Latest thinking on paruresis and parcopresis

A new distinct diagnostic entity?

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Background
Paruresis and parcopresis are psychogenic conditions that involve a difficulty or inability to void or defecate, respectively, in a public setting (eg public restroom). Both conditions are associated with significant psychological distress. As a result of shame, embarrassment and stigma, individuals with these conditions may not actively identify behaviours or symptoms or seek treatment in general practitioner (GP) consultations.

Objective
The objective of this article is to provide a summary of the associated psychopathology and comorbidity, and diagnostic challenges associated with paruresis and parcopresis. Treatment recommendations relating to paruresis and parcopresis are also provided.

Discussion
Paruresis and parcopresis can have a significant impact on an individual's psychological health and overall quality of life. GPs play a part in identifying these conditions, defusing feelings of shame and embarrassment, and enabling access to psychological interventions, which are likely to provide significant benefits to individuals living with paruresis and/or parcopresis.

PARURESIS refers to the difficulty or inability to initiate or sustain micturition where individuals are present (eg a public restroom) because of overwhelming fear of perceived scrutiny.[1] Paruresis reportedly affects between 2.8% and 16.4% of the population.[2] Paruresis tends to be more prevalent in males (75–92%) than females (8.1–44.6%), which may be due to anatomical differences between male and female genitourinary systems.[2]

A closely related condition is parcopresis, which refers to the difficulty or inability to defecate in public restrooms because of overwhelming fear of perceived scrutiny.[3] Little is known about parcopresis and prevalence of this condition has yet to be confirmed.[2] In the one case study that has been published on this condition, parcopresis has been noted to share similar characteristics with paruresis whereby there is overlap in symptomology.[3]

Key clinical features that paruresis and parcopresis patients may present with include the complaint of significant difficulty or inability to urinate or defecate in public facilities.[1] Consistent with anxiety, patients may also report avoidance behaviours and psychosomatic symptoms such as diaphoresis, tachypnea, heart palpitations, muscle tension, blushing, nausea and trembling, which occur during moments of heightened arousal (eg being inside a busy restroom).[1,3,4]

As a result of feelings of shame, embarrassment and a perceived stigma associated with paruresis and parcopresis, patients may be reluctant to identify and seek treatment for these conditions. General practitioners (GPs) play a critical part in identifying risk factors (eg psychological comorbidity, and family history of paruresis),[1] and helping patients to discuss and identify options to address these conditions.

Associated psychopathology and comorbidity

Paruresis and parcopresis are psychologically distressing as these conditions result in interpersonal, occupational and social impairment, and reduction in quality of life.[1,4] Symptoms can range from very mild and inconsistent[5] to severe and sustained where individuals with paruresis refrain from socialising or travel, and avoid leaving their homes.[6] A study by Vythilingum et al[4] involving 63 individuals with paruresis found that 38.1% limited or avoided travel, 33.5% avoided dating and 15.9% reduced or avoided drinking fluids. Patients with paruresis were also reported to turn down job offers (50.8%), limit their occupation (55.6%), and hide their condition from partners (25.4%), friends (58.7%) and family (44.4%). Similarly, parcopresis has been associated with avoidance of public and social situations.[3]

The inability to initiate or sustain micturition or defecation is underpinned by an overwhelming fear of scrutiny[2] – a fear commonly associated with social anxiety disorder (SAD). Past research has argued that paruresis should be classified as a subtype of SAD because of overlap in symptoms[1,4] and the primarily socially anxious disposition of those with paruresis (eg avoidance strategies, overwhelming fear of negative evaluation).[3,7,8] Nevertheless, paruresis and SAD are likely to be two distinct conditions, as patients with paruresis do not

necessarily present with comorbid SAD (approximately 5.1–22.2% of individuals with paruresis also had comorbid SAD).[2] Similarly, parcopresis is likely to be a distinct condition rather than a form of SAD. Proposed criteria for paruresis and parcopresis, based on the work of Deacon et al[9] and Knowles and Skues,[10] is published in Kuoch et al.[2]

Psychological comorbidity in patients with paruresis is common, with 22.2% identified as having major depressive episodes, 14.3% alcohol abuse disorder, 7.9% alcohol dependence disorder, and 4.8% with obsessive compulsive disorder.[4] Rates of psychopathology are currently unknown in patients with parcopresis, but individuals with parcopresis have been reported to have similar psychological comorbidities to those afflicted with paruresis.[3]

Although research in this area is limited, the psychogenic nature of paruresis and parcopresis has been explored. In a recent study involving 254 respondents (74% female; mean age = 31.67 years), it was identified that greater paruresis and parcopresis symptoms were associated with a propensity towards dysfunctional attitudes, where there is a tendency to think negativity of oneself or be seen negatively by others (eg 'If I fail at my work, then I am a failure as a person').[11] Further, it was found that a fear of evaluation mediated the relationship between dysfunctional attitudes and symptoms of paruresis and parcopresis. These findings are consistent with past research identifying the central role of fear in paruresis and parcopresis.[1,4,8] Like other anxiety-based conditions, paruresis and parcopresis are associated with avoidance behaviours,[3] which are likely to reinforce dysfunctional attributes and fears of future evaluations, and exacerbate distress. Further, given that paruresis and parcopresis have been exhibited to be highly correlated with each other,[11] this suggests that patients with one condition may also be afflicted with the other.

Diagnostic challenges

Patients presenting with suspected paruresis or parcopresis should be examined for anatomic or physiologic abnormalities prior to a diagnosis of paruresis and/or parcopresis being made. Given the complexities of urinary and gastrointestinal functioning, collection of a thorough history, physical examination and use of appropriate investigative and diagnostic assessment should be conducted to rule out disorders of organic aetiology and allow for accurate diagnosis and initial management.[12]

Clinicians should also be cognisant of potential differential diagnoses whereby other urinary and/or gastrointestinal conditions share similar signs or symptoms with paruresis or parcopresis. For instance, dysfunctional voiding (DV) has been noted to share similar symptoms with paruresis as both conditions involve urinary retention in the absence of anatomic, obstructive, infectious or neurologic pathology.[5] However, unlike DV, paruresis is isolated to unfamiliar or busy public restrooms.[2] Likewise, inability to defecate in gastrointestinal conditions, such as constipation, is differentiated from parcopresis by not being restricted to only occurring in unfamiliar or busy public restrooms.

At the current time, the *Diagnostic and statistical manual of mental disorders* (DSM-5) identifies paruresis as an example of SAD.[13] However, a recent systematic review found that paruresis and SAD are likely to be two distinct conditions as individuals who present with paruresis do not necessarily present with comorbid SAD (approximately 5.1–22.2% of individuals with paruresis also had comorbid SAD).[2] Parcopresis is yet to be classified in the DSM; however, like paruresis, it is likely to be a distinct condition rather than a form of SAD. Based on the current research, while it is likely that a minority of individuals presenting with either or both of these conditions will meet criteria for mental health disorders such as SAD, the majority are likely to better meet criteria for a specific phobia. A case presentation of paruresis and parcopresis follows.

CASE: PRESENTATION OF PARURESIS AND PARCOPRESIS

A man aged 31 years presented to his GP with a 10-year history of increasing difficulty with initiating and sustaining micturition and defecation. His symptoms included difficulty voiding and defecating in public restrooms, along with rapid heartbeat, excessive sweating, muscle tension and trembling when trying to void or defecate. The patient reported that symptoms did not occur in his own home, except when friends or family members were close by when he was in the restroom. As a result of his anxiety, the patient reported avoiding work, social and public situations (eg shopping centres) when he believed that there was a potential to need to use a restroom. As a result of his anxiety, the patient restricted fluid intake and altered his dietary habits to decrease the likelihood of needing to use the restroom in public. The patient also engaged in significant avoidance strategies, which has led to an increasingly isolated and debilitating existence. The primary concern reported by the patient was a fear that people would see/hear him urinate or defecate. The patient reported no other psychological worries or concerns.

Upon excluding organic causes for his difficulty to void and defecate, and ruling out other mental health disorders (eg SAD, post-traumatic stress disorder [PTSD]), the GP diagnosed the patient with simple phobia (paruresis and parcopresis). While not a diagnostic test, the patient's scores from the Shy Bladder and Bowel Scale (SBBS) were 3 and 3.5 out of 4 on the paruresis and parcopresis subscales, respectively. These scores are consistent with those of individuals who have been diagnosed with paruresis and parcopresis.

The patient was referred to a psychologist who provided 20 sessions of cognitive behavioural therapy. The focus of these sessions included psychoeducation (educating the patient about how anxiety influences bladder and bowel function), stress/anxiety management (breathing retraining) and cognitive restructuring (reappraising unhelpful thoughts the patient may have regarding voiding and defecation). A key focus of the intervention was engaging in gradual exposure activities (exposing the patient to increasingly anxiety-provoking situations to allow for a habituation or extinction

response to occur). The engagement of these tasks led to significant changes in both confidence and ability to urinate and defecate in public restrooms. In addition, safety behaviours were also identified (eg avoid water and food intake >12 hours prior to a social event) and gradually eliminated based on a collaborative approach. The sessions ended with the patient reporting feeling more able to use public restrooms and SBBS scores of 1 and 1.5 out of 4 on the paruresis and parcopresis subscales, respectively.

Treatment recommendations

Given the psychogenic nature of paruresis and parcopresis, psychological interventions are likely to be the first line of treatment. Although clinical trials have yet to be undertaken, cognitive behavioural therapy (CBT) is likely to be helpful given its known efficacy in treating other anxiety-based conditions (eg SAD, specific phobias).[14] As identified above, paruresis and parcopresis are associated with dysfunctional attitudes and thinking patterns (eg fear of perceived scrutiny from others).[15] CBT has been shown to be efficacious at identifying and attenuating these negative thinking patterns,[16] leading to reductions in anxiety symptomology. Further, the use of graded exposure work associated with CBT is also likely to be helpful in addressing the perpetuating impact of avoidance as typically seen in paruresis and parcopresis presentations.

In one case report, a patient presenting with a 10-year history of paruresis exhibited reduced symptom severity on completion of a 10-week CBT program, whereby they were able to regularly use public restrooms one month post-intervention.[17] During treatment, clinicians employed techniques including psychoeducation (eg education on physiological effects of anxiety on bladder function), cognitive restructuring (eg reappraisal of unhelpful thoughts) and in-vivo exposure (eg exposure to busy restrooms).[17] CBT was similarly administered to a patient presenting with an eight-year history of parcopresis, resulting in partial clinical improvement of symptoms.[3] Other psychologically focused strategies such as stress management, including mindfulness, may also promote more adaptive emotion regulation and in turn a lessening of anxious arousal. Pharmacotherapy may also be appropriate as an adjunct. In one case study, gabapentin was reported to improve paruresis symptom severity.[18] Similarly, adjunctive treatment with selective serotonin reuptake inhibitors (SSRIs; paroxetine 40 mg) was noted to reduce paruresis and parcopresis symptom severity when delivered alongside CBT intervention.[3] Despite the reported efficacy of medication, psychotherapy is considered the best intervention for paruresis and parcopresis until further clinical trials are investigated.[1]

Summary

Paruresis and parcopresis are anxiety-based conditions that cause significant psychological, interpersonal, occupational and social impairment. Although the prevalence of paruresis has been reported to range between 2.8% and 16.4%, the prevalence of parcopresis is presently unknown. It should also be noted that paruresis is likely to be comorbid with parcopresis as these conditions have been observed to be highly interrelated. As a result of stigma and a perception that symptoms are embarrassing, patients hesitate to raise paruresis and parcopresis issues with their clinicians and may choose not to disclose. Given this, GPs play a critical part in identifying risk factors and helping patients to discuss and identify treatments to address these conditions. While there is a lack of strong evidence-based research relating to diagnostic criteria and management strategies for these conditions, once physical abnormalities are excluded, if anxiety symptoms are present and not consistent with other differential diagnoses (eg SAD, PTSD), the most appropriate diagnosis is likely to be that of a simple phobia. Currently, any psychological treatments are likely to be generic and at this stage best focused on addressing the anxiety-associated thoughts and avoidance behaviours commonly seen in individuals experiencing a specific phobia.

Key points

- Paruresis and parcopresis are psychogenic conditions (ie phobias) that involve a difficulty or inability to void or defecate in a public setting.
- While clinical trials are lacking, psychological-focused intervention, such as CBT, is likely to provide the most benefit.

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