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ORIGINAL CONTRIBUTION

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Development of a multiphasic, cryptic screening protocol for body dysmorphic disorder in cosmetic dermatology

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Abstract

Background: The incidence of body dysmorphic disorder in cosmetic dermatology is high. Even though treating patients with this disorder may worsen symptoms and is fraught with potential complications, screening is low, due in part to lack of knowledge of the disorder, as well as inadequate screening tools.

Objectives: To verify the probability of body dysmorphic disorder in a nonsurgical esthetic setting and determine the effect of a multiphasic screening protocol on mitigating poor outcomes in high-risk patients.

Methods: A multiphasic screening protocol for body dysmorphic disorder was distributed to a total of eight esthetic clinics in the United States. Practitioners administered an anonymous, cryptic prescreening form to all new, incoming patients aged ≥ 18 to ≤ 65 years from June 1, 2019, through September 1, 2019, followed by a second, more extensive screening questionnaire. Patients with suspected or subclinical body dysmorphic disorder could be refused treatment.

Results: A total of 734 initial screenings were recorded over 16 weeks. Of these, 4.2% (31/734) proceeded to the secondary screening phase; 29% (9/31) subsequently screened positive for body dysmorphic disorder. Practitioners refused to treat 77.8% (7/9) of positive screenings. Two patients out of seven who tested positive underwent a third screening and were subsequently treated with positive outcomes.

Conclusions: Use of a cryptic screening protocol enables identification of individuals at risk for BDD and encourages open and continuous communication between patient and provider.

1 | INTRODUCTION

Body dysmorphic disorder (BDD) is characterized by an obsession with a perceived defect in physical appearance that is not observable or appears slight to others and typically impairs a patient's life (Bowyer 2016). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5)[1] includes BDD under obsessive-compulsive-related disorders with set criteria for diagnosis (Table 1). Comorbidities associated with BDD include depression, mania, social phobias, substance abuse, alcohol abuse, generalized anxiety disorder, suicidal tendencies, PTSD, and narcissism.[2] It has been reported that a higher proportion of patients seeking cosmetic injectables received psychological counseling from a mental health specialist within a year before treatment, and 23.6% reported the use of psychiatric medication at the time of treatment,[3] a figure that is nearly four times greater than in populations not pursuing cosmetic treatments.[4]

The incidence of BDD has risen exponentially in the last decade and is one of the most common psychiatric conditions found in patients seeking esthetic treatments.[5] The prevalence of BDD in the general adult population ranges from 0.7% to 2.4%.[6-9] These rates

TABLE 1 DSM-5 criteria for diagnosis of BDD[1]

A. Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others
B. Displaying repetitive behaviors such as reassurance seeking, excoriation (skin picking), mirror checking, excessive grooming, or obsessive mental acts such as comparative analysis to others looks
C. The preoccupation causes clinically significant distress or impairment in social, occupational or other areas of functioning
D. The appearance preoccupation is not better explained by concerns with body fat or weight in an individual whose symptoms meet diagnostic criteria for an eating disorder

Specify if:

- Indicate degree of insight regarding body dysmorphic disorder beliefs
  a. Good or fair insight: The individual recognizes that the body dysmorphic disorder beliefs are definitely or probably not true or that they may or may not be true
  b. Poor insight: The individual thinks that the body dysmorphic beliefs are probably true
  c. Absent insight/delusional beliefs: The individual is completely convinced that the body dysmorphic beliefs are true

are 600% greater in cosmetic dermatology patients, rising upward of 14%.[7,10,11] Because BDD involves distorted perception of body image, cosmetic "fixes" rarely produce the desired result, and it is generally acknowledged as a clear contraindication to cosmetic surgeries and procedures.[7,12] Patients with BDD are less likely to be satisfied with treatment outcomes and may even perceive a worsening in appearance after procedures,[13,14] opening the door for potential exacerbation of symptoms and retaliation against practitioners, from negative reviews and potential lawsuits for violation of informed consent to physical assaults.[13-15] The literature reports that 2% of plastic surgeons have been physically threatened by a patient with BDD, and 10% have received threats of violence and legal action.[15,16] Since 1991, three plastic surgeons have been murdered by patients with BDD who were unhappy with their surgical results.[15] Additionally, the issue of capacity to provide consent for a medical procedure may become relevant in a court of law if a provider suspects that a patient has BDD.[17] It is generally assumed that a patient's consent makes the requested medical treatment lawful. Several cases of unsatisfied patients with BDD claiming the disorder interfered with their ability to evaluate the risks and benefits of elective treatments have been reported.[18,19]

Despite this, screening for BDD in cosmetic clinics prior to treatment is low,[14,20,21] due in part to a lack of adequate screening tools that can accurately identify true cases of BDD. This pilot study was designed to verify the probability of BDD in a nonsurgical esthetic setting and ascertain the effects of prescreening for BDD in order to mitigate poor outcomes and liability for high-risk patients.

2 | METHODS AND MATERIALS

A multiphasic screening protocol for BDD was distributed to a total of eight medical spa clinics in the United States. Practitioners were instructed to administer a novel, anonymous, cryptic prescreening form to all new, incoming patients aged ≥ 18 to ≤ 65 years from June 1, 2019, through September 1, 2019 (16 weeks), as part of the typical intake paperwork. The only medical exclusions were pursuant to the limitation of the procedures, such as patients who were pregnant or breastfeeding, had allergies to the injected materials, or suffered from a neuromuscular disorder such as myasthenia gravis. There were no psychological exclusions. Data were collected without patient names or other identifying features to preserve confidentiality.

2.1 | Screening tools

The multiphasic portion began with an informal, anonymous prescreening tool that included questions deemed useful to determine psychological motivators for treatment (Figure 1). Integrated into a checklist form populated with healthy motivators for a cosmetic treatment were the following cryptic unhealthy motivators: "I want to look perfect," "I want to look 20 again," and "I want to look perfectly symmetrical." If any one of these options were checked by the patient on the intake form, this was considered a red flag, and the study coordinators were instructed to offer the secondary screening, along with any other additional consent forms.

This second, more extensive screening consisted of a modified Cosmetic Procedure Screening Questionnaire (COPS),[22] in which patients were asked to describe features of biggest concern in order of highest priority and eight simple questions assessing the impact of those concerns on multiple aspects of daily life (Appendix). If the prescreening results were negative for BDD, no further data were

FIGURE 1 Initial prescreening assessment for all incoming patients

collected for that patient. If the results indicated possible BDD, practitioners could elect to refuse treatment, and patient responses to treatment denial was documented in the study notes (eg, "Patient left office in calm manner," "Patient was successfully referred to mental health specialist," or "Patient appeared upset at the denial to treat"). Practitioners who opted to treat a patient with potential BDD recorded additional supplementary information was recorded, including outcomes, patient satisfaction with treatment, and any areas of concern that emerged. The aim of this portion of study was to document the percentage of patients that were granted treatment by their clinician, and the percentages of these said treatments that were considered a success.

3 | RESULTS

In total, 734 initial screenings were recorded over 16 weeks. Of these, 4.2% (31/734) proceeded to the secondary screening phase (COPS); 29% (9/31) subsequently screened positive for BDD. Practitioners refused to treat 77.8% (7/9) of positive screenings and documented patient responses (Table 2). One patient became tearful but was grateful to have someone to talk to about BDD and agreed to speak with a mental health specialist. Follow-up confirmed the patient did undergo therapy for the condition. Two patients out of seven who tested positive underwent a third screening and additional discussion; both subsequently treated with positive results.

TABLE 2 Patient responses after screening failure and treatment refusal

Patient	Response
1	Upset but did not retaliate on social media or otherwise
2	Upset but understood reason for refusal and did not retaliate on social media or otherwise
3	Understood reason for refusal and did not retaliate on social media or otherwise
4	Upset and threatened to go elsewhere but did not retaliate on social media or otherwise
5	Very upset and gladly received referrals to mental health specialist
6	Chose not to receive treatment and did not retaliate on social media or otherwise
7	Understanding but refused referrals to mental health specialist and did not retaliate on social media or otherwise
8	Received successful treatment after third screening
9	Received successful treatment after third screening and additional discussion

4 | DISCUSSION

Discussing mental health is a critical part of the consultation and assessment. It is important to note the patient's psychological motivators for treatment and discuss healthy versus unhealthy motivators, mindful of red flags (Table 3). Since patients with BDD are more likely to present to a cosmetic office than to a primary care or psychiatry office to "fix the problem," there is a need for cosmetic practitioners to recognize the symptoms of BDD, to understand how to screen for the disorder, and to acknowledge the high risks involved with treating patients with BDD, all in an attempt to mitigate negative outcomes.

Many cosmetic offices do not screen for BDD prior to treatment. In a recent survey sent to nearly 3000 practicing dermatologists and members of the American Society for Dermatologic Surgery (ASDS), respondents estimated that 13% of all new patients likely had BDD.[20] However, only 60% routinely asked new patients about psychiatric history, and 37% did not consider BDD to be a contraindication to cosmetic treatment, despite the acknowledgement by 88% and 76% that patients with BDD who received treatment became more focused on the defect or found new defects to focus on after the procedure, respectively. Indeed, research has demonstrated that nearly 98% of patients with confirmed BDD perceived no change from elective treatment, and 16% believed that cosmetic treatment worsened their appearance.[13,14] More worrisome, a patient with symptoms of BDD may fixate on a cosmetic procedure to solve all problems; when this does not occur, the patient may be at increased risk for suicide.[13] Evidence indicates that 24%-28% of patients with BDD have attempted suicide, and BDD is associated with a suicide rate that if an estimated 6-23 times higher than reported for the general population in the United States.[23]

Screening properly takes time and intent. Obstacles to screening could include lack of time and staff to administer the screening, misunderstanding of the disorder, inability to diagnose BDD, no reliable screening tool, reluctance to lose a new patient, or fear of false negatives due to manipulation of the tests. Psychological screenings where there is a strong motivator from the patient to “pass” in order to obtain treatment can lead to low sensitivity and specificity. The multiphasic, cryptic psychometric screening protocol developed for this pilot study was intended to circumvent manipulatable screening results. By framing the initial informal assessment as a checklist of personal goals, patients are unaware they are being screened for any psychological disorder that may interfere with treatment. Offering an initial cryptic prescreening form allows a relationship between provider and patient to form quickly through dialogue, which in turn makes confiding about worries or problems more likely.

In the proposed screening protocol, a provider may decide to provide a consultation as a third phase of screening with an at-risk patient. During the consultation, the patient is asked to demonstrate desired

TABLE 3 Selected red flags for patients at risk of BDD during cosmetic consultation

- Visiting multiple offices without success
- Showing a particular interest in one flaw to "fix"
- Camouflaging the areas of concern, excessive "cover-ups," such as makeup, hats, scarves etc
- Obsessively looking in the mirror during visit
- Inability to look at their own medical images taken at the office
- Showing practitioner multiple photographs of themselves that they like (that may be altered)
- Showing practitioner celebrity photographs they would like to emulate
- Coming prepared with a checklist of items to correct
- Confessing to "stalking" practitioner's social media channels

changes to the face using their hands. If the desired result is well beyond what is possible in a nonsurgical setting—for example, lips pushed out too far, skin pulled too tightly, or a request for perfection or a flaw to completely disappear—it would constitute an additional red flag, and the clinician can make the final decision to refuse treatment or proceed through each treatment with caution. If treatment options are deferred, the time allotted for treatment could be reallocated as an opportunity to spend time with the patient describing the disease and/or referrals to a mental health specialist for treatment.

In this pilot study, 4% of all new patients were suspected of having BDD, and just under a third of those screened positive on the second assessment. Seven of nine patients who screened positive were denied treatment, and the treating practitioners were pleased to identify patients at risk and avoid potential problems. Although upset, most patients denied treatment understood the reasoning behind the refusal, and one became visibly distressed and agreed to seek further help. Two patients out of the nine who screened positive were eventually treated after the final third screening consultation, in which they received educational counseling about realistic expectations. One of the patients was a makeup artist and keenly aware of every line and shadow in her face; the other was an actress with considerably low self-esteem who was routinely subjected to a high level of scrutiny on screen. Both patients were satisfied with treatment results, which may be suggestive of false-positive identification of BDD, subclinical BDD, or may represent very mild cases of BDD. Regardless, caution and additional counseling are warranted given the potential problems that may arise with a hard-to-please patient.

Although this pilot study uses the cryptic prescreening checklist at patient intake, it is important to note that symptoms of BDD can occur after treatment or later in the relationship between injector and patient and require continuous vigilance (Figure 2). Red flags include signs of a developing disorder can include a hypercritical state, in which the patient notices everything wrong and never seems satisfied with treatment, or conversely simply cannot see any visible change after treatment, even after reviewing before and after images of those changes.

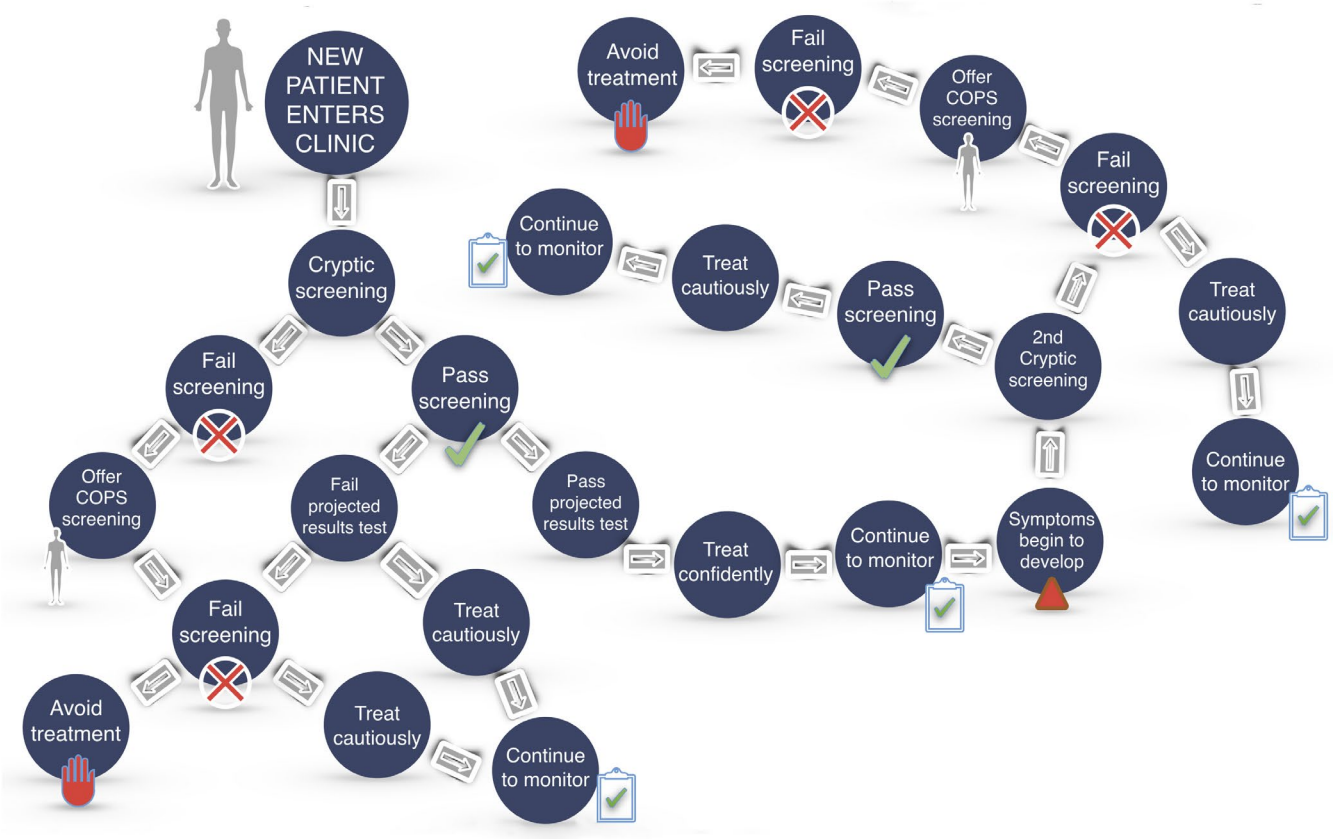

FIGURE 2 Continuous multiphasic approach to BDD screening in a cosmetic setting

At study end, all practitioners indicated they would continue using the screening tools provided, either to screen for BDD or to use as a conversation starter for further discussion. Topics of discussion could include appropriate psychological motivators, realistic expectations, as well as the limitations of the proposed treatment. Good communication skills are important in all aspects of patient care. They help to achieve an accurate diagnosis, build rapport with patients, improve compliance to treatment, overall patient satisfaction, and could help avoid litigation.[24]

4.1 | Study limitations

Limitations of this pilot study included the small study size lack of data regarding patient demographics and characteristics. Reviewing a larger number of clinics for a longer period of time would increase patient population and broaden the span of location on a national level to further investigate the usefulness and validity of a multiphasic, screening protocol in esthetic patients. Additionally, it would have been worthwhile to analyze patient variables, such as age, gender, and socioeconomic status, and identify the perceived flaws among patients with BDD.

5 | CONCLUSION

This pilot study underscores the clinical value of a multiphasic approach to screening for BDD in an at-risk population to not only avoid unsuccessful outcomes but to adhere to the tenet of *do no harm*. Cosmetic treatment for patients with BDD is unlikely to provide desired outcomes and may in fact worsen symptoms, leading to potential harm to both patient and practitioner. Use of a cryptic screening protocol both at patient intake and as a regular monitoring tool enables identification of individuals at risk and encourages open and continuous communication between patient and provider. The questionnaire provided may be adapted as necessary to address any concerns with comprehension by non-native English speakers, using more simplified language or translation. The possibility of false-positive identification of patients with the disorder due to subclinical BDD emphasizes the need for physician training on how to apply the test, interpret the result, and recognize patients who may benefit from additional screening or counseling prior to esthetic treatment.

6 | ETHICS

Since this study did not involve pharmaceutical products and did not collect personal data from subjects, approval from an ethics committee was not requested.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX

YOUR LOGO HERE

Male_____ Female_____ Non-Bianary_____Age_____

Please describe features of biggest concern in order of highest priority:

1st:_____

_____

2nd:_____

_____

3rd:_____

_____

4th:_____

_____

5th:_____

_____

Please answer the next few questions of the COPS screening form honestly by circling the number that best describes your feelings about your feature(s). **Please read the labels carefully to ensure you are circling the number that reflects how you feel.**

1) How often do you **deliberately** check your feature(s) during the day? **Not accidentally catch sight of it.** *(This includes looking at your feature in all reflective areas such as a mirror, phone or a shop window.*

0 1 2 3 4 5 6 7 8

|_____|_____|_____|_____|_____|_____|_____|_____|_____|

About 40 times About 20 times About 10 times About 5 times Never Check

[Practice address & phone number]
(Please check with the treating professional's licensing state board or compliance professional for the regulations pertaining to delegation/supervision of the medical aesthetics treatments.)

2) Do you feel your feature(s) are **currently** ugly, unattractive or 'not right'?

0 1 2 3 4 5 6 7 8

Extremely ugly | Very ugly | Somewhat ugly | Slightly ugly | Not ugly

3) How much distress does your feature(s) **currently** cause in your life?

0 1 2 3 4 5 6 7 8

Extremely distressing | Very distressing | Somewhat distressing | Slightly distressing | Not distressing

4) How often does your feature(s) **currently** lead you to avoid situations or activities?

0 1 2 3 4 5 6 7 8

Always avoid | Avoid ¾ of the time | Avoid ½ of the time | Avoid ¼ of the time | Never Avoid

5) How much does your feature(s) **currently** preoccupy you? *(Qualified as obsessing about it; hard to stop thinking about it, etc.)*

0 1 2 3 4 5 6 7 8

Extremely preoccupied | Very preoccupied | Somewhat preoccupied | Slightly preoccupied | Never preoccupied

6) How much does your feature(s) currently interfere with your ability to work or study, or your role as a homemaker? *(Includes your ability to work or study.)*

0 1 2 3 4 5 6 7 8

Severely interferes | Markedly | Moderately | Slightly | Not at all

[Practice address & phone number]
(Please check with the treating professional's licensing state board or compliance professional for the regulations pertaining to delegation/supervision of the medical aesthetics treatments.)

YOUR LOGO HERE

7) How much does your feature(s) currently interfere with your social life?

0 1 2 3 4 5 6 7 8

|_____|_____|_____|_____|_____|_____|_____|_____|_____|

Severely interferes Markedly Moderately Slightly Not at all

8) How much do you feel your appearance is the most important aspect of your identity?

0 1 2 3 4 5 6 7 8

|_____|_____|_____|_____|_____|_____|_____|_____|_____|

Completely who I am Mostly who I am Moderately who I am Slightly who I am Not at all who I am

Copy to: patient, patient chart

[Practice address & phone number]
(Please check with the treating professional's licensing state board or compliance professional for the regulations pertaining to delegation/supervision of the medical aesthetics treatments.)