

Effectiveness of Awareness Programme (AP) on Vasectomy in Terms of Knowledge and Attitude among Males Residing in Community Area: A Quasi Experimental Study

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Abstract: ***Background:** The population is rapidly increasing and has become a major issue for many countries of the world with the population growing at an annual rate of 1.2%. Based on this report, India became one of the earliest national government sponsored family planning programs in the developing world's since the early 1950's, but the family planning programs focused more on females and haven't focused efforts on educating males about their responsibility. With this background, systematic literature search and Meta-Analysis was carried out. **Objective:** To collect the data and review various studies. **Methodology:** The study design was systematic review. The study includes the studies those which are related to knowledge of men regarding vasectomy and the attitude of men regarding vasectomy and the study excludes the studies those are related to tubectomy. **Analysis:** The data was grouped and analyzed in terms of Meta analysis. Studies were identified through searches of MEDLINE, PUBMED, Elsevier and Google Scholar. Abstracted information is about the study design, population characteristics, interventions and outcomes. **Conclusion:** This systematic has concluded that rate of vasectomy use was low in most developing countries like India and acceptance of vasectomy is limited by several factors is poor awareness and education regarding vasectomy.*

Keywords: Awareness programme, knowledge, attitude, males, vasectomy

1. Introduction

In the Indian population about 20% of the eligible couples in the age of 18-45 year's constitute about 168 million in number (Satyasundaram,2011). The concern about fertility level and population growth was initially voiced during the 2nd decade of 20th century in India. It was very essential to stabilize the population for promoting sustainable developments with more equitable distribution. The Government of India adopted the Family Welfare Program in the First five year plan following which Family Planning Clinics were established in rural an urban India. It is important to formulate new strategies to meet the health and family planning needs of population and addressing the high unmet needs for contraception [1].

2. Material and Methods

- **Research Design:** Systematic Review
- **Inclusion Criteria:** The study includes the studies those which are related to knowledge of men regarding vasectomy and the attitude of men regarding vasectomy
- **Exclusion criteria:** The study excludes the studies those are related to tubectomy.
- **Data Analysis:** The data was grouped and analyzed in terms of Meta analysis. Relevant articles based on the topic vasectomy and the effects awareness programme on vasectomy were identified by search of significant articles PubMed/Medline, SCOPUS, CINAHL, PsychoINFO, Elsevier and Google Scholar with the following key words: Awareness programme, knowledge, attitude, males, vasectomy.
- **Results:** A systematic review was done to To assess the Effectiveness awareness programme on vasectomy in

terms of knowledge and attitude among males regarding vasectomy. Total 60 studies were selected for review out of which 17 were found appropriate for systematic review. Data was divided into two different sections.

- **Ethical Clearance:** The ethical principles have to be considered before conducting any research is the principle of respect, beneficence and justice that are relevant to the conduct of the study. Ethical approval was taken from the University ethical committee of M.M (deemed to be) University, Mullana for conducting the study (MMU/IEC/983).
- **Source of Funding:** Self
- **Conflict of Interest:** Nil

The review of literature has been organized under the following sub-headings:

Section 2.1: Review related to knowledge of men regarding vasectomy

Section 2.2: Review related to attitude of men regarding vasectomy

Review related to knowledge of men regarding vasectomy

Out of 5 studies, two studies were cross sectional descriptive study which was conducted to assess the knowledge of men regarding vasectomy [2] whereas other study was conducted to assess the knowledge and attitude regarding vasectomy residing in Pokhara, Nepal in 2014 Survey approach was adopted for data collection by using structured questionnaire. The result showed that 69% males had average level of knowledge and 26% had poor and remaining 5% had good level of knowledge regarding vasectomy [3]. Among these studies, one study was Experimental study which was conducted to evaluate the

effectiveness of teaching programme to improve knowledge and acceptance of non-scalpel vasectomy [4]. Among these studies, 2 studies were descriptive studies which was carried out the knowledge and attitude of married men towards vasectomy as a method of family planning [5] whereas other study was conducted to assess the knowledge and practice of various family planning methods among 470 married men who accompanied their wives, sisters, female friends or relatives to the department of family planning [6].

Sample Review

A cross-sectional descriptive study was conducted to assess the knowledge of 70 men regarding vasectomy at Lahore. The data was collected by using semi-structured questionnaire through interview technique. Data was analyzed using SPSS-17. The findings of the study showed that there was a significant association between the education of men, income and media as a source of knowledge and friends, colleagues and relatives as source of decision making for vasectomy. Majority 85.7% men respondents had knowledge about vasectomy whereas 14.3% men had inadequate knowledge as 43 (61%) respondents were between 30–40 years while 27(38%) were more than 40 years of age, 52 (74%) had college level education. Sixty-four (91.4%) of the respondents were working in private sector. Twenty-four (30%) had monthly income less than Rs 20,000 and 49 (70%) earning more than Rs 20,000. Sixty-two (88.6%) of respondent's wives were more than 30 years old, about 42(60%) had more than 16 years of marriage and 55 (79%) had more than 3 children. So the study suggests that there is a need of awareness programme should be held at community level to educate people about vasectomy².

An experimental study was conducted between 2003–2004 and 2007–2008 on 240 clients, to improve knowledge and acceptance of no-scalpel vasectomy (NSV) in Ghana. At eight facilities, physicians were trained in NSV and staff received training in the provision of “male-friendly” services. Health promotion activities provided NSV information to prospective clients. Client–provider communication was assessed via a mystery client study ($n = 6$). Knowledge and acceptance of NSV among potential clients were assessed with baseline and follow-up surveys in 2003–2004 and three follow-up panel surveys in 2008. The result showed that trained health staff exhibited improved attitudes and knowledge regarding NSV. After non-judgmental NSV council, awareness of NSV among panel respondents doubled from 31% to 59% in 2003–2004 and remained high (44%) in 2008. The proportion of men who would consider NSV increased from 10% to 19% in 2007–2008. NSV procedures increased three-fold from 2003 ($n = 26$) to 2004 ($n = 83$) and 2007 ($n = 18$) to 2008 ($n = 53$). The study concludes that training in client-centered services, coupled with targeted health promotion, improved client and provider knowledge and acceptance of NSV in an African context. The study suggests that there is a need of awareness programme to increase the knowledge and acceptance of vasectomy⁴.

A descriptive study was conducted to assess the knowledge and attitude of 140 married men towards vasectomy as a method of family planning in okada community, Edo state.

Accidental sampling technique was used and questionnaire was administered. The result showed that respondents' knowledge of at least one form of male family planning methods, majority 85 (62.5%) had no knowledge of vasectomy, only 18 (13.2%) had high knowledge the remaining 33(24.3%) had poor knowledge of vasectomy. Most of the respondents also showed negative attitude towards vasectomy and believed that vasectomy should not be done by men and that females should be responsible for family planning but the decision on the method to use should be demanded from them as the head of the family. The study also revealed that there was no significant association between academic attainment of respondents under study and their attitude towards vasectomy, as well as between marital status between and their attitude towards vasectomy significant association was found between the level of knowledge of respondents under study and their attitude towards vasectomy. The study concludes that there is need to design effective information, education and communication strategies to reach men in every part of the federation on the need to actively participate in family planning, as well as intense value clarification and attitude transformation in order to improve men's attitudes towards vasectomy⁵.

Review related to attitude of men regarding vasectomy

Out of 12 studies, 3 studies were descriptive studies which was conducted to determine the opinion and attitude of married regarding vasectomy in turkey [7], 2nd study was conducted to assess the awareness and attitude of men and women regarding family planning programme and study show a significant relation between knowledge and participation and attitude and participation [8] and 3rd study was conducted to assess the level of knowledge and attitude of married male workers regarding vasectomy and the factors influencing the attitude of married men toward vasectomy [9]. Among these studies, 2 studies were qualitative which was conducted on 48 women and 5 focused group discussion were had with women and it was found that women had mixed perception both negative and positive were share on vasectomy uptake [10] whereas the other study was conducted to understand the perception of 52 males and females and in-depth interviews were conducted on 20 to 40 year married men and women had children. One telephonic survey was conducted to assess the knowledge and attitude of males toward vasectomy [11]. Among these studies, 4 studies were cross sectional studies which was conducted to assess the knowledge, attitude and practices of family planning among men to have been married for atleast 5 years and result showed that most husband preferred that their spouse should b sterilized [12], 2nd study was conducted to explore the antecedent factors related to adoption of vasectomy among married men [13], 3rd study was conducted to get insight into apathy of men towards non scalpel vasectomy [14] and 4th study was conducted to assess the awareness, knowledge about family planning methods and to know factors influencing in selecting sterilization methods [15]. Among these studies 2 studies were descriptive cross sectional study which was conducted to determine the awareness and practice regarding vasectomy among 250 married males health workers and the result shows that 225 respondents knew about vasectomy while 25 respondents were not aware of it [16] whereas

other study was conducted on males to assess the knowledge, attitude and factors associated with low utilization of vasectomy and it was found that majority of males never heard about vasectomy as contraception method [17].

Sample review

A descriptive study was conducted to determine the opinions and attitudes of married couples regarding vasectomy in Turkey. A Sample consists of 350 married couples who were selected from the postpartum clinic of a women's hospital by using convenience sampling technique. The findings of the study showed that 52.9% of the women and 46.0% of the men participated in this study were between 30 and 39 years of age. Sixteen percent of the women and 35.2% of the men were high school graduates. Slightly higher than 24% of the men and 8.9% of the women reported having a sufficient income. The average number of children per couple was 2.51 ± 1.27 . Approximately 60% did not want to have children again. Chi-square analysis determined a statistically significant difference based on socio-demographic variables and gender ($p < .05$). More than 88.0% of the men were not willing to have vasectomy and 35.4% thought that vasectomy had a negative effect on marriage and sexual health. 58.9% thought that vasectomy had a negative effect on men's health. Women were more likely than men to see vasectomy as merely a cultural taboo instead of a sin. Study concluded that women have more negative opinions regarding vasectomy use than men, and more than half of the men opposed to vasectomy as a Family Planning method. The study suggests that there is a need for conducting an awareness programme regarding vasectomy⁷.

A qualitative study was conducted on 48 women five focus group discussions were held with women in urban Accrain September–October 2013. Five focus group discussions were held with young adult women, aged 18–24 years and adult women aged, 25–49 years and each group had between 8 and 12 males. The groups were selected by stratified purposive sampling technique. Data was analyzed manually after transcribing and coding and themes were sorted using thematic version 0.9. Results showed that both adult and young adult males regarded vasectomy as an easy way for male partners to become immoral, and cheat on them (women) because the operation renders males incapable of having child immorality, could lead to the women contracting sexually transmitted infections including HIV/AIDS. They were also doubtful about vasectomy and the possibility that it could damage the sexual organs of their partners and affect their sexual relationships. The uptake of vasectomy will not benefit a new wife in case of divorce or death of a previous wife. Some women would allow their partners to undergo the procedure only if both of them will benefit health-wise and also if it would reduce the financial burden on the family. The study concludes that women held mixed perceptions both negative and positive views were shared on vasectomy uptake. In order to increase vasectomy uptake in Ghana, innovative efforts to address the misconceptions and superstitions surrounding vasectomy should take centre stage. The study suggests that there is a need for conducting an awareness programme regarding vasectomy¹⁰.

A telephonic survey was conducted to assess the knowledge and attitudes of 1,172 males toward vasectomy in Hamilton County, Ohio residents indicated that forever-married people, 25.1 per cent of those aged 18-45 and 33.8 per cent of those 30-45 had been sterilized between November 8 and December 7, 1980. Catholics had only one-half the sterilization rate of Protestants. Race, sex, income, and education. Sampling involved dialing a randomly generated telephone number. The 1,497 interviews attempted, 1,118 (74.2 per cent) were completed. The result showed that 4.1 per cent were partially completed, 6.6 per cent either could not be conducted, and 15.1 per cent refused. Of 1,104 respondents, 155 (14.1 per cent) reported that they or their partner had been surgically sterilized. When limited to ever-married people aged 18-45, the sterilization rate was 25.1 per cent, while for those aged 30-45 the rate was 33.8 per cent. The study concludes that there was a relatively high level of awareness and understanding of the vasectomy procedure, there were significant effects of sex, race, age, income, and education for all four questions on knowledge and attitudes¹¹.

3. Ethical Clearance

The ethical principles have to be considered before conducting any research is the principle of respect, beneficence and justice that are relevant to the conduct of the study. Ethical approval was taken from the University ethical committee of M.M (deemed to be) University, Mullana for conducting the study (MMU/IEC/983).

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