

Female sterilization as a method of contraception: women's acceptance and knowledge - a review

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Abstract

Female sterilization is an effective method of contraception. The attitude, acceptance and the knowledge of sterilization as a method of contraception differs between women of different social and culture backgrounds.

This review focuses on women's attitude and knowledge regarding female sterilization.

In summary, the opinion on and knowledge of female sterilization as a scientific topic is underrepresented. The published studies demonstrated that there is, firstly, a good acceptance among women, especially in non-Islamic countries, and secondly, that there is a demand for more information. The choice of contraceptive method depends on reproductive status, completed family planning and maternal age, couple's demographic situation, educational level and religious beliefs. The subject of sterilization is an important topic which has a great information deficit. Therefore, comprehensive education is particularly important in families with low income and low education levels. Furthermore, better balanced worldwide studies in different countries with greater population on the topic of women's attitudes towards sterilization are necessary in order to gain improved knowledge on this issue.

Keywords: female sterilization, knowledge, attitude

1. Background

Female sterilization is an effective method of contraception. Female sterilization by tubal ligation or disconnection of the tubes is a method of permanent contraception [1-4] without any impact on sexual and endocrine function [1]. The majority of those women are married at the age of 15 to 49 years [5,6]. The attitude, acceptance and the knowledge of sterilization as a method of contraception differ between women of different social and culture backgrounds [7-11].

Female sterilization is the most used method of permanent contraception, especially in the developing countries. The technique differs between laparotomic approaches which are usually performed during caesarean section and laparoscopic sterilization, the latter one preferred for women older than 30 years. There are different surgical techniques for female sterilization such as titanium clips, tubal coagulation, cutting with general or fallopian ring. The hysteroscopic sterilization is a technique, performed trans-cervically. The benefits of this technique are on the one hand the lower rate of surgical complications and on the other hand the lower costs of the tubal sterilization [12-14].

This review focuses on women's attitude and knowledge regarding female sterilization.

2. Methods

This paper reviews the literature on the topic of women's attitude and knowledge of female sterilization as a method of contraception. Studies on this topic published in the English language between 1990 and 2017 were considered and have been identified by using the database of Pubmed and MEDLINE using the following keywords: female surgical sterilization, permanent contraception, sterilization,

opinion, attitude, acceptance, knowledge. The keywords were used individually and together. The search revealed 116 publications. Criteria to be included in this review were any study design reporting about opinion, attitude, knowledge, acceptance of female sterilization. Studies referring to surgical techniques only were excluded. Study selection was performed by two independent reviewers.

3. Results

Of these 116 publications, only nine publications of them investigated the attitude and the knowledge of women's attitude and their knowledge regarding female sterilization. All the others were excluded as they concentrated on prevention, analysis of cost-effectiveness, ethics, surgical techniques or were studies on male sterilization.

3.1. Women's knowledge about female sterilization

A study from Germany with 1247 women showed that 24% were already interested in sterilization and even 29.5% had consultative discussions. 18.9% wished more information on sterilization and 75.6% felt well-informed. There were differences in the age of women regarding the knowledge. Women older than 40 years had the best knowledge about advantages, disadvantages, risks and complications on the topic of sterilization. Regarding safety and sterilization, 83.3% of the women classified the sterilization as safe. 4.1% were unsure and 10.6% did not know how to rate the reliability of this method. Of the surveyed women, 2.4% reported the sterilization as indecent. However, 86% stated that the sterilization appears to be a good alternative method for contraception [15].

Another study from the United Arab Emirates also evaluated knowledge and

practice of contraception in Arabic women. The results of this study showed that the level of education, the age of the woman and income of the family have a significant influence on the choice of contraceptive method [16]. 85% of women in Arabia did not accept sterilization without a medical indication. All in all, it was shown that contraception in general and especially the sterilization in Arabic countries are hardly used and that women rather prefer a natural prevention of pregnancy [16].

Several studies showed that women with higher education had more background information with regards to contraceptive methods [15-21].

Erlenwein et al. [15] revealed that knowledge of sterilization and its advantages and disadvantages was better among German women compared to Non-German women.

Another study from India demonstrated that the knowledge about contraceptive methods in India is very low. In this study 4000 women from 50 villages were questioned what kind of contraceptive method they would choose. 90% of the surveyed women chose the sterilization, with only 60% knowing the intrauterine device (IUD), 42% the pill and 18% the condom. The main sources of information for women were health workers, neighbors, relatives, radio and television [22].

3.2. Impact of Religion:

The study of Erlenwein et al. [15] showed that most women see no conflict between religion and sterilization as a preventive method against pregnancy. The questionnaire was created in a way to make it possible to distinguish between the strength of their faith and the importance of the religious dogma. Most women did not see any conflict between faith or religion and sterilization as a method of contraception. Only 23.2% believed there is a conflict

between belief and religion. Of this group, 9.7% felt sterilization to be particularly in conflict with their faith, whereas 13.5% felt it to be particularly in conflict with their religious dogma. All in all, sterilization was more accepted when the women considered their own faith rather than the impact of religion. 67% of Germans and 36.5% of Non-Germans claimed that religion had no influence on the method of contraception [15].

85% of the Arabic women neither accept sterilization nor other contraceptive methods without any medical indication [16].

Another study revealed that an increased church attendance was associated with higher use of condoms and periodic abstinence and a lower use of oral and surgical contraceptive methods [20].

3.3. Attitude and acceptance of sterilization as a method of contraception:

A study from Nigeria [17] deals with attitude and sterilization. 250 women were questioned about their opinions on sterilization. The results revealed that 87.6% of the women had already heard of sterilization as a contraceptive method. The average age for female sterilization is 40 years in Nigeria. Most of the women got their information from medical staff. Factors influencing their attitude towards sterilization as a contraceptive method were the number of living children (59.6%), the women's age (52%), previous complications in pregnancy and labor (45.2%), medical disorders (36%), effect on reincarnation (17.6%) and religion or culture (3.2%) [17].

Reasons for declining sterilization as a contraceptive method were fear of the procedure (54.2%), desire for children, definitiveness of this method (56.4%) and surgery costs (50.5%) [15].

Considering the influence of sterilization on the women with respect to their self-confidence, Erlenwein et al. showed that sterilization has no or only moderate influence on women's self-esteem. Only 2.9% of the women stated that the sterilization had a strong impact on their self-esteem [15].

Further study results [21] showed that about 4.4% of the questioned women thought that sterilization might affect their feelings of femininity, but only 4% of the sterilized women actually reported such effects and in contrast about 13% of women even reported an increase in their feelings of femininity. Most women (83.1%) quoted no change in their feelings of femininity.

When comparing to other contraceptive methods, a considerable number of sterilized women reported mood improvements (62.5%) and a positive influence on their sex life (57%) [21].

Sedlecki et al. [23] investigated the opinion on voluntary sterilization in Serbia. It is the only study in which not only the women but also the gynecologists were questioned about their opinion about sterilization. Half of the interviewed persons accepted sterilization as a contraceptive method. Young women with secondary education who had reached their desired number of children as well as a history of numerous abortions and living in a good relationship with their partner appeared to be more open-minded towards voluntary sterilization.

In summary, the major factors for choosing sterilization as a contraceptive method are completed family planning, number of existing children, side effects and intolerance of hormones, safety and reliability of the method, non-disturbance of sex life, severe disease or a severe inheritable disorder. The older the women

the more often they choose sterilization as contraceptive method [15, 17-23].

The common reasons for declining sterilization were desire of children, fear of feeling less feminine, negative influence on the woman's self-esteem, impact of religion, fear of surgery, the definitiveness of this method and surgery costs [15-23].

Nevertheless, the majority of the questioned women felt that the operation had been less serious than expected [21].

Most gynecologists in Serbia see the possibility of voluntary sterilization for women in a critical light, as they primarily accept the procedure from a medical and eugenic perspective [23].

4. Discussion and Main findings of the review

In summary, there is a great lack of information and knowledge about sterilization. Only a few studies deal with this topic. Most studies are analyzing contraceptive methods in general, including female sterilization. Regarding the performed studies, there are a few performed in European countries, here especially North-Europe and a few in the developing countries like India, African countries and Arabian countries. There are no greater studies available which analyzed a cohort in central or south Europe or even in America. With this low number of studies representing only a few countries, the above-mentioned results and data is hardly representative for a worldwide population. A general statement on this topic is impossible to give. This raises the question why this topic is generally underrepresented in academic research.

However, regarding the available data it can be carefully assumed that sterilization is an accepted method of contraception in developed countries in those women who are

aware of this kind of contraceptive method. In the Arabian countries sterilization is only accepted if there is a medical indication given [16]. This is due to the cultural and religious background, which does not allow procedures on women's bodies for contraceptive reasons without any medical indication. This is in contrast to Germany and most other northern European countries, where religion does not have such a great impact on women's decision on the choice of contraceptive method [15]. The studies additionally demonstrated a discrepancy between the different levels of education concerning attitude towards and knowledge and acceptance of the sterilization as contraceptive method. The opinion of the gynecologists is hardly considered in the current studies. The opinion and attitude of gynecologist and other medical staff should not be neglected as they are the main source of information and their counseling influences women's final choice of contraceptive method.

In summary, the opinion on and knowledge of female sterilization as a scientific topic is underrepresented. The published studies demonstrated that there is firstly a good acceptance among women, especially in non-Islamic countries, and secondly that there is a demand for more

information. The choice of contraceptive method depends on reproductive status, completed family planning and maternal age, couple's demographic situation, educational level and religious beliefs.

More studies are in need to reveal more about the knowledge of women as well as acceptance about sterilization. Furthermore, a better counseling about contraceptive methods including sterilization is necessary.

Conclusion

The subject of sterilization is an important topic which has a great information deficit. Therefore, comprehensive education is particularly important in families with low income and low education levels. Furthermore, better balanced worldwide studies in different countries with greater population on the topic of women's attitudes towards sterilization are necessary in order to gain improved knowledge on this issue.

Conflict of interest

The authors declare no conflict of interest.

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