



### **Opinion Article**

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# The Effect of Medical Conditions on Sexuality

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There is a wide variety of medical pathologies that interfere with sexual functioning and enjoyment [1]. A physician or mental health professional will, no doubt, encounter situations where, for example, Erectile dysfunction [ED], may be a warning sign of diabetes, or a low libido may be a result of depression. The direct, in contrast to the indirect physical effects of the condition involves direct interference with genitals, such as with vascular or neurological damage, or other effects such as fatigue, pain, low or lack of sexual desire [2]. This review aims at offering a view of possible complications that physical illnesses may pose to sexual functioning. It is not the goal of this review to offer solutions to such complex issues, as it is beyond the scope of this review. Let's examine the various physical and psychological problems that may affect sexuality and review how they affect sexual behavior.

# **Andrology**

Penial problems - In this category we mainly find peronei's disease, which is a condition that causes deformity of the penis interferes with erection and pain. The condition starts by an inflammation leading to fibrosis and the formation of plaque, causing the penis to bend to one side during erection. It is estimated that 0.03 to 3.2% of men may suffer from it, with the majority of cases resolving spontaneously [3]. Priapism - This is, what some men may desire, a persistent erection. The problem is that it is painful and very uncomfortable. It is considered a medical emergency, and unless corrected within 24 hours, it may result in permanent erectile damage [4]. The incidence rate in men 40 years old and older was 2.9 per 100,000 person-years to 5.7. [https://www. google.com/search?rlz=1C2CHWA\_enCA594CA594&ei=ep-NdXO6 LsSQsAXUy4n4CQ&q=priapism+prevalence&oq=priapism+preva&gs\_l=psy-ab.1.0.33i160.149683.152850..15 5073...0.0..0.118.529.5j1.....0....1..gws-wiz......0i71j0i67j0j0i22i-30j0i22i10i30.qvdumSfSUbc]

Prostate disease – The majority of men after age 40 experience a benign prostatic growth [BPH]. In 10% of them it causes certain narrowing or obstruction of the urethra, as well as pressure on the prostatic tissue. Malignant changes in the prostate are less

common but are more serious. Neither of these conditions, by themselves, should interfere with sexual functioning, but surgery which may be employed to correct the situation, [5,6]. Pain during sexual activity – Chronic pelvic pain syndrome [CPPS] is sometimes referred to as chronic prostatitis [CP] is quite common and affects around 30% of men sometimes during their life [7]. This condition expresses itself in chronic or recurring pain in the genital regions, exacerbated by sexual activity. Abnormal penile blood flow – Abnormalities of blood flow to the penis, due to abnormalities in arterial blood flow to the penis, may result in ED, which may then need to be corrected surgically [8,9].

# **Gynecology**

Vulvar vestibulitis syndrome [VVS] – this condition is characterised by severe pain when the vestibule is touched or vaginal entry is attempted [10]. Vulvodynia is used to describe a persistent, or intermittent, burning pain which may result not only from tactile stimulation, but simply be present without any external cause [11]. Chronic pelvic pain – Various gynecological or intra-abdominal pathologies may result in pelvic pain, which may be exacerbated during intercourse. Endometriosis may cause pain especially with powerful thrusts during intercourse. Pelvic inflammatory disease, or prolapsed ovaries, may similarly cause pain. Depression and problems in the sexual relations that the woman may have are evident [12].

# **Gynecological surgeries**

Hysterectomy – is the most common major gynecological surgery. In post menopausal women, the need for such surgery is due to prolapse of the uterus. In pre-menopausal women the indication for such surgery are dysfunctional uterine bleeding and fibroids [13]. Hysterectomy can potentially affect a woman's sexuality and sexual pleasure. Physical damage, as a result of the surgery, like damage to the pelvic floor muscles or changes in blood supply to the ovaries, may eventually lead to ovarian failure. Psychological effects of such major surgery is that some women may feel de-feminized after they underwent a hysterecto-

my, and in some instances their partner may also react negatively to the [14].

Vaginal repair - When there is vaginal prolapse, the method of choice to correct it is surgery. In the less severe forms the bladder is prolapsed and thus interferes with emptying the bladder. These are the result of weakening of the pelvic supporting tissues, and commonly occur in older women who have borne children. Aging adds to the progression of the prolapse which in some cases may result in complete eversion of the vagina and descent of the uterus, being termed procidentia Bancroft, 2009 [2]. Surgical repair no doubt interferes with sexual functioning, either form undue narrowing of the vagina or the presence of tender scar tissue. Francis and Jeffcoate [15] researched the after effects of those operations and found that problems during sexual intercourse were significantly more frequent when posterior repairs were involved, leading the researchers to suggest that such surgery should be avoided unless absolutely necessary. Interestingly they suggested, that intercourse should resume about six weeks post surgery, and should be done on a regular basis and is an important part of vaginal rehabilitation (discussed also by [2, 16]).

# **Gynecological malignancy**

The most common malignancies of the female genitalia are carcinoma of the endometrium, ovary, cervix, and vulva. The importance of endometrial carcinoma is due to its dependence on estrogen, and the common need for oophorectomy [removal of one of both ovaries] there will be hormonal deficiency consequently affecting the woman's sexuality. Human Papilloma Virus [HPV] causes carcinoma of the cervix Beral, 2000 [17]. Cervical carcinoma is either treated by surgery or radiotherapy. Some studies indicated that radiotherapy may cause ovarian decline, soreness of the vagina and more sexual problems that may follow surgery [18]. Vulval carcinoma is much less common, but its treatment is much more severe, painful, and with long lasting effects on one's sexuality. In 60% of the cases it affects the labia, and in 13% the clitoris. Surgery may include removal of all labial tissue and even the clitoris, depending on the extent of the malignancy. Andersen (1984) studies a group of such women and found that they experienced decreased capacity for sexual arousal, although some women did retain orgasmic capacity, despite the removal of the clitoris in some of them [19].

#### General medical conditions

#### Diabetes mellitus

Diabetes mellitus [DM] – is a state of hyperglycemia as a result of inadequate insulin activity, as a common result of insulin production by the pancreas failing to be produced, which was termed Type 1. About 5-10% of diabetes are diagnosed as Type 1. Type 2 DM is related to increased insulin resistance, or non-insulin dependant diabetes. While treatment of type 1 involves insulin injections, sometimes after every meal, type 2 can be treated with oral hypoglycemic drugs and a proper diet [2].

In males, diabetes may produce a high prevalence of ED, positively correlated to the length of the illness. It was suggested that, in some cases, ED may be also a warning sign that there may be vascular or neurological damage [20, 21]. Fairburn et al. [22] interviewed, at length, 27 diabetic ED, and found that in 24 of them, the first sign of their diabetes was a decline in either the duration or the strength of their erections. About half of that group reported changes in the patterns of ejaculation, and some had retrograde ejaculations, all related to their diabetes.

In women, a higher incidence of orgasmic dysfunction among diabetic women was first reported by Kolodny [23]. Comparing diabetic and non-diabetic women, Kolodny found that while only 6% of women from the general population complained of orgasmic difficulties, 35% of diabetic women had that problem. Bancroft (2009) indicated that since orgasmic dysfunction can be diagnosed only if the woman has been sufficiently aroused but still cannot orgasm. That was, apparently unclear in Kolodny's study. Other studies did not get the results that Kolodny reported but did find that diabetic women reported impaired vaginal lubrication, which may very well be associated with orgasmic difficulty [24, 25]. Out of 81 Type 1 diabetic women assessed by Newman and Bertelson [26], 47% were diagnosed with sexual dysfunction, related to low sexual desire or dyspareunia.

### **Neurology**

## **Epilepsy**

In past centuries masturbation was described as the cause of epilepsy [27]. There was a strong religious and social disapproval of such self-pleasuring and the population was warned, by religious and other community leaders that long-standing harm could befall anyone engaged in such unacceptable behaviors. Kinsey, Pomeroy, Martin, and Gebhard [28] shed some light on the connection of epilepsy and reaching sexual orgasm, by noting that orgasm and an epileptic seizure appear similar. There are three categories of effects that epilepsy may have on sexuality:

- 1. Epileptic seizures may involve various sexual sensations, erection, orgasm and ejaculation, and are most likely associated with temporal lobe lesions [29].
- 2. Sexual activity may produce a seizure are not common, but do occur [29].
- 3. In-between seizure sexuality people afflicted with epilepsy report a number of sexual problems, including lack of sexual fantasies, no sexual interest, or inability to achieve orgasm [30, 31]. Occasionally, hypersexuality is reported. It is, commonly, episodic and is mostly confined to increased masturbation. There were also studies that indicated an association between epilepsy and fetishism or transvestism [30]. Difficulty in responding to sexual stimulation, for women and erectile dysfunctions were also reported [29].

## **Multiple Sclerosis [MS]**

Multiple Sclerosis [MS] is caused by demyelination of nerve fibers. MS can develop in people between the ages of 12 to 60 and is as twice as common in women than in men. Its cause is unknown. MS has a tendency to 'come and go', and while it can be severe and debilitating, others may have had mild or transient forms of the disease, and were not even aware of them [2]. Sexual problems were reported by ill patients, stemming either from non-specific consequences of the physical handicap, or form the strains that they impose on sexual activity. Additionally, people with MS experience anxiety and depression which, in turn, hamper sexual activity, desire, and satisfaction. Impairment of peripheral autonomic nerves or their spinal pathways may lead to reduced sensation, erectile failure, impaired ejaculation, or hypersensitivity which may make tactile stimulation unpleasant [32] Sexual problems are also associated with disturbance of bowel or bladder function [33] or with anorgasmia [34].

### Parkinson's disease [PD]

Parkinson's is a disease involving progressive degeneration of the central nervous system. It occurs commonly at or after middle age, found in 1 per 1000 in the general population, and 1 per 200 in the elderly [35]. PD's manifestations include a tremor, rigidity, slowness and reduction of movement and postural changes. PD is known to be associated with sexual problems in both genders [36]. Sexual problems in women included difficulty with sexual arousal (87%), 75% in reaching an orgasm, and 47% with low sexual desire. In Men the researchers found that 68% reported ED, 41% had premature ejaculation, 39% suffered from retarded ejaculation, and 65% complained of a general sexual dissatisfaction [37]. Lundberg [38] explained how PD may affect sexual performance. Muscle rigidity and the consequent slow movement may impair sexual activity, and the autonomic nervous system dysfunction may impair genital response, orgasm and ejaculation, and on top of all psychological reactions to the disease may seriously impair the sexual relationship [16].

To conclude, it is well known that a variety of conditions may affect human sexuality. Illness and disease are but one aspect of it. However, that is what many – at all age groups- face, and the effect on their sexuality may be devastating. Sellwood, Raghavendra and Jewell [39] reviewed some of those effects, which include:

- a. Reduced social participation, in general, and reduced involvement with one's social support network, which may exacerbate loneliness and lack of intimacy.
- b. Missing out on sexual experiences that people without disabilities or illnesses enjoy.
- c. For those who are interested and capable [at least emotionally], dating and sexual advances may not be possible or seriously diminished.

It is therefore suggested that treatment of sexual dysfunctions in ill populations, must address not only the actual sexual problem, but the social, intimate, and self-esteem issues that accompany it.

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