INVITED ARTICLE

MANAGEMENT OF SEXUAL DISORDERS

L P Kok

ABSTRACT

Sexual disorders comprise (a) disorders of function in which sexual functioning is disturbed leading to problems during sexual intercourse, (b) disorders of orientation whereby a non heterosexual partner or object is sought, and (c) other disorders involving aberrant psychosexual behaviour. In managing such problems a thorough psychosexual assessment is required in order to ascertain the exact nature of the problem and what the precipitating, predisposing and prolonging factors are. In disorders of orientation and disorders involving aberrant sexual behaviours, the developmental history and early childhood relationships must be looked into carefully. Laboratory investigations are usually indicated in erectile dysfunction as up to 80% would have an organic aetiology – vascular, neurological and endocrine disorders have to be ruled out. Treatment of the various conditions involves general sexual counselling, behaviour therapy including stress management, psychotherapy, marital therapy and drug therapy as indicated. However, in erectile dysfunction, drug treatment (including intracavernosal injections), mechanical aids, or surgery may be indicated; and in transsexualism – for those who are unable to revert to accepting their natural status – a sex reassignment operation is the treatment of choice.

Keywords: psychosexual disorders, sexual counselling, behaviour therapy, drug treatment

SINGAPORE MED J 1993; Vol 34: 553-556

INTRODUCTION

Sexual disorders may be divided(1) into:

- a) Disorders of functioning
- b) Disorders of orientation
- c) Disorders involving a certain behavioural pattern.

The above 3 categories are however, not mutually exclusive. Table I shows the different types of sexual disorders.

PRINCIPLES OF MANAGEMENT OF SEXUAL DISORDERS

1) Psychosexual assessment

a) Disorders of sexual functioning

Although not mandatory, it is helpful if the patient could be seen with his spouse or partner.

During the initial interview a detailed history should be taken to find out the exact nature of the problem, whether the onset was gradual or sudden, whether any precipitating events were present, whether it was situation specific (eg with the spouse), whether there were any prolonging factors, what the resulting pattern of behaviour and cognition was, and what the reaction of the spouse was.

In addition the sexual development, libido, masturbation and dating history, premarital and marital sexual history, the methods of contraception, family attitudes to sex, and religious upbringing should be looked into. A good medical and drug history has also to be taken, and psychiatric problems ascertained. Possible sources of stress—like work difficulties and relationship problems must also be assessed.

b) Disorders of sexual orientation

In disorders of sexual orientation, greater emphasis is placed on the developmental history, relationship with each parent, early childhood experience, initial sexual experience, religious beliefs and problems with the law regarding the sexual activity.

Department of Psychological Medicine National University Hospital Lower Kent Ridge Road Singapore 0511

L P Kok, MBBS, MD, DPM, FRCPsych, FRANZCP, FAMS Associate Professor

Table I - Disorders of Function*

		Syndrome	
	Pathology	Male	Female
1)	Disorder of interest or libido	Inhibited sexual desire	Inhibited sexua desire
		Low sexual interest	Low sexual interest
2)	Disorder of excitement or arousal	Erectile dysfunction (impotence)	General sexual dysfunction (frigidity)
			Sexual anaesthesia
3)	Disorder of orgasm	Anorgasmia Premature ejaculation Delayed ejaculation	Anorgasmia
4)	Pain related disorder	Ejaculatory pain	Dyspareunia vaginismus
5)	Fear/anxiety related disorder	Erectile dysfunction (performance anxiety) Sexual phobia	Sexual phobia

^{*}Modified from Hawton K. Sex therapy: A practical guide. 1985: 32.

2) Physical examination

After the psychiatric history, a physical examination should be carried out to exclude any general physical problems. In males, the genitalia should be checked for abnormalities of size and shape, for swellings and induration. The sensation of the whole perineal region should also be checked as well as the penile and peripheral pulses. In women complaining of pain on intercourse, inflammatory conditions, atrophic changes, painful scars have to be excluded.

INVESTIGATIONS

Extensive investigations are unnecessary except in erectile dysfunction and retarded ejaculation, and may include:

1) blood tests – GTT for diabetes, sex hormone levels, liver, renal and thyroid function tests^(2,3).

- assessment of neurological functioning eg sensation in the genitalia and perineal region sacral evoked response (bulbocavernosus reflex time); cystometrography and video cystometry, radiographic examination of the spine may be required⁽⁴⁾.
- 3) vascular functioning vasodilator injection⁽⁵⁾ to assess the ability of the penile arteries to dilate and whether the venous system is intact and the tumescence is maintained. More sophisticated techniques include duplex ultrasonography of the penis before and after an injection of a vasodilator substance, arteriography and cavernosography. The latter are usually done when invasive treatment is considered⁽⁶⁾.
- nocturnal penile tumesence^(7,8) this test of whether erection occurs during sleep can often differentiate between organic and psychogenic causes of erection.

Principles of treatment

1) Discussion of the problem

As in any other illness the nature of the problem, the diagnosis, causes and options of treatment should be discussed with the patient and partner (if applicable).

2) Education

Often an explanation of the anatomy and physiology of sexual organs, the sexual response cycle, psychological reactions to sexual dysfunction in the subject and the partner helps in clarifying the problem and treatment issues.

3) Helping the couple to communicate

Couples are often unable to talk about their feelings and problems and the doctor may have to help them discuss their problems in a non-judgemental, non emotional way.

4) Sensate focus (Masters' and Johnson's therapy)(9)

This therapy devised by Masters' and Johnson relieves the couple of the pressure to perform thus allowing them to relax, and touch, kiss, hug and massage each other all over in a non demanding manner. The couple is instructed on what to do and given homework assignments to practise at home. There is an understanding that during the first stage (non genital sensate focus) the couple does not touch each other's genitalia and breasts. The couple takes turns to do the touching and massaging. Each is responsible for his own pleasure and should communicate to the other if the touching is unpleasant or uncomfortable and how he wants it changed, and also what he finds pleasant about it. During this session the couple learns to trust each other (eg a patient with vaginismus will learn to accept that she can be physically close with her spouse without the session ending in sexual intercourse).

During the next phase the couple proceeds to genital touching, without intercourse. Again the aim is for the couple to enjoy the session without monitoring their own performance, or that of their spouse. When the couple is comfortable with this they proceed to a low-keyed intercourse ie vaginal containment, using the woman on top or the lateral (side by side) position, After penetration the couple lies still and focuses on any pleasant sensations they feel. The duration of containment is up to the couple and they can do it two to three times per session, with pleasuring in between.

At the last stage the couple has intercourse with movement, initially slowly and then faster till they are having normal intercourse.

5) Sexual fantasies and play acting

Fantasies can be used to increase arousal and improve enjoyment. Often patients or couples find it awkward discussing their fantasies. In this case the doctor can suggest one or 2 common fantasies. If the couple is willing, they can act out a script which should be

pleasurable, fun and erotic. The physician has to use his discretion, as some patients are averse to such suggestions, finding them offensive.

6) Relaxation therapy

If anxiety levels are high eg performance anxiety (in erectile dysfunction, premature ejaculation, sexual phobias, vaginismus and dyspareunia) relaxation therapy is useful. In those who are good hypnotic subjects, hypnosis may achieve faster results.

7) Marital therapy

If the underlying problem is that of a marital conflict, marital therapy is indicated, and it is after there is some resolution of the conflict and the couple feels more loving towards each other that sex therapy can be initiated – as otherwise sabotage by one or both may occur.

8) Drug treatment

Drug treatment may be indicated in conditions like erectile dysfunction or premature ejaculation, in those with high levels of anxiety, or who are depressed. It may also be used in the disorders of sexual orientation (see under specific conditions).

9) Behaviour therapy

Methods like desensitisation, aversive therapy and shaping can be used for disorders of orientation.

10) Surgery

This may be indicated in the more severe cases of disorders of function like erectile dysfunction, and vaginismus, and in the disorder of orientation like transsexualism.

11) Other treatment

If the sexual problem is part of a wider psychological disturbance, other types of treatment may be indicated eg psychotherapy, cognitive therapy.

Surrogate Partners

In the Singapore context, surrogate partners are not used. Some male patients may seek commercial partners on their own to test out their sexual functioning, or they practise with their own partners.

MANAGEMENT OF SPECIFIC PROBLEMS

1) Impotence

Over the past decade there has been a marked change in the treatment of erectile dysfunction, as it became more evident that organic disorders were more predominant in the causation.

The newer methods of treatment(6) include:

- a) Pharmacological treatment
- i) Intracavernosal injection of vasoactive drugs like papaverine⁽¹⁰⁾, and phentolamine^(10,11) or prostaglandin E₃⁽¹²⁾. Common side effects are pain, haematoma and bruising and priapism. A later side effect is fibrosis or nodule formation. In those with mild to moderate narrowing of the penile vessels, repeated injections may result in marked improvement.
- ii) Nitroglycerine paste: There is some evidence that transdermal nitroglycerine pastes used for angina could prove useful⁽¹³⁾
- iii) Oral drugs These include: x₂ adrenoceptor antagonists eg yohimbine;⁽¹⁴⁾ opiate antagonists eg naltrexone, nalaxone;⁽¹⁵⁾ dopamine agonists eg apomorphine and bromocriptine;⁽¹⁶⁾ and appear to be effective in a few patients but no large scale studies have been done.

b) Suction devices(17)

These devices consist of a plastic tube placed over the penis. A vacuum is created by a pump and when the organ is erect, a constriction ring is placed over it to maintain erection. Erections have been found to occur in 90% of patients.

- c) Surgery
- Penile prosthetic implants malleable, inflatable (self contained) and multipart⁽¹⁸⁻²⁰⁾.
- ii) Vascular surgery of either the arterial or venous system^(21,22).

2) Premature ejaculation

Premature ejaculation is a condition that is difficult to define, but comprises dissatisfaction by a couple because of rapid ejaculation by the male partner.

The two techniques used for treatment of premature ejaculation are:

a) Semans stop-start technique(23)

This involves stroking and masturbation by the subject, or his partner. The important thing is for the subject to be able to ascertain the point of inevitability of ejaculation and to stop the masturbation before this point is reached. After a pause of 1-2 minutes, the stroking can start again. This should be repeated a few times and then the male partner is allowed to ejaculate. With success this procedure is repeated using KY jelly.

b) Squeeze technique(24)

When about to ejaculate the subject or his partner should hold the head of the penis between the thumb and fore and middle fingers and squeeze firmly till the ejaculatory reflex wears off. Reassurance should be given that this may be accompanied by softening of erection. The procedure is then repeated again after 1-2 minutes for a few times before ejaculation is allowed.

Using these 2 techniques, control over ejaculation will be established. Once the subject can control himself for about 15 minutes, penetration and vaginal containment can be attempted adopting the female superior position, as this gives the man a greater control over ejaculation. When he feels a high arousal, his partner should lift herself off him and the squeeze method can be used. With success they proceed to normal sexual activity⁽²⁵⁾.

Creams

An anaesthetic cream eg lignocaine gel 2% applied to the glans penis is sometimes very helpful in those who are particularly sensitive. This may be used with the above techniques.

Medication

Clomipramine, an antidepressant used in the treatment of depressive illness and obsessive compulsive disorders has as a side effect the property of delaying ejaculation and has been used for premature ejaculation at a dose of 25-75 mg. Prostaglandin $E_1^{(26)}$ has also been used for treatment of this condition, and acts to prevent the rapid detumesence of the penis after ejaculation.

3) Retarded ejaculation

Some men with retarded ejaculation may respond well to the sensate focus exercises. Others, especially those who have never ejaculated while awake, require masturbation exercises. Some have a great need of control and are unable to let go. Others tend to spectator a lot. During the masturbation exercises, the focus should be on the pleasurable sensations that he feels⁽²⁷⁾. Use of KY jelly may help his arousal, as may a vibrator device⁽²⁸⁾. Fantasies may be introduced, but often this type of patient finds difficulty fantasising. Use of magazines, pictures or video tapes (if available) can help him.

4) Women

Orgasmic dysfunction

A woman with orgasmic dysfunction may have strong negative

attitudes about sexuality and negative feelings regarding her body, and be unwilling to touch her own genitalia.

Treatment involves reassurance, explanation and programmes to desensitise her to the touch of her body like:

- a) a genital examination using a mirror to help her identify parts of her body.
- masturbation exercises to identify the erotic areas of her body eg clitoris or the Graefenberg spot. During the exercises she should be asked to focus on her pleasurable feelings.
- c) Kegel's exercises⁽²⁹⁾ these exercises strengthen the pubococcygeus muscles and are said to increase the ability to achieve an orgasm in women. These exercises involve contracting and relaxing the vaginal muscles.
- d) Sensate focus, masturbation exercises, and eventually intercourse with the partner.

5) Vaginismus

This is often associated with sexual phobias—like a fear of being torn apart, of rape, of being damaged. Relaxation exercises and desensitisation using graded imagery of sexual contact (from touching to penetration) are taught as well as Kegel's exercises and finger insertion into the vagina using initially her own fingers and later the partner's. Subsequent steps include penetration, vaginal containment and then intercourse.

Surgical methods like using dilators and vaginal moulds⁽³⁰⁾ to stretch the vaginal opening have also been successful.

6) Dyspareunia

When there is a complaint of pain on intercourse a careful vaginal examination should be carried out to exclude organic causes of pain which can be treated accordingly. Dyspareunia of psychogenic origin is usually associated with sexual phobia and vaginismus and is treated according to the principles enumerated above.

7) Disorders of orientation

a) Homosexuality

If a person (male or female) seeks therapy to change his orientation, the treatment may involve the following:

- i) behaviour therapy⁽³¹⁾ shaping his inclination from a homosexual to a heterosexual one, by using graded fantasics with heterosexual components together with masturbation. Gradually he learns to be aroused to heterosexual fantasies. Sometimes a homosexual fantasy can be used and a switch is made to a heterosexual one just before orgasm is reached. In certain subjects a form of aversive therapy can be introduced eg imagining the most feared consequence ie being found out or arrested while practising a homosexual activity.
 - If phobia of women exists, a desensitisation programme can be started; similarly social skills training can be taught if this is lacking.
- Psychotherapy: This is indicated for those with more deep seated problems.

b) Transsexualism

Transsexuals who come for treatment invariably wish to have the sex reassignment operation. They require a psychiatric assessment to determine their suitability, and then undergo operative procedures to remove their exisiting gonads and reproductive organs and reconstruct new ones. Regret about the operation and a wish to reverse it is very rare if selection is properly done⁽³²⁾.

c) Other orientation disorders

For these conditions (eg paedophilia, exhibitionism and conditions listed in Table II) treatment programmes involve essentially shaping of fantasies with masturbation, aversive fantasies and sometimes psychotherapy. In cases where there is a great urgency

to control such behaviour, drug therapy with an antiandrogen eg cyproterone acetate may be given on a temporary basis till the subject has learned better self control with psychological means.

Table II - Other sexual disorders

Object	Disorder/condition	
A Disorder of orientation		
Human sexual partner	Homosexuality* Transsexualism Paedophilia	
2) Dead partner	Necrophilia	
3) Non human sexual partner	Zoophilia	
4) Object	Fetishism Transvestism	
B Other psychosexual disorders		
1) Involving pain	Sadomasochism	
2) Involving a certain act	Exhibitionism	
3) Involving peeping	Voyeurism	
4) Involving phoning	Obscene calling	

^{*}Homosexuality is a controversial entity and in many countries is not accepted as a disorder or dysfunction, although in Singapore, it is generally still considered as such.

REFERENCES

- 1. Hawton K, Sex therapy: a practical guide, Oxford: Oxford University Press, 1985; 123-99.
- Wagner G, Green R. General medical disorders and erectile failure. In: Wajner G, Green R. eds. Impotence physiological, psychological, surgical diagnosis and treatment. New York: Plenum Press. 1981: 37-50.
- Wagner G, Halstead J, Jensen SB. Diabetes mellitus and erectile failure. In: Wajner G, Green R, eds. Impotence physiological, psychological, surgical diagnosis and treatment. New York: Plenum Press. 1981: 51-62.
- Wagner G. Methods for differential diagnosis of psychogenic and organic erectile failure. In: Wajner G. Green R. eds. Impotence physiological, psychological, surgical diagnosis and treatment. New York: Plenum Press 1981: 89-130.
- Kiely EA, Ignotus P, Williams G. Penile function following intracavernosal injection of vasoactive agents or saline. Bi J Urol 1987; 59: 473-6.
- 6. Gregoire A. New treatments for erectile impotence. Br J Psychiatry 1992; 160: 315-26.
- Fisher C, Gross J, Zuch J. Cycle of penile erection synchronous with dreaming (REM) sleep. Arch Gen Psychiatry 1965; 12: 27-45.

- Fisher C, Shiavi R, Lear H, Edwards A, Davis DM, Welken AP. The assessment of noctumal REM erection in the differential diagnosis of sexual impotence. J Sex Marital Ther 1975; 1:277-89.
- Masters WH, Johnson VE. Principles of the new sex therapy. Am J Psychiatry 1976; 133: 548-54.
- 0. Virag R. Intracavernous injection of papaverine for erectile failure. Lancet 1982; ii: 928.
- Kiely EA, Ignotus P, Goldic L. Assessment of the immediate and long term effects of pharmacologically induced penile erections in the treatment of psychogenic and organic impotence. Br J Urol 1987; 59: 164-9.
- Stackl W, Hasun R, Matberger M. Intracavernous injection of prostaglandin E in impotent men. J Urol 1988; 140: 66-7.
- Talley ID, Crawley IS. Transformal nitrate, penile erection and spousal headache. Ann Intern Med 1985; 103: 804.
- Reid K, Morales A, Harris C, Surridge DHC, Condra M, Owen J, et al. Double blind trial
 of yohimbine in treatment of psychogenic impotence Lancet 1987; ii: 421-3.
- Fahri A, Jannine EA, Guessi L, Moretti C, Ulisse S, Francese A, et al. Endorphins in male impotence: evidence of naltrexone stimulation of erectile activity in patient therapy. Psychoneuroendocrinology 1989; 14: 103-11.
- Lal S, Labyca E, Thavundayil JX, Nair NP, Negrete J, Ackman D, et al. Apomorphine induced penile tumescence in impotent patients – preliminary findings. Prog Neuropsychopharmacol Biol Psychiatry 1984; 11(2-3): 235-42.
- Wiles PG. Successful non invasive management of erectile impotence in diabetic men. Br Med J 1988; 296: 161-2.
- Wagner G, Surgical treatment of erectile failure. In: Wagner G, Green R. eds. Impotence physiological, psychological, surgical diagnosis and treatment. New York: Plenum Press, 1981: 155-66.
- Montague DK, Semi rigid penile prostheses. In: Rajfer J. ed. Common problems in infertility and impotence. Chicago: Year Book Med Pub Inc. 1990: 311-6.
- Bhalchandra GP, Barrett DM. Inflatable penile prostnesses. In: Rajfer J. ed. Common problems in infertility and impotence. Chicago: Year Book Med Pub Inc. 1990: 332-6.
- Lue TF. Surgery for venous occlusion. In: Rajer I. ed. Common problems in infertility and impotence. Chicago: Year Book Med Pub Inc. 1990: 311-6.
- Sharlip ID. Arterial reconstruction in the impotent patient. In: Rajfer J. ed. Common problems in infertility and impotence. Chicago: Year Book Med Pub Inc. 1990: 317-23.
- 23. Semans JM. Premature ejaculation: a new approach. South Med J 1956; 49: 353-7.
- Masters WH, Johnson VE. Human sexual inadequacy. London: Churchill, London. 1970: 60-3
- Kaplan H. PE: How to overcome premature ejaculation. New York: Brunner Mazel. 1989;
 43-116.
- Adaikan PG. Physiopharmacology of ejaculation and common ejaculation dysfunction. Workshop on Male and Female Sexual Dysfunction. 20-21 February 1993, NUH, Singapore.
- 27. Kaplan H. The new sex therapy, London: Bailliere Tindall 1976: 316-36.
- Bancroft J. Human sexuality and its problems. Edinburgh: Churchill Livingstone 1989: 523.
- Kegel AH. Sexual function of the pubococcygeus muscles. West J Surg Obs and Gynae 1952; 60:521-4.
- 30. Ratnam SS. Management of dyspareunia and vaginismus. Workshop on Male and Fernale Sexual Dysfunction. 20-21 February 1993, NUH, Singapore.
- Bancroft J. Human sexuality and its problems. Edinburgh: Churchill Livingstone 1989; 509-13.
- 32. Tsoi WF. A personal communication 1993.