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Review article

A critical review of cosmetic treatment outcomes in body dysmorphic disorder

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ABSTRACT

A high proportion of individuals with body dysmorphic disorder (BDD) undergo cosmetic treatments in an attempt to 'fix' perceived defect/s in their physical appearance. Despite the frequency with which such procedures are sought, few studies have prospectively examined the outcomes of cosmetic procedures in individuals with BDD. This article aims to critically review the literature and discuss the current debate that exists on outcomes of cosmetic treatment for individuals with BDD. An emerging literature suggests the majority of individuals with BDD have poor outcomes after cosmetic interventions; however, based on the current literature, it cannot be fully ruled out that certain individuals with mild BDD and localised appearance concerns may benefit from these interventions. Gaps in the current literature are highlighted, alongside recommendations for future research. Carefully conducted longitudinal studies with well-characterised patient populations are needed.

Contents

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Introduction

Body dysmorphic disorder (BDD) is a disabling mental health disorder characterised by a distressing and/or impairing preoccupation with a *perceived* defect in physical appearance. This is typically accompanied by time-consuming repetitive behaviours such as mirror checking or camouflaging the perceived defect(s) (American Psychiatric Association, 2013). Epidemiological studies indicate that BDD affects between 0.7% and 2.4% of individuals in the general population (Buhlmann et al., 2010; Faravelli et al., 1997; Koran, Abujaoude, Large, & Serpe, 2008; Otto, Wilhelm, Cohen, & Harlow, 2001; Rief, Buhlmann, Wilhelm, Borkenhagen, & Brahler, 2006). BDD is associated with substantial psychiatric comorbidity (Pavan et al., 2008), poor quality of life (Didie et al., 2007), and high rates of suicidality (Phillips, Menard, Fay, & Weisberg, 2005).

A high proportion of patients with BDD, around 76%, undergo cosmetic treatments, both surgical and minimally invasive treatments, in an attempt to 'fix' perceived defect/s in physical appearance (Crerand, Menard, & Phillips, 2010; Crerand, Phillips, Menard, & Fay, 2005; Metcalfe et al., 2014; Phillips, Grant, Siniscalchi, & Albertini, 2001). Surgical treatments include operations such as rhinoplasty, breast augmentation, labiaplasty, implants, and rhytidectomy. Minimally invasive treatments include dermatological procedures (e.g., chemical peels), dentistry work, electrolysis, collagen injections, and mole removal. The prevalence rate of BDD across surgical and minimally invasive treatment settings is believed to be between 5% and 20% (Alavi, Kalafi, Dehbozorgi, & Javadpour, 2011; Crerand, Franklin, & Sarwer, 2006; Metcalfe et al., 2014; Pavan et al., 2006; Phillips, Dufresne, Wilkel, & Vittorio, 2000; Sarwer, Whitaker, Pertschuk, & Wadden, 1998; Veale, De Haro, & Lambrou, 2003; Vulink et al., 2006). For instance, up to 25% of individuals seeking rhinoplasty have been found to meet DSM-IV criteria for BDD (Alavi et al., 2011; Ghadakzadeh, Ghazipour, Khajeddin, Karimian, & Borhani, 2011; Veale et al., 2003; Vulink et al., 2008). Similarly high rates have been found in cosmetic, dermatological, and orthodontic clinics, where 5%, 12%, and 10% of individuals endorse BDD symptomatology respectively (Phillips et al., 2000).

BDD is a disorder of childhood with over 70% of cases reporting an onset prior to 18 years of age (Bjornsson et al., 2013; Phillips & Diaz, 1997). Initial research suggests up to 47% of young patients with BDD desire cosmetic treatment with around 33% receiving such interventions (Crerand et al., 2005; Mataix-Cols et al., 2015; Phillips et al., 2001). The psychological, legal, and ethical considerations of performing cosmetic treatments on young people have previously been detailed (e.g., Crerand & Magee, 2013). The literature on cosmetic treatment for adults with BDD is limited, but the paucity of research is even more pronounced in relation to young people under 18.

Outcomes of Cosmetic Treatments

Despite the frequency with which individuals with BDD seek cosmetic treatments, few studies have examined the outcomes associated with such treatments in BDD. The overall message to practitioners to date has been that cosmetic interventions for individuals with BDD are detrimental (e.g., Crerand et al., 2006; Wilhelm, Phillips, & Steketee, 2013). Recently, however, increasing numbers of studies have provided preliminary evidence for positive outcomes in terms of satisfaction with procedure and reduction of BDD symptoms (Felix et al., 2014; Veale, Naismith, et al., 2014). These findings have re-energised the debate as to whether the presence of BDD should be a contra-indication for cosmetic treatments (de Brito et al., 2015; de Brito, Nahas, & Ferreira, 2012; Felix et al., 2014; Morselli & Boriani, 2012). One side of the debate argues that cosmetic treatments are unlikely to address the underlying core symptomatology of BDD (e.g., Crerand et al., 2005, 2010; Phillips et al., 2001), the other side claims that a selected group of individuals with BDD (e.g., individuals with mild to moderate BDD and with a single concern with realistic psychosocial expectations) might respond well to certain cosmetic treatments (e.g., Felix et al., 2014; Veale et al., 2003). Currently, mental health professionals are making recommendations against cosmetic treatments for BDD but the evidence supporting these recommendations needs to be clear.

Aim of Current Review

The aim of the present article is to provide an up-to-date critical review of the literature on the outcomes of cosmetic treatments for individuals with BDD. Specifically, we aim to present and critique the breadth of outcomes that form the current debate and consider the clinical implications. Gaps in the current literature identified and future directions for research discussed.

Method

A literature search was conducted using EMBASE, Psychinfo, and MEDLINE. The inclusion criterion for this review were English-language articles on quantitative outcomes of cosmetic treatment for individuals diagnosed with or reasonably suspected to have BDD, with no other restriction. These were identified using the search terms "body dysmorphic disorder," OR "dysmorphophobia," OR "imagined ugliness," OR "polysurgical addicts," OR "insatiable patient," AND "plastic surgery," OR "cosmetic surgery," OR "aesthetic treatment," OR "aesthetic surgery," OR "cosmetic treatment". Reviews and studies assessing the prevalence of BDD, screening instruments, and/or other aspects not related to outcomes were excluded. As summarised in Table 1, a total of 11 peer-reviewed articles on pre- or post-cosmetic treatment outcomes for individuals with BDD or reasonably suspected BDD were identified. Two of these articles included a minority of young people.

Results

Negative Outcomes Following Cosmetic Treatment in BDD

To date, the vast majority of studies suggest that cosmetic treatments for individuals with BDD are associated with poor outcomes (Crerand et al., 2005, 2010; Phillips & Diaz, 1997; Phillips et al., 2001; Picavet et al., 2013; Veale, 2000). Phillips and Diaz (1997) and Veale (2000) were among the first authors to systematically examine psychological outcomes for individuals with BDD who had received cosmetic treatments.

Using a semi-structured interview of treatment history and the Clinical Global Impression Scale (CGI; Guy, 1976) to assess outcome of cosmetic interventions, Phillips and Diaz (1997) asked 188 adults with BDD seeking psychological treatment about past cosmetic treatments (both surgical and minimally invasive interventions). The majority of patients (78% of women and 61% of men) reported their BDD symptoms to be unchanged or worsened following such procedures.

Veale (2000) asked 25 patients with BDD who had received cosmetic treatment to rate their satisfaction and any changes in preoccupation, distress and functional impairment since the procedure. Self-report ratings using Likert scales were consistently poor for the majority of respondents. For example, 31 out of total of 46 procedures (surgical and minimally invasive) resulted in satisfaction ratings of between 0–2.9 on an 11-point scale. The average rating for changes in preoccupation and handicap were 4.4 and 4.1 respectively on a 7-point scale. However, outcomes varied according to the cosmetic procedure, with worse outcomes found for