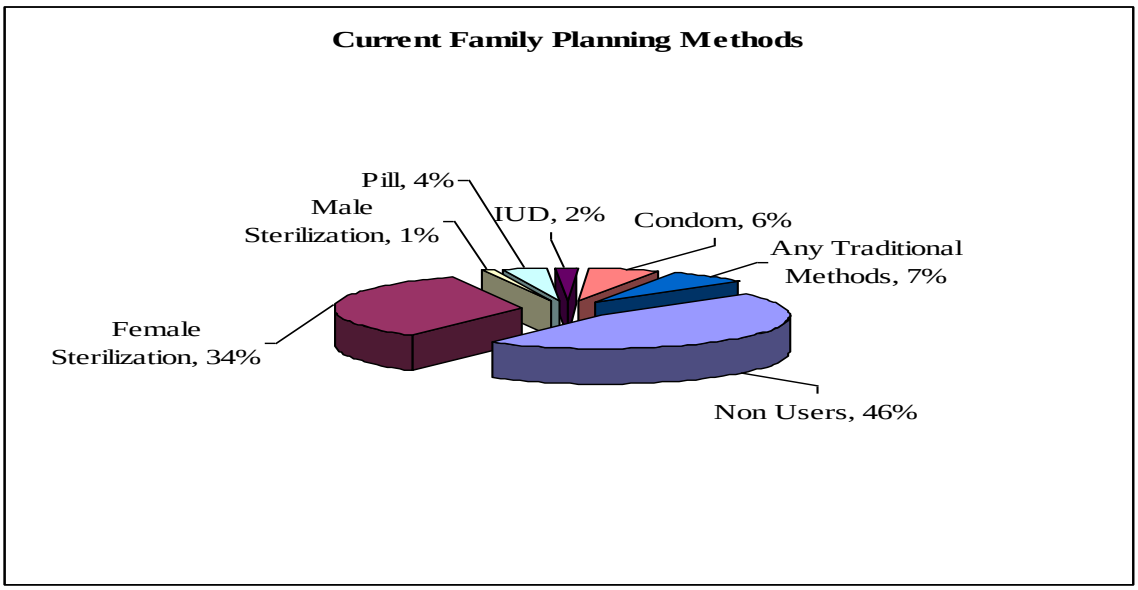
The Population Policy 1977 clearly underscored that "compulsion in the area of family welfare must be ruled out for all times to come," and emphasized the need for an educational and motivational approach to make acceptance of family planning completely voluntary. In 1996, the government initiated the target-free Community Needs Assessment Approach, which involved formulating plans in consultation with communities [4].

In 2000, the National Population Policy was reformulated to achieve long-term population stabilization by 2045 and replacement level of fertility by 2010. The policy reiterates the commitment to voluntary and informed choice, and to citizens' consent while accessing reproductive health care, including family planning. The immediate objective is to address the unmet need for contraception [5].

Despite of these efforts from the govt., acceptance of family planning methods is very low. According to JSK report only 54 per cent are using any of the family planning

methods out of which male participation is only 7 per cent i.e. 1 percent male sterilization and 6 per cent condom use.

Figure: 1, Current Family Planning Methods

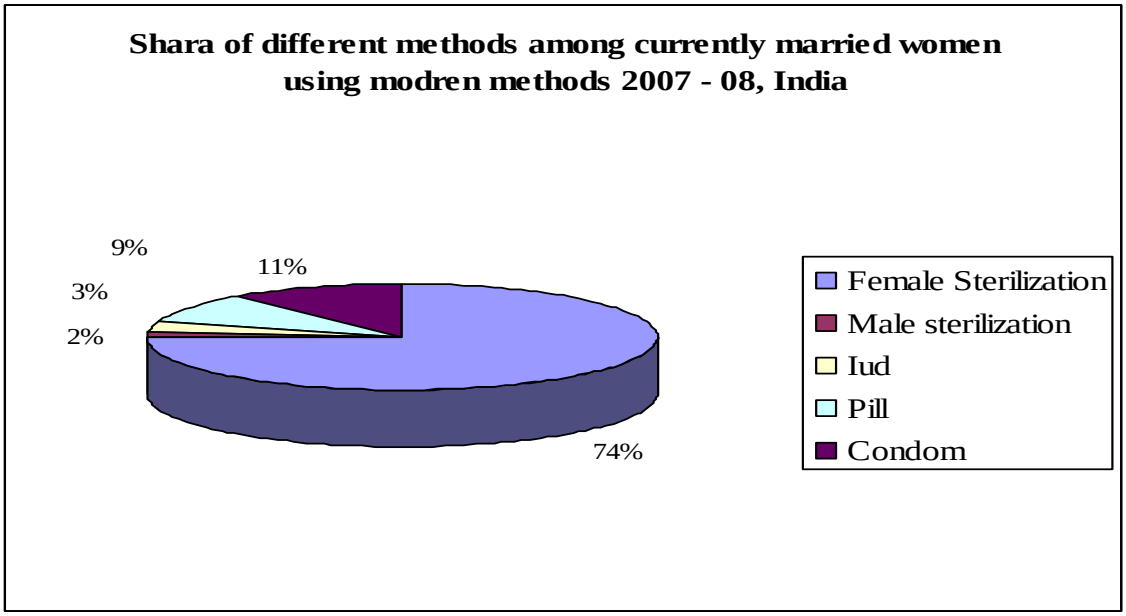


Source: Jansankhaya Sathirta Kosh

Rest of the methods are female oriented i.e. 34 per cent female sterilization, 4 per cent oral contraceptive pills and 2 per cent IUD. Remaining 7 per cent uses any traditional method of contraception for limiting their family size.

According DLHS – III, female sterilization is one of the most accepted contraceptive methods with 74 per cent among currently married women whereas male participation is only 2 percent

Figure: 2, Share of Modern Contraceptive Methods among Currently Married Women



Source: District Level Household Surveys, 2007-08

According to the latest National Family Health Survey (NFHS-3), two out of three married Indian women aged 15–49 who practice contraception still use female sterilization. In rural areas, the proportion is even higher, with 70 per cent of contraceptive users relying on female sterilization. Overall, 37 per cent of all married Indian women of reproductive age are sterilized [6]. Now this is clear that male participation in family planning is very poor. They thought that family planning is the whole sole responsibility of female. Some of the main reasons for this disproportion between male and female participation in family planning are gender sensitive strategies have been neglected and, to a large extent, family planning programs have remained female oriented [7,8], Men feel that the sterilization operation is easier to perform on women than on men [9]. Some reproductive health practitioners have recognized that the failure to target men has weakened the impact of family planning programs, because men can significantly influence their partners' reproductive health decisions and use of health services especially in societies where women do not possess the same decision-making powers as men [10].

Rationale:

This study was conducted in Simdega district of Jharkhand. One of the country's least developed areas. Family planning programs in Jharkhand is traditionally focusing on women. Men's understanding of the terms was different from the definitions used in government family planning communication campaigns. Simdega has seven blocks with the population of 514320 with 256808 and 257512 male and female respectively. Literacy level is 41.88 per cent. Simdega has been identified as the poorest district of Jharkhand by Planning Commission as about 67.99 per cent of families are below poverty line (BPL). Knowledge and awareness about family planning methods in Simdega is not good as shown in the DLHS – 2003

Table: 1, Knowledge of Family Planning

	Per cent
Knowledge of any modern method	99.7
Any modern spacing method	57.0
All modern methods	10.1
Knowledge of any traditional method	16.9

(Source: RCH-DLHS survey 2003)

Table: 2, Current users of Family Planning

	Per cent
Any Method (CPR)	22.7
Any Modern Method	19.3
Female sterilization	14.3
Male Sterilization	0.0
IUD/Loop	1.4
Pills	2.1
Condom	1.4
Any Traditional method	2.9

(Source: RCH-DLHS survey 2003)

From the above data it is clear that male involvement on the family planning at Simdega district is very low. Small-scale studies of women and men also reflect the limited use of male/couple-dependent methods. For example, in a study of women in the slums and villages in Maharashtra, male dependent methods accounted for less than 10 per cent of total contraceptive prevalence [11].

Review of Literature:

In India, gender inequalities favor men and sexual and reproductive health decisions are usually made by them. Therefore, there is a growing realization that unless men are reached, the Reproductive and Child Health Program, including family welfare efforts, will have limited impact [12]. There are some other reasons for this kind of behavior like Men feel that the sterilization operation is easier to perform on women than on men, men's reasons for opting for female sterilization were based mainly on social norms that assign the burden of family planning to women. Men claimed to be influenced by social, cultural and economic factors, as well as by peer pressure, to get their wives sterilized. One of these factors, according to men, is that women do not do labor-intensive work and mostly stay at home. In addition, men were apprehensive about male sterilization, believing that it would lead to weakness and worrying that something might go wrong during the procedure. These findings are similar to observations in Uttar Pradesh [9]. The main reasons cited by men who said their wives would adopt female sterilization were that "only women undergo sterilization and not men"…. "Male sterilization is...very unpopular. Due to inadequate information, people talk of various side effects of the method like men become weak, men cannot do any heavy work, limbs become weak and painful, and men get cold and fever" [13].

Despite the introduction of "no-scalpel" vasectomy and campaigns to promote male involvement in family planning and reproductive health, the acceptance of vasectomy remained negligible—2 per cent of currently married couples nationally. A major effort has been made to train trainers for this procedure in the medical colleges at the district level. The proportion of male sterilization rose to 5.15 per cent in the year 2008-09 and it has maintained 5 per cent level for the period ending September 2009-10.

Table: 3, Total Sterilization Conducted in India, During 2008 - 09

NSV	Tubectomy	Total	percent of Tubectomy
226882	4791811	5018693	95.5percent

(Source = *FAMILY WELFARE STATISTICS IN INDIA – 2009)*

Although "No-Scalpel" vasectomy is in fact a safer and less invasive procedure than tubal sterilization, NSV is poorly accepted due to fear of loss of libido, strength, failure of

the method and an attitude that makes birth control as a responsibility of the woman at large because of the limited knowledge and awareness about the simplicity and safety of the procedure.

Furthermore, men say that the predominance of female sterilization results from lack of sufficient information about other contraceptive choices. The majority of them not only had no concept of family planning, but had not even taken any initiative to improve their knowledge or acceptance of condom/vasectomy. Men who were aware of contraceptive methods had little knowledge of their correct use [14]. Knowledge of contraception, as usually measured in national surveys, is unlikely to reflect a familiarity with and understanding of contraceptives adequate to lead to use. Of equal importance as awareness of contraceptive methods is knowledge of where these methods can be obtained, what the main side effects are and how to use the selected method correctly [15].

Evidence from a number of small-scale studies in various parts of the country indicates that inadequate knowledge of contraceptive methods is a reason for not accepting family planning [16]. Incomplete or erroneous information on where to obtain methods and how to use them is strongly associated with unmet need [17]. Moreover, several studies report that misconceptions are common among women and men, particularly related to the side effects of contraceptive methods [14].

Findings from the 2005–2006 National Family Health Survey show that mass media were men's primary source of family planning information. Television and radio may be major sources of information, as they are very popular among the rural population; however, mass media messages tend to be rather generic, and viewers are unable to ask questions and have their doubts clarified. Even though few men receive information from health workers [18]

In Simdega district, community health worker are the only source of information because it is a one of the poorest district of Jharkhand and populated with tribal community. Mass media is not accessible to them. Their literacy level is very low so any written information is not effective. And one to one communication is effective only when the community health workers have complete and right knowledge about the NSV. There is clearly a need to increase correct and timely knowledge about contraceptives among

women, men and community leaders through clinic- and community-based program regarding NSV. Information, education and communication (IEC) efforts need to be strengthened, and integrated within the training of all health providers. Apart from increasing access to male sterilization services and making them available at a regular basis in the primary health centre level, there is a need to strengthen the communication channel among the Community based health worker (ANM/SAHIYA) at the grass root level because they provide the first level care. Therefore it is essential to train these workers to create a positive attitude towards non scalpel vasectomy. So this study aimed to assess the knowledge and perception of community heath worker regarding NSV, where they were lacking in the knowledge and improvement in their knowledge after orientation on NSV.

Objectives:

General Objective

Comparative assessment of the knowledge and perception of community based health workers regarding NSV in Simdega district of Jharkhand**.**

Specific Objective

1) To assess the knowledge and perception of community based health workers regarding NSV
2) To identify the areas where community based health workers are lacking in knowledge about NSV.
3) To evaluate the improvement in the knowledge of community based health workers regarding NSV after orientation on non – scalpel vasectomy.

Data and Methods:

Study Design: Pre test-Post test non experimental study design

Population: this study was solely based on the knowledge and perception of community based workers i.e. SAHIYA who are same as that of ASHA. So the target population for the study was the community based health workers i.e. SAHIYAs of Simdega district, Jharkhand.

Sample Size: There are total seven blocks in the district. Out of those seven blocks four blocks were chosen on the basis of their previous performance in NSV. Two blocks were best performing and the other two were least performing.
Simple random sampling technique was used to choose two – two group of twenty five SAHIYAs, in total 50 from each block. So the total number of SAHIYA chosen for the study was 200 and the number of groups of SAHIYA was 8 from the selected four blocks. Sample size for the study was 200.

Data Collection Technique: As the study design is Pre test - Post test non experimental so the data was collected before and after the training/orientation on NSV, a test was conducted with the help of self administered questionnaire to assess their knowledge and perception toward NSV before orientation. After the pre test an orientation regarding NSV was given to the SAHIYA, which had a particular sequence starting from the what NSV is, who all are eligible for NSV, what is the procedure, what are the myths and misconception related to NSV, where do they get NSV services and what are the post operative precautions etc. After the orientation again same questionnaire was given to them to assess the improvement in the knowledge and clarity of myths and misconception. This is the standard technique which was followed in all orientation.

Data Collection Tool: Data was collected through the self administered close ended questionnaire, which comprises question on personal information like name, age,

education and address. And ten questions on NSV, out of which five questions were based on their knowledge about NSV and remaining five questions were based on the perception regarding NSV. Questionnaire was prepared by keeping in mind all the variables and will give an insight about the desired objectives. Questionnaire was framed after having a discussion with the concerned advisors both at organization and at IIHMR. Questionnaire is attached in annexure no. 1

Data Analysis: Once the data collection was done after the field work, data was checked for consistency, correctness and then filled into the SPSS files. The data collected was the quantitative data. Data analysis was done with the help of SPSS - 16. Data analysis plan was framed under the guidance of mentors. Analysis was done on the basis of score which SAHIYA got in the pre and post test. Improvement in their knowledge and perception was also analyzed through this technique with the help of software.

Results:

Total sample size was 200 SAHIYA, two - two groups of 25 SAHIYA from the selected four blocks. Average age of the study group was 29.53 years. Qualification of the study group was divided into five group i.e. primary, middle, secondary, higher secondary and graduate. And the number of the SAHIYA in each group were shown in table - 1

Table – 4, Qualification of Participants

Qualification	Frequency
Up to Primary	4
Primary to Middle	34
Middle to Secondary	117
Secondary to Higher secondary	38
Higher secondary to graduate	7
Total	200

At the end of the Study it was found that knowledge and perception about the NSV was not good before the orientation and after orientation there was a significant improvement. Before orientation the average score which they got in the test was 6.23, this shows their knowledge about the NSV and the myths and misconception related to non scalpel vasectomy. Post test score was 8.90 which shows the improvement in their knowledge and perception about the NSV. Score of knowledge about the procedure and criteria improved to 4.60 in post test from 3.29 in pre test and the score about the perception changes to 4.30 in post test from 2.94 in pre test. From the study it was found that community based health workers had pretty good knowledge about the eligibility criteria for NSV and the procedure in which 78 per cent SAHIYA knew the actual eligibility criteria of NSV but only 58 per cent knew that it is a stitch free technique. Duration of operation and reason for painless procedure is well known to them. The main areas where they were lacking were the effect on ejaculation after NSV, for how long one should use other contraceptive method after NSV and when one can resume to normal work after the procedure with the 38, 29 and 23 per cent respectively. And these are the main reasons

for which one can refuse the NSV. After the orientation there is a significant improvement in their knowledge about NSV as shown in table below. These results show that there was a significant improvement of 43 percent in their knowledge and perception about NSV after orientation but still there is requirement to give stress on the perception part because their perception about NSV is the major concern which could be the hindrance in NSV acceptance. After orientation there was an improvement in their knowledge but improvement in the part of knowledge is not up to the level.

Table – 5, Pre and Post Test Score of the Best and Least Performing Blocks

	Pre - Test Responses			**Post - Test Responses**		
Questions on Knowledge and Perception	**Best Performing**	**Least Performing**	**Total**	**Best Performing**	**Least Performing**	**Total**
Eligibility criterion	74	82	156	96	91	187
No. of stitches	56	53	109	96	95	191
Duration of operation	84	78	162	97	95	192
Reasons for painless procedure	88	83	171	92	91	183
Use of other contraception	32	27	59	81	86	167
One can return to home	86	62	148	97	98	195
Change in strength	86	78	164	97	96	193
Effect on ejaculation	38	39	77	72	65	137
Effect on sexual performance	78	76	154	90	88	178
Resume to normal work	23	23	46	80	77	157

Analysis:

As stated above there were total ten questions in the questionnaire out of those five were knowledge based and five were perception based. Analysis of these questions was done with the help of SPSS – 16. Analysis done below was the comparison of the Pre and Post test score and the effect of orientation.

Effect of the orientation on the knowledge about the eligibility criteria:

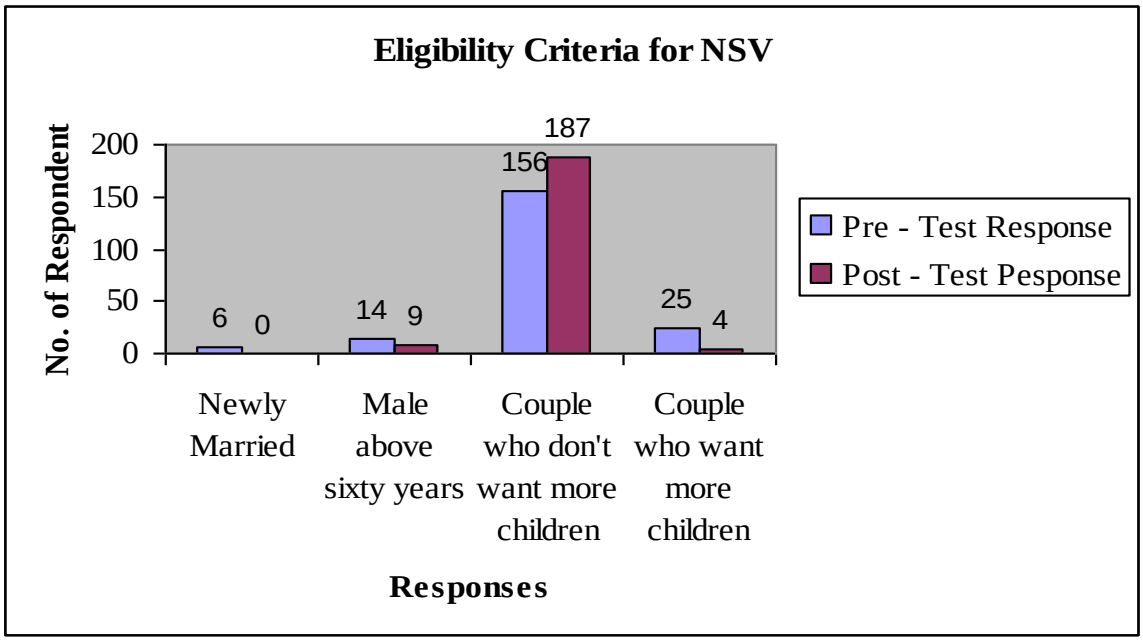


Figure – 3, Comparison between the pre & post test score about eligibility criteria

It was found that the community based health workers (SAHIYA) were already aware of the eligibility criteria for the NSV. There is no significant change in this part of knowledge. 156 SAHIYAs out of 200 already knew about the eligible criteria (i.e. couple who don't want more children are eligible for NSV). After the orientation there was an increase of twenty one SAHIYA who came to know about these criteria. Still there were thirteen SAHIYA who were not clear about this; they thought that couples who want more children and male above sixty years are eligible for NSV. Surprisingly there was increase in the number of respondents who thought that male above sixty years is eligible for NSV.

Improvement in the knowledge about the procedure of NSV

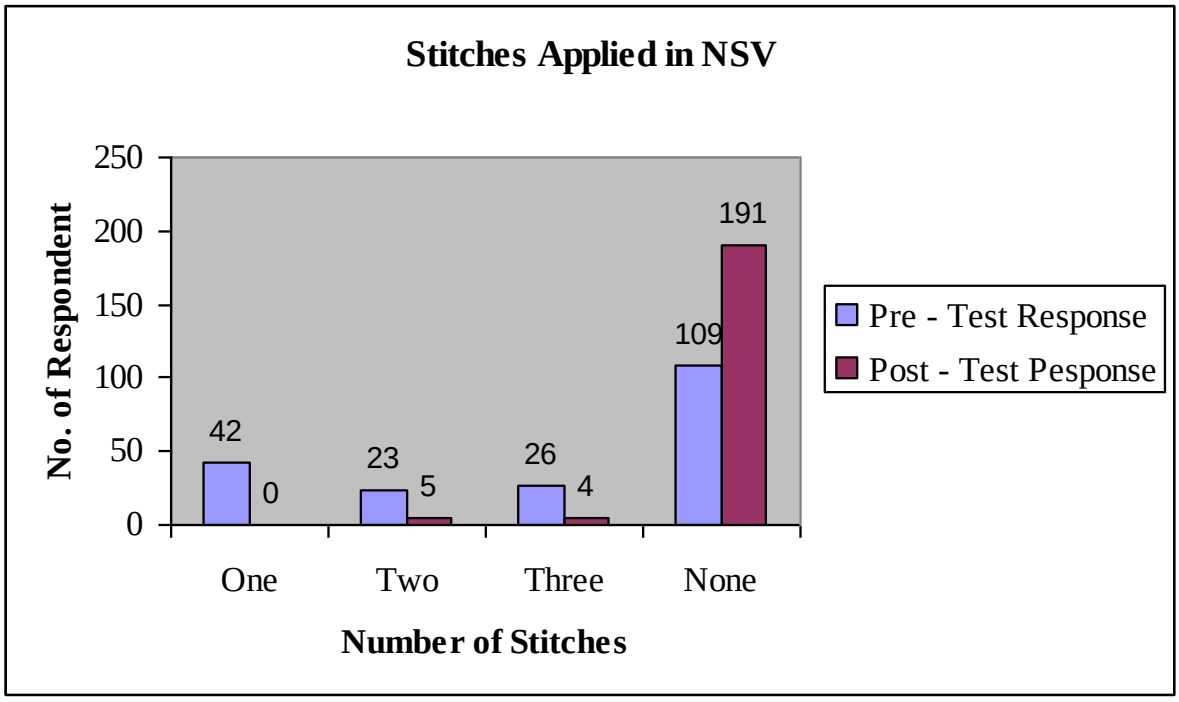


Figure – 4, comparison between pre & post test score about the NSV procedure

Before the orientation only 55 per cent SAHIYAs knew that NSV is a stitch free technique. 21 per cent said one stitch is applied, 12 per cent said two stitches applied and 13 per cent said three stitches were applied in NSV operation among rest of the 45 per cent SAHIYAs. After orientation 96 per cent SAHIYA gave the right answer i.e. 191 SAHIYAs gave the right answer that NSV is a stitch free technique. Still 5 SAHIYA thought that two stitches and 4 thought that three stitches were applied in this procedure.

Duration of NSV Operation

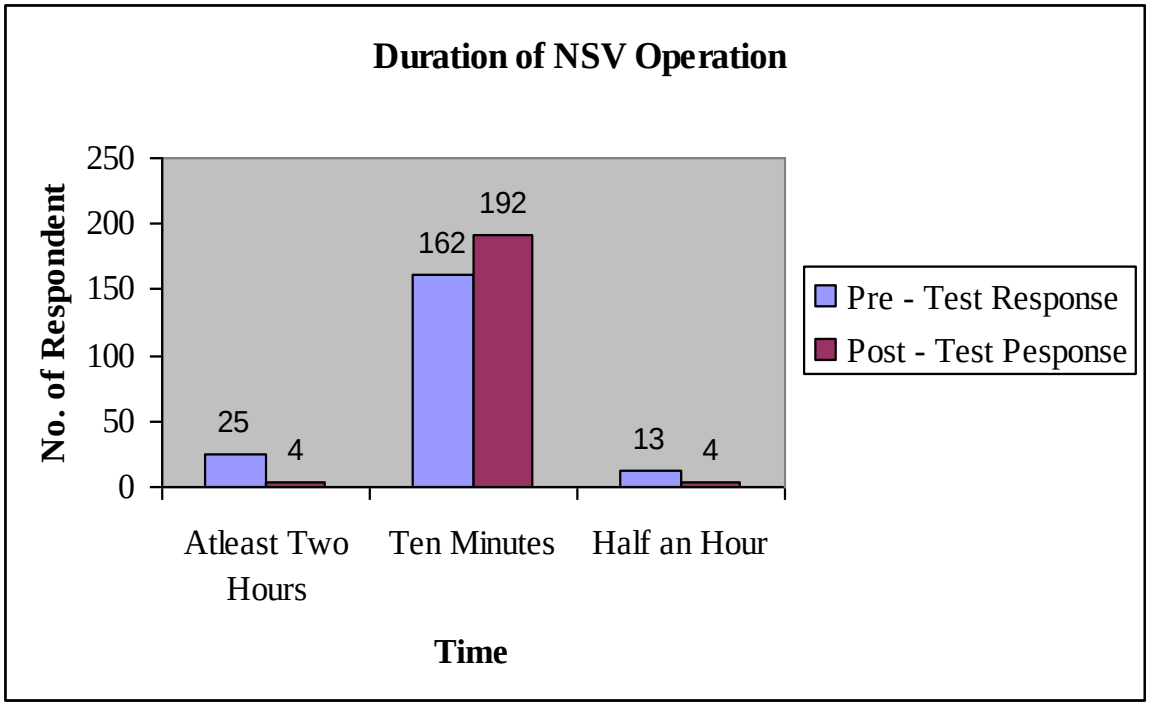


Figure – 5, Comparison between the knowledge about the duration of operation

In the starting 81 per cent SAHIYA knew the exact duration of operation. Out of the 19 per cent SAHIYA 12.5 per cent thought that duration of operation is at least two hours and the remaining 7 per cent thought that it takes almost half an hour.

After orientation 96 per cent SAHIYA gave the right answer that is the duration of NSV operation is only ten minutes. Still 4 percent SAHIYA were unable to recognize the right duration of the procedure. Particularly in this question increase in the knowledge was 19 per cent.

Reason for Painless Procedure

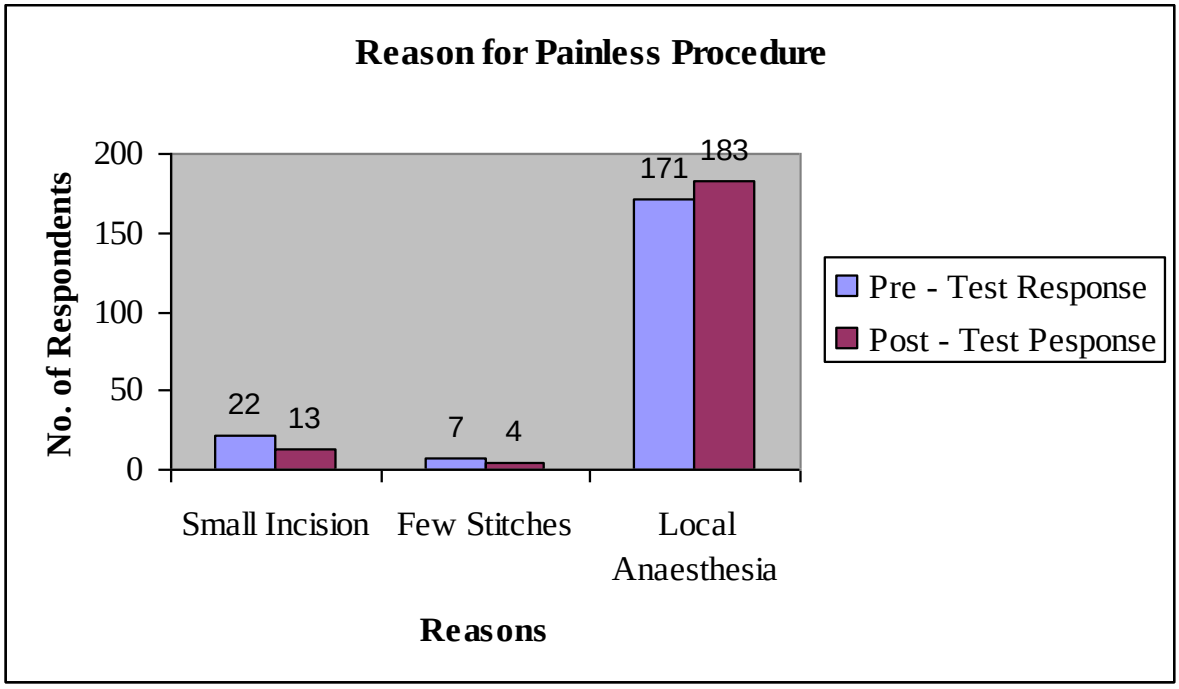


Figure – 6, Reason for painless procedure

Most of the SAHIYA knew that NSV is a painless procedure. 171 gave the right answer before the orientation i.e. 86 per cent SAHIYA knew that NSV is a painless procedure because of the use of local anesthesia at the operation site. After the orientation only 12 SAHIYAs were able to improve their knowledge i.e. 92 per cent SAHIYA gave the right answer after orientation. Rest 9 per cent still believes that non-scalpel vasectomy is a painful procedure.

Post Operative Precaution - Use of Other Family Planning Methods

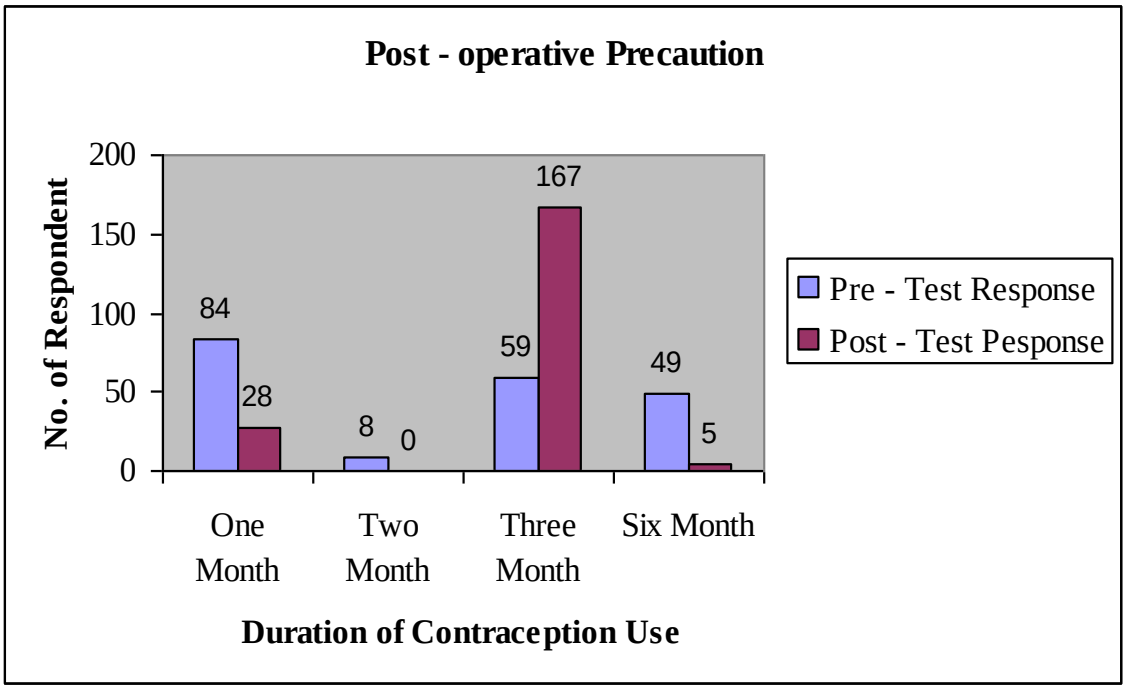


Figure – 7, Responses on post operative contraception use

Knowledge about the post operative contraception use was poor before the orientation. Only 71 per cent SAHIYA did not know the exact duration of other contraception use after the procedure. 42 percent thought that use of other contraception is required only for one month and 25 per cent thought use of other contraception is must for six months. But after the orientation there was significant improvement in their knowledge about this particular question. 84 per cent SAHIYA gave the right answer i.e. use of other contraception is must for three months. Only 16 per cent SAHIYA failed to understand the concept and could not improve their knowledge.

Total time spend in the health facility for NSV

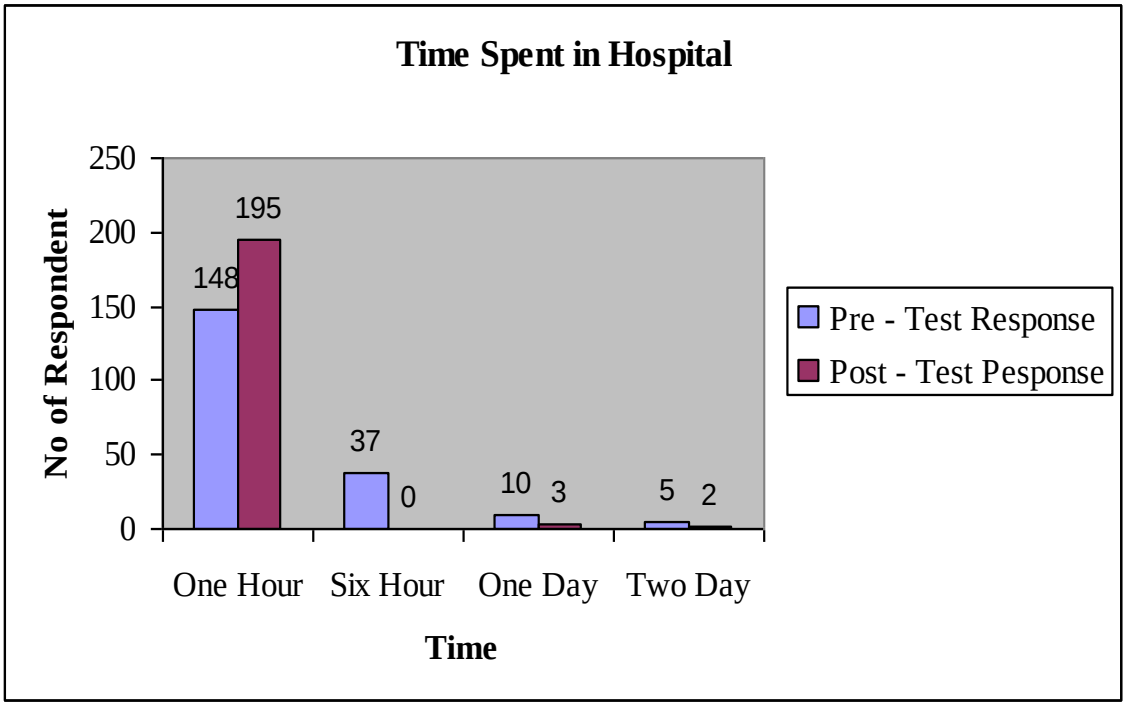


Figure – 8, Knowledge about time spent in health facility

74 per cent SAHIYA were already aware of the time slot which one patient spent in health facility when he comes for NSV. 5 per cent thought it take one full day for the NSV and almost 19 per cent thought it take six hour.

After the orientation 98 per cent SAHIYAs were able to give the right answer to this question that it took only one hour, 2 per cent thought it take one day and 1 per cent thought it takes two days to stay in the hospital after the procedure.

Perception about change in strength

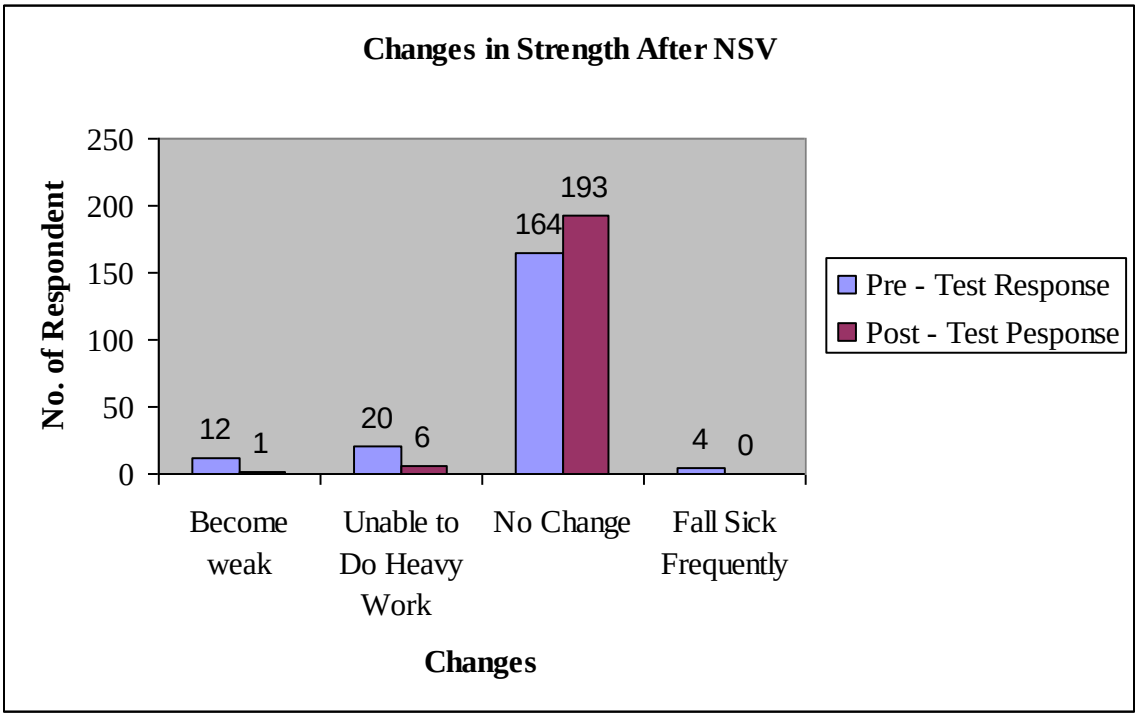


Figure – 9, Perception about physical strength after NSV

Before the orientation 82 per cent knew that there is no change in the physical strength after NSV. 18 per cent thought that there is some kind of weakness after NSV, 10 per cent thought person become unable to do heavy work after NSV, 6 per cent thought person become weak and 2 per cent thought person fall sick frequently after this operation. But after orientation 97 per cent came to know that there is no change in the physical strength after the procedure. Still 0.5 per cent thought he will become weak and 3 per cent thought he can't do heavy work after NSV operation and 2 per cent think client will fall sick frequently.

Perception about Ejaculation

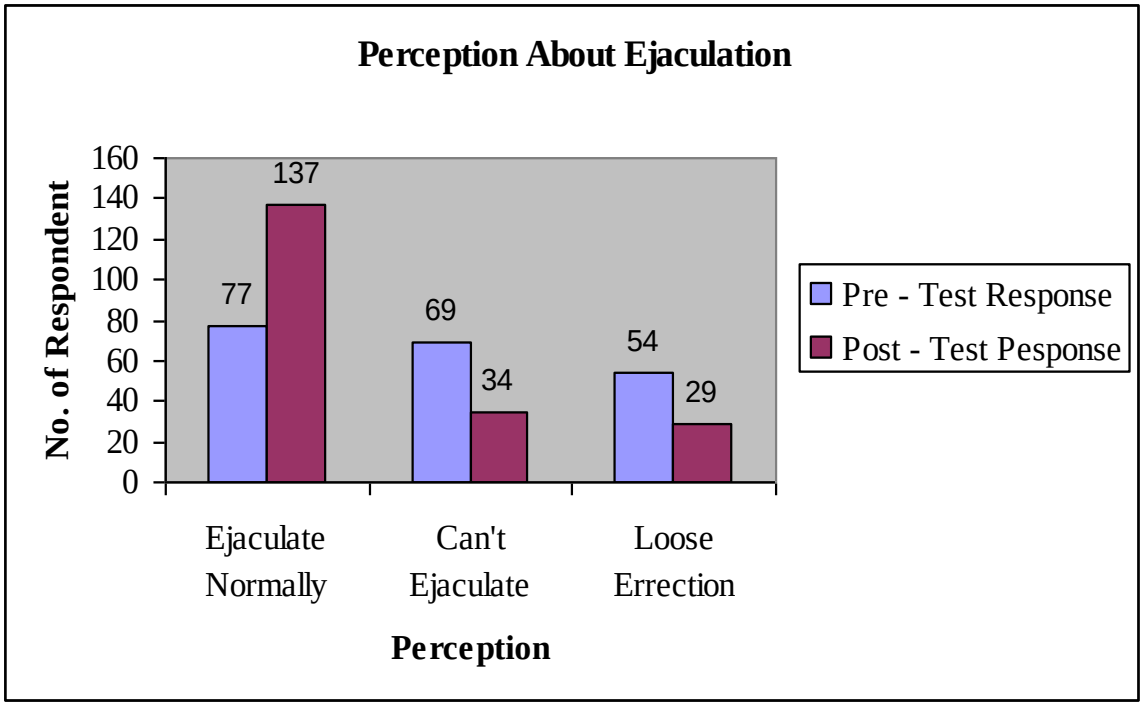


Figure – 10, Change in the perception about ejaculation

Before the orientation only 39 per cent SAHIYA knew that after NSV person ejaculate normally. While 35 per cent out of 61 per cent thought that he can't ejaculate after NSV operation and 27 per cent thought that he will face erectile dysfunction.

After orientation, 69 per cent SAHIYA gave the right answer that after NSV person can ejaculate normally. Rest 17 per cent out of 32 per cent still thought that person will not ejaculate and 15 per cent thought there should be erectile dysfunction after non scalpel vasectomy.

Perception about sexual performance

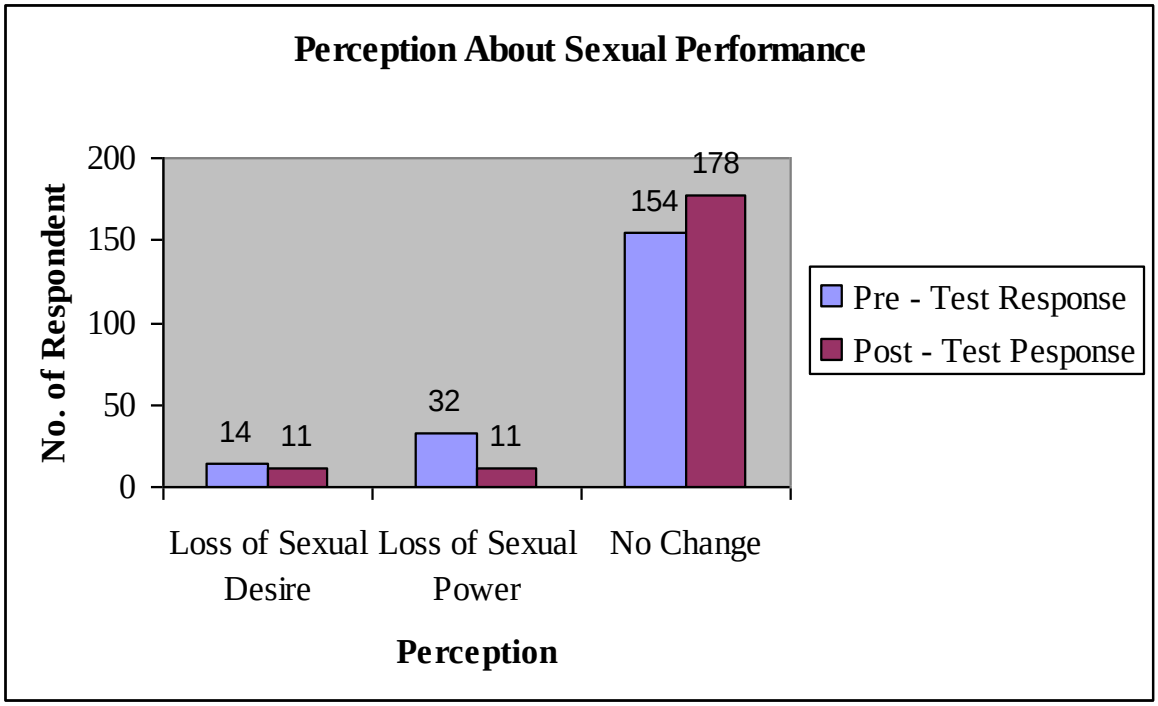


Figure – 11, Perception about sexual performance

There was a very little change in the perception about the sexual performance as SAHIYAS were already aware of the fact that there is no change in the sexual performance after NSV. Before orientation 77 per cent SAHIYAs were aware of the fact that NSV had no effect on the sexual performance. Only 16 per cent thought that there is loss of sexual power and 7 per cent thought that there is loss of sexual desire after NSV. After orientation on NSV, 89 per cent SAHIYAs agreed on the fact that there is no change in the sexual performance after NSV. Still 11 per cent thought that person loose sexual power or sexual desire after the operation.

Perception about Post operative rest

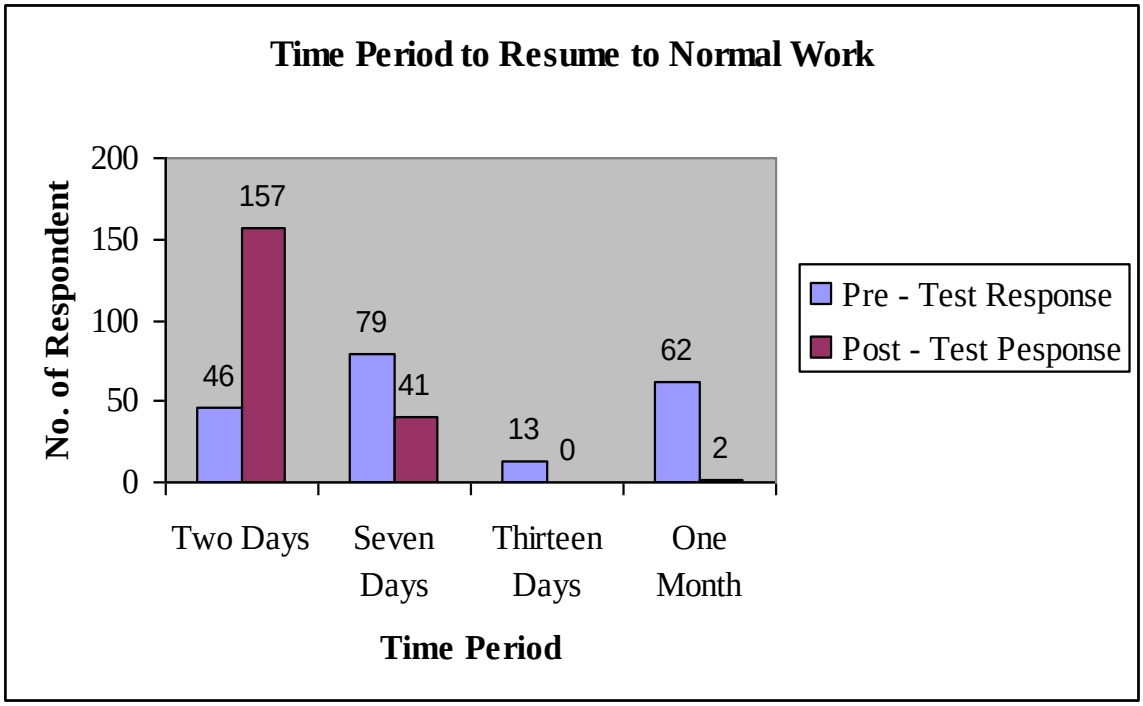


Figure – 12, Time period required to resume to normal work

Before the orientation on NSV 77 per cent SAHIYA did not know the duration after which NSV patient can resume to normal work. According to 40 per cent participants seven days rest is essential for the NSV client before resuming to normal work, 31 per cent thought that at least one month rest is required. Only 23 per cent SAHIYAS knew the actual time period after which client can resume to normal work i.e. two days.

After the training, 79 per cent community based workers came to know that two days are sufficient to resume to normal work. Still 21 percent thought that seven days rest is necessary for the client.

Comparison between best and least performing blocks before orientation

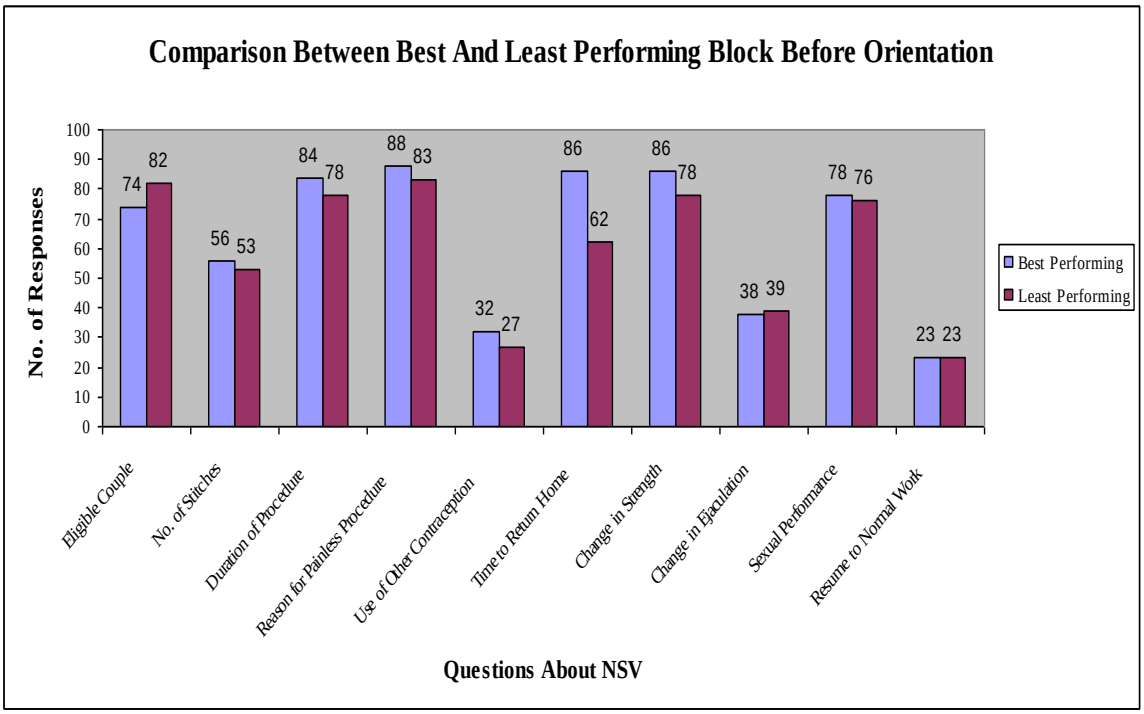


Figure – 13, Comparison of pre – test responses between best and least performing blocks

After analyzing the data it was found that there was a little difference in the knowledge about the NSV between the best and least performing blocks. 60.1 per cent from the least performing and 64.5 per cent from the best performing block gave the right answers. Knowledge of the least performing blocks was less in every aspect expects the eligibility criterion.

Comparison between best and least performing blocks after orientation

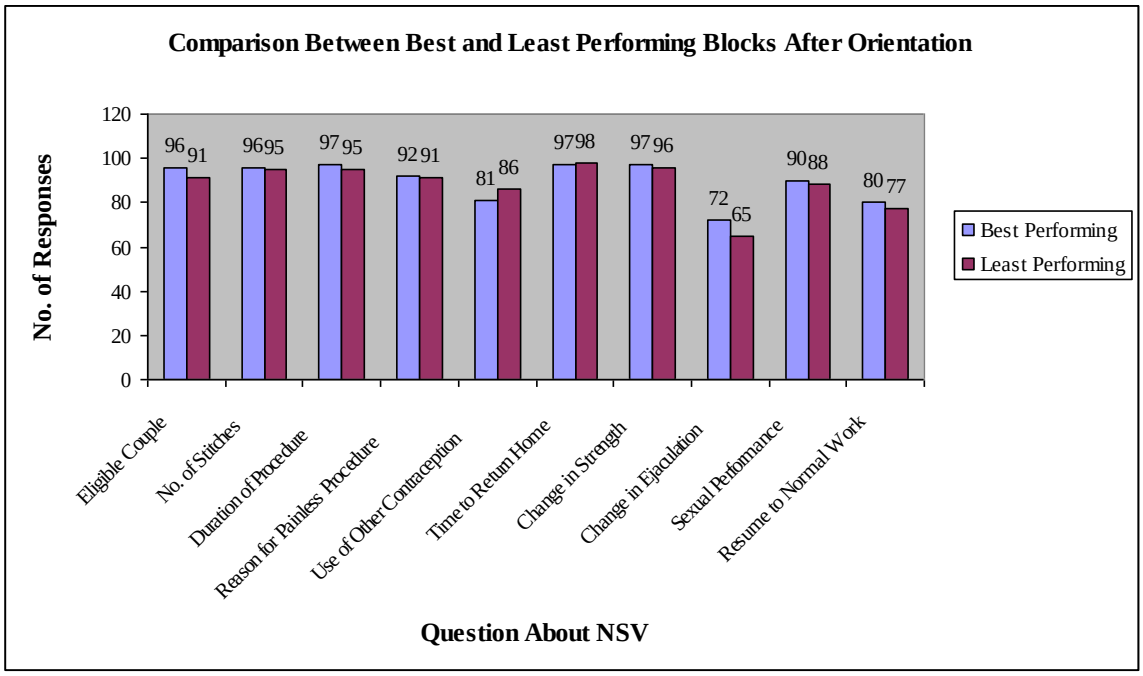


Figure – 14, Comparison of post – test responses b/w best and least performing blocks

After the orientation it was found that the knowledge of the community based health workers from the best and least performing blocks reached at the same level. And there was a significant improvement in their knowledge about non – scalpel vasectomy. 88.2 per cent from the least performing blocks and 89.8 per cent from the best performing blocks gave the right answer after the orientation on NSV.

Discussion:

It is clear from the study that after the orientation there was an improvement in the knowledge and clarity of perception about NSV in the community based heath worker. There is 43 per cent increase in the knowledge regarding NSV after orientation. And the community based health workers were more or less aware of the NSV procedure i.e. who is eligible for the NSV, what is the procedure, how many stitches are applied in the operation, why it is painless etc. The main issues which came into picture are post operative care and the perception related to NSV i.e. myths and misconception about ejaculation, erection, weakness, sexual performance and the minimum days of rest after NSV. From the earlier studies it was found that men feel that sterilization operation is easier to perform on women than on men [9] but from the current study it is clear that NSV operation is much easier than Tubectomy because total time to conduct operation is approximately ten minutes and 90 per cent SAHIYAs agreed on this point.

Another factor according to men is that NSV affect the labour intense work [9] while from the study it was found that 97 per cent community based workers agree on the point that physical strength doesn't change after the operation as well as one can resume to normal work only after two days of NSV by 23 per cent SAHIYAs before the orientation and by 79 per cent SAHIYAs after the orientation. Evidence from a number of small-scale studies in various parts of the country indicates that inadequate knowledge of contraceptive methods is a reason for not accepting family planning [16] and from the current study it was found that community based health workers did not have the correct and full knowledge about the NSV procedure that is the reason why males are not accepting NSV because their myths and misconceptions are not addressed by the community based health workers.

Mass media messages tend to be rather generic, and viewers are unable to ask questions and have their doubts clarified [19], community based health workers are the only source of information for the tribal population living in the tribal areas of Simdega where mass media is not accessible. So it becomes necessary that SAHIYA have complete and right knowledge of the procedure/services.

It is clear from the analysis that most them were lacking in the knowledge about ejaculation after non scalpel vasectomy, duration of post operative contraception use, use

of stitches and the time required to resume to normal work. And these are the basic issues which create hindrance in motivating the client for the NSV because one will not agree for the NSV if he has doubt about the ejaculation, application of stitches and time required to resume to normal work. Apart from these, duration of post operative contraception use also plays an important role in NSV acceptance in community. If client did not know that it is necessary for him to use other contraceptive methods for three months to avoid unwanted pregnancy, in that case his wife conceives then there is a bad impression about the technique and the acceptance for the NSV decreases drastically.

After the orientation it was noticed that knowledge of community based health workers has improved which enables them to communicate the right information and remove the wrong perception from the community regarding NSV.

So it is very important that community based health workers who have direct contact with the community should have right and complete knowledge about NSV. So that, they are able to resolve the myths and misconceptions of community regarding NSV and can increase in the acceptance for NSV and male involvement in family planning which is the prime need of the time.

Conclusion and Recommendations:

Conclusion drawn from the study is that knowledge about the non-scalpel vasectomy of community based health workers was not good enough to motivate the client for NSV because of that male involvement in the family planning will not increase. It is clear from the study that small orientations definitely improve the knowledge of community based health workers. But the main issue came into picture is that we can improve their technical knowledge via these kinds of orientation but their perception, misconception and behavior toward NSV will not change instantly as the results showed that there are changes in their perception but that change is not up to a great extant.

Community based health workers are the primary link between health department and community. It is very important that they should have complete and right knowledge of the program because they are the only one who can communicate to the community directly and also they have more rapport than other health staff. While discussing some of the barriers that hindered the success of the program, the study sheds light on new initiatives to address these and assesses their impact if any. However, it may be mentioned that it is too early to make any definitive assessment of the impact and data for making such an assessment are limited.

Recommendations from the study on the basis of results and findings are as below –

- Community based health workers should have complete and full knowledge about the program for program's success
- Health workers have basic knowledge about the procedure but are not able to handle the perception of community because they are lacking in the technical knowledge. So through these orientations such technical knowledge should be provided.
- Community based health workers are also influenced by the myths and misconception related to NSV, so it is necessary to remove their myths and misconceptions via repeated orientation and re – orientation
- Incorporation of IEC activities – written modules, audio-visual aids
- PRI involvement to educate community based health workers

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ANNEXURE I

ASHA Questionnaire

Pre and Post test

Each right question carries one mark.

Date:

□ Pre test □ Post test

Name: Age:

Address: Qualification:

Q1. Who are the most appropriate couples for NSV?

a. Newly married couples b. Couples above 60 years

c. Couple who do not want more children want one more d. Couples who have one child and

Q2. Number of s**tiches applied in NSV is:**

a. One b. Two

c. Three d. None

Q3. NSV procedure is almost painless because:

a. Incision is done

b. Stitches are applied

c. Local anaesthesia is given before starting the procedure

Q4. NSV is a simple method because it takes:

a. Two hours to complete the procedure

b. Almost ten minutes to complete the procedure

c. Half a day to complete the procedure

Q5. After NSV acceptance the couple should use condom/any other contraceptive for:

a. 1 month
b. 2 months
c. 3 months
d. Not required

Q6. After NSV procedure, the acceptor may go home:

a. After one hour
b. Within 6 hours
c. Next day
d. After 2 days

Q7. Those who accepts **NSV:**

a. Becomes weak
b. Are not able to take hard work
c. Their capacity to do physical work remains same
d. Fall sick more frequently

Q8. **After NSV, a person can:**

a. Ejaculate normally
b. can not ejaculate
c. Looses erection

Q9. **NSV ……**

a. Causes loss of sexual desire
b. Increases sexual desire
c. Does not affect sexual performance

Q10. **Once NSV is done, one can resume normal work:**

a. After two days
b. After three days
c. After seven days
d. After one month