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LITERATURE REVIEW**Women's Sexuality and Relationship with Hysterectomy**

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Abstract

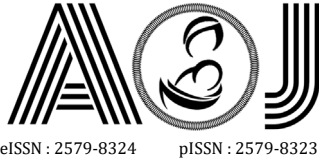
Sexuality is the most complex component, fundamental and main aspects of human behavior and life. Expressions of sexuality and intimacy are important throughout human life. Sexuality itself includes sex, gender identity and role, sexual orientation, eroticism, satisfaction, intimacy and reproduction. Sexuality is experienced and expressed through thoughts, fantasies, beliefs, attitudes, values, behavior, roles and relationships. Although sexuality includes the above dimensions, not everything can be experienced and expressed by everyone. This is influenced by biological, psychological, social, interactions economic, political, cultural, ethical, legal, religious and spiritual. Hysterectomy is a surgical removal of the uterus, which can be done by vaginal, abdominal, laparoscopic and robotic routes. The definition of "total hysterectomy" is a surgical procedure to remove the entire uterus with its cervix. In total hysterectomy is also accompanied by suturing in the cervix which will leave scar tissue. the uterine ligament is released, the uterosacral ligament cardinal that was previously attached to the cervix is sewn to the side of the vagina to hold the vagina in place. Three main changes after hysterectomy are anatomical changes, hormonal changes, and psychological changes. Hysterectomy effects women's sexuality on various ways including sexual desire, sexual arousal, dan orgasm

Keywords: *sexuality, hysterectomy*

INTRODUCTION

Sexuality is the most complex component, fundamental and main aspects of human behavior and life. Expressions of sexuality and intimacy are important throughout human life.¹ Sexuality itself includes sex, gender identity and role, sexual orientation, *eroticism*, satisfaction, intimacy and reproduction. Sexuality is experienced and expressed through thoughts, fantasies, beliefs, attitudes, values, behavior, roles and relationships. Although sexuality includes the above dimensions, not everything can be experienced and expressed by everyone. This is influenced by biological, psychological, social, interactions economic, political, cultural, ethical, legal, religious and spiritual.²

The main motivation in sexual activity is to pursue sexual pleasure. Effective orgasm is used as an indicator of pleasure sexual and healthy sexuality. In addition, orgasm is an important predictor of happiness in relationships, and sexual satisfaction.³ Orgasm is the peak sensation of pleasure sexual associated with psychological changes in the body.⁴ The uterus



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is an important organ, which functions as a means of pregnancy, childbirth, sexual organs, energy sources and organs to maintain the attractiveness and beauty of women. Moreover, the uterus is a woman's body image, losing the uterus means losing the sensation of femininity. About 600,000 women undergo hysterectomy every year in the United States. Although hysterectomy is known to have many benefits, the effect of hysterectomy on vaginal length and sexual function is unknown. Moreover, women's sexual desires are very important to humans and contribute to the comfort and welfare of women.⁵

Hysterectomy has a major physical, emotional, sexual and economic impact on both individuals and the health care system.⁶ Hysterectomy is performed as a treatment for benign disorders such as fibroids, endometriosis hyperplasia, adenomyosis. Hysterectomy has a number of complications such as bleeding, infection, and the further dominant effect of hysterectomy is sexual dysfunction.⁷

WOMEN'S SEXUALITY

Sexuality is the most complex, fundamental and main aspect of human behavior and life. Expressions of sexuality and intimacy are important throughout human life.¹ Sexuality itself includes sex, gender identity and role, sexual orientation, *eroticism*, satisfaction, intimacy and reproduction. Sexuality is experienced and expressed through thoughts, fantasies, beliefs, attitudes, values, behavior, roles and relationships. Although sexuality includes the above dimensions, not everything can be experienced and expressed by everyone. This is influenced by biological, psychological, social, interactions economic, political, cultural, ethical, legal, religious and spiritual.²

SEXUAL CYCLE RESPONSE

According to Masters and Kaplan sexual response cycles in both genders are categorized into 4 phases, sexual desire, pleasure (*excitement*), orgasm and resolution. The first phase of sexual desire consists of aspects of motivation or desire for sexual response. Sexual drive, sexual fantasy and sexual desire are included in this phase. The second phase is sexual pleasure, is a subjective feeling of sexual pleasure accompanied by changes in body physiology. This phase includes *penile erection* in men and *vaginal lubrication* in women. *Plateauing* is sometimes categorized as a phase separate, which is the peak of pleasure achieved with ongoing stimulation. This is marked by the tension of the sexual organs and will create a mediator for orgasm. The third phase is an orgasm or climax, which is the peak of sexual pleasure with *rhythmic contractions* of the genital muscles of women and men. This phase will be related to ejaculation in men. Figure 1 shows the 3 types of orgasm patterns in women.²

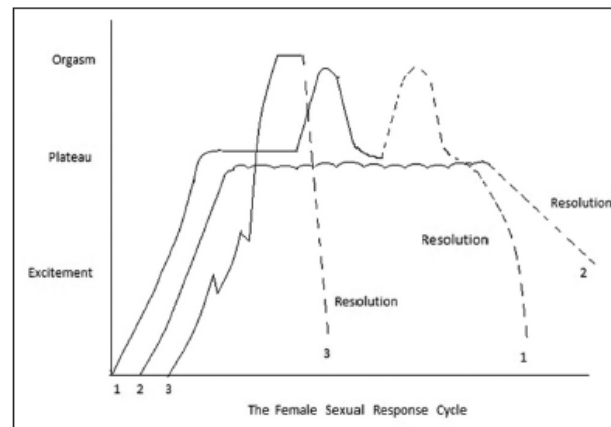


Figure 1 Several patterns of orgasm in women ²

The first pattern shows multiple orgasms. The second pattern shows the *arousal* state that reaches the *plateau* level without going through orgasm (resolution occurs very slowly). The third pattern shows some short duration of pleasure followed by a fast phase of resolution. The final phase, during the relaxation phase is a sense of relaxation.

Then, there is the refractory period in men, which is usually absent in women. Table 1 shows the physical changes in women during sexual response cycle. ²

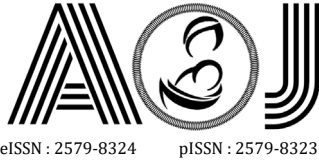
FEMALE SEXUALITY AND HYSTERECTOMY

Hysterectomy is a surgical removal of the uterus, which can be done by vaginal, abdominal, laparoscopic and robotic routes. The definition of "total hysterectomy" is a surgical procedure to remove the entire uterus with its cervix. In total hysterectomy is also accompanied by suturing in the cervix which will leave scar tissue. the uterine ligament is released, the uterosacral ligament cardinal that was previously attached to the cervix is sewn to the side of the vagina to hold the vagina in place.^{6,8}

Subtotal hysterectomy is a surgical procedure only by removing the uterus at or below the isthmus, leaving the cervix. Cardinal uterosacral ligament still attached to the cervix. In pre-menopausal women, almost all hysterectomies are performed for benign diseases such as (*fibroids*, severe bleeding, *endometriosis* or *adenomyosis*), where after menopause almost all hysterectomy is performed for *pelvic prolapsed organs*.^{6,8}

Gorlero in the Iliano et al study, who compared hysterectomy subtotal abdominal and total hysterectomy found that there was an increase in sexual function, quality of life and body image. In this study even concluded that body image was better in women who had subtotal hysterectomies.⁸

Research conducted by Rovers et al of 413 women undergoing hysterectomy with various techniques. It was found that an increase in sexual function both with vaginal



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hysterectomy techniques, subtotal abdominal hysterectomy and total hysterectomy. This type of hysterectomy technique does seem not to be a determinant for the development of the disorder during sexual activity.⁹

This was confirmed by Flory in iliano studies comparing *laparoscopically assisted total vaginal hysterectomy (LAVH)* and *laparoscopic supracervical hysterectomy (LSH)*. In both sex drive groups, arousal and sexual behavior increased significantly postoperatively.⁸

The effects of histrectomy on quality of life and sexual function different from woman to woman. Complaints that occur after hysterectomy include loss of libido, decreased frequency of coitus, decreased sexual response, difficulty reaching orgasm, limited sensation in the vaginal area, dyspareunia (pain during coitus), vaginal shortening, loss of penile penetration and loss of vaginal lubrication and elasticity⁵

Shirinkan et al in his study stated that the main problem in the sexual relations of women who experience hysterectomy is fear. Researchers claim that decreases in sexual desire, amount of coitus and sexual satisfaction are created by fear. Previous studies have shown nosatisfaction sexual, even anxiety, inability to perform daily tasks, disruption in sexual activity and leisure time, changes in sleep patterns, mod disruption, decreased communication and decreased quality of life.¹⁰

ANATOMICAL CHANGES AFTER HYSTERECTOMY

Hysterectomy can attack different phases of sexual activity. One of the anatomic changes in total hysterectomy is the absence of the cervix. During penetration, the cervix plays a very important role. In fact, some women whose cervix is removed by hysterectomy complain of discomfort during penetration. In a randomized study there were no differences in bladder function, bowel function, quality of life and sexual dysfunction between total and subtotal hysterectomy.⁸

Another important anatomic change during hysterectomy is the reduction in total vaginal length. The effects of various types of hysterectomy on vaginal length and sexual function are not yet fully understood. Abdelmonem prospective study in the journal Illiano revealed vaginal length will be shorter in *abdominal hysterectomy* compared with *vaginal hysterectomy* resulting in dyspareunia.

In addition De La Cruz in his study stated that the vagina will be shorter with *vaginal hysterectomy* than *robotic hysterectomy*.¹⁸ The uterus and cervix have contractile properties and have an important role and pathophysiology of orgasm and sexual arousal. During the first phase of orgasm, there will be contraction of the smooth muscles of the fallopian tubes, uterus and paraurethral glands.

In the second phase there will be striated muscle contractions of the pelvic floor, perineum muscles and spinkter. After contraction the sensory stimulus will reach the brain and will be presented as an orgasm sensation.⁸

Hysterectomy is responsible for changes in vaginal lubrication during coitus. The autonomic nervous system (which originates in the hypogastric plexus and sacral plexus) provides innervation to the inner genital organs and is crucial to normal sexual function. Where somatic sensory innervation is branched by the pudendal nerve. This structure is damaged during hysterectomy, especially during *cervical excision* and separation of the uterus from the ligaments that support it. Blood vessels can also be damaged, trauma to the branching arteries that line the vagina and clitoris will reduce blood flow which will ultimately reduce sexual sensations and sexual desire. This problem often occurs in hysterectomies caused by cancer, where tissue is removed more widely and damage often occurs in the inferior hypogastric plexus which is located parallel to the cervix and the lateral vaginal fornix. Damage to the sympathetic and parasympathetic nerves together with damage to blood vessels that triggers a decrease in lubrication and disrupt the process of congestion. This explains why women with radical hysterectomy complain of decreased vaginal lubrication and genital congestion.

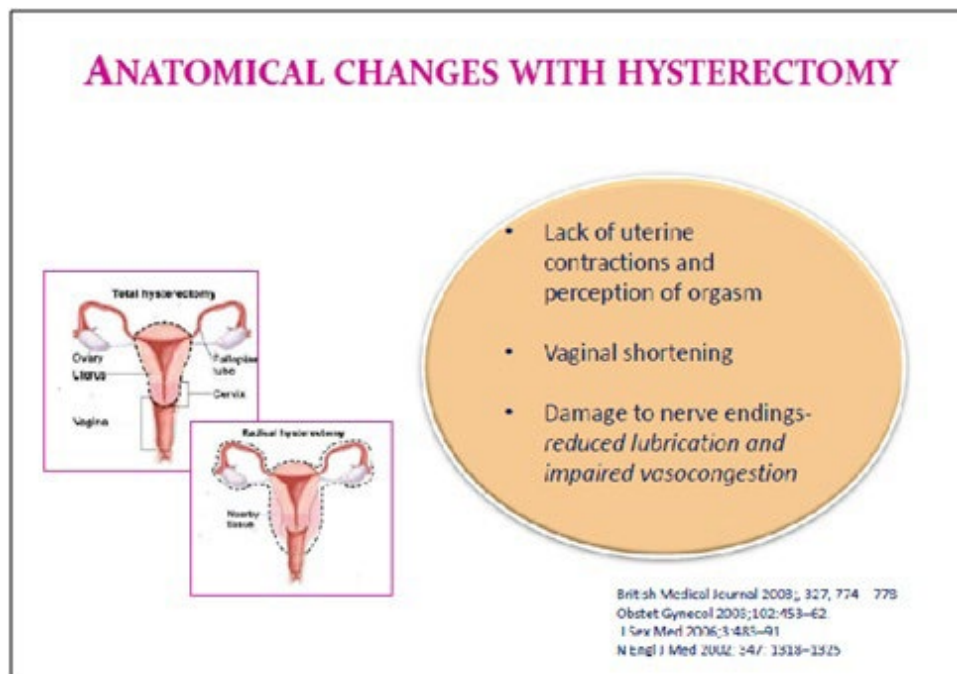


Figure 2 Changes in post hysterectomy anatomy⁸

HORMONAL CHANGES AFTER HYSTERECTOMY

Perimenopouse women after hysterectomy and oophorectomy will have symptoms similar to depression, anger, communication disorders, low levels of self-confidence which will exacerbate the side effects of surgery on sexual function. When menopause occurs there will be loss of elasticity of the mucosa vaginal, and shortening of the vaginal fornix. This change will cause pain and dryness, thus blocking coitus. Menopause induced by surgery is characterized by a decrease in estrogen and androgen levels. Decreased estrogen levels will trigger a reduction in vaginal lubrication, dyspareunia and cause *clitoral fibrosis* and limited sexual sensitivity.⁸

Androgen deficiency is responsible for decreased libido and sexual arousal. Research on premenopausal women who experience total hysterectomy shows a decrease in hormone levels, while women menopausal do not decrease hormone levels. This explains that the ovaries are able to produce androgens after menopause so they will be able to maintain libido and reach orgasm.⁸

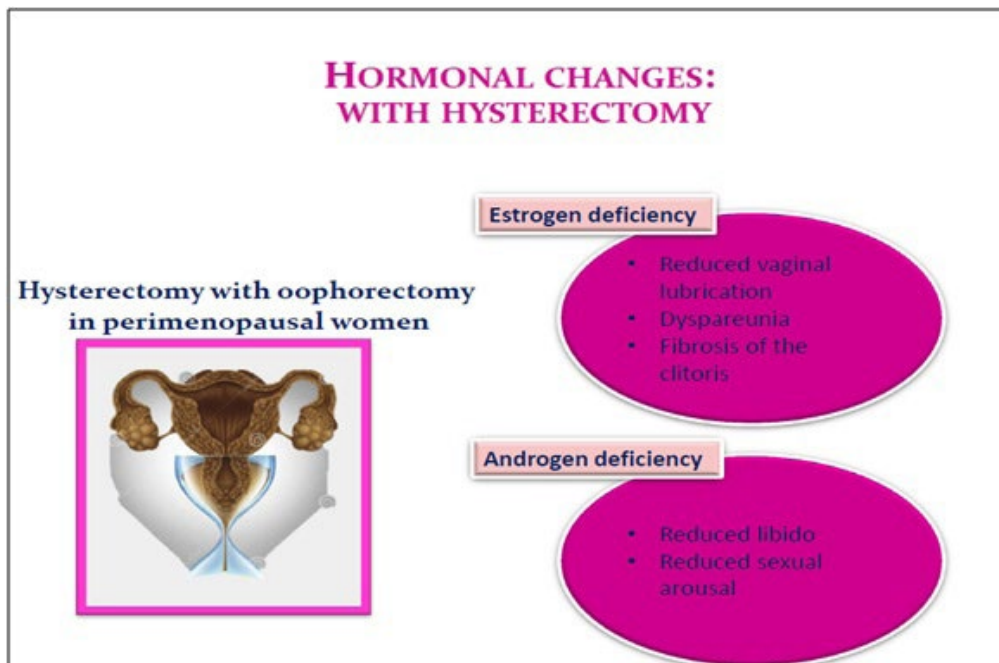
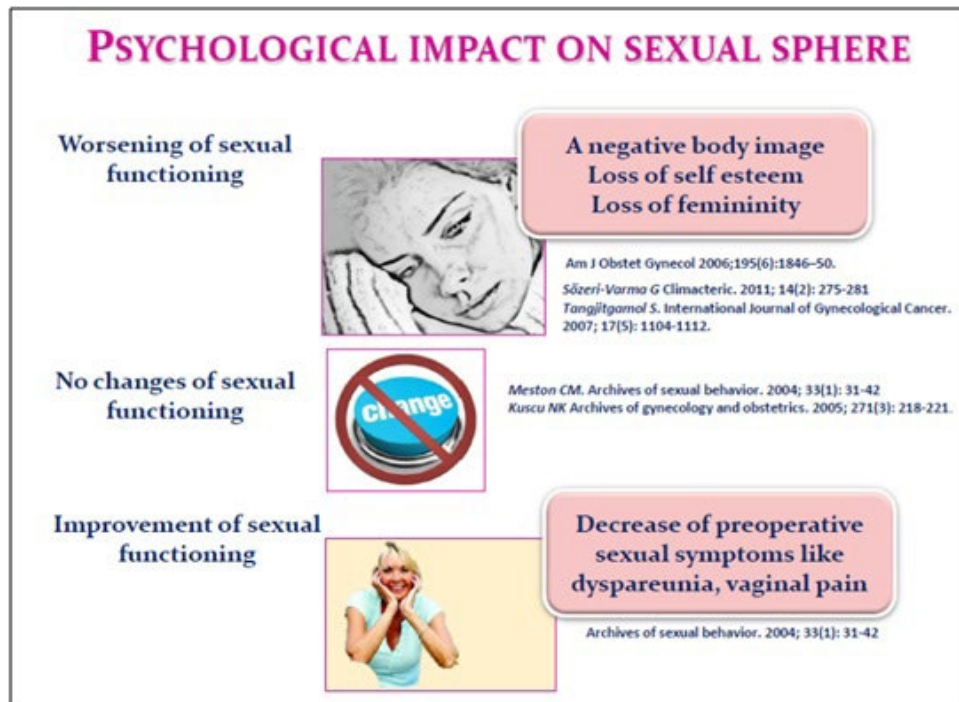


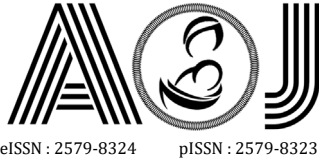
Figure 3 Hormonal changes after hysterectomy⁸

PSYCHOLOGICAL CHANGES AFTER HYSTERECTOMY**Figure 4** Psychological effects after hysterectomy⁸

The incidence of depression after hysterectomy is influenced by several factors including the desire to have more children, mental health before surgery, possible loss of symptoms and post complications operative. Signs and symptoms of depression are very clear such as feelings of prolonged sadness, no life expectancy, some people will lose their breath of food, insomnia, fatigue, thoughts of death or suicide.^{8,11}

Changes in body image due to hysterectomy can affect sexual life. The fact of uterine surgery is related to loss of self-esteem and femininity. The negative effects of hysterectomy on body image are often correlated with the presence of surgical scars in the abdomen or hormonal changes. In this case the husband's role is very important. Women who have had a difficult relationship before hysterectomy are often unable to restore sexual health as before.⁸

Hysterectomy can improve the quality of life of patients who are not responsive to conservative treatment by relieving symptoms. However, patients who are being prepared for a hysterectomy experience fear and anxiety for the loss of sexual function. Hysterectomy is related to psychology. Psychological problems after hysterectomy are usually associated with poor body image.¹²



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Website:<http://jurnalobgin.fk.unand.ac.id/index.php/JOE>**EFFECTS OF HYSTERECTOMY ON SEXUAL DESIRE**

A number of experts in his research have a variety of different results. Two studies in the journal Muhammad Danash said that almost all patients did not experience changes in sexual desire after a hysterectomy. Another study states that, women who are active sexually before surgery, remain active after a hysterectomy with the frequency same after 6 months. Menston in this journal also stated that there was no significant change between women who had hysterectomies and women with myomas but did not do hysterectomies. Other studies also state that both *body image* and libido do not decrease during hysterectomy. Even women who underwent hysterectomy in several studies experienced many increases in desire sexual.⁵ In contrast to the above Gutl et al in the journal Muhammad Danash stated sexual dysfunction such as decreased even loss of sexual desire occurred in abdominal and vaginal hysterectomy, and the woman reported an increase in sexual desire 3 months and 2 years after surgery. In addition, several other studies also show a decrease in sexual desire.⁵

Other studies have shown that low libido is one of the sexual concerns reported after hysterectomy. Several studies have shown that sexual desire and frequency of coitus have decreased significantly. (komisaruk hysterectomy) Furthermore, Bayram and Sahin in this journal revealed that sexual activity decreased significantly 3 months after hysterectomy and it was evident that depressive symptoms that had been experienced previously were the cause of this. A study by Tangjitgamol et al in the journal Danish states that women who undergo radical hysterectomy for the treatment of early stages of cervical cancer report dysfunction or decrease in all sexual aspects, including decreased sexual desire.⁵

EFFECTS OF HYSTERECTOMY ON SEXUAL AROUSAL

Several studies have shown the positive effect of hysterectomy on sexual and some other studies have shown negative effects. Nearly women in the study the Goetsch's Danish journal expressed higher sexual arousal after abdominal or vaginal hysterectomy and only 25% of women reported decreased sexual arousal. Several studies of vaginal dryness decreased after hysterectomy and the woman experienced an increase in sexual arousal and sexual activity 3 months to 2 years after hysterectomy. However, several studies report that hysterectomy increases dryness vaginal and abnormal vaginal contractions.⁵

The Lowenstein et al study stated that there was a decrease in sensations cold and heat that were significant for stimuli in the anterior and walls posterior vaginal after hysterectomy. Tangjitgamol's study reports disruption of all sexual functions including decreased sexual desire, lubrication vaginal, decreased frequency of coitus. Another study conducted by Pieterse et al stated that patients undergoing radical hysterectomy for cancer therapy early-stage cervical experienced significant negative effects such as less lubrication, shortening of



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the vagina and numb area around the labia compared to their condition before surgery and with the control group for 24 month of control.

EFFECTS OF HYSTERECTOMY ON ORGASM

In several studies, almost all patients did not experience changes in the frequency and intensity of orgasms. Goetsch in Danesh's journal found that the intensity of orgasm and nipple stimulation after vaginal and abdominal hysterectomy were the same before surgery and even increased. And 13% of women reported decreased orgasm intensity after surgery. Rahimzadeh et al's study shows that hysterectomy causes sexual disorders such as decreased pleasure after coitus and reaches orgasm. Some other studies also report that sufferers fail to reach orgasm after hysterectomy.

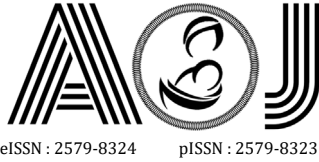
Tangjitgamol et al reported disorders in all sexual functions including decreased frequency of orgasm after radical hysterectomy. This is supported by Thakar et, where the study subjects experienced severe orgasmic disorders, coitus lack of interest due to vaginal shortening for 6 after hysterectomy compared with patients in the control group. However, several studies show an increase in orgasm after hysterectomy. Rhodes's study states that the frequency of orgasm increases after hysterectomy and orgasm failure decreases significantly 12 months and 24 months after surgery.⁵

CONCLUSION

Sexuality is the most complex component, fundamental and main aspects of human behavior and life. Expressions of sexuality and intimacy are important throughout human life. Sexuality itself includes sex, gender identity and role, sexual orientation, *eroticism*, satisfaction, intimacy and reproduction. Sexuality is experienced and expressed through thoughts, fantasies, beliefs, attitudes, values, behavior, roles and relationships. Although sexuality includes the above dimensions, not everything can be experienced and expressed by everyone. This is influenced by biological, psychological, social, interactions economic, political, cultural, ethical, legal, religious and spiritual. Three main changes after hysterectomy are anatomical changes, hormonal changes, and psychological changes. Hysterectomy effects women's sexuality on various ways including sexual desire, sexual arousal, dan orgasm.

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