

Sexual dysfunctions, psychiatric diseases and quality of life: a review

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Summary

Sexual dysfunctions may have a significant effect on the quality of life, but are unreported and under-diagnosed. A review of recent literature highlights the correlation between dysfunction and a decreased quality of life in people with psychiatric comorbidity, and explores several aspects impacting care, from following the patient to pharmacological and non-pharmacological treatments. Sexual dysfunctions (SD) have been shown to be prevalent, but under-diagnosed and undertreated because of communication barriers between patients and physicians. Pharmacogenic and moribogenic causes of sexual problems are often difficult to differentiate. Psychiatric diseases may increase the risk of SD, and SD may further exacerbate psychiatric problems, suggesting a bi-directional relationship. Their effective treatment frequently involves combination of elements from psychotherapy, and behavioral along with pharmacotherapeutic intervention, if needed. The persistence of sexual problems has significant negative impact on patient's satisfaction and adherence with the treatment, quality of life and partnership. Routine assessment of sexual functioning needs to be integrated into ongoing care to identify and address problems early. If sexual dysfunction is ignored it may maintain the psychiatric disorder, compromise treatment outcome and lead to non-adherence and compromise treatment outcome.

Key words: sexual dysfunction, quality of life, patient-physician relation

Introduction

The World Health Organization defines the concept of health as “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” [1]. In the last decade, the concept of “quality of life” has been integrated into the overall conceptualization of health, and has become an important parameter for the assessment of the outcome of treatment and clinical conditions. Both the World Health Organization and the office of General Surgery of the United States have stated that sexual activity is a basic human right and an integral part of life [2].

Problems related to sexual function may affect the sense of personal satisfaction, reduce the quality of life (QoL) and therefore have a negative impact on the health of the person. Most of the information found in this search focused on the physical pathology of the disorder and a limited amount was found regarding the psychiatric and behavioral components of the disorder. The lack of information is likely correlated to the barriers that exist, including existing social taboos that inhibit the patient from discussing the subject with the doctor [3]. In the literature, the majority of studies focus on sexual disorders secondary to an organic pathology, or as clinical situations associated with psychiatric syndromes, especially major depressive disorder [4]. In turn, psychoactive drugs commonly prescribed for these syndromes may have side effects that negatively impact sexual function and, in some cases, these adverse effects may become the cause of non-adherence with treatment, increasing the risk of relapses or aggravation of the underlying disease [5-8].

The best and most comprehensive classification of Sexual Disorders is provided by the American Psychiatric Association in the fourth revised edition of the Diagnostic and Statistical Manual of Mental Disorders (*DSM-IV-TR*) [9]. The Manual defines sexual dysfunctions as clinical conditions characterized by abnormalities of sexual desire and psycho-physiological modifications of the sexual response cycle, causing considerable distress and interpersonal difficulties. These dysfunctions can be present throughout the entire life or be acquired (i.e., developed after a period of normal function); of a generalized or situational type (i.e., limited to a particular partner or to a specific situation). It is then possible to distinguish the primary disorders, i.e. not deriving from other underlying pathological conditions, from the secondary disorders, i.e. due to another disorder of axis I, a general medical condition or use of substances.

In DSM-5, gender-specific sexual dysfunctions have been added, and female sexual interest/arousal disorder was combined. To improve precision regarding duration and severity criteria, SD require a minimum duration of 6 months and more precise severity criteria, in order to distinguish transient sexual difficulties from persistent dysfunctions. Sexual dysfunctions due to medical condition and these due to psychological versus combined factors have been deleted because of findings that the most frequent clinical presentation is one in which both psychological and biological factors contribute [10].

Psychiatric disorders which most frequently are associated with sexual issues are Major Depressive Disorder and Anxiety Disorder [11-13]. Kennedy [6] stated that, among the depressed patients in treatment, sexual dysfunction is present in 50% of women and 40% of men. During a depressive episode, there is often a reduction of sexual desire and the willingness to have sexual intercourse. This often presents in men as erection difficulty (ED) up to impotence and, in women, as frigidity up to anorgasmia. In elderly men with severe depression, the prevalence of ED approaches 100%. The relationship between sexual dysfunctions and depression has been dem-

onstrated to be bi-directional, and the presence of a condition can trigger or exacerbate the other. Conversely, it has been shown that the treatment of one can improve the other [12, 13].

In anxiety syndromes, the patient may seek avoidance of intimacy, or in extreme cases with deep psychodynamic roots, there can be a sexual aversion. Males with anxiety disorders often suffer from premature ejaculation, sometimes impotence; women report often anorgasmia, vaginismus or dyspareunia. Several studies found women with panic disorder and those with obsessive compulsive disorder (OCD) to have lower sexual desire and lower frequency of sexual contact than controls. Hypoactive sexual desire disorder and sexual aversion disorder have also been reported to occur more frequently among patients with anxiety than in controls. In addition, OCD patients were reported to experience more sexual dysfunction overall and were less satisfied with their sex lives as compared to subjects with panic disorder and controls [14].

In addition, several other psychiatric disorders are associated with sexual dysfunction. The significant interpersonal impairments related to the symptoms of schizophrenia, borderline and other personality disorders and eating disorders can effect sexual functioning.

This review aims to highlight the impact of sexual dysfunctions on the quality of life of the patient from a psychiatric point of view. Sexual problems may, in fact, lead to the onset of mood disorders, which in turn can be the cause of sexual problems, either directly or through a drug-mediated mechanism. Because of the inter-relatedness and potentially bi-directional nature of the problems it is proposed that non-pharmacological, alternative therapies be employed whenever possible.

Methods of literature analysis

Identification of relevant studies occurred in a two stage process. First, we used an electronic database to a conduct literature search of PubMed (January 2008 to December 2013). A variety of key words were used separately and in combination. Key words used included *sexual dysfunctions, quality of life, psychiatric disorders/diseases, pharmacological treatment/therapy and non-pharmacological treatment/therapy*. Second, these papers were screened for information highlighting the relationship between sexual dysfunctions and quality of life, and their relationship with psychiatric diseases. Short-listed articles were retrieved. The reference lists of relevant articles were screened for identification of additional relevant studies that may have been missed.

Literature review

Impact of SD on quality of life

Sexual dysfunctions (SD) impair quality life of people with or without psychiatric problems. The most frequent are loss of libido in women (22%) and premature ejaculation (EP) in men (21%) [6,15-18]. The prevalence of SD is 40% among people of 40 or more years of age and 70% among those of 70 years or above [2]. Indeed, 52% of men, aged 40 to 70 years, experience some degree of Erectile Dysfunction (ED) and, in about two-thirds of that group, it is of moderate-to-complete severity [2]. There is also a broad consensus that the occurrence of sexual dysfunction is consistently higher in patients with depression than in the general population [18]. Numerous large scale epidemiological studies show that these disorders tend to increase in direct proportion with the age of the population, and with the age-related associated risk factors (cardiovascular, metabolic, psychiatric, genitourinary, lifestyle) [12]. Only a small part of the SD is caused exclusively by psychological or organic disorders: most clinical situations are the result of a “mix”, a combination of psychological, biological, interpersonal and cultural factors [19].

In both men and women, not to be able to initiate, take part in or experience pleasure during sexual intercourse, can cause unhappiness, frustration, and the sense of sexual inadequacy in intimate relationships. This can undermine confidence in themselves and cause a difficulty in relating to others, thus impacting on the quality of life of the patient, as well as his or her partner and family [20-23]. There is often a proportional relationship between the level of personal satisfaction and the sexual life of the subject: a low level of satisfaction regarding the sexual life is reflected in a low level of satisfaction in terms of quality of life, and vice versa. In contrast to the healthy controls, patients did not see sexuality as a factor of importance in family life and relationships. Moreover, patients experiencing ED reported high personal satisfaction from financial aspects of their lives, and greater social functioning as compared to controls. The satisfaction gained from those areas may thought to be, in some way, a compensation for the lack of sexuality. Ultimately, subjects decreased perception of the importance of sexual functioning, and the satisfaction gained from other areas would suggest that overall life satisfaction may not always be impaired by reduced sexual function. It may be that the focus on other areas is a psychological defense: probably they adopt coping behaviors that help compensate for their low overall life satisfaction. The prevalence of problems with sexual functioning, especially in patients with depression and other psychiatric disorders, should prompt physicians to routinely include SD when assessing patient's quality of life and general well-being. The loss of self-esteem and a low level of satisfaction in the quality of life may increase the incidence of depression and relational problems. Humiliation, as a result of the abandonment by the partner, is one of the most frequent causes of depression. In fact more than 28% of the subjects

interviewed stated that sexual dysfunction was directly responsible for the end of their last relationship [24].

SD and psychiatric comorbidity

While the presence of sexual dysfunction can cause or exacerbate psychiatric symptoms, the resolution of sexual dysfunction problems has been shown to decrease the intensity and stress related to psychiatric conditions. A great number of men with Erectile Dysfunction (ED) report low or moderate depressive symptoms. Successful treatment of this medical condition in depressed men is associated with depressive remission: substantially more treatment-responsive subjects demonstrated a $\geq 50\%$ reduction in Hamilton Depression Rating Scale score (76%) or CGI improvement score of 1 or 2 (82.8%) than did non-responsive subjects (14.1% and 9.0%, respectively). These symptoms decrease with effective treatment of the ED, while the levels of the depression remain unchanged when the ED doesn't respond to the treatment [2].

Prejudice and embarrassment on SD

Sexual dysfunctions are clinical conditions with a high prevalence, and can have a profound effect on the psychological wellbeing of the individual and on psychosexual relations of the couple. Despite this, individuals are often reluctant to discuss sexual problems with their doctor. Patients do not often spontaneously report sexual problems because of shame, fear or ignorance. To reveal the sexual difficulties can be embarrassing because patients may feel inferior, insecure and afraid of negative judgment by the physician. Patients may feel that sexuality is not a problem for which a consultation is required as it is not considered as a disease [3, 25]. Some patients also have the impression that their doctor does not have the time to speak with them about sexual problems, or may have the feeling that the doctor is not concerned or competent in this area. Finally, patients may be completely unaware of the fact that there are specific treatments for sexual dysfunction and believe that nothing can be done for the problems [3, 4]. Studies has shown that only 14%-17% of women report to their doctor to have problems related to the sexual sphere, and most admit that they never talked about aspects of their sexual functioning with their doctor. The majority of women in each age category believed that their physician would not be receptive to discussing their sexual concerns, either because they felt their doctor simply lacked interest or they would be too embarrassed. The authors stress that the doctor must be equipped with special communication skills, and start the discussion [26]. The patient's reluctance and discomfort are only part of the barriers in the routine assessment and treatment of sexual dysfunction. Studies have shown that frequently physicians do not ask about sexual functioning because of their own discomfort and lack of knowledge of the symptoms and possible interventions [3]. Some report feeling that creates

too much closeness with the patient and fear they may hurt or embarrass them. Also, there is a concern that talking about sexuality will take too much time during a visit. The discomfort and time constraints combined with a sense of therapeutic powerlessness result in avoidance [24].

Pharmacotherapy-induced SD

Sexual dysfunction is a common side effect of many routinely prescribed psychotropic medications for the treatment of many psychiatric disorders. This not only adds to the suffering of the patient, but increases the risk of non-adherence with treatment. It is essential that sexual behavior and functioning are integrated in the initial assessment to determine the pre-existence of a problem with sexual dysfunction, establish a baseline on which to evaluate pharmacological interventions and develop a therapeutic foundation for such discussions as a part of ongoing treatment [2].

Cultural and generational factors such as the age and gender of the doctor may affect the physician-patient communication as well and remain yet to be explored in the literature. Only a few studies have investigated the effectiveness of the use of specific questionnaires to improve both the speed of diagnosis of SD, and the clinician-patient communication. In a study on the management of sexual dysfunction in general medicine, it has been demonstrated that sending a questionnaire to patients increased the frequency of diagnosis of a sexual dysfunction from 2% to 35% for men and 42% for women. A greater number of patients who have responded, have also subsequently raised the issue of their sexual problems with their doctor. The number of consultations during the year after the sending of questionnaire was greater than the number of the two previous years put together [27-29]. The use of patient administered questionnaires makes it possible to systematically conduct quick and efficient screening, with minimal additional burden on the provider and raises the sensitive issue that may lead to the diagnosis and treatment of SD [28]. Several studies have shown that the process is received in a positive way and is a good starting point for the next medical interview. The use of questionnaires cannot replace the role of the physician, but can certainly help increase the frequency of detection and diagnosis of the disease and improve physician-patient communication. It may often provide patients with the support they need to talk about the topic with their physician [27,28].

Management of SD

The management of sexual problems should be preceded by time to develop or update the medical and sexual history, and a careful physical examination [29]. The pharmacological treatment of sexual dysfunction has taken central importance amongst therapeutic approaches for this increasingly recognized and widely prevalent disorder. Although the pharmacological treatment includes a wide array of drugs like

topical anesthetic agents, antipsychotics, alfa-adrenoceptor antagonists, tricyclic antidepressants and selective serotonin reuptake inhibitors (SSRIs), phosphodiesterase type-5 inhibitors, pharmacotherapy may play a role in the treatment of a limited number of primary sexual disorders [30, 31].

When the cause of the sexual dysfunction is Major Depression, it is possible that an antidepressant treatment by improving the mood, also acts by decreasing the symptoms related to the sexual dysfunction, at least in the early stages of therapy. This takes place, concurrently, with the development of adverse effects in the sexual area associated with treatment in the long term, so that in a significant proportion of the cases the patients, despite a good clinical response, prefer to interrupt the therapy [31,32]. All the antidepressants, in fact, may be responsible for sexual dysfunctions. A recent meta-analysis (which has aggregated data of the studies that encompassed the sexual dysfunction related to antidepressant treatment through direct questions or specific questionnaires) has shown an absolute incidence of sexual dysfunctions induced by these drugs that varied, in ascending order, from 4% for moclobemide and agomelatina, 7% for amineptina, 8% for nefazodone, 10% for bupropion, 24% for mirtazapine, 26% for fluvoxamine, 37% for escitalopram, 42% for duloxetine and phenelzine, 44% for imipramine, 70% for fluoxetine, 71% for paroxetine, 79% for citalopram and 80% for venlafaxine and the sertraline. However, it should be emphasized that some of these data, such as those linked to less sexual dysfunction tied to some SSRIs such as fluvoxamine and escitalopram compared to others, could be due to the use of scales that are less sensitive than others to assess the incidence of sexual dysfunction [33]. The early discontinuation of therapy exposes patients to a significantly elevated risk of relapse, recurrence and chronicity of psychiatric disease, compared to patients who do not interrupt their therapy. Unfortunately, the use of drugs that have a lower impact on sexual function are also those with a lower action on the mood, thus not having a decisive role in resolving the problem [32, 33]. It is possible to obtain improvements in patient's sexual functioning by minimizing the number and the doses of drugs when possible, replacing the drug with another that is less likely to cause sexual problems and, always, adequately treating the underlying medical or psychiatric condition that could affect the sexual health [25]. Some authors have suggested that a combination of pharmacotherapy and psychotherapy may be more effective than a stand-alone intervention, but at this time it is not clear if the addition of psychosocial interventions leads to long-term positive results [33-36]. Regardless of the etiology, psychotherapy or counseling may be of benefit to men experiencing sexual dysfunction. Male sexual functioning appears more related to impaired self-esteem, decreased sexual satisfaction, increased interpersonal relationship difficulties and the overall decrease in the quality of life compared to women. Behavioral intervention may be most useful when the assessment indicates that the psychological factors are the significant component of the dysfunction [35].

There are male sexual dysfunctions, as the hypoactive sexual desire disorder (HSDD) or the delayed orgasm, as well as female SDs, that are still difficult to treat with pharmacological therapy only. A review of Chisholm and others demonstrate that these interventions improve the sexual functioning of men suffering from prostate cancer [37]. Psychotherapy involves general strategies that may address educational aspects of the problem, teach basic communication skills, manage expectations, help develop emotional control, reduce anxiety and so on. In addition, men who receive a pharmacological agent often report that the sexual problem recurs when they discontinue the medical treatment. Therefore, they have not learned how to manage the dysfunction or probably sexual problems are the result of an anxiety, mood or personality disorder, which are not recognized and treated. The combination of psychosocial and pharmacological interventions might be more useful than a single intervention [38]. Problems of sexual dysfunction are often complex, multifactorial with many psychosocial components. The goal of treatment is the restoration of sexual pleasure and satisfying sexual function. The provider should attempt to understand all of the forces that contributed to the development and maintenance of the sexual (and relationship) problems even as they are providing treatment. This requires that the clinician takes the time to perform a comprehensive biopsychosocial assessment in order to identify the predisposing, precipitating, maintaining, and contextual factors responsible for the problem [39].

General medical providers should include in evaluation of sexual dysfunction elements such as: (1) sexual history and evaluation of the present level of sexual functioning; (2) medical and psychiatric history; (3) identification of all substances that might contribute to sexual dysfunction (medications, alcohol...); (4) laboratory measures (free and total testosterone, thyroid function tests, prolactin levels and in women, estradiol, FSH, LH); (5) physical examination (including neurological or genitourinary examination) [27]. Furthermore the general medical providers should refer the patient to a psychiatrist, in cases he deems it necessary. Psychiatrists should legitimize the topic of sex, discuss the prevalent concerns and norms of behavior, emphasizing the importance of communication and trust within a relationship and discuss medication side effects [2], but above all, they should diagnose disorders of Axis I e II and treat these psychiatric disorders.

There is need for collaboration between healthcare practitioners from different disciplines in evaluation, treatment, and education issues surrounding sexual dysfunction [40-42]. Once excluded organic causes for sexual problems and found that the disorder is not symptom of a psychiatric problem, a primitive sexual disorder should be suspected and then implementation of pharmacotherapy, as well as other therapies, is appropriate [43].

At the moment, the only biological therapy used for sexual disorders is Light Therapy, able to restore physiological circadian rhythms. The most popular theory

behind the use of this therapy is linked to the influence on the pineal gland, which secretes the hormone melatonin. An interesting pilot study suggests that an inhibition of pineal gland activity via a treatment with bright light could favorably influence sexual function [44]. A larger study is needed to confirm these preliminary results and to test whether bright light therapy may be of help for the treatment of sexual dysfunctions that are associated with certain psychiatric illnesses, such as major depressive disorder, or with medications that are prescribed to treat those conditions [44-46].

Conclusions

Sexual dysfunctions are frequent in the general population, but despite this they are under-diagnosed and undertreated. Sexual problems are associated with a reduction in the quality of life, and represent a major risk factor for the development of depression, and are often associated with other mental health problems. On the other hand, the treatment of depression and other psychiatric illnesses often involve medications that negatively impact sexual functioning: psychiatric diseases may increase the risk of SD, and SD may further exacerbate psychiatric problems, suggesting a bi-directional relationship. Patients frequently discontinue this psychopharmacological therapy as a result of the sexual side effects, often without discussing that with their provider, due to the discomfort about talking about sexual matters. It is desirable that health care providers ask the patient about his sexual life, in routine discussions, either directly or by using less invasive methods such as questionnaires to do at home, which may be less embarrassing for the patient. It is essential that the providers develop the skills and ability to comfortably address these issues with patients and acquire the knowledge and skills to address them. In addition, the general practitioner must include in examination also questions about sex life and must refer the patient to the psychiatrist when needed. In turn, the psychiatrist should diagnose and treat diseases that are the basis of sexual dysfunctions, using pharmacological, physical therapies and/or psychotherapies.

To date, this area of clinical care still receives very little consideration in the literature and represents an important issue for future study.

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