Female sexual dysfunction in relation to circumcision in a sample of Egyptian women

Thesis

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List of abbreviations

AFUD: ----------American foundation of urologic diseases

APA: ---------- American psychiatric association

cGMP: ----------Cyclic Guanosine Monophosphate

DSM: ---------- Diagnostic and statistical manual of mental disorders

EDHS: ---------- Egypt demographic and health survey

FSD: ---------- Female sexual dysfunction

FGM: ---------- Female genital mutilation

FGC: ---------- Female genital cutting

FGM/C: ----------Female genital mutilation/ cutting

FSAD: ----------Female sexual arousal disorder

FOD: ---------- Female orgasmic disorder

FSFI: ----------Female sexual function index

FSH: ----------Follicle stimulating hormone

GNRH: ----------Gonadotropin releasing hormone

HSDD: ----------Hypoactive sexual desire disorder

HPG axis: ----------Hypothalamic pituitary gonadal axi

ICD: ----------International classification of disease

LH: ---------- Luteinizing hormone

NSAIDs: ---------- Non-steroidal anti-inflammatory drugs

NO: ----------Nitric oxide

PDE 5: ----------Phosphodiestrase 5

SSRI: ---------- Selective serotonin reuptake inhibitor

SHBG: ---------- Sex hormone binding globulin

SNRI: ---------- Serotonin norepinephrine reuptake inhibitor

WHO: ----------World health organization

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Introduction

Sexual dysfunction refers to a problem that occurs during the sexual response cycle that prevents the individual from experiencing satisfaction from sexual activity **(Chen et al., 2013).**

The sexual relationship is a complex one, and the factors responsible for problems are not only quite numerous but in most cases multiple causes are present. They can be fairly crudely divided into three categories: (1) physical factors, (2) individual psychological factors and (3) relationship factors **(Bancroft, 2009).**

Studies have also shown that socioeconomic factors place people at risk for sexual dysfunction. A particularly prevalent risk is a poor educational background or low socioeconomic class **(Laumann et al., 1999).** Sexual dysfunctions (SD) are a common complaint among women, and it is estimated that 40 to 45% of adult women suffer from some form of sexual dysfunction **(Lewis et al., 2010)** and about 25% have some level of distress related to this condition **(Shifren et al., 2008).**

In spite of the high prevalence which appears to surpass that of male sexual dysfunction **(Laumann et al., 1999),** less attention has been paid to the sexual problems of women **(Rosen et al., 2000).**

Female sexual dysfunction (FSD) encompasses a range of problems including diminished sexual desire, difficulty becoming aroused, inhibited orgasm, and feelings of pain during intercourse **(Salonia et al., 2004).** The most frequently reported problems are desire and orgasmic dysfunction. A systematic review of prevalence rates has found a mean rate of 64% for desire problems; 35% for

orgasmic difficulties; 31% for arousal problems, and 26% for pain **(Hayes et al., 2006).**

Unlike male sexual arousal, which is relatively easy to assess and evaluate, female sexual arousal has tended to be neglected as a target of diagnostic or empirical research. It has been difficult to specify what dimensions characterize female arousal and what constitutes an arousal disorder ***(Rosen et al., 2000)***.

Female circumcision is a term used to describe traditional practices that involve the cutting of female genitalia. Other commonly used terms for these procedures are female genital cutting, female genital mutilation (FGM) or female genital surgeries ***(Morison et al., 2001).***

Recent figures for African countries show a prevalence of FGM/C in Egypt of more than 95% percent **(Yoder and khan., 2008).** A systematic review showed that compared to women without FGM/C, women who had been subjected to FGM/C were more likely to report dyspareunia, no sexual desire and less sexual satisfaction **(Berg and Denison. 2012).**

Rationale of the study

Female sexual dysfunction (FSD) is a prevalent health problem that has been inadequately investigated in the Arab world.

Over the past 20 years, several studies from Africa have denied the negative effect of female circumcision on sexual function. Other studies however indicated that sexual function of genitally cut women is adversely altered **(Berg and Denison, 2012) (Alsibiani and Rouzi, 2010).**

As the existing literature regarding effects of female genital cutting (FGC) on sexual functions is conflicting. So, further studies need to be done.

Hypothesis of the study

Female circumcision is associated with female sexual dysfunction.

Aim of the work

To determine the occurrence of female sexual dysfunction among Egyptian women in relation to female circumcision.

Chapter 1:

Female sexuality

Sexual health is defined by the World Health Organization as the integration of somatic, emotional, intellectual, and social aspects in ways that are positively enriching and that will enhance personality, communication, and love **(Kammerer and Rogers, 2008).**

Women's sexuality is multifactorial, rooted in biological, psychosexual and context-related factors **(Basson et al., 2000, Basson et al., 2004b).**

A woman's sexuality must be considered in the context of the environment in which she and her partner live. Culture, social customs of the community and religion often determine the acceptance and achievement of sexual health for both men and women **(Fourcroy, 2006).**

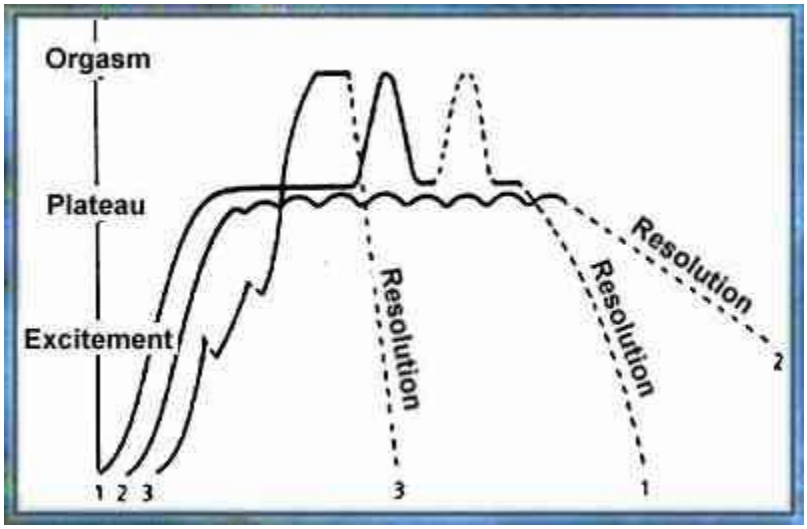
Sexual response cycle

Three models of the female sexual response cycle have been postulated: **Masters and Johnson** described stimulation leading to excitement, plateau, orgasm, and resolution. **Kaplan** articulated sexual desire, arousal, and orgasm as a pattern. And **Basson** suggested some women may participate in sexual activity for reasons other than desire, for example, motivated by a wish for emotional intimacy **(Clayton and Hamilton, 2010).**

Linear model (Masters and Johnson)

In 1966, Masters and Johnson published their book, Human Sexual Response **(Masters and Johnson, 1966).** They proposed a linear model of sexual response for both men and women composed of four stages (excitement/arousal, plateau, orgasm, and resolution). According to the model, sexual response involves a gradual build-up of sexual tension in both sexes, followed by the release of orgasm **(Master and Johnson, 1966).**

Figure1: Female sexual response Model developed by Master and Johnson (1966)



The excitement or seduction phase may be initiated by a number of internal or external stimuli. Physiologically, this phase is associated with deep breathing, increase in heart rate and blood pressure, a total body feeling of warmth associated often with erotic feelings, and an increase in sexual tension. There is generalized vaso-congestion, which leads to breast engorgement and the development of a maculo-papular erythematous rash on the breasts, the chest, and the epigastrium, which is called ***the sex flush***. There is also engorgement of the labia majora (seen

particularly in multiparous women) and of the labia minora. The clitoris generally swells and becomes erect, causing it to be tightly applied to the clitoral hood. The vagina transudative lubricant and the Bartholin glands may secrete small amounts of liquid. With the increasing deep breathing the uterus may tent up into the pelvis, perhaps as a result of the Valsalva maneuver. There is also a myotonic effect, which is most notable in nipple erection. Much of the response in the excitement phase is caused by stimulation of the parasympathetic fibers of the autonomic nervous system. In some cases anticholinergic drugs may interfere with a full response in this stage **(Salonia et al, 2010).**

Next is **the plateau stage**, which is the culmination of the excitement phase and is associated with a marked degree of vaso-congestion throughout the body. Breasts and their areolae are markedly engorged, as are the labia and the lower third of the vagina. The vaso-congestion in the lower third of the vagina is such that it forms what has been called **the orgasmic platform**, causing a decrease in the diameter of the vagina by as much as 50%, and thus allowing for greater friction against the penis. At this stage the clitoris retracts tightly against the pubic symphysis, and the vagina lengthens, with dilation of the upper two thirds. Uteri in the normal anteflex position tend to tent up more; meanwhile retroverted uteri do not **(Lentz, 2007).**

The next stage is orgasm, in which the sexual tension that has been built up in the entire body is released. A myotonic response involves muscle systems of the entire body. Individuals may experience carpal spasm. There is contraction of the muscles surrounding the vagina, as well as the anal sphincter. The uterus also contracts. Muscle contraction occurs 2 to 4 seconds after the woman begins to experience the orgasm and repeats at 0.8-second intervals. The actual number and