The assessment and management of common male sexual difficulties in family practice

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ABSTRACT

Sexual problems are distressing for patients, and their doctors need to feel comfortable giving advice about and treating the more common conditions. Treatment of sexual problems can prevent much anxiety and the development of depression. This article outlines approaches useful in managing the more common male sexual difficulties encountered in family practice.

Key words

Low sexual desire, erectile dysfunction, premature ejaculation, general practice

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Introduction

Sexual disorders are common, distressing, and difficult for men to present to their doctors. Direct-to-consumer advertising has encouraged some men to enquire about the oral medications now available. However, prescribing an oral erectile dysfunction (ED) medication may not necessarily be the most appropriate response for men with sexual difficulties. In addition, patients think it is important to talk about sexual problems with their doctor and may prefer the doctor to initiate that discussion.[1] Options for treatment should be based on an understanding of normal sexual function and the pathophysiology of sexual disorders. There are several sexual difficulties, each requiring different management. This article will briefly outline aspects of the more common male sexual problems with suggestions for management.

Classification of sexual dysfunction

Sexual difficulties in both males and females can be classified according to the aspect of the sexual response cycle affected. These include disorders of desire, arousal, orgasm, and painful sex, and may be lifelong or acquired, generalised or situational.[2] Sexual problems frequently co-exist with dysfunctional relationships, particularly difficulties with communication. The views and function of the man's partner may be salient in assessment and management.[3,4] It should be remembered that sexual problems can be present in the man's partner, and be complicating his presentation. It is necessary to clarify these issues in order to plan effective treatment.

Family physicians will be familiar with the preference of many patients to view their problems as organic, regardless of probable aetiology. Sexual difficulties are often a combination of physical and psychological factors, and a multidisciplinary approach can be more effective. The family doctor plays a key role in assisting patients to decide which of the available options would best suit them.

Desire difficulties

Sexual desire or libido can be described as interest in, and motivation for, sexual activity. Healthy individuals will experience sexual desire regularly, and take advantage of opportunities for sexual expression when they arise. Desire for sexual activity is associated with different goals in men than women.[5] Men report desire as leading to sexual activity with an attractive partner, while women frequently place importance on love, emotional intimacy and commitment to their partner as reasons for desiring sex.

The external factors and neurotransmitters involved in generating sexual desire are poorly understood. Candidate neurotransmitters include the dopaminergic, noradrenergic, and serotonergic systems. Appropriate levels of testosterone are necessary in males for maintenance of libido (Total testosterone in males at 0800 hrs: 10–35nmol/L). In addition, raised prolactin levels can inhibit sexual desire.

Hypoactive Sexual Desire Disorder

Hypoactive Sexual Desire Disorder (HSD), or low libido, is characterised by a persistent or recurrent absence of sexual fantasies and/or motivation for sexual activity.[2] In men this disorder is most common between 40 and 60 years of age.[6] Desire disorders are reported as the reason for about one-half of people presenting to US sexual therapy clinics[7] (males presenting as often as females). However in the New Zealand context, many men confuse other sexual difficulties (e.g. ED) with a low interest in sex.

Low libido more frequently presents as mismatch in desire between partners.[8] Both individuals may have levels of desire in the 'normal' range but be at opposite ends of the spectrum. People may also report differences, such as the 'best time of the day' or context, for them to engage in sexual activity. Mismatches of this nature can often be simply resolved.

Low sexual desire affects homosexuals as often as heterosexuals with 25% of men attending homosexual clinics suffering from desire disorders, and low sexual desire being the most frequent sexual complaint among gay women.[9]

Table 1. Drugs that affect sexual functioning

Drugs reported to decrease desire:		
Anorexiant	**Anti-depressants**	**Anti-psychotics**
Fenfluramine	**MAOIs**	Chlorpromazine
	Phenelzine	Fluphenazine
Anti-androgens		Haloperidol
Cimetidine	**Tricyclic antidepressants**	Lithium
Cyproterone acetate	Amitriptyline	Thioridazine
	Amoxapine	Thiothixine
Anti-convulsants	Clomipramine	
Acetazolamide	Imipramine	**Diuretics**
Phenobarbitol		Acetazolamide
	Anti-hypertensives	Chlorthalidone
Anxiolytics	Alpha-methyldopa	Hydrochlorothiazide
Alprazolam	Clonidine	Spironolactone
Diazepam	Propanolol	
		Miscellaneous
		Clofibrate
		Digoxin
		Primadone

Drugs reported to cause arousal difficulties:		
Antiandrogens	**Anti-depressants**	**Antipsychotics**
cimetidine	**MAOIs**	butyrophenones
cyproterone acetate	phenelzine	chlorpromazine
	tranylcypromine	fluphenazine
Anticholinergics		haloperidol
propantheline bromide	**Tetracyclic**	lithium
	maprotiline	phenothiazines
Antihypertensives		pimozide
alpha-methyldopa	**Tricyclics**	thiothixine
ß blockers	amitriptyline	
clonidine	amoxapine	**Miscellaneous**
thioridazine	clomipramine	antihistamines
	desipramine	clofibrate
Diuretics	doxepin	digoxin
bendrofluazide	imipramine	disulfiran
hydrochlorothiazide	nortriptyline	GnRH analogues
spironolactone		ketamine
	Serotonin reuptake	perhexiline
	inhibitors (SSRIs)	pseudoephedrine
	citalopram	trazodone
	fluoxetine	
	nefazadone	
	paroxetene	
	sertralinea	

Aetiology

There are many possible causes for low sexual desire varying from biological determinants to psychological conditions such as depression. Patients with HSD are twice as likely as non-sufferers to have had a prior episode of depression.[10] Anxiety has been cited by many therapists as the most frequent factor underlying low desire.[11] Possible anxieties include: fear of HIV or other STDs, losing control over sexual urges, partner becoming pregnant or fear of pregnancy, fear of becoming too close (and therefore vulnerable), or fear of the process of intercourse and 'performing' to expectations.[12]

Important biological causes include hypogonadism, low testosterone, and hyperprolactinaemia. Contextual factors such as bereavement,

trauma, work-place stress, illness, medications and surgery can all affect libido. Beliefs and attitudes to sexuality, past trauma particularly of a sexual nature, and issues related to upbringing (e.g. religious or cultural beliefs), may also contribute to HSD.[13]

Assessment

What is 'normal' desire? Hypoactive sexual desire is defined by the patient, or their partner. Independent assessments of both the patient and their partner are necessary. These help determine whether the patient desires sexual activity or participates only because it is expected of them.

It is crucial to separate an arousal disorder from a desire problem. If a patient suggests he has no interest in sex you might ask, *'Is the difficulty you experience an erection problem?'* and if this was not an issue, *'Are you interested in sexual activity?'* Evaluation of the patient's general health, assessment of their psychological well-being, together with a psychosexual history are important.

Treatment

Treatment depends on the cause. Some patients with HSD only need information and education. Fostering good communication between the patient and their partner is important, and teaching sexual skills can also be useful.

Where there is an underlying medical condition the following are recommended:

- Hypogonadal men require further investigation to separate primary testicular failure from pituitary or hypothalamic disease. This may require referral to an endocrinologist. Testosterone replacement is usually curative (but initially may result in difficulties for the partner[14]).
- In patients with hyperprolactinaemia, the cause must be sought and appropriately treated.
- If possible, drugs reducing desire should be substituted or discontinued – see Table 1. Major psychiatric disorders concomitant with HSD (e.g. depression, past sexual abuse, substance abuse) should be treated first.

Psychological treatment is tailored to the individual or couple. The options include development of the emotional aspects of the patient, increasing their sexual repertoire, improving attitude and responses to their partner, and to sexual experiences with their partner. Because there are so many issues involved for some people,[13] an appropriate treatment course may take time. For others a clearly defined aspect of their relationship comes under scrutiny and may quickly be resolved.

Erection difficulties

Erections can result from activation of the erectile centre within the brain; the exact location and the neurotransmitters involved are poorly understood. Sensory input, sexual fantasies, and factors affecting sexual desire activate these central mechanisms directing nerve traffic through the spinal cord to the blood vessels supplying the penis. The result is to redirect blood from the arteries to the corpora cavernosae in the penis. In addition a sacral reflex arc exists, stimulated by direct handling of the genitalia. This reflex arc is responsible for enhancing normal erections, and allows some paraplegics to obtain an erection despite lack of connection with the brain. Men also have nocturnal erections (without erotic input), associated with REM sleep. The physiological significance of these nocturnal and early morning erections is not understood, but persistence of these nocturnal erections indicates an intact neurogenital system.

The predominant effect of the increased neural traffic is to relax the trabecular meshwork of smooth muscles within the corpora cavernosae allowing these to engorge with blood.[15] As a result of this filling, the outflow veins are passively constricted as they traverse the fibrous sheath (tunica albuginea) surrounding both of these vascular spaces. This enhanced blood flow results in increased width, length and rigidity of the penis. Therefore a patent vascular system is a pre-requisite for normal erections.

Nitric oxide [NO] is a key neurotransmitter allowing relaxation of the cavernosal smooth muscles.[15] Other neurotransmitters are involved, including prostaglandins. Activation of alpha I adrenergic receptors results in contraction of the cavernosal smooth muscles and detumescence. Adequate levels of testosterone and low levels of prolactin are essential.

Erectile Dysfunction

Erectile Dysfunction (ED) is defined as an inability to obtain or maintain an erection that is satisfactory for sexual intercourse.[2] The disorder is uncommon before the age of 50 (prevalence estimated at 1–7%), but increases progressively so that by the age of 75 years, up to 50% of men have erectile difficulties.[16]

Erectile dysfunction can result in loss of self-esteem, depression, or despair.[5] Men without a current partner often avoid social contact with potential partners for fear of being humiliated and embarrassed. Those with a partner may stop kissing, hugging or caressing their partner in order to avoid 'starting something they cannot finish'. Affected men often cut themselves off from support, comfort and intimacy, resulting in further deterioration of their relationship. Some try to have intercourse with a new partner, and because of previous difficulties, or anxiety in the new situation, again fail to have an adequate response. Well-meant reassurance from a partner (e.g. 'It does not matter, dear') can worsen the situation, as it clearly 'does matter' to the man. Other difficulties such as relationship problems, rapid ejaculation or inattention to their partner's sexual needs often accompany this disorder, and can result in the partner either being disinterested in help-

ing to resolve the difficulty, or subverting treatment.[17]

Aetiology

Any condition causing disruption of the normal neurogenital complex can result in erectile dysfunction. Medical conditions such as recent illness (e.g. myocardial infarction), brain (e.g. cerebrovascular accident) or spinal cord injury (including chronic conditions such as multiple sclerosis), nerve damage, or reduced blood supply can all result in impaired erection. Diabetes mellitus, in particular, causing both vascular and neuronal damage, predisposes to erectile dysfunction (50% of diabetic men suffer from this condition).[15] Recent research has suggested that ED may presage such illnesses, so physicians should consider the ED as a possible indicator of cardiovascular problems.[18] Drugs, particularly beta blockers, thiazide diuretics, major and minor tranquillisers, antidepressants, and antiandrogens result in ED by interfering with central and peripheral neurotransmitters[19] – see Table 1. Abuse of recreational drugs can also impair erections. Patients with hypogonadism and hyperprolactinaemia frequently present with erectile dysfunction. Structural abnormalities of the fibrous tunica albuginea, such as plaque formation in Peyronie's disease, can result in bending of the penis and erectile difficulties.

Psychological causes include depression, attitudes and values learned in childhood and adolescence from parents and siblings, factors such as the way a person thinks about and reacts to what is happening during sexual experiences (performance anxiety), and relationship issues including anger, power or control, and difficulties with intimacy.[20]

Assessment

It is important to establish the exact nature of the difficulty, its duration and impact on the relationship – see Table 2. Preservation of normal nocturnal or early morning erections indicates a dominant psychogenic component. However, when a patient has an organic cause there is frequently considerable psychogenic overlay. It is important to try and speak with both partners independently, to assess the effects of the disorder and possible treatment on the partner and the relationship.[20]

Management

Management of ED can best be approached in a step-wise fashion using the easiest, reversible, non-inva-

sive techniques alone, or in combination, before proceeding to more invasive and irreversible options.[21] Initially treatment should focus on managing any reversible cause of the disorder, discontinuing or substituting medications if possible (e.g. if possible, changing ß-blockers and thiazide diuretics to ACE inhibitors or calcium channel blockers). Over the counter drugs that may affect erectile function such as antihistamines and adrenergic agonists such as pseudoephedrine should be eliminated. Correction of hypogonadism and/or suppression of hyperprolactinaemia are critical.

If the erectile dysfunction is psychogenic, and both patient and partner agree, then referral to a psychologist or sex therapist skilled in the management of sexual disorders is indicated. The psychologist will involve the partner in the patient's therapy, and may suggest attention to associated disorders (e.g. rapid ejaculation, education regarding the partner's sexual needs, etc.). The course of therapy will be based on an assessment of the couple's relationship and sexual history. Therapeutic approaches can include education, cognitive restructuring (suggesting new ways of looking at events) and communication training. Sensate-focus exercises may form part of the therapy. A full programme may entail several visits and positive outcomes can be expected in motivated couples.

Table 2. Assessment for Erectile Dysfunction

Problem
Define the sexual difficulty
When did the difficulties arise?
Who is the main sexual partner?
What was the pre-morbid 'normal' function?
Explore the erectile difficulty; progression and impact
Are early morning erections preserved?
Are there associated sexual difficulties?
What is the role of performance anxiety?
Drug history
Alcohol, nicotine, marijuana
Anti-hypertensives - beta blockers, thiazides
Major/minor tranquillisers
Anti-depressants
Anti-androgens - aldactone, digoxin, cimetidine, cyproterone acetate
Past medical history
Peripheral vascular disease
Peripheral & autonomic neuropathy
Diabetes mellitus
Depression
Psychogenic factors
Depression
Anxiety (interpersonal, performance, work-related)
Bereavement or prolonged grief
Relationship conflict
Abuse (physical, emotional, sexual)
Other sexual disorders – low libido, rapid (or premature) ejaculation, – partner's sexual dysfunction(s)
Examination
(can be reassuring)
Investigations
Testosterone, prolactin, glucose

Mild depression could also be viewed as a reversible cause of ED. It has been shown that treatment of ED when associated with mild depression can be instrumental in reducing depressive symptoms.[22] However, when the depression is moderate or severe, treatment for depression should be the priority. Concomitant administration of antidepressants and oral medication for ED has been shown to be very effective in depressed men.[23]

Oral agents

First-line interventions include oral agents. There are now three Phosphodiesterase type 5 (PDE5) inhibitors available, two with a four-hour half-life, sildenafil (Viagra®; Pfizer), and vardenafil (Levitra®; GSK-Bayer), and the longer acting tadalafil (Cialis®; Lilly) which has a 17.5 hour half-life. Sub-lingual apomorphine is also marketed in New Zealand (Uprima®; Abbott). A number of herbal substances, are promoted as useful for sexual problems but without data on efficacy and safety cannot be regarded as standard therapy.

There are a number of important points to be sure the patient understands when considering using oral treatments – see Table 3. PDE5 inhibitors effectively prime the penis

Table 3. Important points in use of oral medications for Erectile Dysfunction

Sildenafil (Viagra®)	Tadalafil (Cialis®)	Vardenafil (Levitra®)
Available in 50mg and 100mg tablets	Available in 10mg and 20mg tablets	Available in 5mg, 10mg and 20mg tablets
Contraindicated when nitrates in use by patient		
'Primes' the penis for activity. Manual stimulation of the penis, or sexual stimulation, is essential to obtain an erection		
Taken 30–60 minutes prior to engaging in sexual activity.	Taken 15–30 minutes prior to engaging in sexual activity.	Taken 25–60 minutes prior to engaging in sexual activity.
Duration of action 4 hours	Duration of action 36 hours	Duration of action 4 hours
Most effective taken on an empty stomach. Avoid fatty foods and excessive alcohol when taking sildenafil - these prevent absorption or counter the drug's action	Can be taken with food and moderate amount of alcohol	Onset will be delayed if taken with fatty meal.
Should not be taken more than once per day		
Usually works with first dose (50mg), but it may take up to five or six trials before patient overcomes anxiety or steady state reached. If first dose ineffective and without adverse effects, try 100mg	Usually works with the first dose (20mg), but it may take more trials before patient overcomes anxiety or steady state reached	Usually works with first dose (10mg). If first dose ineffective and without adverse effects, try 20mg
Patients with renal or hepatic impairment should be started on the lower dose of 25mg	Lower dose of 10mg recommended for patients with renal impairment	Use 5mg increasing to 10mg max if using CYP3A4 inhibitor, erythromycin. 5mg dose available for men with moderate hepatic impairment
Diabetics and patients after radical prostatectomy may need to be started on 100mg dose	20mg recommended as first dose in all except those with renal impairment	10mg recommended first dose increasing where required unless contraindicated
May interact with other drugs		
Effective in about 80% of patients with ED of varying aetiology, severity of disease or age		

and require sexual stimulation to produce the NO necessary for generation of cGMP. Nitrates are contraindicated because of the risk of vascular collapse.

Vacuum constriction devices (VCDs)

When the penis is placed in a vacuum the corporal spaces fill with blood and the penis becomes erect. A rubber ring slipped over the base of the shaft retains blood in the pendulous aspect of the penis. The ring can remain in place for 30 minutes. This system costs approximately $500–1000, and requires training in its use preferably from an experienced specialist nurse. Once purchased there is no additional cost. Partner agreement and enthusiasm are important for success with these devices. Disadvantages include instability of the penis (hinged at the rubber ring), coldness, numbness, bruising and a bluish discoloration. Some patients experience difficulty with ejaculation. The cheaper penile expanders sold in sex shops are not effective VCDs.

Intracavernosal injections

Prostaglandin E_1, (PGE_1, or Caverject; Pfizer) injected into the corpora cavernosae results in relaxation of the smooth muscle and erection. In up to 80% of men suffering from ED, PGE_1 may produce an erection lasting between ½ and 1½ hours (mean: 50 minutes). Other available vasoactive drugs available for injection therapy include papaverine, phentolamine, and various mixes of these medications.

The man is taught to self-inject, enabling a full erection when required. Most men initially find this idea difficult, but after an injection realise it is straightforward and effective (an autoinject device may be beneficial).

Advantages of this therapy include the ability to obtain an erection independent of the partner or sexual stimulation. The drug can be used by most men including patients with heart disease and on nitrate medications, and priapism is rare. Up to 20% of men may have some minor discomfort with the injection (generally a dull ache).

If the erection does not detumesce after ejaculation the dosage should be reduced on the next occasion. (Effective dose range for PGE_1 is between 2.5 and 40µgms.) Men are encouraged to report to their doctor if the erection lasts more than four hours. It is possible to reverse such an erection by taking one to two 60mg tablets of pseudoephedrine (Sudafed).

Rarely with Caverject, but more often with other substances, an erection may persist (priapism), and last for more than six hours. Treatment of priapism requires aspiration and injection of an alpha agonist into the corpora cavernosae.

Cost of Caverject depends on dose ($10 to $35 per injection). Patients can be taught to self-administer the drug by a specialist nurse in one or two visits.

Penile prostheses

Semi-rigid malleable or inflatable devices may be implanted into the corpora cavernosa. These devices are expensive but can produce an excellent solution for the man who has tried all other options. The decision to implant a prosthesis is an irreversible step which should only be used as the last resort. Given the cost and complications of this procedure, it is best carried out by a specialist performing such operations frequently; this may necessitate travel to Australia or the USA. It is pertinent to note that in the US, 40% of men who have a penile implant have not used the implant for sexual intercourse.

Orgasm disorders

Knowledge of the physiology and psychology of normal orgasm in the male is limited. Orgasm is a purely subjective sensory experience associated with the rhythmic contractions of ejaculation and emission. Alpha-adrenergic neurotransmitters may mediate ejaculation in the male; and increased serotonergic activation appears to result in orgasmic inhibition. Ejaculation sooner than desired may be normal but can be disappointing, and lead to other sexual dysfunctions (e.g. erectile difficulties, low sexual desire). Kinsey reported that 75% of males ejaculated within two minutes of intromission,[24] but more recent studies suggest a seven to nine minute interval between intromission and ejaculation is more usual.[25]

Early, Rapid or Premature Ejaculation

Early, Rapid or Premature Ejaculation is the most common male sexual difficulty with 28–35% of men in various studies reporting it to be a problem in the previous year. Rapid ejaculation can be defined as: *'Persistent or recurrent ejaculation with minimal sexual stimulation before, on, or shortly after penetration and before the person wishes. The clinician must take into account factors that affect duration of the excitement phase, such as age, novelty of the sexual partner or situation, and recent frequency of sexual activity.'*[2]

Aetiology

Ejaculation occurs more rapidly after a period of sexual abstinence; and rapid ejaculation is more common in people who engage in sexual activity infrequently. Kaplan suggested that men with fast ejaculation are less sensitive to their erotic genital sensations, which causes them to be less aware of their state of arousal than other males.[26] Past anxious and 'hasty' sexual encounters may have taught some of these men that being fast is useful; subsequently they find it difficult to slow down. Relationship difficulties often present as complaints of fast ejaculation.

Assessment

A detailed history including past sexual experiences, present practices, the attitudes of patient and partner to the situation and the overall quality of their relationship are important. It is useful to ask why the couple have sex; the reply will allow education as to the broader importance of the total sexual experience rather than focusing on the time between intromission and ejaculation. Asking *'what do you think causes the problem?'* may uncover attitudes and (mis)-understandings important in maintaining the dysfunction.[8]

Treatment

Referral to a Clinical Psychologist for assessment and management is indicated. In educating the couple it can be helpful for the male to attend to their partner's sexual needs first ('Ladies come first'). Treatment techniques include:

- The Seman's 'squeeze technique' is highly effective with control of ejaculation resulting in success with 90% of cases. This involves the male masturbating to a point that he feels would result in ejaculation if he continued. At this point he pauses and squeezes the head of his penis along the coronal ridge by placing his forefinger and middle finger on one side of his penis and his thumb on the other side. It is recommended that the squeeze be firm and last about 10 seconds. By repeating this process several times before allowing ejaculation to occur, and by practising this procedure over several sessions, the man will learn to control his ejaculation. One advantage of this procedure is that no partner input is necessary, but the treatment has been reported to be more effective when the partner applies the 'squeeze'.
- The 'stop-start' technique involves the partner's co-operation and is useful for those couples unwilling to masturbate. The couple is asked to practise foreplay and penile stimulation to the point prior to ejaculation. The male signals his partner to stop so that his arousal can subside. After a pause, stimulation is resumed. The process is repeated several times before allowing ejaculation to occur.

The use of either technique is only one aspect of the couple's sexuality, so mastery should not be seen as a

guarantee of satisfying sex. In addition, application of these techniques requires skill on the part of the therapist, and attention to other issues that arise during the relearning process.

Medications are increasingly playing a role in the management of rapid ejaculation. Clomipramine, sertraline, fluoxetine and paroxetine have been shown to significantly increase latency to ejaculation, and sexual satisfaction. However there is no evidence that the medication can be discontinued without the PE returning.[27] Topical anaesthetics have a limited role in reducing male genital sensation and may have an adverse effect on the partner's pleasure.

Sexual problems are frequently seen as an individual's symptom, but really represent a couple's issue

Concluding comments

This paper has discussed some of the more common sexual difficulties presented to the family physician. While there are differences in treatments needed for the specific disorders, there are common principles that can be utilised:

- Make it possible and comfortable for the man to talk about his sexual problems. Most patients prefer their doctor to initiate discussion in this area, but the majority of doctors fail to include a query about sexual function when seeing their patients.
- Once a sexual problem has been raised it may take time to deal with and may necessitate another appointment, or a referral if the problem is complicated.
- The advent of oral medications has provided the family physician with useful ways to address erection problems, and thus prevent depression, anxiety and relationship troubles that often result from lack of attention to these issues.
- Sexual problems are frequently seen as an individual's symptom, but really represent a couple's issue; both partners will benefit from adequate assessment and treatment of sexual difficulties.

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