

Research Article

Effectiveness of Structured Teaching Programme on Knowledge Regarding Non-scalpel Vasectomy among Accredited Social Health Activists in a Selected Area of Delhi

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A B S T R A C T

Introduction: Family planning is a way of thinking and voluntarily expanding the family by the couple. There are many ways to adopt family planning. Vasectomy with no scalpel is one such preferred way as it results in lesser bleeding and a speedy recovery. Awareness about contraceptive methods such as sterilisation of males and related information is provided by the Accredited Social Health Activists (ASHAs) in India.

Methodology: The study assessed the effectiveness of a structured teaching programme on knowledge regarding non-scalpel vasectomy (NSV) among ASHAs working under the South Delhi Municipal Corporation, Delhi. Quantitative research design was undertaken for the study. Purposive sampling was used to select 30 subjects. A self-structured questionnaire was prepared to assess the knowledge of ASHA workers. Descriptive and inferential statistics were employed to analyse the data.

Result: ASHAs belonged to the age group of 28–50 years with an average age of 39.4 years. All the subjects had been working in the community for more than five years. Most of the ASHAs were educated up to the 10th class. The mean knowledge scores of the pre-test and post-test were 5.8 and 7.4 respectively. The post-test scores were statistically higher than the pre-test scores. There was no significant association between age, education and experience with the pre-test scores.

Conclusion: The ASHA workers lacked knowledge regarding NSV and being important healthcare workers. They should be educated periodically about family planning methods including NSV. The structured teaching programme proved to be effective in enhancing their knowledge in this study.

Keywords: Family Planning, Non-scalpel Vasectomy, ASHAs, Community Health Workers, Knowledge about Family Planning

Introduction

Family planning plays an important role for couples and individuals in terms of the desired number of children along with timing and spacing related to giving birth. The use of contraceptive methods can help them achieve this goal. The opinion of women must be taken into consideration in family planning decisions for deciding the child count. It also involves the choice of having no children and the wish of the women to have them at a certain age. Such external factors related to career consideration, financial position, and marital situation along with disabilities affect their chances of having and raising children.¹

Contraceptive methods include implants, patches, oral contraceptive pills, vaginal rings, intrauterine devices, condoms, injectables, and sterilisation of females and males, methods of lactational amenorrhea, methods based on awareness of fertility and withdrawal.²

For permanent sterility among men to control birth, vasectomy is an important surgical method. Usually, vasectomy is required to reach the vas deferens with the use of a scalpel that involves a couple of incisions on both sides of the scrotum. Non-scalpel vasectomy has been a famous choice since the 1980s which causes less bleeding and speedy recovery among men.³

A newer technique of vasectomy uses a clamp from outside the scrotum to hold the vas deferens and a sharp instrument to penetrate the skin. Fewer problems of bruising, bleeding, and infection are the reason for the choice of this method. In order to compare the non-scalpel method with the method that involved the usage of a scalpel, a computer-based search was done in 2014. The method that did not require a scalpel in a mega trial showed less bleeding, pain and infection after the operation. The no-scalpel method required less time to conduct the operation and facilitated a speedy return to an active sexual life.⁴ Vasectomy done with the non-scalpel method provides males with an alternative to permanent sterilisation. It provides a safe and effective contraceptive option with lower complications to the male population.⁵

Family planning empowers women and men to improve their family's health, education, and financial stability. ASHAs in India act as the main source of information for contraceptive methods including male sterilisation. It is observed that males too desire to discuss and communicate to overcome their doubts about the male-oriented methods of family planning.⁶

ASHAs play an important role in imparting knowledge regarding family planning under the National Health

Mission. Information related to basic sanitation, nutrition, hygienic practices, healthy working and living conditions, services related to health, and utilisation of services related to the welfare of family and health has been provided by the ASHAs. Women, as well as men, are counselled by them about the preparedness on birth preferences, complementary feeding and breastfeeding, significance of safe delivery, immunisation, contraception, and general infections.⁷

In India, due to cultural and religious barriers, vasectomy is not as accepted as other methods of family planning, and as a result of this, there are myths and misconceptions in the community. ASHAs share a similar background, are from the same community, and potentially harbour these myths. She is a grass-root level health worker, working for rural and urban communities and a liaison between healthcare providers and the community. Hence we can say that ASHAs play a pivotal role in educating the masses about family planning including NSV. The recent study was conducted to evaluate the existing knowledge of ASHAs regarding NSV, educate them, and thereafter evaluate the effectiveness of the education imparted.

Background

A few studies^{5,6,8,9} showed that non-scalpel vasectomy is an effective family planning method for males and ASHA workers can motivate and ensure greater acceptance towards the same among the general population.

A study was conducted in the district named Simdega situated in the Jharkhand state of India for community workers associated with the health sector to assess their knowledge and perception regarding the modern male sterilisation method. A self-administered questionnaire was used for the collection. The results showed that 43% of community health workers (CHWs) did not know that NSV is different from the traditional male sterilisation method. About 62% of them were of the opinion that sexual performance of men gets hampered after NSV. 77% of CHWs had no idea about the time required by men to resume work normally after NSV.⁶

In another study in Andhra Pradesh, the knowledge of ASHAs was assessed about contraceptives using a semi-structured interview schedule. The results revealed that 72.94% of ASHAs had adequate knowledge about contraceptive methods. A total of 68.23% had knowledge about the proper usage of emergency contraceptive pills and 45.88% of them were not aware of the safe period.⁸

Another study was conducted on 100 ASHA workers, working in health centres of Udipi Taluka in Karnataka.

The findings revealed that the ASHA workers had deeper knowledge about postnatal care, antenatal care, and child health as compared to family planning.⁹

A study was done to assess the effectiveness and acceptance of NSV performed between January 2008 and March 2009. NSVs were performed in the Primary Health Centres and the rural hospitals of 16 distinct districts in Assam. The results showed that the mean age of men undergoing NSV was 35 years with 4 children on average. The simplicity of the procedure and early return to work were the motivating factors for acceptance of the procedure. About 90% of the subjects had got information on NSV from ASHAs during the public meetings that were also addressed by social personalities and doctors.⁵

Keeping in mind the wide acceptance of ASHAs and their job profile and appreciating the significance of NSV as a family planning method; the current study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding NSV among ASHAs in a selected area of Delhi.

Methodology

The current study used a quantitative research approach to assess the effectiveness of a structured teaching programme on knowledge regarding NSV among ASHAs working in a selected area of South Delhi Municipal Corporation, Delhi. The study was conducted in 2022. Pre-test–post-test design was utilised in the study. Purposive sampling technique was used for the selection of 30 subjects, who were available and willing to participate in the study. The tool used to assess the knowledge of ASHAs was a self-structured knowledge questionnaire with a reliability of 0.7 obtained using the KR 20 formula. Validity of the tool's content was done by five subject experts and an agreement of 80% was reached among them. The tool comprised two sections. The first section included demographic variables, namely age, education and working experience as an ASHA worker, and the second section included 10 items for assessing knowledge. The knowledge items were scored, i.e. for each correct item, 1 score, and for each incorrect item, 0 was allocated. Two categories were formulated as per the knowledge scores, i.e. inadequate (up to 70%) and adequate (more than 70%). Structured teaching was

conducted through the lecture method (using posters) and the role-play method of teaching.

Formal administrative and ethical approval was acquired from the administration of the selected hospital and informed consent was sought from each subject prior to the study. Confidentiality of responses was assured. The pre-test was conducted on day 1, followed by a structured teaching programme and the post-test on the same day. Data were analysed employing descriptive and inferential statistics.

Result

Section 1: Findings related to the Demographic Variables of ASHAs

Table 1. Frequency and Percentage Distribution of Demographic Characteristics of ASHAs (N = 30)

S. No.	Variable	Frequency	Percentage
1	Age (in years)		
	28–40	19	63.3
	41–50	09	30.0
	> 50	02	6.7
2	Educational qualification		
	10th class	20	66.6
	12th class	08	26.7
	Graduation	02	6.7
3	Working experience (in years)		
	5–10	20	66.6
	11–15	08	26.7
	> 15	02	6.7

The findings of this study revealed that the participating ASHA workers belonged to the age group of 28–52 years with an average age of 39.4 years. All the subjects had been working in the community as ASHA workers for more than 5 years and most of the ASHAs were educated up to the 10th class (Table 1).

Section 2: Findings related to the Effectiveness of the Teaching Programme regarding NSV

Table 2. Frequency and Percentage Distribution of ASHAs as per their Knowledge regarding NSV (N = 30)

S. No.	Categories of Knowledge	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
1.	Inadequate	27	90	11	36.7
2.	Adequate	3	10	19	63.3

The data in Table 2 reveal that 90% of subjects had inadequate knowledge in the pre-test. After the conduction of the teaching programme, only 36.7% had inadequate knowledge in the post-test. The percentage of ASHAs who had adequate knowledge rose from 10% in the pre-test to 63.3% in the post-test.

Table 3. Range, Mean, Standard Deviation and t Value of the Pre-test and Post-test Knowledge Scores of ASHAs (N = 30)

Scores	Possible Range of Scores	Obtained Range of Scores	Mean	Standard Deviation	df	t value
Pre-test	0–10	3–9	5.8	1.4	58	4.27*
Post-test	0–10	4–9	7.4	1.5		

*Significant at 0.05 level

Table 3 shows that the means and standard deviations of the pre-test and post-test scores were 5.8, 7.4 and 1.4, 1.5 respectively. The post-test scores were higher than the pre-test scores and the t value was greater than the table value ($t(29) = 1.699$), hence the improvement in scores was statistically significant at 0.05 level of significance. This showed that the structured teaching programme on NSV was effective in enhancing the knowledge of ASHAs.

Section 3: Analysis of Association between Pre-test Scores and Selected Demographic Variables

Table 4. Association of Pre-test Scores with Selected Demographic Variables (Age, Experience and Education) (N = 30)

Variable	df	p Value
Age	2	0.133
Experience	2	0.870
Education	2	0.870

$p > 0.05$, Not significant

Table 4 depicts that the chi-square test was used to find the association between pre-test knowledge scores and selected demographic variables (age, experience, and education). The obtained p values for these demographic variables indicated that there was no statistically significant association between pre-test scores and the variables.

Discussion

The current study findings showed that only 10% of ASHAs had adequate knowledge in the pre-test which is in partial agreement with a study conducted in Jharkhand among CHWs to assess their knowledge and perception regarding the modern male sterilisation method. The study showed that 43% of CHWs did not know about NSV and about 62% believed that a man's sexual performance gets affected after NSV. 77% were not aware of the time required to resume normal work after NSV.⁶

The National Institute of Public Cooperation and Child Development, New Delhi evaluated the functioning of ASHAs which showed that 98% of ASHAs had knowledge about family planning methods, whereas only 69% had knowledge about vasectomy. These findings are in congruence with the current study.¹⁰

The present study showed that among ASHA workers, only 10% had adequate knowledge regarding NSV which was contrary to another study done in Andhra Pradesh, wherein the knowledge of ASHAs was assessed about contraceptives using a semi-structured interview schedule and it was found that 72.94% of ASHAs had adequate knowledge about contraceptive methods.⁸

Also, according to a study conducted in the Surendra Nagar district of Gujarat, it was seen that around 80% of ASHAs had knowledge about NSV which was in contrast with the present study.¹¹

Conclusion

The ASHA workers lacked adequate knowledge regarding non-scalpel vasectomy and being important healthcare workers they should be educated periodically about family planning methods especially NSV so that they encourage the families to consider this method and help them in the refuting of myths. It was noticed that the post-test scores significantly improved after administering the structured teaching programme.

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