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Etiological factors and treatment challenges in an adolescent male with body dysmorphic disorder: A case report

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Abstract

There are very few existing reports in adolescents about the clinical presentation and treatment challenges associated with body dysmorphic disorder coexisting with suicidal behaviour. This case report describes a 13-year old male with body dysmorphic disorder, who was completely convinced that his belief related to the disorder is true (delusional belief) and therefore had no insight into his condition. His preoccupation with the shape of his nose progressed significantly over a 2-year period to the extent that he wore a surgical mask on a daily basis to camouflage the perceived defect. The distress due to the persistent preoccupation and intrusive thinking became so severe that he started to experience suicidal ideation and attempted suicide twice with no harm sustained. This case report focuses on three treatment challenges faced by the treating team: the need of continued treatment with pharmacotherapy and psychotherapy following a cosmetic procedure, the impact of the mother's preoccupation with her physical appearance on the recovery of the young person, and the management of suicidality. We have also highlighted the probable causative factors of the development of the illness in this patient which are consistent with the established aetiology of body dysmorphic disorder.

Keywords

Adolescent psychiatry, body dysmorphic disorder, suicide, case report

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Introduction

The condition, body dysmorphic disorder (BDD), was first described in 1891 by an Italian Physician, Enrico Morselli, who used the term 'dysmorphophobia' to describe an illness in which individuals with a normal appearance or mild imperfections are almost entirely convinced that they have major ugly physical defects that are noticeable by others.[1] BDD, classified in the new chapter of the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM*-5) under Obsessive–Compulsive and Related Disorders, is characterised by discomforting or impairing preoccupation with one or more perceived defects or flaws in appearance that are not observable or appear only slightly to others causing significant distress in functioning.[2] At some point during the illness, repetitive behaviours or mental acts are performed in response to the appearance concerns (e.g. mirror checking, excessive grooming, skin picking, comparing with others).[2]

The onset of BDD commonly begins in adolescence with a point prevalence of 0.7%–2.4% in the general population making it more common than anorexia nervosa and schizophrenia.[3–5] Furthermore, it is significantly more common in patients with rhinoplastic surgery (20.1%) and cosmetic surgery (13.2%).[6] We also know that around 80% and 44% of adolescents with BDD have had a history of suicidal ideation and attempted suicide, respectively.[7] Despite the above alarming statistics, BDD often goes unrecognised and undiagnosed in clinical settings.[4] The case reported here is, to the best of our knowledge, the first reported about an adolescent male with BDD and suicidal behaviour who had a first-degree family relative with a history of preoccupation with physical appearance and cosmetic procedures on the nose and face. This study was

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approved by the ethics committee and Institutional Review Board of Hamad Medical Corporation (MRC-04-20-227), and the written informed consent was obtained from the patient and his guardian. In our case, the patient's mother was his legal guardian (person with parental responsibility).

Case history

A 13-year-old high-school student presented to the Paediatric Emergency Centre in the company of his mother having attempted two suicidal attempts in less than 24 h 2 days prior. The medical team admitted him to the emergency department pending an assessment by the local Child and Adolescent Mental Health Service (CAMHS).

During the assessment, relevant history and collateral information were obtained from the patient and his mother, respectively. The patient reported feeling frustrated with the physical appearance of his nose over the preceding 2 years and stated that he could not cope with the distress anymore compelling him to try ending his life through overdosing on anti-diabetic medication of his grandmother 2 days ago. He stated that he experienced no physical symptoms suggestive of any obvious medical complication when he woke up from sleep the following day. After a few hours of waking up, he tried to hang himself outside their house with a self-reinforced plastic ligature and a hook, but this did not work anymore, as the ligature snapped. He disclosed this information to his mother 2 days later which prompted his presentation to the emergency department.

The patient was wearing a surgical mask covering his nose throughout the assessment by the CAMHS and refused to take it off. Both the patient and his mother reported that he had been struggling with the appearance of his nose for almost 2 years and his preoccupation with his nose got progressively worse around 8 months ago to the extent that he started wearing a surgical mask to camouflage his nose from others and also to avoid looking at it himself. The patient reported wearing the mask on a daily basis even while taking a shower to avoid looking at his nose in the mirror due to the feelings of distress triggered by his concerns related to his nose.

He was so preoccupied with concerns related to the appearance of his nose that he asked the assessing team to arrange a surgical procedure for him, stating that he had come to the hospital with the hope that he would undergo a cosmetic procedure before being discharged. He admitted to experiencing obsessional, distressing thoughts about his nose and had poor insight into the possibility of association of his symptoms with a mental disorder, that is, BDD. He reported no significant persistent difficulties with his mood, appetite and sleep. There were no other abnormalities in the content of his thoughts and neither were any abnormal perceptions reported. There were no clinical features of a mood disorder or psychotic illness. He also denied current suicidal ideation and planning and was remorseful about the recent attempts of suicide.

The past history was significant in the sense that he had suffered significant bullying at the start of his primary school years. According to him, the bullying mainly involved other pupils ridiculing him about his weight and the shape of his nose and this continued for almost 3 years. He was slightly overweight for his age and height at that time and stated that the bullying stopped once he started to lose weight due to restriction of intake of food and purging. He went through a period lasting about 1 year during which he became quite preoccupied with his weight and body image and lost significant weight (almost 10 kg) through various compensatory behaviours. His weight never dropped to a level where he could meet a diagnosis of anorexia nervosa. The description of his eating difficulties was more consistent with an atypical eating disorder. He reported that the issues related to his weight subsided in 2017 (aged 11 years), but a few months later followed the emergence of his preoccupation with the appearance of his nose. He denied any current concerns related to his weight or body image (except his concern regarding his nose) and had a body mass index value of 22.

Interestingly, the mother also reported having a preference for improving her physical appearance and admitted to having undergone cosmetic procedures on her nose and cheeks in the recent past. However, she was convinced that the explanation for her attitude towards her own appearance has always been a 'normal' one rather than something that starts to affect an individual's daily thinking and functioning, referring to the illness of her son. While comparing, she stated that she has never been bothered about her physical appearance to that extent, never tried to camouflage any part of her body, and did not have any cosmetic procedures until recently. However, she could understand the impact of her attitude and its open expression in front of other family members, including her son, on the course of his illness.

The patient and his mother were provided comprehensive psychoeducation about the likely diagnosis of BDD and the need of combination treatment – fluoxetine and cognitive behavioural therapy – was also explained. They were advised that employing cosmetic procedures to manage BDD is counterproductive and not recommended. Although the patient seemed somewhat disappointed at not having a cosmetic procedure, he seemed willing to engage with our team and adhere to the recommended treatment plan on discharge from the hospital. He was therefore initiated on a trial of fluoxetine on discharge from his 5-day inpatient stay at the hospital with a view to be seen in the CAMHS outpatient clinic in the community after a week.

The patient attended his scheduled appointment at the CAMHS outpatient clinic a week later and surprisingly came without a mask. The treating team was hoping to be told that it was due to a reduced level of preoccupation possibly due to the initiation of fluoxetine but to the contrary the patient and his mother stated that he had undergone a cosmetic procedure in a private practice the day after discharge from the hospital. According to them, this was a 'filling' procedure which involved a substance being injected to make his nose more prominent and that the effects were expected to last for 2 months following which he would have another treatment

session, the effects of which would last for 6 months. He stated that he would continue to have the treatment every 6 months until he turns 18 years of age at which point he would get a permanent surgery done on his nose. He did not report any distressing thoughts or any other abnormal thoughts during the appointment.

The treating team had a detailed discussion with the patient and the mother expressing concerns regarding interference with the recommendations and the management plan. The mother was particularly advised to adhere to the advice of the treating team as not doing so could have long-term repercussions in the form of chronic course and poor prognosis of the illness. The mother stated that she could not cope with the constant 'nagging' by the patient asking her to take him for a cosmetic procedure or else his life would never get better. The mother was reassured by the treating team of its continued support for the patient and the family. It was agreed to continue the fluoxetine and review the patient again in clinic just before the effects of the procedure subside completely, that is, in about 2 months' time. It was agreed that it would be a more appropriate juncture to review his mental state, particularly the clinical features of BDD and it was hoped that despite the effects of the procedure wearing off, there would be some improvement noted in the intensity of the obsessional thoughts and the level of preoccupation with continued use of fluoxetine. The patient was also referred to the psychology team within the CAMHS for cognitive behavioural therapy considering the effectiveness of combination treatment.

He was reviewed again in the CAMHS Psychiatry Outpatient Clinic 7 weeks after the previous outpatient appointment. He reported full compliance with fluoxetine. Both the patient and his mother reported a reduction in his preoccupation and obsessional thoughts related to his nose, but the patient was unsure whether it was due to the lasting effect of the procedure done 7 weeks ago or to the effects of fluoxetine. According to him, his nose still had not returned to its pre-procedure form. He had continued not to wear a mask. He denied any features of persistent low mood or any ideas or thoughts of self-harm and suicide. He continued to express his willingness to have another cosmetic procedure done as soon as the effects of the current one wears off completely. Both the patient and his mother were advised against this and psycho-educated again about the nature of the illness and how having cosmetic procedures does not help. We agreed that he would continue on fluoxetine and start engaging in therapy hoping that combination treatment could result in more significant improvement than pharmacological treatment on its own. It was also agreed to review him again in the outpatient clinic in 4 weeks' time. We explained to the patient and the mother that while cosmetic procedures can occasionally reduce preoccupations related to the perceived imperfection in the short term, it is not always the case as there is always the possibility of no improvement in symptoms at all, neither in the short or long term.

The possibility of a psychotic illness (e.g. schizophrenia) was also explored but given that the patient reported no clinical features suggestive of psychosis and neither were any signs observed during the inpatient assessment as well as outpatient reviews, it was ruled out as a differential.

Discussion

The most striking elements in this case were (a) the typical etiological factors and (b) the treatment challenges associated with the young person actively seeking out cosmetic procedures and the influence of the mother's preoccupation with her own physical appearance on the course of the illness of the young person.

The history of negative evaluations about his weight and nose in early childhood in the form of persistent and prolonged bullying, traits of perfectionism, and exaggerated focus on physical appearance and beauty in the family, all seem to have played their part in the causation and development of the disorder.

We know that almost 70% of patients with BDD report some experience with being teased or bullied.[8] The unconscious displacement of inferiority and poor self-image has been reported to be a psychological etiological factor in BDD, and the young person's experiences of bullying and negative evaluations by others during the primary school years support this association.[9] We also know that there is a positive family history in 5.8% of first-degree relatives suggesting that BDD could be familial and there is a likelihood that this association may hold true in the case we are reporting here, given the mother's increased preoccupation wither physical appearance and history of cosmetic procedures.[10]

The treatment challenges in our case continue to be threefold – the young person seeking out cosmetic procedures, the impact of the mother's preoccupation with her own physical appearance on the illness course of the patient, and the effective management of suicidality.

The dilemma of whether to continue the use of fluoxetine despite the probability of further cosmetic procedures against medical advice is arguable. While the effect of such cosmetic procedures clearly undermines the use of medication and psychotherapeutic interventions, discontinuation may not be the best option either considering the nature of the illness and established evidence that such cosmetic procedures may allay the level of preoccupation temporarily, but this is likely to resurface or may take the form of new preoccupations related to other parts of the body.[11] The association between BDD and serotonergic activity supports continued use of Selective Serotonin Reuptake Inhibitors (SSRI) (fluoxetine in our case) irrespective of any cosmetic procedures that the young person may undergo in future. We know that there is decreased serotonin transporter binding density in obsessive–compulsive disorder (OCD)-related disorders, including BDD.[12] A case study also concluded that BDD symptoms were exacerbated during dietary depletion of tryptophan (a serotonin precursor).[13] Another case study found psilocybin, a serotonin agonist, caused decreased BDD symptoms.[14] Treatment with medications that causes

serotonin reuptake inhibition often results in less frequent and intense preoccupations, better impulsivity control and reduced level of distress in BDD.[15,16] We preferred fluoxetine for its sound evidence base both in children and adolescents in general and BDD in particular. Its use (though off-label) as part of combination treatment with cognitive behavioural therapy is recommended by the National Institute for Health and Care Excellence (NICE), and in fact, it is the only SSRI that is specifically mentioned in their guidance for children and young people with BDD.[17]

The other challenge is the impact of the mother's history and current preoccupation with her own physical appearance and preference for cosmetic procedures on the treatment of the young person. The mother has been repeatedly advised to not display her preference for enhanced physical appearance and cosmetic procedures in the presence of the patient and should stop seeking cosmetic procedures to reduce the reinforcement of the cognitive distortions harboured by the patient. We are unsure whether the mother herself meets the criteria for a diagnosis of BDD herself considering that she has not sought mental health input at any point. She is adamant that her preference to look better never got intense to the point where she became preoccupied and started camouflaging any body parts and rates the severity of her issues as very low compared to that of the patient's. Nevertheless, we would continue to encourage her to seek input from Adult mental health services to rule out the probability of an underlying BDD. The effective management of the disorder, if diagnosed in her, could have significant implications on the treatment course and the chances of recovery for the patient.

The management of suicidality in the young person poses another significant challenge given the recent history of such attempts. Patients with BDD have high rates of psychiatric hospitalizations, suicidal ideation, and suicide attempts.[18] The first systematic review and meta-analysis looking at the association between BDD and suicidality indicates that the rates of BDD-induced suicidal ideation and BDD-induced suicidal attempts range from 19.1% to 69.7% and 1.5% to 22.2%, respectively (not specific to any age group or setting).[19] In addition, the authors also found that BDD cases were four times more likely to have suicidal ideation and 2.6 times more likely to have made suicide attempts than those without BDD. According to another study focusing on adolescents admitted to an inpatient psychiatric service, 47% of patients with BDD had history of suicide attempts compared to 17.8% in patients without BDD.[20] Compared to adults, adolescents had significantly more delusional BDD beliefs and almost double the lifetime rate of suicide attempts.[7] A proposed mechanism to explain suicide in BDD has been the interpersonal–psychological theory of suicide whereby the desire to die by suicide arises in people holding concurrently two specific psychological states-thwarted belongingness and perceived burdensomeness.[21]

Although the recent cosmetic procedure has resulted in complete remission of suicidal ideation reported by the young person, it is likely that such ideation may resurface in the near future once the effects of the procedure have worn off completely. We are hopeful that the combination treatment (fluoxetine and Cognitive Behavioural Therapy) would have taken effect to an even larger extent before the impact of the surgical procedure wears off. The psychotherapeutic intervention will also focus on enhancing his understanding about the illness, importance of continued engagement and modification of specific cognitive distortions. Furthermore, we will continue to monitor the probability of resurfacing of suicidal ideation through comprehensive risk assessments in regular outpatient appointments coupled with wellbeing reviews over the phone.

Conclusion

BDD can be an incapacitating disorder causing severe distress and intensely agonising preoccupations resulting in a significant impact on the functioning of the affected individuals in general and adolescents in particular. The disorder has an established association with suicidal ideation and suicidal attempts. This case report identifies the significance of etiological factors, the nature of various treatment challenges that may arise during the course of management and the need of comprehensive and regular risk assessments to manage suicidality in adolescents considering its well-established association with BDD.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Ethics approval

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Informed consent

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