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Effective erectile dysfunction (ED) treatment enables men to enjoy better sex: the importance of erection hardness, psychological well-being, and partner satisfaction

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Abstract

Sexual activity remains important for most men throughout their adult lives and into old age; erectile dysfunction (ED) usually leads to a worsening of their sexual experience and can cause significant personal and interpersonal distress at any age. The availability of effective and well-tolerated oral therapy with phosphodiesterase type 5 (PDE5) inhibitors allows most men with ED to once again experience better sex. The concept of better sex is important to men and involves several factors: Enhanced penile rigidity is one factor most frequently desired by affected men. Other factors may be vital to a satisfactory treatment outcome, but enhanced rigidity is frequently seen by affected men as the foundation upon which better sex is based. Loss of penile rigidity can have a profoundly adverse effect on a man's psychological well-being and may be associated with behavioural changes such as the avoidance of intimacy that can impair not only their response to therapy, but also their general relationship with their partner. Successful treatment of ED improves a man's self-confidence and self-esteem; however, since many men delay seeking professional help, relationship problems may be well established by the time they receive treatment. Prolonged abstinence as a consequence of ED may also affect the partners' sexuality, both in terms of desire and responsiveness. To achieve better sex, any treatment plan for ED must take into account the broader context of a man's sexual experience, including behavioural, relationship, and partner factors.

1. Introduction

Sexual health is perceived as an integral part of general health as it can markedly affect quality of life. A man's sexuality changes as he grows older, but sexual activity remains important for most men throughout their adult lives and into old age. In a recent global survey of sexual attitudes among people aged 40–80 yr, 82% of men agreed with the statement "satisfactory sex is essential to maintain a relationship," whereas 80% of men reported that they had engaged in sexual intercourse at least once during the 12 months preceding the interview [1]. For a man, better sex encompasses improvements in both the physical quality of his erection (rigidity, hardness) and his psychological response to his current and past sexual experience. In addition, since most men presenting with ED do not exclusively engage in solitary sexual activity, partner satisfaction is also an important determinant of better sex.

2. Hardness of the erection

Regardless of the cause of ED, probably the most bothersome feature for most men is the loss of hardness that impairs their ability "to achieve or maintain an erection sufficient for satisfactory sexual performance" [2]. A range of ED therapies is now available, but first-line treatment for most men is with phosphodiesterase type 5 (PDE5) inhibitors, a highly effective and well-tolerated oral therapy that improves erectile function by 7–10 points on the International Index of Erectile Function (IIEF) [3]. Such results in clinical trials equate to an improvement of 2 categories in the severity

scale of the IIEF Erectile Function (EF) domain, enabling men with severe ED to undergo a mean shift to the mild–moderate category.

The IIEF's focus on erection hardness is even more apparent in its abbreviated version, the IIEF-5 or Sexual Health Inventory for Men (SHIM). Whereas the IIEF is mainly used in a research setting, the IIEF-5/SHIM is widely used to assess erectile function in clinical practice [4]. This professional focus on erection hardness as a primary requirement for achieving better sex with ED treatment seems appropriate, since this is the most desired outcome for affected men when they undergo treatment [5]. A study of 6126 men with mild–moderate, moderate, or severe ED (randomised to either sildenafil or placebo) reported that men who received sildenafil achieved greater increased mean scores from baseline to end of treatment on the Erectile Function and Overall Satisfaction domains of the IIEF, suggesting that erectile function and sexual relationship satisfaction are linked [6]. For many men, the ability to achieve a hard erection defines their masculinity [7]: Such a statement is easy to understand, as an erection is the most obvious physiological change that occurs during male sexual arousal and is mandatory for penetrative vaginal intercourse. In many men's minds, the ability to achieve a hard and well-sustained erection is essential to their maintaining a positive body image.

The majority of men with ED are ashamed of their condition, which may explain why only about 58% of men seek help [8]. It might also explain why men who do talk to a doctor about their ED often do so only when their symptoms are severe, despite the fact that men with all grades of ED are often extremely distressed by the problem [8]. For this reason, physicians and other health professionals should, as a general rule, regularly and routinely discuss sexual health and function in consultations with their patients. This discussion is particularly important in older men, in those affected by other health problems associated with sexual dysfunction, and in those taking medications known to affect sexual function. To reduce patient embarrassment, thereby increasing the likelihood of honesty and openness, such discussions may be introduced with a general statement and nonthreatening question, such as, "Many men with diabetes (or any other relevant condition) experience sexual or erection problems; is this something that bothers you and would you like to talk about it?" This is much less threatening to a man's self-esteem than the bald question "Are you able to get an erection?" Another way to introduce the subject to patients is to ask them to complete a brief questionnaire such as the 5-item SHIM [9]. Completing it in privacy might make it easier for them to acknowledge the problem; it might also introduce them to appropriate language to use when speaking with a health professional.

Primary care physicians are particularly well placed to initiate discussions about sexual health with men, given their important role in the long-term management of chronic health problems associated with ED, such as diabetes, depression, and cardiovascular disease (CVD). They will also frequently have a detailed knowledge of the men's social and relationship circumstances, as well as their medical history.

Early identification of ED and assessment of erectile function provides an important opportunity to identify clinically silent but serious and potentially treatable medical conditions, including diabetes, hypertension, and dyslipidaemia [10], because ED may be associated with certain modifiable or reversible factors (including lifestyle or drug related) and shares many risk factors with CVD [11] [12], with similar pathophysiological and structural changes likely to occur in the cavernosal arteries and erectile tissue of the penis as in other parts of the vasculature [13]. In particular, diabetic patients seeking treatment for ED appear to have a greater severity of disease, suggesting they require a higher level of care than non-diabetics [14]. Moreover, recent data suggest that ED may appear several years before the first classic symptom of CVD [15]. Indeed, ED may be the first and only symptom of CVD: One study [16] suggested that ED might have become evident prior to presentation of angina symptoms in almost 70% of cases. This observation is supported by a more recent study [17] that found 19% of 47 patients with non-psychogenic and non-hormonal ED had angiographically documented silent coronary artery disease (CAD). Numerous reports are available now that recommend the development of common strategies to prevent ED and CVD [18,19].

3. Psychological aspects of sexual well-being

Because of the importance of erection hardness to men's sense of masculinity, ED can have a profound adverse effect on their psychological well-being. ED causes loss of self-esteem and sexual confidence, and is also associated with depression [20]. Men frequently feel unable to discuss concerns about erection problems with their sexual partner—they are likely to perceive it as a shameful problem and will try to conceal it. The resulting behavioural changes (such as avoidance of any physical closeness or more general intimacy with their partner), is likely to have an adverse effect on the overall relationship, which will increase their sense of social isolation, compounding their psychological distress.

Depressive symptoms are common in men with ED [11] and may sometimes be severe enough to meet the criteria for major depressive disorder (MDD) [21]. Men with MDD require specific treatment for depression, which is a potentially life-threatening condition. However, MDD can be given concurrently with treatment for ED. The choice of antidepressant therapy is important, as many antidepressants cause sexual problems, such as reduced sexual desire, anorgasmia, and ED. In men with mild depressive symptoms related to ED, restoration of erections through treatment with a PDE5 inhibitor, rather than the immediate introduction of an antidepressant, is a reasonable initial strategy. PDE5 inhibitors are effective in treating ED in men with depression [21]. Indeed, in one prospective study, treatment with sildenafil not only improved erectile function but also resulted in reductions in depressive symptoms that were comparable to those seen in clinical trials of specific antidepressant therapies [22].

4. Partner and relationship factors

Tomlinson and Wright [7] reported that many men felt that their ability to satisfy their partner's sexual needs (as those men perceived both partner needs and their degree of success in satisfying them) determined whether or not they believed their sexual function was adequate. This perception probably applies to all male sexual function concerns, including premature ejaculation, not just to ED. Partner response is an important determinant of men's feelings of sexual adequacy. Clearly, a partner's sexual health, relationship, and environmental and social factors may have just as much impact on a partner's response as anything that the man does. A negative response, or even the lack of a positive response, may increase men's feelings of sexual inadequacy even if there is no objective change in erectile function. In any case, improved "partner satisfaction," a more positive reaction to sexual intimacy, is perceived as another facet of "better sex." However, it should be mentioned that, although less prevalence and risk factor data are available, it is believed that sexual disorders may actually be more frequent in women than in men, which can have a negative impact on women's levels of desire, arousal, ability to orgasm, and the frequency of sexual intercourse [23].

A perceived inability to satisfy a partner is an important contributor to the loss of self-esteem that is so common among men with ED [7]. Even though ED may be an important issue for the couple, many men delay seeking professional advice about the problem. As a consequence, relationship problems that may have resulted from ED are likely to be well established by the time a man receives treatment, perhaps reducing the likelihood of a successful treatment outcome. Indeed, ED is often considered by men to be a major factor in the breakdown of relationships; in one survey, more than one fifth of men with ED reported that their relationship had ended as a direct result of their erection problem [24].

Successful treatment of ED does improve men's self-confidence and self-esteem [7]. Better erectile function in men with ED is associated with them experiencing significantly greater sexual satisfaction and an increased desire for physical acts that enhance basic (as opposed to sexual) intimacy (hugs, kisses, cuddles), as well as for sexual intercourse [25]. ED has an independent negative effect on the sexual satisfaction and sexual drive of women partners [26], whereas effective treatment of ED has been shown to improve sexual function and satisfaction among women partners, which is

related to treatment-related improvements in the man's erectile function [27–30]. Improving erectile function with sildenafil has also been linked to increased sexual relationship satisfaction [6].

Partners may find it difficult to recommence sexual activity at their partner's urging, if their relationship has deteriorated since the emergence of ED as a problem. Unfortunately, some men feel that simply treating ED, restoring their ability to attain a rigid erection, and allowing them to penetrate their partner again will be enough to overcome the hurt that may have been caused to their relationship by years without any other expression of intimacy between them. For this reason at least, it is important for the health professional to assess partner and relationship factors as a routine part of ED assessment. When potential problems are identified, referral to a sexual and relationship therapist may help the couple re-establish intimacy in their relationship [31].

As ED becomes increasingly common with advancing age, it is not surprising that partners of men with ED often experience age-related changes in health status that can affect their sexuality. Female partners are more likely to experience loss of sexual desire, impaired arousal, vaginal dryness, and dyspareunia. Vaginal dryness and dyspareunia may be exacerbated by reductions in oestrogen levels around and after the menopause. Women may also experience changes in self-image and esteem with ageing; these changes may be positive as well as negative. When assessing a man with ED, enquiry should routinely be made about his partner's sexual function. Ideally, the partner will be seen with the affected man, although this may not be possible for social, cultural, and practical reasons. Whether the partner is present or not, when partner problems are identified, they should be concurrently assessed by the partner's physician. Such problems may contribute to the woman's loss of motivation to resume sexual activity [32], which may be misleadingly perceived as ED treatment failure. Specifically, inadequate vaginal lubrication and dryness may result in an increased likelihood of penile buckling and, consequently, ED [33]. A balanced diagnostic approach to identify biomedical, psycho-socio-cultural, and behavioural factors affecting physical sexual response in both partners is central to a successful treatment outcome. One recent study on men who had previously failed on sildenafil treatment demonstrated that appropriate counselling and dose adjustment could significantly improve treatment satisfaction, thus highlighting the importance of education and support in maintaining long-term satisfaction with PDE5 inhibitors. Finally, the support of a partner is frequently invaluable in encouraging affected men not only to seek treatment for ED but also to persevere with it.

5. Conclusions

The introduction of effective and well-tolerated oral treatment has provided many men with ED with an opportunity to experience better sex. Better sex involves several factors, one of the most important being enhanced penile rigidity. Men should be encouraged to seek help for ED before it becomes well established and before it affects their behaviour and relationship with their partner. Enhancing intimacy within their relationship may result in a more positive response from their partner in sexual activity, and increase their confidence and self-esteem. Any treatment for ED is less likely to be successful in achieving better sex for a man if it ignores the broader context of the man's sexual experience. Although more studies are now including measures of psychological and relationship factors as end points, further research is needed to more precisely delineate how improvements in erection hardness, psychological well-being, and partnership satisfaction contribute to the achievement of better sex for men with ED.

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