

BODY DYSMORPHIA DISORDER SCREENING IN
MEDICAL AESTHETIC PRACTICE

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree

of

Doctor of Nursing Practice

In

Family and Individual Health

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2022

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ABSTRACT

Background

Body dysmorphic disorder (BDD) is a concerning obsessive compulsive disorder and mental illness in which patients focus or are emotionally distraught with one or more physical flaws that most others do not observe with the same perspective. This illness is being seen at an increasing rate among patients seeking cosmetic medical treatments such as neuromodulator and dermal filler treatments. Currently, there lacks a standard of practice, including a screening process assessing for signs of this disorder. Across the literature, it has been shown that patients with undetected BDD symptoms treated with minimally invasive cosmetic treatments carry a high tendency of dissatisfaction with treatment results and pose a threat to themselves and the treating medical provider.

Objectives

To implement a quality improvement project using an established BDD screening protocol within a medical aesthetic practice where minimally invasive cosmetic treatments are performed. A goal of a total of 200 screenings is to be collected by two medically licensed providers at two clinic sites.

Methods

Initial screening of patient motivators for treatment, including three cryptic negative motivators. Upon selection of any of the negative motivators, automatic screening was performed using the Cosmetic Procedure Screening Questionnaire for Body Dysmorphic Disorder (COPS).

Results

A total of 55 cryptic screenings examining patient motivators were collected in a four-week timeline from February 1, 2022 to March 1, 2022. The findings of initial screening results revealed 10 patients, or 18.18%, who selected one or more of the three negative motivators for treatment to be flagged for the Cosmetic Procedure Screening Questionnaire for Body Dysmorphic Disorder (COPS).

Conclusions

The use of screening tools such as patient motivators for treatment and the COPS questionnaire are useful for a medical aesthetic practice to see baseline assessment of BDD symptomatology and consideration of use for a standard of practice change.

CHAPTER ONE

BODY DYSMORPHIA DISORDER SCREENING IN MEDICAL AESTHETIC PRACTICE

Identification of the Problem

Body Dysmorphic Disorder (BDD), also labeled dysmorphophobia or dermatologic nondisease, is a mental illness characterized by symptoms of impaired perception of minor or non-existent physical imperfections, limited only to the patient's reality (Mufaddel et al., 2013). This mental illness presents with repetitive behaviors such as mirror checking, facial picking, seeking reassurance, or excessive grooming (Krebs et al., 2017). Despite what a practitioner or bystander may see as objectively normal facial and body features, patients with BDD view themselves as deformed, ugly, or significantly flawed. The degree of severity of this emotional illness ranges from debilitating distress resulting in complete avoidance of social engagement or being housebound to a constant search for solutions to correct the perseverated physical defect.

The Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-V) classifies body dysmorphia disorder within obsessive compulsive disorder diagnoses (American Psychiatric Association, 2013). A list of four specific criteria within the DSM-V are required to be met from subjective assessment of the patient to meet a positive diagnosis of BDD. The DSM-V reports a positive diagnosis of BDD must include all the following in patient presentation:

- Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others.

- 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.
- The preoccupation causes clinically significant distress or impairment in social, occupational, or other areas of functioning.
- The appearance is not better explained by concerns with body fat or weight in an individual whose symptoms meet diagnostic criteria for an eating disorder (Fletcher, p. 1255, 2021).

The final aspect of BDD diagnosis includes the practitioner's assessment regarding insight perception of the patient to their flaw labeled as good, poor, or absent.

Significance of the Problem

According to Fletcher (2021), the prevalence of dysmorphophobia in general practice, exclusive of psychiatric patients, is 0.7 to 2.4%. An extraordinarily high risk of presentation of BDD is found in patients seeking cosmetic medical procedures in plastic surgery, medical aesthetics, and cosmetic dermatology. BDD incidence markedly increases among patients seeking noninvasive cosmetic dermatology procedures by 600% from general practice, with an overall impact as high as 14% in aesthetic medicine (Fletcher, 2021). With BDD as the most common presenting psychiatric disorder in aesthetic medical patients, a significant threat is posed to the treating practitioner's physical safety, professional reputation, and legal security when this emotional syndrome goes unassessed and undiagnosed. Additionally, there is a grave risk for increased mental illness acuity and comorbidities if patients with undetected BDD are treated cosmetically. Fletcher (2021) found in her study examining medical patients seeking

cosmetic procedures with BDD to be “less likely to be satisfied with treatment outcomes and may even perceive a worsening in appearance after procedures, 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” (p. 1255).

With improper assessment of signs of dysmorphobia, both parties involved face a high probability of a detrimental provider-patient relationship. The American Association of Aesthetic Medicine and Surgery (2020) predicts a growth of five billion dollars between 2021 and 2026, thus increasing the number of patients with BDD seen for physical altering procedures. There is a pressing need to initiate and increase the frequency of screening of BDD in cosmetic-focused medicine for both the protection of these emotionally vulnerable patients and for the well-being of practitioners involved.

Practice Site

The purpose of this quality improvement project is focused on the implementation of a BDD screening tool to be initiated at a medical aesthetic practice specializing in noninvasive cosmetic procedures such as botulinum toxin and dermal filler injections. Comprised of one doctorate nurse practitioner and one registered nurse, this practice operates in two locations. There is no standard of practice existing at this practice requiring BDD screening for established or new patients. The director and owner of this practice site report personal interactions with patients in the past year reveal a small number of patients are highly suspect for undiagnosed BDD. Implementation of screening for BDD at this site has great potential to establish a prevalence, increase provider awareness of patient behaviors associated with BDD, and protect current and future patient-provider relationships.

Internal Evidence of Clinical/Practice Problem

Current evidence suggests 76% of patients with a BDD symptomatology seek facial enhancing procedures of both surgical and nonsurgical nature to ‘fix’ their supposed flaws (Bowyer et al., 2016). Regardless of the practitioner’s best attempt to set realistic goals and expectations for procedure outcomes in aesthetic medicine, current standard consultation processes are not comprehensively assessing for mental illness without the use of standardized psychiatric screening tools. Within scholarly literature, the integration of a validated BDD screening tool as a standard of practice across medical aesthetic, cosmetic dermatology, and plastic surgery practices is not well established. The absence of a DSM-5 screening tool for BDD in areas of medicine involving physically altering procedures presents a significant gap in safe and ethical practice. Furthermore, this clinical problem creates an opportunity for serious repercussions associated with continued undiagnosed and untreated psychiatric illnesses within this population.

Body dysmorphia is commonly connected with various psychiatric comorbidities motivating patients to seek cosmetic treatments such as major depressive disorder, obsessive compulsive disorder, anxiety, and in more severe cases, risk for self-harm, suicidal ideation, and suicide attempt (Shivakumar et al., 2021). Krebs et al. (2017) reflect the statistics of reported cases, stating BDD is “associated with strikingly high rates of suicidality; reported rates of suicidal ideation range from 17%–77%, while rates of suicide attempts range from 3%–63%” (p. 71). Suicide risk can be particularly concerning for patients with BDD who believe the cosmetic procedure will be the resolution of their emotional distress. The high probability of life-

threatening side effects as well as co-occurring psychiatric illnesses associated with BDD reveals the dire need to change standard practice.

Proposed Intervention

The proposed intervention for this quality improvement project includes a multistep screening process for body dysmorphia in the environment of noninvasive cosmetic medical practice. The screening will be focused on patient populations seeking medical aesthetic facial injection procedures such as neuromodulators and dermal fillers. This intervention will require an empathetic and clandestine approach, as many patients with BDD are highly likely to be hesitant in answering direct questions regarding their physical appearance.

This quality improvement project will parallel the assessment strategy of the recent work in Leslie Fletcher's (2021) BDD screening assessment, beginning with an informal questionnaire focusing on motivators for treatment with a small number of cryptically placed negative motivators. The primary assessment includes a checklist of both healthy inspirations for seeking treatment along with three specific unrealistic and unhealthy motivational goals for patients to choose from based on self-perception (Fletcher, 2021). The three choices of unhealthy goals include to 'look 20 again,' 'look perfect,' or 'look perfectly symmetrical' (Fletcher, 2021). Selection of any one or more of the unrealistic treatment goals results in a positive cryptic screening and will warrant further assessment using the Cosmetic Procedure Screening Questionnaire for Body Dysmorphic Disorder (COPS)—a screening tool used vastly within literature studies examining this patient population. The COPS screening tool consists of a nine-part questionnaire asking patients about their perceived unattractive physical features. The scoring is based on a 0 to 72 scale, wherein the higher the score, the more dysmorphic

impairment that is present (Veale et al., 2012). With the use of well-established and utilized screenings in scholarly research, any positive result should be considered a contraindication to body and face-altering procedures, and referral to psychiatric specialists should be highly considered by the cosmetic medical provider. For the sake of this project's focus, all steps of the multiphasic screening for BDD will be completed by licensed medical professionals performing consultations and anticipated treatment plans.

The final step in the proposed intervention for this quality improvement plan, not published or utilized in the screening process conducted by Fletcher (2021), includes establishing the project site with a referral relationship for specialized providers treating patients with BDD and obsessive compulsive illnesses. Instituting relationships with such providers along with evidence of positive scores from screening tools utilized far beyond this project's intended timeline will create an opportunity for referral to treatment planning as well as sustainability after the completion of the project should the practice site continue to use this screening process as a standard of care. Following referral, psychiatric treatment comprised of pharmacotherapy and cognitive behavioral therapy will be vital to the success of the BDD patient's holistic care plan and effective recovery.

Methods of Literature Review

A web search was conducted focusing on current scholarly articles and textbooks supporting the use of BDD screening tools in medical cosmetic procedures, assessment of BDD with screening questionnaires, and medical treatment of BDD. Databases used included Cochrane Library, PubMed, CINAHL, PsychInfo, and Google Scholar. Selection of articles focused on publication dates in the previous 10 years from 2011 to 2021. Search terms used

included *body dysmorphia, body dysmorphia treatment, body dysmorphia screening tool, body dysmorphia in cosmetic dermatology, body dysmorphia in noninvasive cosmetic treatment, body dysmorphia in medical aesthetics, body dysmorphia in cosmetic procedures, body dysmorphic disorder with dermal filler treatment, body dysmorphia in botulinum toxin injections, body dysmorphia prevalence in cosmetic treatment, body dysmorphia screening in aesthetics, cosmetic procedure screening of body dysmorphia, treatment of body dysmorphic disorder.*

Inclusion criteria consisted of English language articles and textbooks examining information pertinent to medical practice in cosmetic dermatology, cosmetic surgery, plastic surgery, or medical aesthetic noninvasive treatments. Both women and men were included; the age range focused on patients 18 to 65 years old with or without BDD seeking noninvasive aesthetic treatment and surgical cosmetic facial treatment. Study outlines were inclusive of randomized control trials, literature reviews, critical reviews with or without meta-analyses, and cross-sectional studies. Interventions included the use of standardized American Psychological Association BDD screening in multi- or single-step diagnostic approaches.

CHAPTER TWO

SYNTHESIS OF LITERATURE

History

Enrico Morselli, an Italian physician and researcher, was the first to coin BDD as a specific mental illness, using the term dysmorphia in the late 1800s. According to Morselli, dysmorphia described patients with abnormal amounts of distress or obsession over imagined physical deformities and personal ugliness (Mufaddel, 2013; Thanveer & Khunger, 2016). The term dysmorphia roots from the Greek word *dysmorphia* translated to mean bad body or ugly (Mufaddel, 2013). The primary publication concerning symptomatic identification criteria of body dysmorphia disorder in the DSM-V occurred in 1980 (Mufaddel, 2013). Following this publication, the American Psychiatric Association identified BDD as a “distinct somatoform disorder” in 1987 (Mufaddel, para. 5, 2013). As more knowledge and research has been conducted, this mental disorder has expanded in illness terminology. Thanveer and Khunger (2016) state, “dermatologic literature contains many descriptions of patients with BDD, often under rubrics as dysmorphophobia, dysmorphic syndrome, and monosymptomatic hypochondriasis” (p. 190).

Body dysmorphia typically manifests within adolescence and continues as a chronic mental illness throughout adulthood (Thanveer & Khunger, 2016). Males tend to develop symptoms before the age of 10, whereas females develop symptoms after 10 years of age. (Eskander, 2020). The exact cause of BDD development has not been specifically identified; however, contributing factors can include childhood experiences and social influence. Most

BDD patients will report negative body image and traumatic self-confidence experiences in their history, especially during the formative years of childhood or adolescence (Shivakumar, et al., 2021). Risk factors for the development of this illness include child abuse, teasing by social peers and family, or an overbearing emphasis on physical appearance at a young age (Eskander, 2020; Shivakumar et al., 2021). Furthermore, the influence of unrealistic social beauty standards on a patient at a young age may also predict the perseveration of flaws that do not exist.

Prevalence of BDD in Medical Aesthetics

The prevalence of body dysmorphia has risen significantly in the past decade, especially within settings involving medical cosmetic treatments. By far, BDD is one of the most frequently noted psychiatric illnesses within the surgical and minimally invasive fields. In the general adult population, BDD rates range from 0.7% to 2.4% (Ekander, 2020; Fletcher 2021). The rates of cosmetic surgery and noninvasive treatments are between 6% and 15% (Fletcher, 2021). This growing occurrence reflects a 600% increase when comparing the general population and cosmetic patients (Fletcher, 2021; Shivakumar, 2021).

Psychological and Clinical Features

BDD symptoms can vary from an exaggerated obsession with feature(s) to minute complaints of a flaw (Ribeiro, 2017). Shivakumar et al. (2021) describe clinical features of BDD categorized into four subdivisions involving “appearance concerns, compulsive behaviors, impaired functioning, and suicidal tendencies” (p. 21). While both men and women present with paralleling symptomatology, men tend to be increasingly concerned with overall body build,

genitalia, and muscularity, while women focus on facial and feminine defining features such as breasts, weight, thighs, and buttocks (Shivakumar, 2021).

Illness manifestation includes hyper-focused attention to one or more deficits, typically found on the face, resulting in the patient spending significant amounts of time, effort, and money to hide or fix the imagined flaw (Claiborne, n.d.). Repetitive and obsessive compulsive behaviors are present such as constant mirror checking, mirror avoidance, facial picking, or comparison of appearance to others are symptoms that relieve stress (Saade & Vashi, 2018). Skin picking is present in approximately 52% of cases directly associated with obsessive compulsive disordered emotions, thus highly suspected in BDD cases, especially with a focus on facial flaws (Muffadel, 2013).

A predominant scenario involved with body dysmorphia includes the provider's recognition of the patient's level of insight into their illness or lack thereof. Muffadel et al. (2013) reported, "27% to 39% of patients with BDD are delusional, most of them do not recognize that their belief is due to a mental illness, and insight is poorer in BDD patients than OCD patients" (para. 9). The patient's lack of perception or delusional thought process becomes the catalyst to seek medical cosmetic treatment more frequently than mental health treatment for BDD symptoms likely unknown to them (Claiborne, n.d.).

Several patients present with concurring or isolated mannerisms, displaying extensive measures to avoid visualization, socialization, or discussion of the perceived flaw(s). Ribeiro (2017) reports, "most individuals with BDD present with some degree of social and occupational impairment" (p. 964). Some patients with increased illness insight are reluctant to fully express their level of distress caused by a flaw, in panic medical professionals (Sarwer & Spitzer, 2012)

may disregard them. The patient can display safety behaviors such as social reclusion or mirror avoidance to inhibit visualizing the feature(s), therefore protecting themselves from intense emotional distress. BDD can impact patients to the extent they become consumed by thoughts and feelings focused on their deformity, convinced with absolute certainty that other people share in the negative emotions the patient associates with their physical flaw and even judge the patient based on their appearance (Muffadel, 2013).

Supportive studies illustrate that patients seeking noninvasive cosmetic treatment have common personality characteristics confirmed via tools established by DSM-IV guidelines. Assessment completed via the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) Hypomania Scale reveals that patients seeking noninvasive aesthetic treatments are highly likely to assume characteristics of self-centeredness, superficiality in relationships, and amorality (D'Augustino et al., 2018). Further psychoanalysis of this noninvasive population using the Structured Clinical Interview Axis II Personality Disorder (SCID-II) revealed those seeking noninvasive cosmetic treatment can portray “excessive concerns about the body, pessimism, rumination, gloomy mood, dissatisfaction with their own lives, and difficulty accepting criticism” (D'Augustino, 2018, p. 252). These numerous psychological features can be considered highly suspect precursor or warning traits found in those with BDD also seeking noninvasive cosmetic treatment. Detection of such traits in medical consultation can warrant further investigation on the provider's behalf for potential screening for BDD.

Patient Demographics

Studies examining patient demographics associated with positive screening for dysmorphia disorder have focused on clinical settings based on cosmetic and general

dermatology, medical aesthetics, and plastic surgery. Thanveer and Khunger (2016) found in their 177-patient study comparing non-BDD patients to BDD patients that those with dysmorphia presented equally in males and females and more frequently in younger ages 24.125 ± 6.83 . A cross-sectional study conducted by Dogruk Kacar et al. (2014) focused on the prevalence of BDD in cosmetic dermatology in Turkey, which revealed similar patient details with equal men and women diagnosed with BDD and ages of those with diagnosed dysmorphia with an age range of 26.60 ± 7.84 .

Reporting more than one area of concern was found in 62.5% of BDD patients (Thanveer & Khunger, 2016). In the larger study conducted, 37.5% of BDD patients had a prior history of seeking cosmetic treatments, whereas 20% of patients had a prior treatment history in the smaller Turkish study (Dogruk Kacar et al., 2014 Thanveer & Khunger, 2016). A total of 25% of BDD patients were found to have a history of seeking cosmetic treatment for psychiatric rather than physical complaints (Thanveer & Khunger, 2016).

Diagnostic Criteria

According to the DSM-V, body dysmorphia is classified within the category of obsessive compulsive disorders. Within this text, obsessions are described as, “recurrent and persistent thoughts, urges, or images that are experienced as intrusive and unwanted” (American Psychiatric Association, 2013, Obsessive Compulsive Disorders, para. 2). Compulsions are defined as, “repetitive behaviors or mental acts that an individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly” (American Psychiatric Association, 2013).

The DSM-V includes the presence of repetitive behaviors among obsession and compulsion within the diagnosis of BDD (Schieber et al., 2015). Repetitive behaviors are a stress relief mechanism for those with obsessive compulsive disorder. Common repetitive behaviors seen in body dysmorphia include, but are not limited to, skin picking, excessive grooming, camouflaging, mirror checking, and seeking reassurance (American Psychiatric Association, Obsessive Compulsive Disorders, 2013; Schieber, 2015). Mental acts intertwine with repetitive behaviors and present at a certain point during the chronicity of BDD as focusing on perceived flaws, rumination, and mental rituals (Schieber, 2015).

To successfully diagnose body dysmorphia, patients must meet the four criteria outlined by the DSM-V. The first condition outlines a “preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others” (American Psychiatric Association, 2013, Obsessive Compulsive Disorders, para. 8). The next criterion requires patient presentation of repetitive behaviors of excoriation, obsessive mental acts, mirror checking, or obsessive grooming (American Psychiatric Association, Obsessive Compulsive Disorders, 2013). The third measure must show patient preoccupation resulting in “clinically significant distress or impairment in social, occupational, or other areas of functioning” (American Psychiatric Association, 2013, Obsessive Compulsive Disorders, table 300.3). The fourth diagnostic implication stresses the patient’s concern in their appearance is unrelated to body fat or weight that may more closely meet the diagnosis criteria for an eating disorder. The provider diagnosing the patient must also specify if the patient has good, fair, or poor insight into the extent of their illness.

Comorbid Conditions

Existing literature emphasizes the high risk of psychiatric and health comorbidities associated with body dysmorphic disorder, whether the BDD is diagnostically confirmed or not. BDD is comorbidly linked with anorexia nervosa at a rate of 25% to 39% (Eksander et al., 2020). Fletcher (2021) reports further co-occurring conditions with this illness include “depression, mania, social phobias, substance abuse, alcohol abuse, generalized anxiety disorder, suicidal tendencies, PTSD [post-traumatic stress disorder], and narcissism” (p. 1254).

Most gravely considering psychiatric comorbidity is the high rate of suicide attempts among patients seeking cosmetic treatment with BDD. Fletcher (2021) states, “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” (p. 1258). Evidence suggests a frequency of 24% to 44% of patients with BDD have attempted suicide (Eskander et al., 2020; Fletcher, 2021). This prevalence of suicide attempts is nearly four times greater compared to those who do not seek cosmetic treatments (Fletcher, 2021).

Patient and Provider Outcomes of Cosmetic Treatment

Patients with body dysmorphia are motivated to seek cosmetic enhancement to alleviate the appearance-related emotional distress; however, they are at the highest risk for dissatisfaction with treatment results (Crerand et al., 2010). Body dysmorphia individuals commonly seek aesthetic treatment more frequently than psychiatric treatment (Sarwer et al., 2012). Distortion in a patient’s self-image associated with this mental illness creates a high probability of dissatisfaction whenever a cosmetic procedure is considered, and any surgical or minimally

invasive treatment should always be a clear contraindication with any BDD symptoms present (Fletcher, 2021).

Beneficial and harmful outcomes must be considered prior to any physically enhancing or altering treatment. Levin and Graber (2015) report, “negative psychological outcomes for cosmetic procedures in general are common, and BDD has been identified as a risk factor for this” (p. 141). Current literature contains varying data regarding satisfaction with cosmetic treatment in patients with body dysmorphia; however, most data cautions providers regarding the high probability of dissatisfaction post-cosmetic treatment and refusal of treatment. Many retrospective studies and collective reports contain paralleling results stating that BDD symptoms do not improve with aesthetic treatment, whether surgical or minimally invasive enhancements (Crerand et al., 2010; Sarwer et al., 2012). Shivakumar et al. (2021) explain that BDD patients are problematic and unsatiable when attempting to meet their expectations, and satisfaction is nearly impossible.

The safety of the providers involved weighs equally as important when considering refusing cosmetic treatment of a patient with BDD. The literature reports that 2% of plastic surgeons received physical threats from patients with BDD, whereas 10% have been involved with legal action and violence threats (Fletcher, 2021). Most astonishingly, Fletcher (2021) reports, “since 1991 three plastic surgeons have been murdered by patients with BDD who were unhappy with their surgical results” (p. 1255).

Screening Tools Used for BDD

Within the literature, there exist numerous screening tools used by psychiatric and medical providers to aid in the challenging assessment and even more difficult diagnostic

process of confirming BDD. Wang et al. (2016) recall this process stating, “ it is essential for aesthetic practitioners to make use of the effective screening measurements to identify those with body dysmorphic disorder” (p. 956). Depending on the clinical setting, surgical versus minimally invasive cosmetic treatment, the most appropriate and aligning screening tool to the nature of the medical practice being performed should be utilized by practitioners. Medical aesthetics lack significant data regarding the consistent use of screening tools for the detection of BDD.

Fletcher (2021) utilized a multiphasic, cryptic screening protocol, beginning with a basic list assessing psychological motivating factors for cosmetic treatment. Any item checked on the simple questionnaire then prompted further screening using the COPS. The COPS uses a series of eight questions asking patients to score their level of concern regarding physical appearance and how that impacts their daily life (Fletcher, 2021). The final scoring of Fletcher’s work assessing 734 patients revealed 4.2% proceeding the need for secondary, or COPS assessment in which 29% scored a positive screening for BDD (2021).

The Body Dysmorphic Disorder Questionnaire-dermatology version (BDDQ-DV) and Body Dysmorphic Disorder Questionnaire (BDDQ), a simple screening tool that most resembles the DSM-V diagnosis criterion developed by Dr. Katherine Phillips, have been utilized in screening for outpatient dermatology and general clinical settings (Brohede et al., 2013). Shivakumar (2021) utilized the BDDQ-DV et al. revealing “97.4% specificity, 100% sensitivity, 70% positive predictive value, and 100% negative predictive value” (p. 23). Brohede et al. (2013) found that when using the BDDQ on a community sample of 88 Swedish women, 24 tested positive for BDD; a total of 27% prevalence in the sample size. The validity of Brohede et al.’s (2013) work revealed 94% sensitivity, 90% specificity, 71% positive predictive value, and

98% negative predictive value. Based on the statistically significant values in the literature, the BDDQ is a valid and accurate screening tool supporting its use in screening for body dysmorphic disorder in various clinical settings.

Additional diagnostic screenings utilized in body dysmorphic disorder research include the Yale-Brown Obsessive Compulsive Scale Modified for BDD (BDD-YBOCS) and the FACE-Q scale. The FACE-Q scale, also termed the Satisfaction with Facial Appearance scale, was designed by Pusic et al. (2013) to assess the specific population in search of “any type of cosmetic procedure, or facial injectable” (p. 250). The scale in the FACE-Q measures important outcomes desired by patients planning to have facial surgery or facial injectable (Pusic et al., 2013). Quantitative and qualitative phases were examined with the FACE-Q tool, and the results revealed its validity, reliability, and clinically meaningful scores (Pusic et al., 2013). The BDD-YBOCS scale is a 12-item provider-administered scale of BDD symptom severity (Krebs et al., 2017; Wilhelm et al., 2015). The highest score on this test is 48, and reflection of a higher score indicates more severe BDD symptoms. The results of the BDD-YBOCS reveal good internal consistency, high test reliability, and good convergent validity (Wilhelm et al., 2014).

Medical Treatment of BDD

The literature emphasizes the need for more specific guidelines for the effective treatment of BDD (Wilhelm et al., 2014). Current clinical guidelines are divided between outlines for mild to moderate BDD and severe BDD. The differentiating factor between illness acuity is the presence of suicidal ideation or self-harm.

Significant improvement with the use of SSRIs has been seen with regard to decreasing defect perseverance, reduction in anxiety, improvement with depression, and increasing the

quality of life in those patients undergoing pharmaceutical treatment (Shivakumar et al., 2021). SSRIs have not been approved for BDD by the Food and Drug Administration (FDA), albeit they are considered the first-line therapy (Shivakumar et al., 2021). Mild to moderate BDD focuses on monotherapy or a combination treatment of cognitive behavioral therapy and serotonin reuptake inhibitors (SSRIs) or clomipramine (Phillips et al., 2021). Severe presentation of BDD includes suicidal ideation or attempt, in which treatment recommendations primarily include pharmacotherapy to begin and the addition of cognitive behavioral therapy after mental stabilization. In severe treatment of BDD, pharmacotherapy is targeted at reducing suicidal ideation with first-line treatment beginning with SSRI therapy (Phillips et al., 2021). If intense suicidal ideation is present, the focus shall remain on acute pharmacotherapy and less on cognitive behavior therapy. Evidence recommends medication treatment course duration ranging from 3 to 20 years for pharmaceutical modality; however, a relationship between provider and patient requires continual assessment and medication taper (Phillips et al., 2021).

Cognitive behavioral therapy for BDD requires treatment planning focused on the specific symptom presentation, which can vary among individuals in severity. The length of treatment and frequency of therapy sessions is not well established; however, clinical guidelines suggest at least six months of psychiatric treatment for optimal results (Phillips et al., 2021). Wilhelm et al. (2014) focus on motivational enhancement strategies, cognitive restructuring, mindfulness retraining, and relapse prevention as areas of intervention of CBT effective specifically for BDD treatment. CBT can be completed at a group or individual level, yet the literature remains undefined of substantial evidence.

Limitations or Weaknesses of BDD Screening

Amid a high rate of suicide and co-occurring psychiatric disorders associated with the prevalence of BDD in cosmetic surgery and minimally invasive specialties, evidence supporting the frequency of screening, treatment research, and education of providers to recognize BDD has not been firmly established. Fletcher (2021) recalls that there are several obstacles to patients with BDD in cosmetic medicine, including unreliable screening tools, time constraints, inability to diagnose BDD, manipulation of screenings, and inadequate time to screen or train staff. The need for more current data within the last 5 to 10 years is needed with a focus on larger study sample sizes and inclusion of high-quality studies such as control groups.

Importance of Practice Change

The focus of this practice change encompassed the implementation of an existing screening protocol previously applied in numerous medical aesthetic practices into another paralleling practice environment to produce further evidence supporting the need for permanent practice change. This project provided a baseline assessment to the director of the practice site to support previous suspicions by revealing a more precise number of patients seen within the clinic who may have underlying BDD symptomatology. The results of this project's screenings conducted created the potential to provide evidential support to include BDD screening as a standard of practice for this agency and the possibility of many more aesthetic clinics in the region.

CHAPTER THREE

SETTINGS AND METHODS

Quality Improvement Model

The quality implementation framework (QIF) was chosen as the structural model for project implementation (Figure A.1). Developed by Meyers et al. (2012), the QIF constitutes 14 critical steps within four phases comprised of “Initial Considerations Regarding the Host Setting, Creating a Structure for Implementation, Ongoing Structure Once the Implementation Begins and Improving Future Applications” (p. 462). The overall goal of this framework for a quality improvement project is to break down the steps of “how to” ensure the implementation is completed at a high-quality standard (Meyers et al., 2012).

Phase 1 of the QIF pertains to considerations made prior to the implementation of the intended change in standard practice. Before implementing a BDD screening tool into medical aesthetics via changing standard practice the effect on the organization, stakeholders, and patients was considered. The owner and main stakeholder of the project site expressed in preliminary meetings that the organization had a foundational and dire need for a BDD screening tool for existing and new patients to be added to their standard of practice, increasing patient quality of care. The director of the site clarified this need stating, “This will clear up some needed barriers with patients. Patients never want to be told ‘no,’ ever. This is really hard, especially on new injectors” (Anonymous, personal communication, October 21, 2021).

The potential positive and negative effects of this practice standard change were considered by both providers and patients alike. In this project, providers were given a tool to

add to their assessment process yielding more holistic patient care focused on ethical practice with mental health as a priority. The findings from this tool were used by the provider in the determination of appropriate mental health status for face-altering treatments. This created a healthier patient-provider relationship wherein the practitioner guided the treatment course based not only on their foundational medical knowledge and assessment expertise, but also on the assistance of a proven screening protocol that historically yielded an accurate interpretation of a mental illness status via application in clinical studies.

A single and minute negative consequence considered in this project was creating prolonged appointment times, causing a ripple effect of decreased productivity within the practice. After discussion with the providers, a contrast was proposed by seeing the additional time as a beneficial investment to complete BDD screenings, saving future productivity. By taking additional time and decreasing productivity in filling out screenings, high scoring results indicated psychiatric referrals for mental health treatment and avoided inappropriate cosmetic treatment to this patient population that carries a reputation for high cosmetic treatment dissatisfaction. The conversations with the providers discovered in general unhappy patients decrease productivity more significantly, eventually, requiring many follow-up appointments when compared to the minimal time needed to screen for BDD.

In completing Phase 1 of the QIF method, addressing capacity-building strategies were examined. Phase 1 required individuals needed for buy-in, determining the knowledge and training to be completed, and assessment of the infrastructure that will support implementation. The key stakeholders for buy-in for this project included the practice site director, nursing staff, and support staff. Training for all providers led by the project author took place prior to

implementation. Education sessions encompassed key topics of symptomatology and medical treatment of BDD, benefits of implementing screening protocols, steps of BDD screening protocols, content and scoring process of questionnaires, and determination of referral.

The integration of Phase 2 of the QIF focused on the implementation team. The author of the quality improvement project assumed the position of the leader of the team responsible for presenting the steps of the project to those fulfilling the project's actions. The members of the team included providers within the practice, comprised of one registered nurse and one nurse practitioner, along with support staff inclusive of one manager. The steps followed by the implementation included education of all team members by the leader on the presentation and symptomatology of BDD, protocols for BDD screening for the project, and appropriate referral to mental health specialists. The timeline of each task encompassing short- and long-term goals outlined and communicated with the team within the SMART goal method set by the project leader (Figure A.2). Collaboration in communication, utilizing effective teamwork, and flexibility between all stakeholders, including the site director, providers, and support staff was accomplished and provided effective planning and implementation.

In Phase 3, the project lead evaluated additional supervision and coaching of staff, further training needed, and feedback opportunities to be completed. Scheduled meetings occurred on a biweekly basis to check in with the implementation team. The goals of frequent check-ins were to establish a reassuring feedback structure and gain insight into the project process with regard to what is working and what needs adjustment. Consistent encouragement and cheerleading by the project author to the staff was important for consistency of screening all patients, continuation of building excitement in screening patients, and meeting the project goals.

While the steps within the first three phases of QIF examined and reflected upon implementation details of an intervention within a practice, in Phase 4, elements learned for future application of the improvement intervention within other aesthetic medicine practice locations was emphasized. An aspect of Phase 4 specific to this project includes what was learned from the experience of screening for BDD in patients receiving minimally invasive aesthetic treatments. The items learned in this phase potentiated a significant effect on the medical aesthetic field as well as the intended project site by providing a baseline assessment of the prevalence of BDD within this clinical setting and how to navigate care for this patient population. As an area of medicine that is considered in its infancy, the evidential literature examined prior to this project implementation revealed very few aesthetic clinics utilizing BDD screening tools. The experience from this implementation provided great insight as to the effectiveness of such screening tool protocol, which can extend beyond the indented project site to numerous existing and new aesthetic practices as a foundational standard of care.

CHAPTER FOUR

AGENCY DESCRIPTION

Practice Site

The practice site for this project included a medical aesthetic practice. The chosen agency consisted of two franchised locations approximately 150 miles apart in the northern region of the western states. One practice manager and two medical providers were employed to staff both locations. The practitioner team consisted of a bachelorette-prepared registered nurse and a doctorate-prepared nurse practitioner. The owner of the practice site provided a report analysis stating an average number of 150 patients were seen monthly between both locations from July 1, 2021, to October 1, 2021.

Target Population

The target population included patients seeking minimally invasive cosmetic treatments such as neuromodulator and dermal filler injections, chemical peels, and dermal laser procedures at the two locations. Implementation of a BDD screening on established and new patients took place during intake paperwork prior to the scheduled treatment. The specific details about the patient population of the project site included individuals living locally and rurally to the two practice locations. Gender presentation was heavily female-dominated, with a small percentage of male patients. One of the practitioners at this facility reported the majority patient population earned a disposable income, as treatments are solely based on a cash payment system, and never insurance billed.

Description of Stakeholders

Stakeholders involved included the director of the practice, support staff inclusive of the office manager, medically licensed professionals providing aesthetic consultation for treatment, and finally, local mental health specialists open to taking referrals of those with positive BDD screening results. The director's included seeing patients for treatment, completing medical oversight, power of standing orders followed by providers, prescriptive authority of FDA-approved products for treatment, and signing off charts. Provider roles ensured all treatment consents were obtained prior to treatment, interpreted appropriate treatment modality and product selection (i.e., dermal filler or neuromodulator) for patients based on intake paperwork and medical history, assessing facial aging process, making the best treatment recommendations within the scope of practice, and following standing orders set by the medical directorship. Support staff was responsible for overseeing managerial responsibilities of daily practice operations, updating consents and intake paperwork for patients, coordination of appointment scheduling, and directing team meetings and educational seminars within the office. Finally, mental health specialists provided aid in establishing a referral option for positive screenings and providing specific psychiatric care planning for BDD patients.

Buy-in with the medical director, practitioners, and support staff was accomplished and necessary for the success of BDD screening protocol implementation. Support staff ensured the BDD screenings were included within established practice intake paperwork and made timely adjustments to the provider's schedules for those patients highly suspect for BDD and needing additional counseling. The medical director and providers interpreted the score results of questionnaires, determined the need for COPS screening, and when indicated with a high COPS

score, made the decision whether to refuse aesthetic treatment and refer for psychiatric treatment. The mental health specialist's role encompassed acceptance of referral for those patients needing psychiatric workup focused on BDD and completing the holistic plan of care for those needing pharmacological and behavioral treatment.

Barriers to Implementation

Potential barriers to implementation at the practice site were taken into consideration. The foremost barrier predicted at the intended practice site included the potential for too few patients to meet the intended goal of 200 screenings for BDD by the end date of February 28, 2022. To meet this goal, practitioner consistency in providing and reviewing screenings in addition to encouragement from the project leader to complete screening on all existing and new patients was needed.

Another contributing factor producing too few patients for BDD screening in the short duration of four-weeks of project implementation was the infrequency of treatment and only providing new and established patients the opportunity to take questionnaires an initial time rather than after subsequent treatment. According to the site director, in medical aesthetics, the results of treatments on established and even new patients can last months to years, meaning these patients come for retreatment monthly to bi-monthly for dermal lasers, three-month increments for neurotoxins, and bi-yearly to yearly increments for dermal fillers. Furthermore, the director indicated in the months following the holiday season, January through March, appointment numbers tend to be lower due to the personal financial situations of patients. With the intended short duration of the project, February 1 through February 28, 2022, there was a high possibility that the goal of 200 screenings completed to fall short.

Patient hesitation was also considered an obstacle to BDD screening. Existing patients may notice this new screening tool integrated within the intake paperwork or new patients may simply have skipped over the screening tool requiring the staff to request their voluntary cooperation. Patient refusal to complete the initial screening or even the COPS screening minimally reduced the number of total screenings completed during the project timeline. There remains an unknown potential that those few that refused screening could have been an individual with undiagnosed BDD to be treated cosmetically.

Facilitators to Implementation

The motivation and cooperation of the implementation team at the agency site were integral to the facilitation of this project. The internal motivation within the organization and the desire to integrate BDD screening into the standard of practice was a driving force for successful execution. As expressed by the director, there was a small number of patients in the past who have presented with symptoms highly suspected of BDD without a formally studied or established screening completed on them. Having such a tool in standard practice allowed this site to obtain over time a good baseline statistic of what percentage range of patients can have BDD symptoms and how to navigate cosmetic treatment or psychiatric referral.

Project Methods

Description

The method for implementation of this project was to replicate an existing study published in the scholarly literature that has successfully utilized a BDD screening process within medical practices providing minimally invasive cosmetic treatments. The objectives of

Leslie Fletcher's (2021) previous work were paralleled in this project verifying "the probability of body dysmorphic disorder in a nonsurgical esthetic setting and determine the effect of a multiphase screening protocol on mitigating poor outcomes in high-risk patients" (p.1254). Practitioners at the project site screened all existing and new patients seen during the allotted data collection period in an anonymous fashion using Fletcher's multiphase protocol.

Steps

The multistep screening for patients began with the completion of the required intake documentation. The patient's paperwork included an established prescreening tool the agency historically has used focused on physical motivators for treatment, accompanied by the 'cryptic' questionnaire used in Fletcher's (2021) study focusing on negative aesthetic motivators (Appendix). The treating provider then reviewed documents, with special attention to the number of selections made in the negative motivator questionnaire. If any number of choices were made on the initial questionnaire, an automatic trigger for completion of the COPS questionnaire was enacted (Appendix).

The COPS questionnaire consists of a series of eight questions focused on the patient's feelings associated with their perceived flaw(s). The patient chose a ranking score of 0 to 9 displaying the degree of distress the flaw causes in the context of the question. The higher the overall score on the COPS questionnaire, the more at-risk patient is for BDD symptoms.

Human Subjects Protection

The protection of patients was maintained at the highest standard of confidentiality. The level of protection and privacy was respected throughout all steps, including screening, data

collection, data analysis, and result reporting. Complete exclusion of all patient identifiers on all screenings resulted in data collected. Following the example set by Fletcher (2021), additional exclusions and human protection for this project involved pregnant or breast-feeding mothers ineligible to receive minimally invasive cosmetic treatments such as neuromodulators or dermal fillers, those who had allergies to the medical products used, and patients with contraindicated diagnoses of muscular disorders such as myasthenia gravis or Bell's Palsy. The project was submitted with an exemption status to the Montana State University (MSU) Internal Revenue Board (IRB) and approved prior to implementation.

Measures and Instruments

Process measurements for this project included preparing staff in the clinic with education on BDD screening protocol, working with providers at both the site and in the community to establish a referral process for positive BDD screening, and finally completion of at least 200 BDD screenings during the project timeline of four-week implementation. The two instruments used include an initial screening labeled the negative motivators or 'cryptic' screening tool, followed by the COPS based on positive scoring of the initial screening tool. Measurement of BDD indications on initial screening resulted in positive or negative results according to answers within the screening questionnaire protocol. If a patient answered any item on the initial screening, they were considered positive for primary screening, but not necessarily a BDD risk, and progressed to the COPS screening. Providers and project leader evaluated COPS screening scores to determine the severity of BDD symptoms, and the determination of planned cosmetic treatment was assessed by the treating provider for whether to refuse and refer to mental health specialists or to proceed with treatment and assume the risk of a potentially

unhappy patient with underlying psychiatric dysmorphobia. A flowchart mimicking Fletcher's (2021) was followed with relation to COPS screening scores (Appendix). If treatment was proceeded with minor BDD symptoms, follow-up COPS screening could have taken place to reassess symptom severity improvement or regression.

Plan for Data Collection

Data were collected from the questionnaire answers by patients at the agency site. The method of data collection was via self-reporting of the collected BDD screenings, both the cryptic initial assessment and valid COPS tool that took place at the time of appointment. Data collection was facilitated by the two medically licensed practitioners treating patients at both practices. The author of this project acted as the leader to support these providers and collect all screening questionnaires completed at the end of each week from both practice locations. As suggested by Moran et al. (2017), the data collection process examined screenings filled out thoroughly to completion by patients, and inspection by the project leader confirming all private patient identifiers were excluded for privacy in the documentation collected. Data storage of paper copies of the screenings collected was monitored by the practice site and handed off to the project author for results and data analysis. Once the data analysis was logged and completed, the screenings were shredded and disposed of in HIPAA compliant sensitive documentation container.

Data Analysis

Frequencies of the aggregate data were the most effective determined data analysis for this quality improvement project. Examination of the percentages compared to the overall

number of screenings completed took place with negative and positive scorings on initial screening, the range of scoring of positive screenings on the COPS questionnaire, and finally, the number of patients referred to mental health specialty care.

CHAPTER FIVE

RESULTS

Participants

The participants tasked with the implementation of the project included two medical providers. One registered nurse and one nurse practitioner administered the intended protocol of the physical motivators list with cryptic negative motivators followed by the COPS tool prior to a planned medical cosmetic appointment. These medical professionals are part-time employees of the two geographical project sites. Both providers have established patient bases and treat between 3 and 10 patients per working day between two clinic locations within the organization.

Findings from Process Measures and Goals

Successful accomplishment of the process measures included provider training via in-service training by the project leader prior to implementation with regards to symptoms of body dysmorphic disorder, screening protocol, and administration of BDD screening surveys to all new and established patients seeking aesthetic treatments such as neuromodulator injections, dermal filler injections, or laser therapy modalities within the organization. While there were some fluctuations in the original plans for the SMART goals, the accomplishment of the aforementioned process measures was completed to a satisfactory level for this project.

The SMART goal pertaining to education of providers on body dysmorphia symptomatology in addition to the screening protocol had original intentions to be conducted in person at the practice sites. Due to time constraints of both providers and the project leader,

winter weather travel restrictions, and schedules of the two providers who work part-time at the two aesthetic clinic sites and part-time at other jobs, individual education sessions took place via Zoom video calls. All questions were answered, and providers confidently verbalized their understanding of both BDD and how project implementation will be conducted to the project lead.

Evaluation throughout the project through weekly check-ins revealed one of the medical provider's consistent challenges of patient refusal to fill out surveys, whereas the other provider reported no difficulties with patient compliance. The provider who observed a high instance of screening refusal stated that the frequency of occurrence was estimated between 40% and 45%. The most common reason provided by patients related to screening rejection was a lack of personal time and interest in completing documentation. The identification of this issue was revealed at the end of week two and at the beginning of week three of implementation. Further discussions with the organization stakeholder divulged nine months of medical aesthetic experience for this specific provider, as well as a majority of the provider's patient base included brand new patients into the practice. The combination of new and nervous patients, some receiving medical cosmetic treatment for the first time, and the new provider with less experience and confidence in the delivery of both general treatment planning as well as screening requests became identifiable factors to high refusal rates of participation in BDD screenings. This observation provided vital information for future implementation changes needed for future projects to yield higher screening quantities and meet intended screening goals.

Findings from Structure and Outcome Measures and Goals

The structure measures and goals for this project paralleled those defined in the SMART goals, specifically those pertaining to the total number of screenings to be collected and the timeframe of collection. Some of the structural goals were easily completed; however, after the project was reflected upon, it was found to need refinement for more successful practice standard change in the future. While other structural goals were not precisely met as defined prior to implementation, what unfolded and transcribed was found close to the estimated measures anticipated prior to the project initiation.

The number of screenings intended to collect prior to project initiation encompassed 200 documents in a 4-week implementation period. An aggregate number of 55 total screenings was collected in a 4-week timeline from February 1, 2022, to March 1, 2022. The findings of initial screening results revealed 10/55 patients (18.18%) selected 1 or more of the 3 negative motivators to 'look 20 again', 'look perfect' and/or 'look perfectly symmetrical', therefore, triggering the COPS screening to be completed (Fletcher, 2021). All flagged patients for the COPS screening reported as female gender association. Of these patients who progressed to needing the COPS screening, a total of 6/10 (60%) of those flagged on initial screening, or 6/55 patients (9.16%) of the total screened, scored above 40 indicating a possible positive BDD diagnosis and the need for psychiatric referral or extreme caution in proceeding to treatment. The mean of all COPS scores was 44.9 while the mean of COPS scoring >40 was 52.67 with a standard deviation of all mean scores of 11.0598.

The initial screening findings were smaller in percentage of those exhibiting potential BDD symptoms when compared to established findings in both current and historical literature,

however, those proceeding to the COPS scoring greater than a score of 40 was a higher prevalence than previous studies. No patients were refused cosmetic treatment by providers as well as no patients were referred to mental health from the project site for evaluation during this project due to lack of establishment with a mental health clinic prior to implementation.

Desired outcome goals for this project were not met in their entirety; however, they were partially met and further exposed opportunities for improvement in future paralleling examinations. Various contributing factors to not meeting outcome measures included aspects of preparation, project implementation timeframe, specific intervention tool, patient participation, and third-party involvement for referrals added up to the sum of falling short of the project outcome measurements and goals.

The allowance for more preparation time will be beneficial for meeting outcome goals in the future implementation of this project. In the preparation phase, more comprehensive education for providers in terms of the contents of the screening will be beneficial for overall project success. Specifically, methods and approaches for presenting the documents to a patient can consequently lead to higher patient cooperation and successively meet the goal number of screenings collected by the project leader.

The opportunity for more time to coordinate a specific referral site for mental health referral in those patients exhibiting highly suspected BDD symptoms prior to implementation was found necessary to meet the structural goals of this project. After numerous failed attempts to establish referrals with local mental health clinics, the goal of the referral care process with specific regional mental health clinics was not accomplished in the timeline of this project. The state of inundated referral lists of mental health care providers around the project implementation

sites created a significant obstacle to the establishment of referring patients needing psychiatric care.

The overarching outcome goal of this project included baseline identification of those patients highly suspect of symptomatic body dysmorphia through both a medical provider's objective assessment in combination with subjective results from both the cryptic and, when indicated, COPS screening tool. Idealistically, the results from the screening tools could provoke refusal of medical cosmetic treatment and, if warranted by the provider, referral for mental health care. In the reality of day-to-day practice as found in this project, these goals were partially achievable. As seen in this implementation, the biggest contributing challenges and steps to make the project improved include proper preparation of medical providers of how to read the COPS screening in education taking place prior to implementation, patient cooperation in taking screenings and, while not the primary focus of this project, having a well-established referral network open to accepting new patients in mental health specialty to complete a holistic and sustainable plan of care for those with potential BDD symptoms.

Discussion

The results from this project implementation can be considered paralleling the findings in published literature. However, of the patients who selected one or more negative motivators on the cryptic screening, much like the results of current literature, there is deeper interpretation and follow-up of these results are needed. The main goal of this project to collect 200 initial screenings, including those who progressed to the COPS questionnaire, did not dive into further examination of how many patients truly have clinically concerning BDD symptoms that may require psychiatric intervention based on the objective assessment by the provider, nor the COPS

numerical scoring. The 18.18% of those in this project who selected at least one or more negative motivators and proceeded to the COPS questionnaire aligns with percentages found in previous studies of patients having BDD symptoms within the category of medical cosmetic treatment.

The root causes of why such a small number of patient screenings were collected need to be deliberated, and therefore can be the implication of skewed results. Despite the small number of screenings completed, the results yielded from this project provided the practice site with a baseline evaluation of patients who may have underlying BDD symptoms ranging from mild to moderate. Information such as this is beneficial for medical aesthetic practitioners to be cognizant of when treating all patients and throughout the provider's career in medical aesthetics. Although the number of screenings collected was smaller than anticipated, the results are sufficient evidence to implement this screening protocol for the future standard of practice and to encourage education on how to read COPS scoring. If implemented in that way, there is hope for the future of this practice to detect and refer patients with BDD to psychiatric specialty and decrease the occurrence of patient dissatisfaction with cosmetic treatment through provider refusal based on the interpretation of screening scores.

Lessons Learned

Key Takeaways from Implementation

The implementation process was not without obstacles, setbacks, or in absence of requiring flexibility and readjustments. A major takeaway during this project was releasing assumptions of how simplistic providing screening to patients and collecting said screenings would be in an initial doctoral project. Furthermore, providing more in-person support to medical providers in implementation, especially in the initial few days, could have negated observed

issues with the delivery of screenings to patients and possibly reduced patient refusals or hesitations.

Pandemic Related Obstacles and Problems

The ongoing novel coronavirus (COVID-19) pandemic played a key role in negatively impacting the implementation and goal accomplishment of this project. During the first week of execution, one of the two medical providers, particularly the more established and experienced provider, became significantly ill with a COVID-19 infection and was unable to see patients at one of the clinic sites. This resulted in a decrease in the number of screenings administered at the beginning of the project. Furthermore, throughout the four-week implementation, numerous patient appointments were canceled due to COVID-19 exposures and positive infections requiring quarantine.

Additional Obstacles and Challenges

Upon reflection and consideration of feedback given regarding how the project leader could have yielded a higher rate of administering screenings to all patients and preventing refusal to be screened anonymously, one solution included more training prior to implementation focused on provider's delivery and explanation. Particularly more attention is paid to the less experienced provider who is newer to this practice with less than one year, specifically nine months, of medical aesthetic experience. Prior to the project start, training and verbiage delivery instructions regarding screenings were not considered to be an element of process measure success by the project leader; however, it was reconsidered to be integral for project goal success upon reflection post-implementation.

The occurrence of unexpected timeline delays interrupted project process measurements with respect to data analysis of results. A major contributing factor in the data collection process that therein affected data reporting and interpretation was found in mailing surveys from the organization site to the project leader. On many occasions, the project leader reminded medical providers collecting screenings to mail them as soon as possible. A delay of approximately 10 days from the final estimated collection date occurred, therefore, delaying the comprehensive input and analysis of data into the project manuscript. In retrospection of this project, consideration of a longer timeline for the preparation, implementation, and collection of data would have benefited the overall process.

Future considerations for completing a project parallel to this will require numerous adjustments and considerations learned in the implementation of this specific project. A project timeline longer in length than the allotted four-week container chosen for this circumstance will provide for more screenings to be completed. Increasing project time length can yield a larger sample size while allowing for patient refusal to participate without causing a negative effect on partaker size. Additionally, prior to implementation, increased preparation for those administering screenings with comprehensive and in-depth training interpreting COPS scores in the determination of mild to severe body dysmorphia symptoms will only benefit the outcomes of the project and possibly even the number of screenings collected. Ensuring the medical providers understand the importance of preventing treatment of patients exhibiting dysmorphic symptoms revealed in screening scores they can interpret and having treatment referral options can aid in stronger buy-in of key stakeholders.

Limitations

A few minor contributing factors were summed together to create the overall limitations observed within the life of this project. The final sample size was smaller than anticipated, which could have been due in part to the short duration of data collection and provider delivery method, therefore, impacting the generalization of results. A larger number of patients and longer project duration would have provided a collection of more valid and reliable measures of BDD symptoms within the medical aesthetic patient population. The method of collection in this project did not include the role of a questionnaire evaluator to monitor final COPS scores in real time due to the geographical distance of the project site(s) and the project leader unable to be on at these clinics daily also contributing to the interpretation of findings. Including an increased number of providers and additional aesthetic medical clinics to administer higher numbers of screening protocols in varying medical cosmetic environments would have positively benefited the relationship between the practice change and the findings of the project.

Recommendations for Practice

Future recommended practice implementation of this project includes various overlooked details or additional foundational aspects not completed in this or previous attempts that may progress the success of subsequent attempts when utilized or considered. There is a predominant need for a significantly increased volume in the number of screenings collected in various medical aesthetic clinical settings to broaden and generalize result findings. A significantly longer implementation period, possibly months to a year, is necessary not only for potential setbacks but also to provide a further timeframe for the increased number of screenings to be

completed. Empowering the clinic staff through further education in effective methods to deliver the screening, as well as independence and autonomy in reading results of the COPS questionnaire, will further the standard of practice in the detection of BDD symptoms in patients and determination for referral to mental health. Finally, the collection of additional patient demographics such as economic status, reasons for seeking treatment, and past medical aesthetic treatment history could be beneficial information for future project attempts.

Reflection of Educational Journey

My educational journey as a doctorly prepared nurse practitioner will have a significant positive impact on the quality of my nursing practice, and a change-focused impact on future patient treatment planning and care management. The completion of the doctor of nursing curriculum at MSU, including the implementation of a quality improvement project focused on the application within a medical aesthetic practice, has prepared me to be a successful change leader to improve the standard of practice and safer patient outcomes as the current leader of an established medical aesthetic practice. The translation of evidence in findings from my quality improvement project to daily practice standard changes has created the innovative leadership skills necessary for my future nursing practice. Finally, I have been instilled with a spirit of curiosity and investigation that will serve me well in participating in future quality improvement projects and medical research.

MSU's Doctorate of Nursing (DNP) program has further prepared me as a developed leader in my established business and increased my competence and confidence as a new medical practitioner. The educational foundation provided in didactic coursework focused on business, leadership, clinical knowledge, and current medical research over the past three years

has provided me with introductory skills and a knowledge base to provide economical, safe, and holistic decision-making and advocating for patient care planning and coordination. Furthermore, I feel adequately prepared to examine the current literature regarding existing problems within medicine and disseminate statistically significant data.

Reflection on Doctor of Nursing Essentials

Essential I: Scientific Underpinnings for Practice

The education gained through my doctorate program addressed Essential I: Scientific Underpinnings for Practice in numerous curricula both in didactic work and clinical applications. My knowledge and application of understanding nursing science are quantitatively evident in the 3.78 grade point average (GPA) I achieved during my academic commitment at MSU. This GPA is a critical factor reflecting my dedication to deep educational understanding and direct application of the principles of nursing as well as integrating concepts of nursing science outlined in Essential I.

Further evidence of DNP Essential I is revealed in the application of clinical and biological didactic knowledge gained in coursework addressing such topics outlined by the American Association of Colleges of Nurses (2006) including, “human biology, genomics, the science of therapeutics, the psychosocial sciences, as well as the science of complex organizational structures”) and “philosophical, ethical, and historical issues inherent in the development of science” (p. 9). Taking the initiative to comprehend this knowledge during the semester and directly apply it in clinical patient hours witnessed by both preceptors and MSU clinical faculty, evidence of my personal use of this DNP Essential is discernible in the clinical documentation of patient cases, clinical Subjective Objective Assessment and Planning (SOAP)

notes and evaluations completed on my observed performance in Typhon online platform and academic grading.

In alignment with Essential I, I have learned in my clinical experience and didactic work various methods to improve approaches to best practice and standards of care. Throughout the past three years, I have been involved in numerous group projects focused on ground up development of a quality improvement project applied to areas of medicine such as preventative screenings for postpartum depression and anxiety. In addition, in my final doctorate presentation, I individually initiated a quality improvement project implementing an established protocol used for body dysmorphia disorder screening for medical aesthetic practice.

Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking

The application and use of Essential II: Organizational and Systems Leadership for Quality Improvement and Systems Thinking were experienced most frequently in my clinical exposures throughout this program. On one of my most recent occasions in my last clinical semester, I had the opportunity to partake in changes in practice standards and increase safety in care strategies. In this example, I participated in improving practitioner delegation of job responsibilities and training inexperienced medical assistants to increase workflow and patient care productivity within an urgent care setting.

One specific practice change I witnessed included a medical assistant completing a medication check of an intramuscular dose with myself and my preceptor. This medical assistant had drawn up 2 grams of Rocephin with 1% lidocaine with epinephrine. The preceptor had questioned why lidocaine with epinephrine was being added; the medical assistant could not

answer why. Currently, there is no protocol at this newly established urgent care for what specific analgesic may be added to intramuscular injections. This scenario sparked the need for specific protocols not only related to this scenario but also for many more protocols to be drafted to ensure patient safety and quality of practice. The participation in scenarios such as this built leadership and created a sense of strong practice measures and awareness of the importance of policy formation I will use as a doctorate nurse practitioner.

Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice

The use and application of clinical scholarship and encouragement of analytical methods for evidence-based practice have been strongly emphasized throughout MSU's doctorate nurse practitioner program didactic learning to be applied in real-life scenarios and nursing practice. Through various group projects, class discussion topics, and academic papers focused on the application of innovative ideas to clinical and reality-based scenarios, Essential II was met in various instances within my doctorate program paralleling standards set by the American Association of Colleges of Nurses (2006) in that "the scholarship of application expands the realm of knowledge beyond mere discovery and directs it toward humane ends" (p. 11). Numerous assignments challenged me to think beyond the academic and textbook application of research-focused practice, rather than how the assignment topic(s) would be practically applied in real-life scenarios and the impact on patients' health of practice-focused medicine.

Essential VI: Interprofessional Collaboration for
Improving Patient and Population Health Outcomes

MSU's DNP program has prepared me to be a better leader within medicine and within my established medical aesthetic practice. The emphasis on leadership development and skills on both intraprofessional and interprofessional teams will serve my current growing practice to be adaptable, flexible, and innovative. Numerous specific assignments stand out in my academic timeline at MSU, which contributed to my current improved business and medical leadership character.

One of the assignments included an examination of the current patient workflow map in my clinic during the COVID-19 pandemic regulations of social distancing and proper sanitization measures. This assignment required meeting with my current team of 15 employees to gain more perspective on the best patient flow in the clinic from the entrance to the front doors to checking out after their treatment. During this assignment process, my team and I followed the steps of DNP Essential VI, ensuring to "employ effective communication and collaborative skills in the development and implementation of practice models" (American Association of College of Nurses, 2006, p. 15.). After communication and collaboration were conducted, a drafted workflow map was made, and my team conducted many mock run-throughs of this patient flow. The map was revised efficiently, and we adopted this method into my practice during the heightened COVID-19 restrictions. Many patients at my clinic provided positive feedback on the safety and cleanliness of this streamlined process we had created as a team. Tools such as this learned and applied within this DNP program have instilled growth as a leader of a current medical practice and will continue to instill a foundation of desire to collaborate and improve processes for patients to improve overall care delivery.

Essential VIII: Advanced Nursing Practice

By far, the greatest reflection in my academic timeline at MSU within this DNP program has been on the growth attained to transition from my practice as a registered nurse into a doctorly prepared advance practice nurse practitioner. This is a monumental shift toward the highest educational achievement of my nursing career. My scope of practice has significantly widened and thus to my responsibility for patient care management, now based upon the foundational assessment skills learned within this program in addition to my nine years' experience as a practicing nurse to determine the best course of action for patients within my care.

The standards of desired practice and leadership characteristics set forth by my academic faculty, clinical preceptors, and fellow cohort practitioners have shown mannerisms, which I wish to incorporate into my practice with a foundation of evidence-based decision-making, ethics, kindness, and advocacy. Practitioner examples witnessed during my DNP program have taught me the increasingly significant impact the nurse practitioner has on future leadership and change in healthcare transformation. Furthermore, I have been instilled with a sense of pride for completing the coursework of being a doctorly prepared nurse practitioner with a rich educational foundation focused on leadership, quality improvement, business ownership, and research supported and evidence-based knowledge.

I anticipate a learning and experience curve in the future as I enter the medical world as an independent practitioner. I embrace this challenge with open arms as I feel confident in the knowledge instilled within me through my DNP program. I look forward to one day giving back to the nursing community through teaching those entering practice as new DNPs seeking mentorship, as DNP students seeking preceptorship, and those DNP students within the

classroom setting. Finally, I feel confident and inspired to contribute to further advancements in research for evidence-based practice changes and improvements as a doctorate nurse practitioner.

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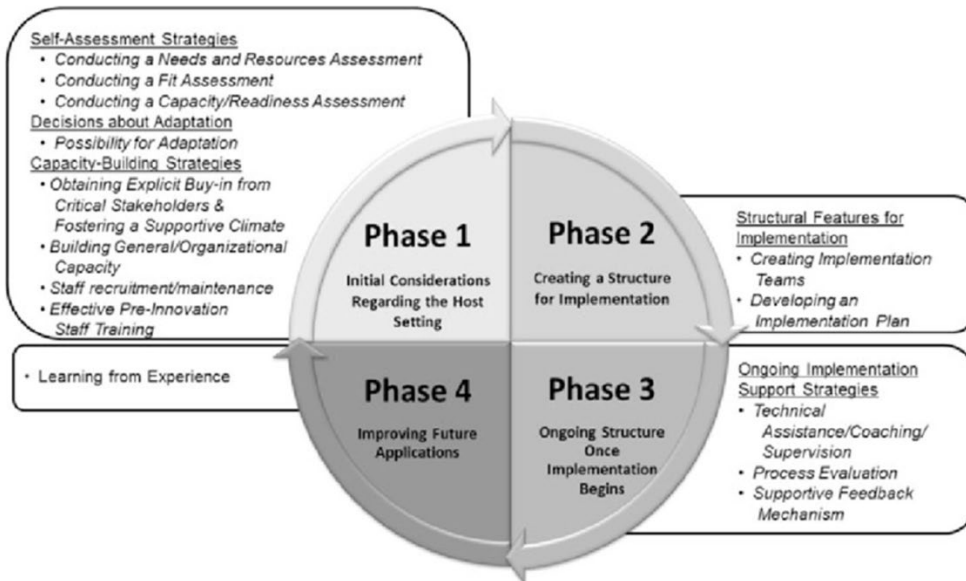
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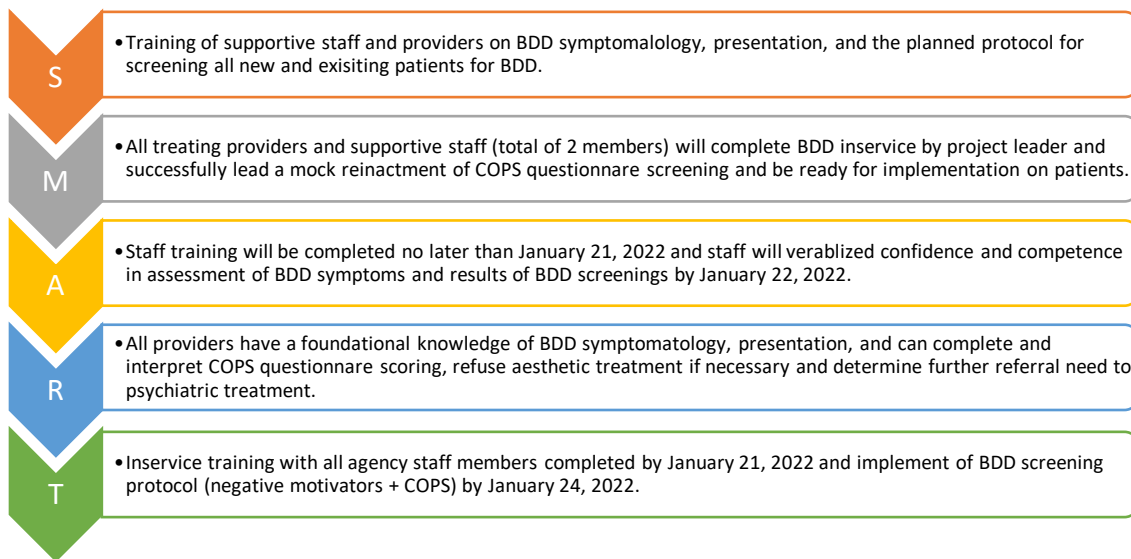
APPENDICES

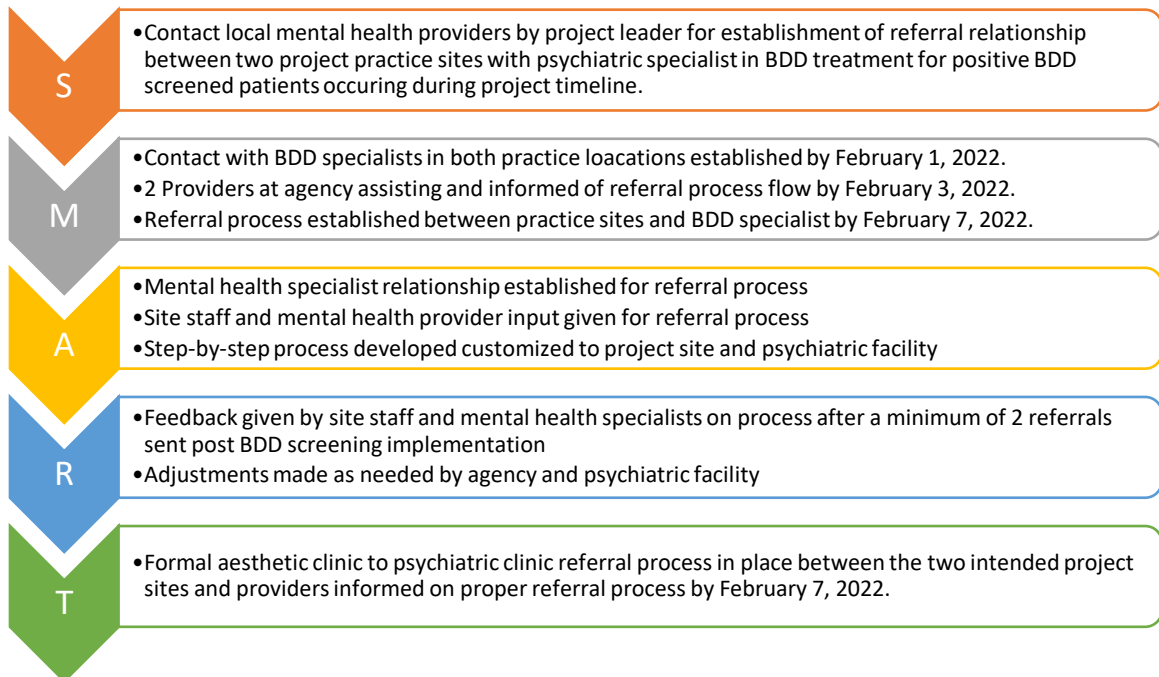
APPENDIX A

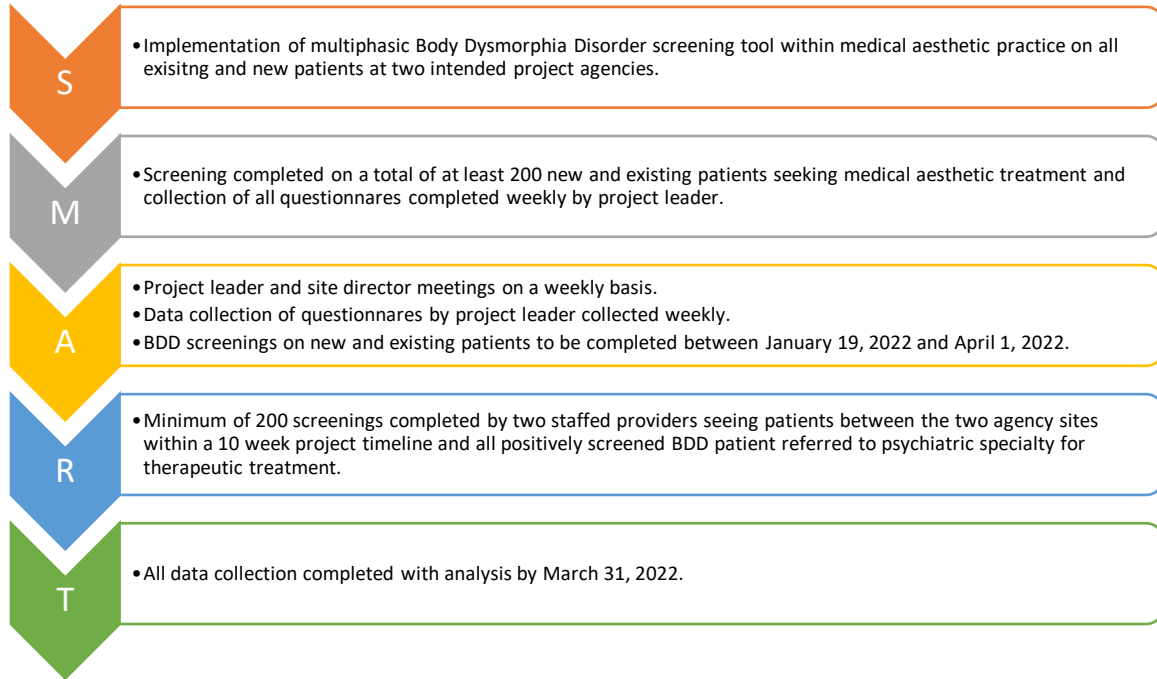
PROJECT DOCUMENTS



The Quality Improvement Framework







SMART Goals

PERSONALIZED GOALS

Name: _____

Date: _____

- | | |
|--|---|
| <input type="checkbox"/> Look less saggy | <input type="checkbox"/> Look more masculine |
| <input type="checkbox"/> Look more attractive | <input type="checkbox"/> Look younger |
| <input type="checkbox"/> Look healthier | <input type="checkbox"/> Look like I can compete in the workplace |
| <input type="checkbox"/> Look slimmer | <input type="checkbox"/> Look perfectly symmetrical |
| <input type="checkbox"/> Look perfect | <input type="checkbox"/> Look more vibrant |
| <input type="checkbox"/> Look less angry/ more approachable | <input type="checkbox"/> Look like I didn't spend days in the sun |
| <input type="checkbox"/> Look sexier | <input type="checkbox"/> Look less tired |
| <input type="checkbox"/> Look less like my older relatives | <input type="checkbox"/> Fix one particular flaw |
| <input type="checkbox"/> Look 20 again | <input type="checkbox"/> Look happier |
| <input type="checkbox"/> Look more feminine | |

Negative physical motivator questionnaire (Fletcher, p.1260, 2021)

YOUR LOGO HERE

Male ___ Female ___ Non-Binary ___ 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 1/2 of the time Avoid 1/3 of the time Avoid 1/4 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.]

Cosmetic Procedure Screening Questionnaire (Fletcher, p.1260, 2021)



Continuous multiphasic approach to BDD screening in cosmetic setting (Fletcher, p.1260, 2021).

