

REVIEW

Recommendations for the management of premature ejaculation: BASHH Special Interest Group for Sexual Dysfunction

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Summary: We present the British Association for Sexual Health and HIV (BASHH), Special Interest Group for Sexual Dysfunction updated recommendations for the management of premature ejaculation. The recommendations outline the physiology, prevalence, definitions, aetiological factors and patient assessment for this common sexual problem. Behavioural, local and systemic pharmacological treatments are discussed along with general recommendations and auditable outcomes.

Keywords: premature ejaculation, recommendations, management, BASHH

Introduction

Orgasm and ejaculation constitute the final stage of the sexual response in men. There are three basic mechanisms involved in the normal antegrade ejaculation: emission, ejection and orgasm.¹ Ejaculation is a reflex comprising sensory receptors and areas, afferent pathways, cerebral sensory areas, spinal motor areas and efferent pathways (Figure 1). The ejaculation reflex is controlled by a complex interplay between central serotonergic and dopaminergic neurons, with a secondary involvement of cholinergic, adrenergic, nitrenergic, oxytocinergic and GABA (gamma aminobutyric acid)-ergic neurons.² Seminal emission and ejaculation are integrated into the complex pattern of copulatory behaviour by several forebrain and midbrain structures (Figure 1).³

Prevalence of premature ejaculation

Premature ejaculation is one of the most frequently reported sexual dysfunctions seen in clinical practice. Varying rates have been estimated from different populations. A systematic review of 28 studies suggested a prevalence of 15%.⁴ A large representative sample of American men, aged between 18 and 59 years, found that 31% of men admitted to premature ejaculation occurring for at least one month over the past 12 months.⁵ However, a more detailed study in the UK of 5000 16–44-year-old men found that 11.7% said that they had experienced premature ejaculation for at least one month in the past year, but only 2.7% had

experienced the problem for at least six months in the past year, suggesting that the problem affects many men some of the time.⁶ Data from a large observational study show overlapping distributions of ejaculation times in men, who subjectively had premature ejaculation compared with those who were subjectively normal (Figure 2).⁷ A substantial number of men who do not have premature ejaculation have short ejaculation times and conversely some men who complain of premature ejaculation appear to have long ejaculation times. This suggests that other features of premature ejaculation have to be considered, as well as time, i.e. degree of control and distress.

Definition

A universally accepted definition has yet to be established. Masters and Johnson proposed that premature ejaculation is the inability of a man to delay ejaculation long enough for the woman to reach orgasm 50% of the time.⁸ Some authors have defined premature ejaculation as the number of vaginal thrusts the man makes before ejaculation.^{9–11} Clinical studies have used intravaginal ejaculation times as measured by a stopwatch to define premature ejaculation. Standardized inventories may be available in the future, which will generate individual data on the subjective perception of lack of control and associated distress. The DSM IV (American Association of Psychiatrists) define premature ejaculation as: 'persistent or recurrent ejaculation with minimal sexual satisfaction before, or shortly after penetration and before the person wishes'.¹² The disorder should result in

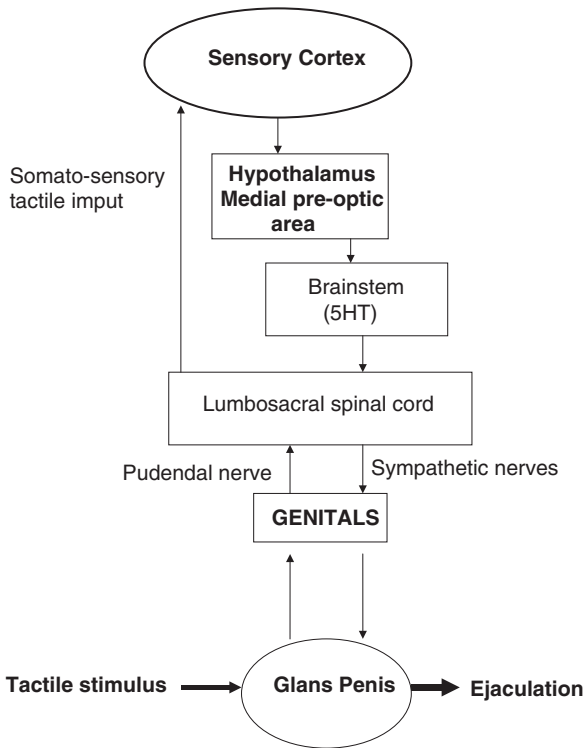


Figure 1 Ejaculation reflex

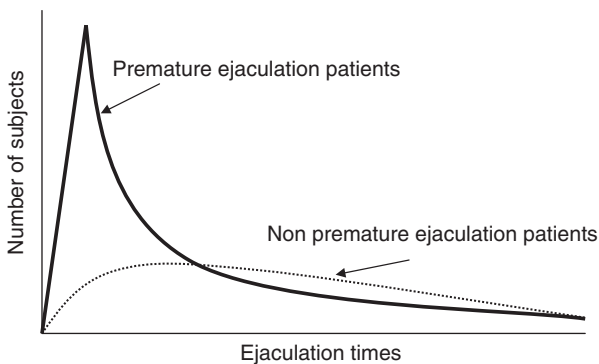


Figure 2 Graphical model of distribution of ejaculation times in men with and without premature ejaculation⁷

marked personal distress or interpersonal difficulties and should not be caused by the direct effect of drugs (e.g. opiate withdrawal). Clinicians are also expected to take into consideration factors such as age, the novelty of the sexual situation or partner and the frequency of sexual activity. Premature ejaculation has been subclassified into primary (lifelong) or secondary (acquired). These guidelines and recommendations are based on the DSM VI definition and assume the absence of partner sexual dysfunction.

Aetiology

The aetiology of premature ejaculation is unclear. Several mechanisms have been proposed. These

can be divided into organic and psychogenic. Proposed organic causes include: chronic prostatitis, neurological disease, pelvic injury, vascular disease, prostatic hypertrophy and hypogonadal hypertrophy.^{3,13-15}

Based on animal and human psycho-pharmacological studies, it has been postulated that lifelong premature ejaculation may be related to changes in central serotonergic neuro-transmission, e.g., 5-hydroxytryptamine (HT)_{2C} receptor hyposensitivity and/or 5-HT_{1A} receptor hypersensitivity.³ An inherited pre-disposition has also been suggested¹⁶ and indeed, in some genitourinary clinics in the UK, it appears that a predominance of men from Islamic/Muslim countries present with premature ejaculation.¹⁷ Men from the Indian subcontinent may present with the 'dhat' syndrome, a culture-bound symptom complex of pre-occupation with excessive loss of semen, weakness, fatigue, sleeplessness, palpitations and hypochondriasis.¹⁸

A number of psychodynamic theories have been suggested along with psychosocial and relationship factors.^{3,19}

Patient assessment

History

This should include a brief but thorough assessment of whether the problem is primary or secondary in nature and any associated personal, social or religious correlates, as well as a brief medical and psychiatric history (including alcohol and illicit drug use). The presence of sexual desire and erectile difficulties should be assessed. It is important to ensure that fast detumescence is in fact not caused by erectile dysfunction. An interpreter may be needed to obtain an accurate history. Specific urinary and prostatitis symptoms should be alluded (Figure 3).

Clinical examination

An assessment of the penis and other sexual characteristics is mandatory, as well as brief general physical and mental state assessments.

Investigations

No special investigations are routinely necessary unless prostatitis is suspected.

We consider that all new patients merit a 30-minute-1 hour consultation time for their first appointment, but accept that this may be difficult due to clinic time constraints.

Treatment

General considerations

The treatment of premature ejaculation should attempt to alleviate concern about the condition

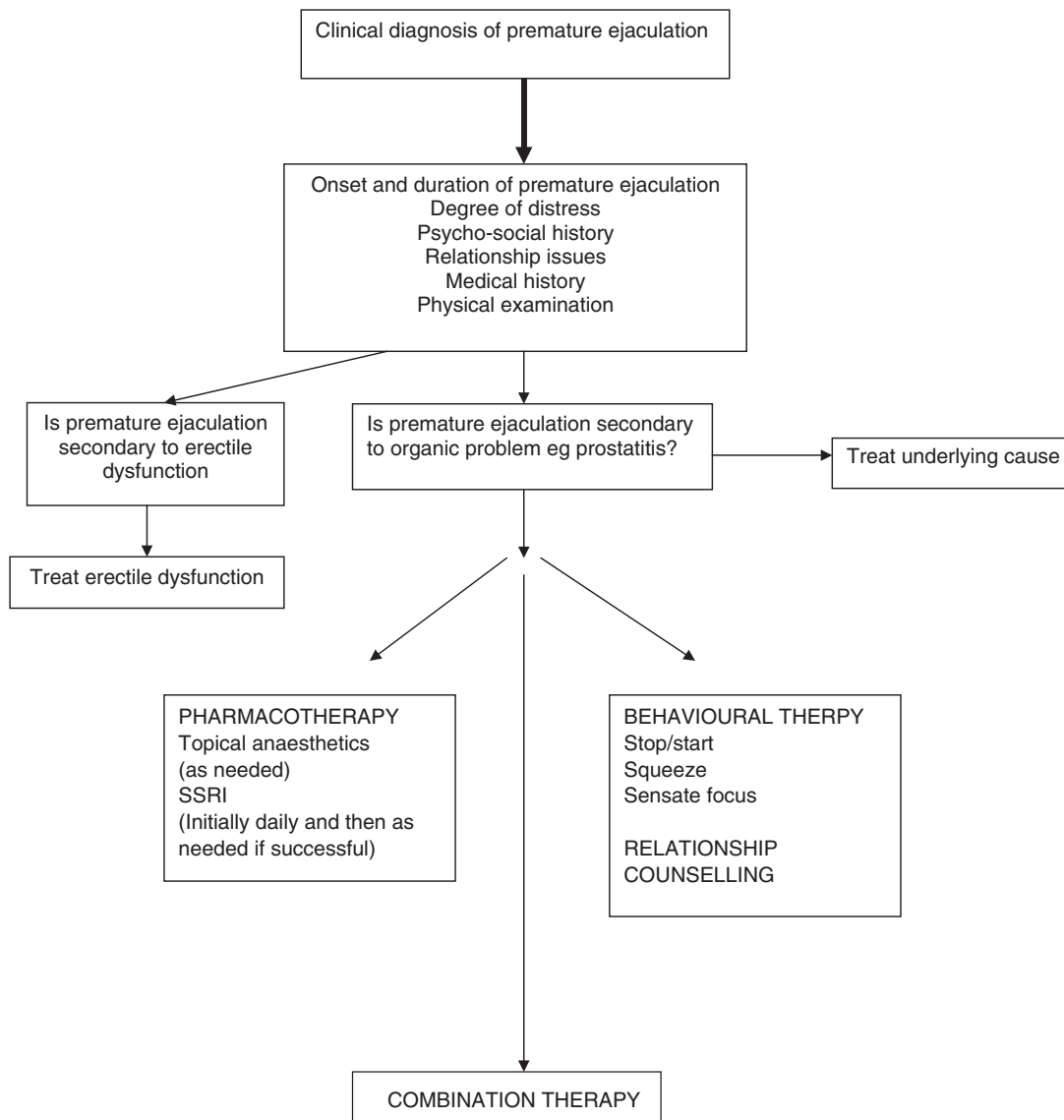


Figure 3 Flow diagram of clinical management of premature ejaculation. SSRI=selective serotonin re-uptake inhibitor

as well as increased satisfaction in the patient and the partner (if he has one). Simple measures such as education, discussion around sexual norms and the facilitation of sexual negotiation between the couple are important. It should be noted that women probably value non-penetrative sexual behaviour more than men.

Specific treatments

Behavioural techniques Formative cognitive behaviour (CBT) may be usefully incorporated into the specific techniques described below.

Squeeze technique: In the squeeze technique, the glans is firmly squeezed between the thumb and the forefingers, at the frenular level until some detumescence results.⁸ This is usually accomplished using one hand, with the index finger and

forefinger being placed dorsally over the glans and distal shaft and the thumb over the ventral subcoronal frenular area. The squeeze is usually accomplished by the diminution of sexual arousal. It should take place before the patient has reached the stage that he feels it is inevitable that he is going to ejaculate. This point may not be discernable to the patient with premature ejaculation, but he usually learns to recognize it with time. A partner usually carries out the squeeze, but the patient may train himself to control the premature ejaculation by undertaking the squeeze himself.

Stop-start technique: A similar end point is reached by merely ceasing penile stimulation at the pre-inevitable point and the restarting penile stimulation when arousal and the erections have subsided.²⁰

Both of these techniques can be incorporated into the sensate focus regime. This is essentially a series

Table 1 Minimum doses of selective serotonin re-uptake inhibitors

Sertraline	50 mg ^{25,35,38,40,43,44}	(Level of evidence: Ib)
Clomipramine	25 mg ^{10,25,30,31,33}	(Level of evidence: Ib)
Fluoxetine	20 mg ^{36,43,46}	(Level of evidence: Ib)
Paroxetine	20 mg ^{25,37,39,41–45,47}	(Level of evidence: Ia)
Fluvoxamine	100 mg ⁴³	(Level of evidence: Ib)
Citalopram	20 mg ⁴⁵	(Level of evidence: Ib)

of graded massage exercises designed to focus on touch in a non-judgemental approach. An initial ban is put on intercourse and the touching of erotic zones in order to eliminate performance anxiety. There is a gradual re-introduction of erotic massage, vaginal penetration and finally penetrative intercourse. These behavioural techniques may take up to 3–6 months to achieve significant changes.

Masters and Johnson reported an initial success rate of greater than 95% in the treatment of premature ejaculation using the squeeze technique.⁸ Less biased surveys indicate initial success rates of about 60%.^{21–24} (Table 2: IIb) Most of the initial treatment gains appear to be lost over follow up with time.

There is one study comparing behavioural therapy with pharmacological therapy. This compared the stop-start technique with clomipramine 25 mg, sertraline 50 mg, paroxetine 20 mg, sildenafil 50 mg, daily in a crossover design. The intravaginal ejaculation times were significantly greater with sildenafil and paroxetine as compared with behavioural therapy (Table 2: Ib).²⁵

Pharmacotherapies

None of the pharmacotherapies discussed below are licensed in the UK or by the FDA in the United States; however, there is evidence for their use.

Local therapies Locally applied EMLA cream (prilcaine–lidocaine) or lidocaine ointment applied to the frenular area of the penis, 15–30 min before intercourse (but wiped off before sexual contact), can produce useful effects in slowing ejaculation.^{26,27} (Table 2: Ib) We recommend a 'pea'-sized amount of the cream be applied to the frenulum before sexual intercourse. The amount may need to be titrated by the patient to gain the best effect. The most frequently reported side-effects are: penile numbness, local irritation

and erectile dysfunction. SS cream is a Korean herbal extract containing extract of toad. There is evidence that this also has ejaculation-retarding effects, although this is neither available nor licensed in the UK^{28,29} (Table 2: Ib).

Systemic therapy Tricyclic antidepressants, selective serotonin re-uptake inhibitors (SSRIs), alpha-blockers and phosphodiesterase-5 (PDE5) inhibitors have all been used in controlled clinical trials. There is good evidence that clomipramine (an atypical tricyclic antidepressant) inhibits ejaculation effectively (Table 2: Ib),^{25,30–34} although its efficacy is hampered by side effects.^{25,34} Paroxetine, fluoxetine, sertraline, fluvoxamine and citalopram have all been investigated in controlled trials and found to be effective (Table 2: Ib).^{35–46} A large meta-analysis has suggested that paroxetine is the most effective SSRI at inhibiting ejaculation (Table 2: Ia).⁴⁷ The trials within this meta-analysis all had differing definitions and clinical endpoints. Alpha blockers have been shown to be effective in the treatment of premature ejaculation in two studies (Table 2: Ib).^{44,48} PDE5 inhibitors have been used, however the precise mechanism for their action in men with premature ejaculation is unclear.^{25,35,41} There is no evidence that the effects of any of these drugs continue following their cessation. The safety of systemic antidepressants has recently been questioned and therefore must be used with caution.⁴⁹ As needed, SSRIs have been used successfully (Table 2: Ib).^{10,25,31,33,35,39} Doses of antidepressants should be kept to a minimum to avoid unwanted side effects. Minimum doses used in trials shown to be efficacious are shown in Table 1. It has been suggested that, for men with very short ejaculation times (<1 min), only daily SSRIs will be successful; and that as-needed SSRIs, anaesthetic creams and behavioural therapy will not work (Table 2: IV).⁵⁰ Management of premature ejaculation is summarized in Figure 3.

Other therapies Physiotherapy, namely pelvic floor exercises (kegel exercises), have been used anecdotally, although there are formal trials published to date (Table 2: IV).⁵¹

Recommendations

- The diagnosis of premature ejaculation is from clinical history based on the DSM IV.

Table 2 Level of evidence

Ia	Evidence obtained from meta-analysis of randomized controlled trials
Ib	Evidence obtained from at least one randomized controlled trial
Ila	Evidence obtained from at least one well-designed controlled study without randomization
Ilb	Evidence obtained from at least one well-designed quasi-experimental study
III	Evidence from well-designed non-experimental studies such as comparative studies, correlation studies and case studies
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities

- In men with concomitant erectile dysfunction, the erectile dysfunction should be treated first.
- The risks and benefits of all treatment options should be discussed with patients prior to any intervention. Patient and partner satisfaction is the primary outcome target.
- Use of SSRIs must be with caution. Minimum doses should be used on a daily basis initially and then as needed if successful.
- Management of patients should be decided on a case-by-case basis: an eclectic approach should be adopted (Figure 3).
- Patients should be aware that pharmacological treatments for premature ejaculation are not licensed uses of these products.

Auditable outcomes

All patients with premature ejaculation must have a full history (including sexual history) and clinical examination.

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