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Health Problems and Coping after Laparoscopic Sterilization: A Descriptive Correlational Study

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ABSTRACT

Female sterilization is one of the most commonly used contraception. Women often experience health problems after sterilization and use several coping strategies to overcome their problems.

Objective: This study is aimed atidentifying health problems experienced by women after laparoscopic sterilization and coping strategies used by them and finding the relationship between health problem and coping.

Methods: The descriptive correlation study was conducted in an urban area of Mangalore city in a southern state of India. Using snowball sampling 135 women were selected and interviewed at their residences. Data were collected with a background information questionnaire, Health Problem Rating Scale and the Jalowiec Coping Scale.

Results: Women experienced psychosocial problems more frequently than physical problems;sexual problems were least reported. They effectively used confrontive, self-reliant, and optimistic coping styles. Health problems and coping styles had a significant positive correlation. A strong positive correlation was also found between use of coping style and coping effectiveness.

Conclusion: This study advances current literature by linking health problems and coping of women who have undergone laparoscopic sterilization. However, future research and in-depth study is necessary for analyzing the interaction between health problems and strategies to cope with them.

Key Words: Laparoscopic sterilization, Health problems, Coping styles, Coping strategies

INTRODUCTION

With an estimated population of 1.3 billion, India represents 18 percent of the world's population. India will overtake China to be the world's most populated country in 2022[(1)]. Use of contraceptives contributes towards controlling the population growth. Globally, contraceptive prevalence among married or in-union women of reproductive age has increased from 55% in 1990 to 63% in 2011. With 19% relying on female sterilization and 14% using IUDs, these two methods were most commonly used worldwide, in 2015[(2)]. The United States reports a decline in the use of female sterilization[(3)]. However, In India, it accounts for two third of total contraceptive use and 77% of the modern contraceptive use [(4)]. Although a convenient method, its popularity is decreasing. Recent statistics from the first phase of the National Family Health Survey(NFHS) found married women less likely to use modern family planning methods in eight of the Indian states surveyed. Karnataka, a southern Indian state has a decline in the rate of female sterilization from 57.4% in 2005-2006 to 42.8% in 2015-2016[(5)]. In spite of the declining use, it continues to remain the popular choice of modern contraceptives.

Female sterilization involves occlusion of the fallopian tubes by either an abdominal or trans-cervical route. Laparoscopic sterilization, performed through the abdominal approachis often chosen because of its irreversibility, specifically among women who do not wish to retain future fertility. A United Kingdom study reported that women chose sterilization for one of the three reasons: to avoid the possible side-effects of hormones, to avoid continually having to make decisions regarding child- bearing or because of lack of information regarding reversible methods[(6)].

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The period following sterilization is however not without complications or health problems. Several physical, psychosocial and sexual problems are prevalent. The risk for menstrual disturbances were reported. Although rare, failed sterilization may result in ectopic pregnancy. An association between tubal occlusion and subsequent hysterectomy was reported[7]. Regret after sterilization is most often experienced by couples who had substantial conflict prior to undergoing sterilization[8]. Young age and gender of a child, are among the many factors associated with regret, with 5% of sterilized women aged 15–49 reporting regret in India[9].

Knowledge about health problemsas a consequence of contraceptives has an influence on the choice and the ability of women to cope with their problems. The goal of nursing care is to promote the healthy behavior of people and to help them to use appropriate coping strategies. Therefore, it is of paramount importance that women are educated about the health problems associated with tubal sterilization which they may perceive as burdensome.

To manage taxing demands that exceed their personal resources and eliminate distress, individuals use cognitive and behavioral efforts. Health problems are taxing to most individuals and they are compelled to use various coping efforts or styles that are unique to them. Coping is both, situational and person-base[10]. Women have a choice of using predominately problem-oriented or affective-oriented coping strategies. When the event is modifiable, they use problem -oriented coping strategies. In contrast,they prefer affective-oriented coping strategies when the stressful situation can at best, be attenuated[11]. Some styles may be perceived more effective than the others. In managing emotionally stressful events certain coping strategies are effective in the short-term but can be harmful in the long-term. Identifying health problems and encouraging women to use appropriate coping strategies will provide a basis for promoting their health and assist them in coping effectively.

To date, empirical research has not fully examined the health problems of women following laparoscopic sterilization, and how coping styles are related to the health problems. Therefore, this aimed at identifying the health problems experienced by women after laparoscopic sterilization and the coping strategies used by them, and finding the relationship between health problems and coping.

METHODS AND MATERIAL

A descriptive correlational study on health problems and coping strategies of women after laparoscopic sterilization was conducted on 135 women. After identifying the first participant from the medical record of the Postpartum Centre, using snowball sampling, women between 25 and 45 years of age and willing to participate, were recruited. The setting was an urban area adopted by a governmental postpartum center in a southern Indian city.

After seeking administrative permission and taking informed consent, women were interviewed at their residences using a background information questionnaire (demographic items and a modified Srivastava Socioeconomic Status Scale: urban), Health Problems Rating Scale (HPRS) and Jalowiec Coping Scale (JCS)[12]. The 28- item HPRS: physical (18 items), sexual (3 items) and psycho-social (7 items) problems, was developed, drawing on several published materials. Respondents were required to check the item in the 'yes' column if they experienced the problem and rate it on a three - point scale: 'always', 'most of the time' or 'sometimes'. The absence of the problem would draw a 'no' response to the 'no' column. The item-wise scores ranged from 0-3, with a maximum possible score was 54. The content validity of the HPRS was established on the basis of percentage of agreement among seven experts. The Cronbach's alpha was 0.96, affirming the reliability. After seeking permission from the author to adapt the 60-item JCS to the Indian context, seven items were simplified. For example, an item which read "got mad and let off steam" was simplified to read as "got irritated and started screaming". Validation was done by seven experts. The JCS had two scales: 'use' refers to the frequency at which the coping method was used and 'effectiveness' refers to how effective the responses were in dealing with the resolution of health problems. The eight sub-scales of coping were: confrontive, evasive, optimistic, fatalistic, emotive, palliative, supportant and self-reliant. The score for each item ranged from 0 – 3. The JCS used for this study was reliable; Cronbach's alpha for 'use' scale was 0.93 and for 'effectiveness' scale was 0.94. The tools were translated to Kannada language, and back- translated to establish language validity before pretesting.

RESULTS

Sample Characteristics: The majority of participants (52.6%) were between 30-35 years of age, 40% were between 25-30 years of age and 7.4% were 35 - 45 years old. The majority (72.6%) were the second para;22.3% were third para; 2.2% were above three, and the parity of 3.0 % were primigravidas. Most (51.1%) belonged to middle socioeconomic status;45.9% were from high socio-economic status. The duration since the laparoscopic surgery was less than one year in two-third of the participants (33%).

Health Problems: Higher mean percentage score (23.9%) was reported for the psychosocial health problems score; followed by physical (18.7%) and sexual health problems (10.6%). Top -ranked psychosocial problems were worry over small problems (rank 1; 78.5%), feel terrible (rank 3; 74.8 %), experiencing non- acceptance by family members

(rank 5: 62.96%) and feel sad (rank 6; 61.4%). Pain and menstrual problems were among the top-ranked physical problems. Pain while flexing feet (rank 2; 78.5%) back pain while bending to pick up objects (rank7; 58.0 %) and pelvic pain (rank10; 55.5 %) were frequently reported. Majority reported menstrual problems; excessive menstrual bleeding (rank 4; 68.8%), increased duration of menstruation (rank 8; 57.0%) and dysmenorrhea (rank 9; 56.2%). (Table 1).

Coping: The use and effectiveness scores for coping styles were computed.The adjusted use score was calculated by dividing the raw use score for a given coping style by the number of coping styles used for that given coping style. The highest score was for confrontive (0.48), followed by self-reliant (0.45), emotive (0.34) and optimistic coping (0.30). Evasive (0.28), palliative (0.24%), supportant (0.20), and fatalistic coping (0.15) were less frequently used.

The adjusted effectiveness score was obtained by dividing the raw effectiveness score for a given coping style, by the number of coping methods used for that given coping style. It was maximum for confrontive (0.46) self-reliant (0.40) and optimistic coping (0.31). The less effective coping styles were evasive(0.29), emotive(0.28), supportant (0.27), palliative (0.20) and fatalistic coping(0.15)

The relationship between health problems and coping strategies: Pearson correlation demonstrates a positive relationship between health problems and coping. Health problems were positively correlated with the adjusted mean use scores of coping although weak ($r = 0.245$, $p<.05$) and with adjusted mean effectiveness scores of coping ($r = 0.260$, $p<.05$) There was also a significant strong positive relationship between use score and effectiveness score.($r = 0.947$, $p<.01$) This shows that women used coping styles effectively when they experienced health problems.

DISCUSSION

This investigation of health problems and coping strategies of women after laparoscopic sterilization revealed higher psychosocial problems followed by physical and sexual problems. Top-ranked psychosocial problems indicated women often worried about small things, felt sad and were not accepted by family members. Excessive bleeding during menstruation increased duration of menstrual flow and dysmenorrhea were top ranked physical problems. Women effectively used confrontive, self reliant, and optimistic coping to resolve their health problems. Health problems positively correlated with coping styles. The use of coping styles correlated positively and strongly with their effectiveness.

Findings of this study will add to the existing knowledge on this subject. Literature exists on regret, post menstrual syndrome and similar areas; the novelty of this study is its focus on the comprehensive aspects of the health problems that encompasses the physical, psychosocial and sexual problems and the coping styles adopted by the women. The findings form the basis for developing a framework for follow-up and care of the women after sterilization.

Our study revealed that most women experienced psychosocial problems and more frequently worries over small problems, feeling terrible and even feeling sad. Feeling of sadness, repentance or disappointment over something that one has done or failed to do are all factors that define regret. Regret after sterilization is a widely surveyed phenomenon that varies in its prevalence. In a survey on sterilized women aged between 15-49 years in India, 5% reported regret. [9]. When women lose their ability to conceive they regret their decision. Various factors influence this phenomenon. Younger age was associated with higher regret[9]. Though our study did not assess regret, women reported feeling terrible and sad, which are aspects of regret. Post-sterilization regret was reported by women who were dissatisfied with the decision of undergoing sterilization. They are at greater risk for regret and dissatisfaction after the procedure. Our study neither explored their feelings prior to sterilization nor their role in decision making to undergo sterilization. An exploration of the predisposing factors would provide direction for plan of care prior to sterilization. This is warranted specifically because, in the Indian scenario, male dominance has an effect on the choice of reproductive health in most households. Higher psychosocial problems lead to dissatisfaction. Contrary to our findings, 95% of women reported satisfaction with tubal sterilization and 76.9% would recommend it to other women[13]. One study revealed, oral contraceptives and sterilization had less negative impact on psychosocial functioning when compared to other methods like intrauterine devices, condoms and natural family planning[14]. Peace and satisfaction and mental relief due to an absence of pregnancy-related problem were reported in a qualitative study. An in-depth analysis of reasons for the problems is warranted. Non- acceptance by family members was one of the psychosocial problems reported by the women in our study. Similar to the findings of our study women in the Congo region of Africa reported non-acceptance in the relationship with their partners[15]. In-depth interviews are needed to understand this phenomenon, with respect to the reasons why there is non-acceptance specifically in the Indian socio-cultural context, where women are powerless in most circumstances specifically regarding reproductive decisions.

In our study, physical problems that is excessive bleeding during menstruation was reported. Menstrual problems after tubal sterilization are debatable. In a phenomenological study in Congo, menstrual disorders, backache, and abdominal pain either increased or decreased or disappeared after tubal ligation[15]. Contrary to our findings, the likelihood of bleeding post-tubal sterilization was prevalent if baseline bleeding

was heavy. A prospective cohort study that followed up to five years on 9514 women who underwent tubal sterilization and 573 women whose partners had vasectomy concluded that women who had tubal sterilization were no more likely to have menstrual abnormalities i.e, changes in menstrual bleeding or length of menstrual cycle. They were more likely to have decreased number of days of bleeding, the amount of bleeding and decreased menstrual pain. However, a persistent increase in cycle irregularities was reported[16].

Interestingly, none of the items on sexual problems were top ranked. Supporting our findings is a prospective multi-- centric cohort study of 4576 women who reported positive effects. The majority did not experience the change in either sexual interest or sexual pleasure. Those who experienced change reported positive sexual effects. Post sterilization regret was identified as the only predictor of decreased sexual interest and pleasure[17]. Contrary to our findings lower sexual functions were found among those with tubal sterilization in comparison with controls. Low educational status was considered a risk factor[18]. Our study participants may not have divulged with sensitive information in a face-to-face interview. A paper and pencil test may have been appropriate for drawing information regarding sexual problems.

Regardless of their health problems, women used a variety of coping styles effectively. Confrontive styles exhibit constructive problem solving, which was the most commonly and effectively used style. For effective problem solving, women need to be well informed about the post-sterilization health problems and more importantly because they use self -reliant coping styles. Our study found effective use of self –reliant coping. The (NHFW-3) survey showed only 28.7% of the 10,089 women sterilized were informed about the side effects; comparatively, the urban women (34.5%) were better informed than the rural (26.5%) [4]. Health personnel must, prior to sterilization, discuss the potential problems to enable women to cope effectively.

One of the main limitations of this study is the non -probability snowball sampling technique that has inherent bias limiting the generalizability of the findings. Further, the use of self-reporting leads to subjectivity in the data collected.

CONCLUSION

This study advances current literature by linking health problems with coping styles of women after laparoscopic sterilization, but future research focusing on an in-depth analysis of the interaction between health problems and coping is necessary. Qualitative studies investigating long-term effects of laparoscopic sterilization, in-depth experiences of women and individual differences in the use of coping strategies could have important implications for improving nursing practice.

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REFERENCE

1. United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, Key Findings and Advance Tables. Working Paper No. ESA/P/WP.241.
2. United Nations, Department of Economic and Social Affairs, Population Division. Trends in Contraceptive Use Worldwide2015(ST/ESA/SER.A/349)
3. Daniels K, Daugherty J, Jones J. NCHS Data Brief, Number 173, December 2014. 2011;
4. International Institute for Population Sciences (IIPS) and Macro International. 2007. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS.
5. International Institute for Population Sciences. National Family Health Survey-4. State Fact Sheet Karnataka 2015-16. 2015;2. Available from: http://rchiips.org/nfhs/factsheet_NFHS-4.shtml
6. Kane R, Irving G, Brown S, Parkes N, Walling M, Killick S. Long-acting, reversible and permanent methods of contraception' insight into women's choice of method. Qual Prim Care. 2009;17(2):107–14.
7. Melville C, Bigrigg A. Male and female sterilization. ObstetGynaecolReprod Med 2008;18(12):330–4.
8. Jamieson DJ, Kaufman SC, Costello C, Hillis SD, Marchbanks PA, Peterson HB. A com- parison of women's regret after vasectomy versus tubal sterilization. ObstetGynecol 2002;99(6):1073–9.
9. Singh A, Ogollah R, Ram F, Pallikadavath S. Sterilization regret among married women in India: Implications for the Indian national family planning program. IntPerspect Sex Reprod Health. 2012; 38(4):187–195.
10. Costa PT, Somerfield MRJ, McCrae RR. Personality and coping: A reconceptualization. In: Zeidner M, Endler NS, editors. Handbook of coping: Theory, research, applications.Canada: Wiley; 1996. P. 44-61.
11. Lazarus RS, Folkman S. Stress Appraisal and Coping. New York: Springer Publishing Co., 1984.
12. Jalowiec A, Murphy SP, & Powers MJ (1984). Psychometric Assessment of Jaloweic Coping Scale, Nursing Research, 33,157-161.
13. Basgül A, Uzuner A, Kavak ZN, Bozkurt N, Onaran H, Ertürk MS. Impact of tubal sterilization on women's health. ClinExpObstet Gynecol. 2007; 34(1):39–41
14. Oddens BJ. Women's satisfaction with birth control: a population survey of physical and psychological effects of oral contraceptives, intrauterine devices, condoms, natural family planning, and sterilization among 1466 women. Contraception. 1999;59(5):277-86.
15. Lutala PM, Hugo JF, Luhiriri LN. Psychosocial implications of tubal ligation in a rural health district: A phenomenological study. Reprod Health. 2011 8(1):38.
16. Peterson HB, Jeng G, Folger SG, Hillis SA, Marchbanks PA, Wilcox LS. The Risk of Menstrual Abnormalities after Tubal Sterilization. N Engl J Med. 2000 343(23):1681–7.
17. Costello C, Hillis SD, Marchbanks PA, Jamieson DJ, Peterson HB, US Collaborative Review of Sterilization Working Group. The effect of interval tubal sterilization on sexual interest and pleasure. Obstet Gynecol. 2002;100(3):511–7.

18. Gulum M, Yeni E, Sahin MA, Savas M, Ciftci H. Sexual functions and quality of life in women with tubal sterilization. Int J Impot Res 2010; 22(4):267–71.

Table 1: Frequency and percentage distribution of ten top-ranked health problems experienced by women

(n=135)

Category of health problem	Health Problem	F	%	Rank
Psycho-social	Worry over small problems	106	78.5	1
Physical	Pain while flexing feet	106	78.5	1
Psycho-social	Feel terrible	101	74.8	3
Physical	Excessive bleeding during menstruation	93	68.8	4
Psycho-social	Non-acceptance by family members	85	62.96	5
Psycho-social	Feel sad	83	61.4	6
Physical	Back pain while bending	73	58.0	7
Physical	Increased duration of menstruation	77	57.0	8
Physical	Dysmenorrhea	76	56.2	9
Physical	Pelvic pain	75	55.5	10

Table 2: Pearson correlation between health problems and coping strategies

(n=135)

	Health problems	Adjusted use coping strategies	Adjusted effectiveness of coping strategies
Health Problems		0.245*	0.260*
Adjusted use coping strategies	0.245*		0.947**
Adjusted effectiveness of coping strategies	0.260*	0.947**	

*Correlation is significant at.05 level

**Correlation is significant at.01 level