CASE REPORT

Integrating Medical and Islamic-based Psychoeducation In the Management of Pituitary Microadenoma and Hypersexual Behaviour in an Adolescent

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ABSTRACT

Pituitary microadenoma in adolescents may present with complex behavioural and psychological symptoms that require holistic and culturally informed care. This case report presents a multidisciplinary approach to manage persistent engagement in sexually explicit online content in a late-adolescent girl diagnosed with pituitary microadenoma. While medical treatment stabilised her hormonal imbalance, persistent sexual preoccupation and emotional distress necessitated tailored psychiatric intervention. A novel component of her care involved integrating Islamic-based psychoeducation into conventional therapy, focusing on spiritual coping and spiritual reflection. This culturally congruent, patient-centred approach provided effective coping strategies for managing excessive sexually related thoughts and psychological distress. The intervention led to improved mood regulation and social functioning, demonstrating the value of combining medical, psychological, and faith-informed care in addressing complex adolescent presentations.
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INTRODUCTION

Pituitary adenomas account for less than 3% of supratentorial tumours in paediatric populations, and they are significantly rare (1). Clinically apparent pituitary adenomas are found in approximately 1 in 1100 individuals (2). The presenting symptoms are predominantly related to endocrine dysfunction rather than the mass effect of the tumour (1). Complications of pituitary adenomas include hormone excess syndromes, which may result from the compressive effects of the tumours (2).

This case report describes a multidisciplinary approach to treating an adolescent girl with a pituitary microadenoma and frequent engagement with explicit online content that disrupted her academic functioning. The patient's psychological distress was managed through Islamic-based psychoeducation, emphasising spiritual coping within a religious framework. This integrated approach enhanced behavioural and emotional well-being, highlighting the value of combining medical care with culturally sensitive interventions. Such a model is particularly relevant in Muslim-majority settings, where similar cases may be underreported due to sociocultural stigma.

CASE PRESENTATION

A girl in her late adolescence, who has a history of central precocious puberty (CPP) secondary to a PM, presented for psychiatric evaluation due to low mood and excessive sexual thoughts. She was referred by her endocrinologist during a routine follow-up after her parents raised concerns about her escalating pornography use over the past year. The patient exhibited excessive preoccupation with pornography, resulting in her expulsion from her boarding school. The patient reported persistent same-gender sexual fantasies, accompanied by frequent

masturbation and daily consumption of explicit material. These behaviours contributed to emotional distress and significantly impaired her academic functioning.

The patient disclosed a preference for female partners, which she had kept from her mother out of fear of rejection. Her mother's frequent comparisons to peers and relatives, particularly regarding academics, were perceived as critical, contributing to the patient's emotional distress. Although her father was physically present, he had a limited emotional role, often deferring parenting responsibilities to her mother.

The patient reported occasional romantic fantasies involving female peers but denied interest in males. She did not self-identify as lesbian or bisexual, expressing ongoing confusion about her sexual identity. She felt uncomfortable around male classmates and avoided interacting with them due to fear of teasing. She also disclosed a past same-sex relationship with an adolescent from another state, which lasted five months and ended before presentation, though its emotional impact persisted. Additionally, the patient faced bullying related to her sexual orientation, resulting in social isolation. Her peers' refusal to collaborate on group assignments further deepened her sense of alienation.

Physical examination revealed a well-developed adolescent female with secondary sexual characteristics, consistent with a Tanner Stage IV profile. Her body mass index (BMI) was 24.5 kg/m . Mental state examination revealed that she was cooperative and emotionally reactive. A formal cognitive assessment using the Wechsler Intelligence Scale for Children indicated average intellectual functioning (Full-Scale IQ: 91).

Psychiatric evaluation led to a diagnosis of Persistent Depressive Disorder, exacerbated by ongoing social and familial stressors. Depressive symptoms (including low mood, anhedonia, insomnia, poor appetite, and impaired concentration) had persisted for two years, with notable worsening over the past two weeks. Contributing factors included sexual preoccupation, frequent pornography use, and difficulties related to social acceptance.

The patient experienced menarche at age six, with regular cycles beginning at 11. She was diagnosed with central precocious puberty (CPP) secondary to a pituitary microadenoma at age six. Brain MRI revealed a 1.0 Ч 1.2 Ч 0.8 cm lesion mildly indenting the optic chiasm. Hormonal evaluations were mostly normal, except for mildly elevated prolactin levels attributed to the adenoma.

CPP was treated with monthly Triptorelin injections for five years, effectively stabilising pubertal progression and bone age. Treatment ended after seven years, and annual MRI surveillance has shown no hormonal or anatomical recurrence.

She was started on sertraline, which was titrated to 75 mg daily. She underwent psychological intervention aimed at developing coping skills, enhancing emotional regulation, and managing sexual behaviour. Family involvement was key in psychoeducation sessions aimed at promoting supportive communication over judgment.

Islamic-based psychoeducation was introduced as a supportive tool, with the patient's full participation and informed consent. The aim was not to suppress her sexual orientation but to help manage psychological distress within a framework that the patient herself valued and grounded in the universal values in Islam. It was introduced only upon the patient's interest and designed to reduce guilt and emotional distress, not enforce heteronormativity. This included teachings on spiritual coping, spiritual reflection, modesty, and the importance of spiritual practices such as daily prayers and Quran recitation. The patient was encouraged to redirect her emotional energy toward positive activities aligned with Islamic principles, such as engaging in physical exercise, participating in community activities, and fostering deeper spiritual connections. These practices were designed to help manage her excessive sexual thoughts.

The therapeutic process adopted an eclectic, flexible framework that combined psychoeducation, cognitive reframing, and spiritual reflection. Rather than adhering to a rigid protocol, the sessions were guided by the patient's needs and clinical progress, allowing for the integration of evidence-based and faith-oriented elements. This intervention offered a safe, nonjudgmental space for the patient to explore and reflect on her feelings. The therapist maintained clinical neutrality, avoided moral directives, and used shared decision-making to ensure the approach aligned with the patient's psychological readiness and belief system.

Over time, the patient showed gradual improvement in her depressive symptoms. Her mood became more stable, and she reported a reduction in hypersexual thoughts and behaviours. The frequency of sexual thoughts reduced based on self-report from "daily" to "occasional". Despite ongoing tension with her mother, improved communication and mutual understanding helped ease the patient's symptoms. Her academic performance and social engagement also improved.

DISCUSSION

Pituitary adenomas are classified by size into macroadenomas and microadenomas (<10 mm) (2). In paediatric patients, they may have a genetic basis and can occasionally present as part of a broader syndromic condition (1). This case report outlines a multidisciplinary approach to manage problematic sexual behaviour in a girl with a history of pituitary microadenoma (PM)

and central precocious puberty (CPP). CPP involves the early activation of the hypothalamic-pituitary-gonadal axis, leading to premature development of secondary sexual characteristics; in this case, attributed to PM. Early exposure to sex hormones may accelerate sexual maturation and preoccupation, especially in emotionally vulnerable settings. PM can contribute to this through associated hormonal excess syndromes (2).

This case report also presents an integrated approach to manage a girl with persistent engagement in sexually explicit online content. Unregulated sexual urges may lead individuals to engage in harmful behaviours (3). Besides, adolescents who are sexually active often face a range of psychosocial challenges, including depression (4). Although previous interventions aimed at preventing premarital sexual activity have largely focused on health and psychological factors, they have not succeeded in reducing the incidence of such behaviour, particularly among Muslim youth (5). This failure suggests a need for a more culturally sensitive approach, particularly in Muslim-majority contexts (4).

Psychological approaches are more effective in reducing premarital sexual activity when integrated with religious guidance (5). A well-designed sexuality intervention should address key concepts such as human development, communication, sexual health, societal influences, and culture (4). In Islam, sexual desire is acknowledged as a natural urge, but it must be regulated through modesty, self-discipline, and adherence to religious principles (3). Islam emphasises managing sexual urges by avoiding explicit stimuli and engaging in physical activities (3). Integrating these religious perspectives into psychoeducation addresses the spiritual dimension of individuals, enhancing their self-regulation (5). This approach is particularly relevant in contexts where religious beliefs are central to personal values.

The novelty of this intervention lies in integrating culturally adapted psycho-religious support with standard psychiatric care to address the complex interaction of medical issues, emotional dysregulation, and internalised distress related to sexual concerns in a Muslim adolescent. Practically, the therapeutic process combined cognitive-behavioural strategies with psycho-spiritual reflection, focusing on the themes of repentance, forgiveness, and personal growth. This balance between faith-based reassurance and evidence-based techniques allowed the patient to manage intrusive sexual thoughts without internalised guilt or moral distress, while promoting emotional stability and self-acceptance (Figure 1). With a supportive religious framework, Muslim youth may be better equipped to regulate their sexual behaviour (5). Moreover, psycho-religious intervention has been shown to reduce depressive symptoms, particularly in female students (4). Following Islamic teachings on managing sexual

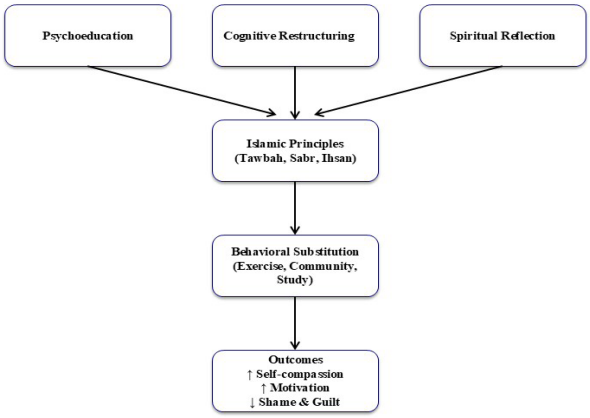

Figure 1: Culturally Adapted Psychoeducation Model Integrating Islamic Principles in Adolescent Psychiatric Care

urges can foster emotional and spiritual well-being and contribute to a more fulfilling life (3). Thus, incorporating psycho-religious interventions is essential for reducing risky sexual behaviours and alleviating psychological symptoms among adolescents (4).

Moreover, psycho-religious elements were introduced with the patient's consent, aiming to support her spiritual well-being without imposing heteronormative views. Addressing same-gender attraction in religious and cultural contexts requires a balanced, non-coercive approach. In this case, the therapist maintained an open, exploratory stance that allowed the patient to express herself without judgment. Therapy combined evidence-based methods with faith-informed support that resonated with the patient. While Islamic-based psychoeducation can be beneficial for Muslim clients, it may not suit all individuals and could risk disengagement if not aligned with personal beliefs. Therefore, such interventions must be patient-led, voluntary, and rooted in clinical evidence. Striking this balance is vital to ensure both ethical integrity and therapeutic effectiveness in culturally adapted care.

CONCLUSION

To our knowledge, this is one of the few documented cases of an adolescent with a rare neuroendocrine condition and sexual distress managed through an integrated model of psychiatric care and culturally adapted psychoeducation. This personalised approach helped reduce hypersexual behaviour, improved psychological well-being, and aligned treatment with religious values, promoting a balanced path to overall health.

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