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Etiology and management of sexual dysfunction

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Abstract
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Keywords
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Review

Etiology and Management of Sexual Dysfunction :: Sexual Dysfunction: Part II

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Abstract:
Sexual dysfunction is the impairment or disruption of any of the three phases of normal sexual functioning, including loss of libido, impairment of physiological arousal and loss, delay or alteration of orgasm. Each one of these can be affected by an orchestra of factors like senility, medical and surgical illnesses, medications and drugs of abuse. Non-pharmacological therapy is the main stay in the treatment of sexual dysfunction and drugs are used as adjuncts for a quicker and better result. Management in many of the cases depends on the primary cause. Here is a review of the major etiological factors of sexual dysfunction and its management.
Key Words: Sexual dysfunction, Erectile dysfunction, Premature ejaculation, Impaired libido

Introduction:

Sex is a multifaceted activity. Though essentially it is meant for procreation, it has also been a source of pleasure, a natural relaxant, it confirms one's gender, bolsters one's self esteem and sense of attractiveness for mutually satisfying intimacy and relationship.(1) An adult's sexuality has seven components- gender identity, orientation, intention (what one wants to do with a partner's body and have done with one's body during sexual behavior), desire, arousal, orgasm and emotional satisfaction. The first three components constitute our sexual identity, second three comprise our sexual function and the seventh is based on our personal reflection on the first six. Impairment in any one of these areas comprises sexual dysfunction.(2) However, as the disorders due to first three components are identity difficulties, they can better be grouped into sexual perversions or sexual behavior disorders (gender identity disorder, homosexuality, paraphilia) rather than sexual dysfunction. Further, they rarely consult a doctor for treatment of this behaviour as majority of them are comfortable about their sexual behavior. Thus the sexual dysfunction can be defined as the impairment or disruption of any of the three phases of normal sexual functioning, including loss of libido, impairment of physiological arousal and loss, delay or alteration of orgasm.(3) As sexuality derives self-discovery, attachment, pleasure and self-esteem, all these are lost in a person with sexual dysfunction, thus causing a severe psychological trauma to the extent of severe depression, which can eventually lead to suicidal deaths if not appropriately treated. A successful treatment depends on a thorough evaluation to recognize the etiology of sexual dysfunction. In many of the cases adequate treatment of the primary causative factor will resolve sexual dysfunction. The following section presents a classification of sexual dysfunction based on the etiological factors.

Sexual Response Cycle:

An understanding of sexual functioning begins with the phases of the sexual response cycle.(4) Human sexual response in generally divided into four phases (i) Desire, (ii) Arousal, (iii) Orgasm & (iv) Resolution.(5) Kaplan's triphasic model of sexual response conceptualizes desire, arousal and orgasm as three distinct and sequential phases(6) and has been chosen as a model for studying sexual dysfunction as there are no known disorders recognized in the resolution phase. In each of the phases of desire, arousal and orgasm there are various causes that impair the sexual performance.

Factors affecting sexual performance:

i) Age:

A review of the literature suggests that in men there is a decrease in the frequency of sexual behavior, to a lesser extent a diminution in sexual interest and an increased prevalence of sexual dysfunction associated with aging.(7) However identification of the natural biologic changes that mediate sexual function in the aged is confounded by the effects of chronic medical illnesses and drugs in this age group.

In a cross-sectional study in healthy men aged 45-75 years, significant decreases in sexual desire, arousal and activity was documented but no age differences in sexual pleasure and satisfaction. A proportion of subjects in the oldest age group, however, had regular intercourse in the presence of marked decrements in erectile capacity as measured by nocturnal penile tumescence. Healthy aging men had a decrease in bioavailable testosterone (bT) and an increase in Leutinising Hormone (LH).(8) Aging is associated with a decrease in gonadal function but the evidence that androgen deficiency contributes to the decrease in sexual desire and activity in older men is not compelling. Changes in central receptor site sensitivity may contribute to the age related decreases in sexual function.(9)

Epidemiologic data have demonstrated a significant diminution in coital and orgasmic frequencies and an increase in the incidence of sexual problems in post menopausal women. Estrogen deficiency is primarily responsible for the decrease in pelvic vasocongestion, atrophy of vaginal epithelium and diminished vaginal lubrication. However, even in women androgens are more important for sustaining sexual desire.(10)

ii) Psychiatric disorders:

Crisp has presented a rough assessment of the presence of sexual deterioration in a group of 375 consecutive new psychiatric outpatients. He found that people with endogenous depression, alcoholism, or the presence of anxious or sad moods or tension were significantly more likely to report a reduction of sexual activity since the onset of their problem, where as those with conversion disorder, obsessional neurosis or paranoid psychosis were significantly less likely to do so.(11) Some of the studies focused on common psychiatric illness are given below.

A. ***Depression:*** Depression remains an important associated factor for sexual dysfunction. Studies have revealed that in untreated depression, reduced libido is seen in 40-74%, arousal / erectile dysfunction in 16-50% and orgasmic dysfunction in 15-22%.(12)
B. ***Schizophrenia:*** Changes in behaviour, emotional reactions and thought processes that manifest the schizophrenic states are often so gross and so pervading that it would be surprising if sexual repercussions do not occur. Studies have shown that majority of untreated schizophrenics have reduced desire for sex, more in fe-

males as compared to males, though arousal and ejaculatory functions remain intact. They have diminished fantasy, and schizophrenic men often limit their sexual activity to masturbation.(13)

C. ***Anxiety disorders:*** Aksaray and colleagues compared sexual dysfunction among 23 patients of Obsessive Compulsive Disorder (OCD) and 26 patients of Generalized Anxiety Disorder (GAD). All were untreated female patients. They were assessed for orgasm, vaginismus, avoidance and nonsensuality. Overall, 39% of OCD patients had sexual dysfunction as compared to 19% in GAD.(14) Another study reported a wide range of sexual dysfunction in the patients of social phobia. About 33% of males had reduced desire, premature ejaculation and retarded ejaculation where as 10% had erectile dysfunction. Among females 42% complained of dyspareunia, and 46% had reduced desire. Thus all anxiety disorders seem to be associated with some kind of sexual dysfunction, but generalization of prevalence rate needs further studies.(15)

Other psychiatric illnesses like substance use disorders and post-traumatic stress disorder are also known to be associated with sexual dysfunction. Thus whatever the psychiatric diagnosis is, any psychopathology, at least in some patients is known to affect sexual function, especially the desire. Mania which is known by the term 'happiness psychosis' also affects desire, but in the opposite direction.(16)

iii) Medical/Surgical disorders:

The list of medical and surgical conditions causing sexual dysfunction is exhaustive (Table 1). The Diagnostic and Statistical Manual of Mental Disorders- fourth edition- text revision (DSM-IV-TR) has classified sexual dysfunction due to general medical conditions into seven categories.

- Female Hypoactive Sexual Desire Disorder Due to a General Medical Condition
- Male Hypoactive Sexual Desire Disorder Due to a General Medical Condition
- Male Erectile Disorder Due to a General Medical Condition
- Female Dyspareunia Due to a General Medical Condition
- Male Dyspareunia Due to a General Medical Condition
- Other Male Sexual Dysfunction Due to a General Medical Condition
- Other Female Sexual Dysfunction Due to a General Medical Condition

Table 1: Diseases and Medical Conditions Implicated in Male Erectile Disorder. (18)

Infectious and parasitic Diseases	Neurological disorders
Elephantiasis	Multiple sclerosis
Mumps	Transverse myelitis
Cardiovascular disease	Parkinson's disease
Atherosclerotic disease	Temporal lobe epilepsy
Aortic aneurysm	Traumatic and neoplastic spinal cord diseases
Leriche's syndrome	Central nervous system tumor
Cardiac failure	Amyotrophic lateral sclerosis
Renal and urological disorders	Peripheral neuropathy
Peyronie's disease	General paresis
Chronic renal failure	Tabes dorsalis
Hydrocele and varicocele	Pharmacological factors
Hepatic disorders	Alcohol and other dependence-inducing substances (Heroin, methadone, morphine, cocaine, aphetamines, and barbiturates)
Cirrhosis (usually associated with alcohol dependence)	
Pulmonary disorders	
Respiratory failure	Prescribed drugs (psychotropic drugs, antihypertensive drugs, estrogens, antiandrogens)
Genetics	
Klinefelter's syndrome	
Congenital penile vascular and structural abnormalities	Poisoning
Nutritional disorders	Lead (plumbism)
Malnutrition	Herbicides
Vitamin deficiencies	Surgical Procedures
Obesity	Perineal prostatectomy
Endocrine disorders	Abdominal- perineal colon resection
Diabetes mellitus	Sympathectomy (frequently interferes with ejaculation)
Dysfunction of the pituitary-adrenal- testis axis	Aortoiliac surgery
Acromegaly	Radical cystectomy
Addison's disease	Retroperitoneal lymphadenectomy
Chromophobe adenoma	Miscellaneous
Adrenal neoplasia	Radiation therapy
Myxedema	Pelvic failure
Hyperthyroidism	Any severe disease or debilitating condition

In determining whether the sexual dysfunction is exclusively due to a general medical condition, the clinician must first establish the presence of a general medical condition, and then that the sexual dysfunction is etiologically related to the general medical condition through a physiological mechanism. Although there are no infallible guidelines for determining whether the relationship between the sexual dysfunction and the general medical condition is etiological, several considerations provide some guidance in this area. One consideration is the presence of a temporal association between the onset, exacerbation, or remission of the general medical condition and that of the sexual dysfunction. A second consideration is the presence of features that are atypical of a primary sexual dysfunction (ex: atypical age at onset or course). Current clinical experience suggests that sexual dysfunction due to a general medical condition is usually generalized. The associated physical examination findings, laboratory findings, and patterns of prevalence or onset reflect the etiological general medical condition.(17)

iv) Drugs and sexual dysfunction:

Many pharmacological agents, particularly those used in psychiatry, have been associated with an effect on sexuality. In men, these effects include decreased sex drive, erectile failure, decreased volume of ejaculate, and delayed or retrograde ejaculation. In women, decreased sex drive, decreased vaginal lubrication, inhibited or delayed orgasm and decreased or absent vaginal contractions may occur.(18) The essential feature of substance/drug induced sexual dysfunction is a clinically significant sexual dysfunction that results in marked distress or interpersonal difficulty. Depending on the substance involved, the dysfunction may involve impaired desire, arousal, orgasm or sexual pain. The dysfunction is judged to be fully explained by the direct physiological effects of the substance. A substance induced sexual dysfunction is distinguished from a primary sexual dysfunction by considering the onset and course. Sexual dysfunction in the form of decreased sexual interest or arousal can occur with intoxication or chronic abuse with alcohol, amphetamine, cocaine, opioids, sedatives, hypnotics, anxiolytics and other unknown substances. Impaired desire, arousal and orgasmic disorders may also be caused by prescribed medications including antihypertensives, histamine H2 receptor antagonists, antidepressants, neuroleptics, antiepileptics and anabolic steroids. Painful orgasm has been reported with fluphenazine, thioridazine, and amoxapine. Priapism has been reported with chlorpromazine, trazodone and clozapine.(17) Tables 2 and 3 enlist the drugs that are known to be associated with sexual dysfunction.

Table 2: Some Pharmocological Agents Implicated in male Sexual Dysfunctions(18)		
Drug	**Impairs erection**	**Impairs Ejaculation**
Cyclic antidepressant drugs		
Impipramine (Tofranil)	+	+
Protriptyline (Vivactil)	+	+
Desipramine (Pertofrane)	+	+
Clpmipramine (Anafranil)	+	+
Amitriptyline (Elavil)	+	+
Trazodone (Desyrel)	-	-
Monoamine oxidase inhibitors		
Tranylcypromine (Parnate)	+	
Phenelzine (Nardil)	+	+
Pargyline (Eutonyl)	-	+
Isocarboxazid (Marplan)	-	+
Other mood- active drugs		
Lithium (Eskalith)	+	
Amphetamines	+	+
Fluoxetine (Prozac)	-	+
Antipsychotics		
Fluphenazine (Prolixin)	+	
Thioridazine (Mellaril)	+	+
Chlorprothixene (Taractan)	-	+
Mesoridazine (Serentil)	-	+
Perphenazine (Trilafon)	-	+
Trifluoperazine (Stelazine)	-	+
Reserpine (Serpasil)	+	+
Haloperidol (Haldol)	-	+
Antianxiety Agent		
Chlordiazepoxide (Librium)	-	+
Antihypertensive drugs		
Clonidine (Catapres)	+	
Methyldopa (Alphadopa)	+	+
Spironolalactone (Aldactone)	+	-
Hydro chlorothiazide	+	-
Guanethidine (Ismelin)	+	+
Commonly abused substances		
Alcohol	+	+
Barbiturates	+	+
Cannabis	+	-
Cocaine	+	+
Heroin	+	+
Methadone	+	-
Morphine	+	+
Miscellaneous drugs		
Antiparkinsonian agents	+	+
Clofibrate (Atromid-S)	+	-
Digoxin (Lanoxin)	+	-
Glutethimide (Doriden)	+	+
Indomethacin (Indocin)	+	-
Phentolamine (Regitine)	-	+
Propranolol (Inderal)	+	-

Table 3: Some Psychotropic Drugs Implicated in Inhibited Female Orgasm (16)	
Tricyclic antidepressants	**Dopamine receptor antagonists**
Imipramine (Tofranil)	Thioridazine (Mellaril)
Clomipramine (Anafranil)	Trifluperazine (Stelazine)
Nortriptyline (Aventyl)	**Selective serotonergic receptor inhibitors**
Monoamine oxidase inhibitors	Fluoxetine (Prozac), Paroxetine (Paxil)
Tranylcypromine (Parnate)	Sertraline (Zoloft)
Phenelzine (Nardil)	Fluvoxamine (Luvox)
Iso carboxazid (Marplan)	Citalopram (Celexa)

v) Primary Sexual Dysfunction:

Sexual response is a psychosomatic process; and both psychological and somatic processes are usually involved in the causation of sexual dysfunction. Wherever it is possible to identify an unequivocal psychogenic etiology, it is appropriate to categorize the condition as primary (psychogenic) sexual dysfunction. This is classified under 'Sexual dysfunction, not caused by organic disorder or disease' in chapter F52 of ICD10.(19) In DSM-IV-TR it is termed 'sexual dysfunctions' and is classified under the chapter 'Sexual and Gender Identity Disorders.(17) The difference in nosological status of both major classificatory systems is represented in table 4 and brief delineating criteria as per DSM-IV-TR is given in Table 5.

Table 4: Nosological status of sexual dysfunction

ICD-10	DSM-IV-TR
• Lack or loss of sexual desire • Sexual aversion and lack of sexual enjoyment • Sexual aversion • Lack of sexual enjoyment • Failure of genital response • Orgasmic dysfunction • Premature ejaculation • Non-organic vaginismus • Non organic dyspareunia • Excessive sexual drive • Other sexual dysfunction, not caused by organic disorder and disease • Unspecified sexual dysfunction • Not listed (under F10)	• Hypoactive sexual desire • Sexual aversion disorder • Female arousal disorder and male erectile disorder • Female orgasmic disorder • Male orgasmic disorder • Premature ejaculation • Vaginismus • Dyspareunia • Not listed • Sexual dysfunction not otherwise specified • Not listed • Substance induced sexual dysfunction

Table 5: Delineating Criteria Of 12 Sexual Dysfunction Diagnoses.(2)

Sexual Desire Disorders	Sexual Arousal Disorders	Orgasmic Disorders	Sexual Pain Disorders
Hypoactive Sexual Desire Disorder: Persistently or recurrently deficient (or absent) Sexual fantasies and desire for sexual activity.	**Female sexual arousal disorder:** Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication- swelling response of sexual excitement. **Male erectile disorder:** Persistent or recurrent inability to attain or to maintain until completion of the sexual activity, an adequate erection	**Female orgasmic disorders:** Persistent or recurrent delay in, or absence of, orgasm after a normal sexual excitement phase **Male orgasmic disorder:** Persistent or recurrent delay in, or absence of orgasm after a normal sexual excitement phase during sexual activity **Premature ejaculation:** Persistent or recurrent ejaculation with minimal sexual stimulation before , on, or shortly after penetration and before the person wishes it	**Dyspareunia:** Recurrent or persistent genital pain associated with sexual intercourse on either a male or a female **Vaginismus:** Recurrent or persistent; Involuntary spasm of the musculature of the outer third of the vagina that interferes with sexual intercourse.
Sexual aversion Disorder	**Sexual Dysfunction Due to a General Medical Condition**	**Substance- Induced Sexual Dysfunction**	**Sexual Dysfunction not otherwise Specified**
Extreme aversion to, and avoidance of all (or almost all) genital sexual contact with a sexual partner.	Any of the above mentioned diagnoses must be judged to be exclusively due to the direct physiological effects of a medical condition.	A sexual dysfunction that is fully explained by substance use in that it develops within a month of substance intoxication	For problems that do not meet the categories just described

There are few systematic epidemiological data regarding the prevalence of the various sexual dysfunctions, and those show extremely wide variability, probably reflecting differences in assessments methods, definitions used and characteristics of sample populations. The most comprehensive survey to date, conducted on a representative sample of the U.S. population between ages 18 and 59 suggests the following prevalence estimates for various sexual complaints: 3% for male dyspareunia, 15% for female dyspareunia, 10% for male orgasm problems, 25% for female orgasm problems, 33% for female hypoactive sexual desire, 27% for premature ejaculation, 20% for female arousal problems and 10% for male erectile difficulties. However, male erectile problems increase in prevalence after the age 50. Estimates of prevalence rates for sexual aversion, vaginismus, sexual dysfunction due to a general medical condition, and substance induced sexual dysfunctions are not available.(17)

Management

The treatment of sexual disorders has evolved significantly since the 1970s, when Masters and Johnson focused the attention of the psychiatric community on sexual disorders. In many of the cases, successful treatment of the primary physical/psychiatric disorder will remit the associated sexual dysfunction. (18) A thorough history is the fundamental tool to etiologically evaluate sexual dysfunction, which further guides towards appropriate treatment. The aims of assessment are to –

- Define the nature of sexual problems and what changes are desired.
- Obtain the information which allows formulating a tentative explanation of the causes of the problem in terms of predisposing, precipitating and maintaining factors.
- Assessment into medical disorders/medication that commonly lead to sexual dysfunction.
- Thorough genitourinary examination including relevant laboratory studies like serum prolactin levels.
- Assess what type of therapeutic intervention is indicated on the basis of this formulation. (20)

Treatment of impaired sexual desire:

Historically, attempts to treat hypoactive sexual desire disorder typically followed the sex therapy prototype developed by Masters and Johnson in 1970s. However, recently researchers and practitioners have begun to explore concomitant psychotherapies.(21) Some of them are-

- Group therapy in conjunction with orgasm consistency training, which consists of directed masturbation, sensate focus exercises, male self-control and the timing of male orgasm.(22)
- A comprehensive program of multimodal cognitive behavioural approach which entails sexual intimacy exercises, sensate focus, communication skills training, emotional skills training, reinforcement training, cognitive restructuring, sexual fantasy training and couple sex group therapy.(23)
- Multistage treatment approach.(24)
- Affectual awareness training: to identify negative emotions through techniques such as list making, role-playing and imagery.
- Insight and understanding: to educate couples about their feelings using variety of strategies like Gestalt therapy and Transactional analysis.
- Cognitive and systematic therapies are included to provide coping mechanisms as well as to resolve underlying relational problem.
- Behavioural therapy is aimed at initially improving non-sexual affectionate behavior with an eventual goal of introducing mutually acceptable sexual behavior.

Managing erectile dysfunction:

Masters & Johnson approach: This therapy proceeds in three stages. The first stage is called 'non-genital sensate focus' which aims to provide the couple with an opportunity to establish closeness and physical intimacy but no genital stimulation. This is followed by stage II known as 'Genital sensate focus' where stimulation of the genitals is allowed. Final stage is called 'Vaginal containment' in which couples eventually engage in intercourse. However, it has been reported that this technique has not been effective in all cases of erectile dysfunction.(25)

Cognitive strategies: These are based on reinforcement of certain common realities about sexuality. One such approach is acceptance of occasional erectile problems as a normal variation and treating it as a lapse and not a relapse. Another concept is to experience sexuality as "pleasuring play eroticism" i.e. not to be distracted by performance demands and viewing intercourse as natural continuation of erotic flow and not as pass-fail test. Yet another strategy is to view the partner as an intimate friend rather than as a demanding critic for whom he has to perform.(26)

Behavioural strategies: This involves establishment of sensual and erotic scenarios, which acts as transition if arousal does not result in intercourse. Sensual scenarios are pleasure oriented ways of bonding, involving and satisfying both people e.g. being playful and sharing intimacy, lying together and talking. Erotic scenarios are non-intercourse ways of experiencing arousal and orgasm. Ex: mutual oral and manual stimulation. Another helpful approach is to empower the medicated member of the couple to engage in sexual activity with an understanding that he or she can stop the process at any time. Permission to stop, if the intimacy is not experienced as pleasurable, may paradoxically reduce performance anxiety and allow for greater enjoyment. The clinician can suggest that sexual activity can take place during the part of the day when patient feels best and most capable rather than being deferred to late night, when physical and/or emotional exhaustion might pose a further impediment to success.(26)

Pharmacological methods (16,18,26):
Several drugs have been found to be useful for erectile dysfunction. However the major drawbacks in many of them is that they cannot be used on a regular basis and they are not curative

- Nitric oxide enhancers – Sildenafil, vardenafil and tadalafil available as tablets, facilitate penile erection as well as vaginal lubrication within one hour of ingestion. They act by inhibiting phosphodiestrase-5. They are effective in both men and women.
- Phentolamine - It is an orally effective opioid compound, can be useful in mild erectile dysfunction, though not FDA approved. It reduces sympathetic tone and relaxes corporeal smooth muscle.
- Alprostadil – Available as injectable and transurethral form. It contains prostaglandin E1 which is a powerful vasodilator. A firm erection is produced within 2-3 min after intracavernosal injection or intraurethral insertion of a pellet and lasts for about 1 hr.
- Locally applied cream containing a mixture of three vasoactive substances aminophylline, isosorbide dinitrate and co-dergocrine mesylate is found to be effective in two small trials. A cream incorporating alprostadil also has been developed to treat female sexual arousal disorder.
- Trazodone is useful due to its adverse effect of preapism, which is utilized for erectile dysfunction.
- Hormone therapy with testosterone or GnRH and aphrodisiac herbal compounds like yohimbine (alpha adrenergic antagonist), ginseng, Mucuna pruriens, Withania somnifera are also found to be effective when taken for a period of few days to weeks.

Surgical approaches (16,18):

- Male prosthetic devices: A semirigid rod prosthesis provides permanent erection while the inflatable type can be deflated after use.
- Vacuum pumps: These are mechanical devices for patients without vascular disease. Vacuum is created by a ring placed around the base of penis that draws blood and maintains erection. EROS is a similar device for clitoral erection in women.

Other approaches:

(i)For sexual side effects of drugs

- Watchful waiting (27)
- Drug holiday (28,29)
- Switching to alternative drugs (30)

(ii)Risk factor modification (20)

- Minimizing use of other medication known to cause ED
- Alcohol & smoking cessation
- Maintaining tight glycemic control in diabetics
- Regular exercise is found to maintain optimum level of testosterone

Managing premature ejaculation (PE):

i) Traditional techniques

- Squeeze Technique: It is used to raise the threshold of penile excitability. Man/woman stimulates the erect penis until the earliest sensations of impending ejaculation are felt. At this point the woman forcefully squeezes the coronal ridge of the glans, the erection is diminished and ejaculation is inhibited.(25)
- Start – Stop Technique: This variant of squeeze technique was developed by James H. Semans. The woman stops all stimulations of the penis when the man first senses an impending ejaculation. No squeeze is used. (31)

ii) Individual procedures:

- Physiological relaxation training: Quiet focus on breathing, body awareness and muscle relaxation is encouraged. Its purpose is to concentrate on physical sensation and to ease bodily tension. (32)
- Pubococcygeal muscle control technique: It capitalizes on the natural ejaculatory inhibiting effect of relaxing the muscle involved in ejaculation. In this, conscious capacity to relax pelvic muscles and pubococcygeal muscle relaxation is taught while experiencing sexual arousal.(32)
- Pelvic floor rehabilitation training: Physiokinesiotherapy of the pelvic floor, electrostimulation, and biofeedback are the 3 techniques taught here to provoke contractions of the pelvic floor, strengthening the muscles and improving self awareness of motor activity.(33)
- Cognitive and Behavioural pacing techniques (32):
    - Cognitive arousal continuum technique: A thought pacing technique to regulate arousal and inhibit ejaculation by focusing specifically on varying levels of sexually arousing activities. Steps are:-
        1. Identify, observe and distinguish those detailed thoughts (fantasy), actions, feelings, scenarios and sequences that lead to individual's arousal pattern
        2. Make a hierarchy of them based on the understanding of the individual's incremental arousal.
        3. Thereafter during intercourse, individual is better able to regulate his level of stimulation by concentrating on items in order to increase or decrease his level of arousal.
    - Sensual awareness training/Enhancement arousal: PE is said to occur commonly when ones erotic stimuli is outside one's own body, ie typically in the sexual partner. Hence the individual is guided to focus on visual and tactile exploration of his own body. Individual learns to be familiar with his own physical sensation (awareness) and then learn to cognitively and behaviourally orchestrate his sexual arousal.

iii) Couple procedures (32):

- Couple sensate focus pleasuring exercise: This involves homework sessions with the couple relaxing and gently pleasuring each other until the man relaxes physiologically and concentrates on his own physical sensation during gentle stimulation by the partner.
- Partner genital exploration relaxation exercise: Partners become more comfortable and relaxing with mutual exploration, observation and stimulation of each other's own body including genitals.
- Intercourse acclimatization: After vaginal penetration, the man stops movement and rests while the penis acclimates to the internal vaginal atmosphere until reaching a pleasure saturation point.

iv) Medical management (16,18):

1. SSRIs – the adverse effect of retarded ejaculation is a benefit in PE.
2. Thioridazine also impairs ejaculation, hence used in PE.
3. Anxiolytic drugs (Ex: benzodiazepines) to allay anxiety which is most commonly associated with PE.
4. Treatment of primary psychiatric illness where PE is secondary to it will many times also set right PE.

v) Miscellaneous methods:

- The methods like watchful waiting (27), drug holiday (28 29), risk factor modification are all applicable in case of PE too.
- Switching to alternative drug if PE is drug induced.(30)
- Handling 'performance anxiety' with effective counseling and psychoeducation where that is the cause of PE.

Managing Dyspareunia by physical therapy:(34)
Treatment is given through manual or physical means. It includes modalities like therapeutic exercises to desensitize, stretch and strengthen perineal soft tissue and pelvic muscles through Kegels exercise, along with other procedures like relaxation, postural education, and biofeedback.

Management of vaginismus:
Recent researchers have found Cognitive Behaviour Therapy (CBT) useful in the treatment of vaginismus, especially if it is of psychogenic origin. (35,36) CBT strategies mainly consist of –

- Sensate focus- to reduce performance anxiety
- Vaginal dilatation either with the help of instruments or use of self-finger approach to desensitize.
- Cognitive restructuring- to change the dysfunctional thoughts interfering with sexual functioning.

Conclusion:
Sexuality is an integral part of life and sex therapy is an approach to real human problems. A careful assessment into the cause of sexual dysfunction is vital for its successful management. Today a multimodal treatment regimen and an eclectic approach to sexual disorders will result in a favourable outcome in the great majority of cases. Sex therapy be it for libidinal/erectile/ejaculatory problem, is an approach to very real human problems based on the belief that sexuality can be a positive part of life, that relationships can be rewarding and that emotional and physical intimacy is a desirable goal.

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