BODY DYSMORPHIC DISORDER PREDICTING SOCIAL ANXIETY AMONG YOUNG ADULTS: MEDIATING ROLE OF SOCIOCULTURAL ATTITUDES TOWARDS APPEARANCE

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DECLARATION

I, Muqadas Ali, Registration No. 433-FSS/MSCP/F21 student of MS in the subject of Psychology, session 2021-2023, hereby declare that the matter printed in the thesis titled: **Body Dysmorphic Disorder predicting Social Anxiety among young adults: mediating role of Sociocultural Attitudes Towards Appearance** is my own work and has not been printed, published and submitted as research work, thesis or publication in any form in any University, Research Institution etc. in Pakistan or abroad.

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Certified that the research work contained in this thesis titled: **Body Dysmorphic Disorder predicting Social Anxiety among young adults: mediating role of Sociocultural Attitudes Towards Appearance** has been carried out and completed by Muqadas Ali, Registration No. 433-FSS/MSCP/F21 under my supervision.

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Dedication

This study is wholeheartedly dedicated to my beloved parents, who have been my source of inspiration and given me strength when I thought of giving up. They continually provide their moral, spiritual, emotional, and financial support. Especially to my father, who shared his words of advice and encouragement to finish this study.

Lastly, I dedicate this research to Almighty Allah. Thank you for the guidance, strength, power of mind, protection, and skills, and for giving me a healthy life. All of these, I offer to you.

Table of Contents

List of Tables

List of Figures

List of Annexure

List of Abbreviations

APA	American Psychological Association
DSM	Diagnostic and Statistical Manual of Mental Disorders
SPSS	Statistical Package for Social Sciences
BDD	Body Dysmorphic Disorder
SA	Social Anxiety
SATA	Sociocultural Attitudes Towards Appearance

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Abstract

This research analyses the effect of body dysmorphic disorder on social anxiety, as well as sociocultural appearance attitudes. It utilized a cross-sectional design with 400 young adults (18–29 years, males & females) from Islamabad and Rawalpindi. Data was gathered using the Body Dysmorphic Disorder Questionnaire (Phillips, 2005), Liebowitz Social Anxiety Scale (Michael Liebowitz, 1987), and Sociocultural Attitudes Towards Appearance Questionnaire-3 (Heinberg et al., 1995). The study found a significant positive association between body dysmorphic disorder and social anxiety among young adults. It also revealed a positive relationship between body dysmorphic disorder and sociocultural attitudes towards appearance. Individuals with higher body dysmorphic disorder levels tend to exhibit more negative attitudes towards appearance, suggesting a reinforcing effect of the disorder on societal beauty ideals. However, there was no significant relationship between sociocultural attitudes towards appearance and social anxiety. The study suggests that other factors, beyond sociocultural attitudes towards appearance, also contribute to the relationship between body dysmorphic disorder and social anxiety. The study found that female young adults have higher rates of body dysmorphic disorder compared to male young adults, with no significant difference in sociocultural attitudes towards appearance or social anxiety. Young adults below 25 years old also have higher rates of body dysmorphic disorder. Graduate young adults have higher levels of body dysmorphic disorder compared to postgraduate students. Unmarried/single young adults have higher rates of body dysmorphic disorder compared to married young adults. Unemployed/student young adults have higher levels of social anxiety compared to employed young adults.

Keywords: *Body dysmorphic disorder, sociocultural attitudes towards appearance, social anxiety*

Chapter 1

Introduction

Body dysmorphic disorder is a psychological condition where individuals become excessively preoccupied with perceived flaws or imperfections in their appearance, which may be minor or even nonexistent. This intense focus can lead to significant distress and impairment in daily functioning. Body dysmorphic disorder is classified within the spectrum of obsessive-compulsive and related disorders, often manifesting through behaviors such as compulsively checking mirrors, seeking reassurance, and comparing one's appearance to others. Social anxiety is a persistent fear of social interactions or situations where one might be judged or embarrassed. This fear can be debilitating and interfere with daily life. Sociocultural attitudes towards appearance encompass the societal pressures and standards that dictate how individuals should look, often influencing body image and self-esteem. These attitudes can shape how individuals perceive themselves and their worth, impacting their mental health and social interactions.

Body Dysmorphic Disorder

Body dysmorphic disorder is classified as an obsessive-compulsive and related disorder. It is characterized by persistent behaviors such as frequently checking oneself in mirrors, seeking reassurance, and often comparing one's appearance to others due to perceived flaws (Katharine et al., 2013). The most prevalent concerns are hair on the scalp and body, appearance characteristics, facial imperfections, legs, abdomen, breasts, lower abdomen, and intimate parts (Rosen & Reiter, 1996; Veale et al., 1996). According to various studies, individuals with body dysmorphic disorder exhibit a range of dysmorphic symptoms and frequently experience chronic tension or psychological conditions such as anxiety and depression (Al-Shahwan, 2015; Oosthuizen et al., 1998; Toh et al., 2017; Veale et al., 1996).

Body dysmorphic disorder is a prevalent condition that commonly impairs psychosocial functioning and is linked to significant levels of perceived tension and attempts at self-harm (Mayville, Katz, Gipson, & Cabral, 1999). Notably, body dysmorphic disorder often manifests during puberty but is usually only detected as one grows up (Thungana, Simpson, Patel, & Hollander, 2018).

Various research has found varying percentages of prevalence for body dysmorphic disorder, ranging from 1.9 percent in adults in the community (Veale et al., 2016) to an average of 3.3% in college and university students. The most commonly affected body sites in body dysmorphic disorder include the face, hair, mouth, and belly (Phillips et al., 2005; Rief et al., 2006), with patients generally experiencing a markedly low quality of life regarding their mental health. According to a poll of the Arab community, over fifty percent of respondents expressed excessive worry about dermatological issues, followed by concerns regarding weight, hair, and nose. Having serious worry may be an indicator of dysmorphophobia. This progressive condition has been associated with a considerable increase in the likelihood of suicidal thoughts, mental hospitalization, and substantial impairment in function (Angelakis et al., 2016). Body dysmorphic disorder often co-occurs with severe depression and anxiety, with reported cases ranging from 53-81% (Weingarden & Renshaw, 2016). Unfortunately, people experiencing body dysmorphic disorder frequently choose surgical operations to correct their imagined flaws rather than seeking psychiatric help services. That poses a severe risk, as body dysmorphic disorder is still inadequately detected and seldom treated by mental health professionals. To better identify body dysmorphic disorder, this suggests that figuring out the disorder and its frequent concurrent illnesses, such as depressive and anxiety disorders, is critical (Veale et al., 2016).

According to Neziroglu and Khemlani-Patel (2003), individuals with body dysmorphic disorder may exhibit fluctuating symptoms, including compulsive checking and fixing of their

appearance or persistent avoidance of reflective surfaces. Body dysmorphic disorder can significantly impact the sufferer's quality of life, resulting in significant distress, social isolation, and even suicidal thoughts. Although body dysmorphic disorder was officially recognized in 1987 in the DSM-III, the predicted incidence of body dysmorphic disorder ranges from 0.7% to 13% (Faravelli et al., 1997; Bilby, 1998), with variation likely resulting from different screening measures and study populations. Furthermore, many individuals with body dysmorphic disorder may not reveal the signs, as they are linked to feelings of shame, which makes it hard to deal with them and assess its prevalence accurately. Nevertheless, research has shown that body dysmorphic disorder is more common in individuals with a history of depression or anxiety and is often diagnosed during adolescence and early adulthood (Bohne et al., 2002; Neziroglu & Yaryura-Tobias, 1997). Clinicians should prioritize body dysmorphic disorder symptoms screening in using screening questionnaires for diagnostic interviews, given its significant impact on patients' lives (Grant et al., 2001; Zimmerman & Mattia, 1998).

Despite ongoing debates regarding the gender distribution of body dysmorphic disorder (BDD), recent studies suggest that it is equally distributed among genders (Neziroglu & Yaryura-Tobias, 1993). BDD typically begins between the ages of 14 and 20, though it can manifest at any age and its severity can vary widely among individuals (Neziroglu & Yaryura-Tobias, 1993). In severe cases, BDD symptoms can lead to patients becoming housebound, experiencing suicidal ideations, and even attempting suicide (Phillips et al., 1993; Perugi et al., 1997). For instance, a study involving dermatological patients who attempted suicide found that many reported having either acne or BDD as a contributing factor (Cotterill & Cunliffe, 1997). Additionally, it has been observed that individuals with BDD often have a history of somatoform disorders and suicide attempts (Fruensgaard & Flindt Hansen, 1988). Furthermore, research indicates that those with BDD experience significant impairments in functioning,

heightened distress, and lower life satisfaction compared to the general population (Phillips et al., 1993; Veale et al., 1996).

Bienvenu et al. (2000) found that families of individuals with obsessive-compulsive disorder (OCD) exhibited a higher prevalence of body dysmorphic disorder (BDD) and pathological grooming conditions, suggesting a genetic predisposition for these issues. However, their study did not examine family interaction styles or treatment outcomes. Wilhelm and Neziroglu (2002) reported that individuals with BDD often place disproportionate emphasis on their appearance, prioritizing it above other values such as family or career, which become secondary to achieving an ideal level of attractiveness. Buhlmann et al. (2002) discovered that individuals with BDD might focus excessively on body-related concerns during cognitive tasks, while Deckersbach et al. (2000) demonstrated difficulties with semantic and perceptual organization in these individuals. Selective attention could be a contributing factor in BDD, as patients may concentrate on perceived flaws, potentially disregarding their overall appearance. Veale (2004) suggested that viewing oneself through an outsider's perspective might exacerbate BDD concerns, leading to severe anxiety and persistent attention to distorted self-images. This selective attention might be influenced by the use of an outsider viewpoint rather than a field-focused approach, contributing to safety behaviors and ongoing worry, which can result in unsettled moods. According to Kozak and Foa (1994), Overvalued Ideation refers to a belief between rational thinking and delusions. Overvalued ideation is different from insight as it related to a patient's belief in a disorder rather than a cognitive judgment (Neziroglu et al., 1999). Overvalued ideation exists on a continuum and may vary across diagnostic categories and even in a single patient. However, high levels of overvalued ideation predict poorer treatment response in patients with body dysmorphic disorder (Neziroglu et al., 2001). People with body dysmorphic disorder display higher levels of obsessive-compulsive

symptoms compared to those with obsessive compulsive disorder, according to McKay et al. (1997). Concerns arise that this difference may negatively affect treatment outcomes.

According to Neziroglu's proposal of the two-factor model for acquiring and maintaining body dysmorphic disorder, genetics play a significant role in predisposing individuals to certain types of illnesses, which in turn helps rule out other potential ailments when under tension. It is suggested that anxiety-related disorders are more inclined to happen in body dysmorphic disorder patients (Neziroglu, 2008). Clinical knowledge has shown that positive reinforcement for one's appearance as a child or adolescent could strengthen the idea that looks are more valuable than behavior, resulting in feelings of self-worth based on beliefs about appearance (Neziroglu, 2008). Furthermore, early life experiences that are bodily focused, such as verbal insults or sexual assaults, may make someone more at risk of developing body dysmorphic disorder or other body image issues (Neziroglu & Yaryura-Tobias, 1997). Based on Mowrer's dual-factor justification of phobia formation and retention, it is suggested that body dysmorphic disorder starts and persists through negative reinforcement (Neziroglu, 2008).

According to Feusner and colleagues (2010), body dysmorphic disorder may be a perceptual condition in the parietal lobe's somatosensory strip. Patients with body dysmorphic disorder often display secondary symptoms due to higher-order conditioning, developing negative feelings towards a particular body part, which are transferred to other areas. These issues will be less beneficial to the individual because more complex stimulus conditioning elicits fewer behavioral responses than lower-order stimulation. Body dysmorphic disorder persists through operant behavior training methods, which involve reducing negative feelings through obsessive activities such as examining, hiding, and avoidance. These behaviors are reinforced through unfavorable reinforcement, which temporarily reduces anxiety regarding their appearance. Patients with body dysmorphic disorder may find it challenging to respond

to prevention since they are often reinforced for assessing their looks. Cultural and biological factors may contribute to differences in how men and women experience illness. By studying these variations, we can better understand the causes and mechanisms behind certain conditions. Studies indicate that both males and females are impacted by psychiatric disorders at different rates, with females being at a greater likelihood to encounter severe depression, and males being very likely to suffer from alcohol and drug use disorders. Studies have revealed some interesting gender disparities in the manifestation of mental illness symptoms. For instance, women are more inclined than males to suffer from rapid cycling and the depressive pole of bipolar illness, while being less likely to have only manic episodes (Angst, 1978; Bauer et al., 1994; Kessler et al., 1997).

Despite the frequency and severity of body dysmorphic disorder, little empirical attention has been given to this crucial element of the disorder. However, body dysmorphic disorder has been studied in two earlier investigations, with one research from America including 188 participants and the other from Italy with 58 participants (Phillips & Diaz, 1997; Perugi et al., 1997).

Regarding various characteristics such as the age of onset for body dysmorphic disorder, recurrence and defensive behaviors, comorbidities, impaired functionality, and therapy acquired, both analyses showed more commonalities than discrepancies between genders. The investigations discovered more analogies than contrasts regarding areas of concern. However, there were a few differences found between genders. Females appear prone to developing bulimia nervosa and other eating disorders, while males tend to be more concerned with their sexual organs. The gender disparities between the two studies differed in many ways. For example, women in the U.S. study complained about excessive body hair more often than males in the Italian study. The American survey revealed that men were inclined to be unmarried. As was the case in Italian research, males were prone to have bipolar disorder,

while women were more apt to use concealment, inspect mirrors, and have associated panic disorders. The study conducted in the United States also discovered that women were more inclined to conceal with their hands or cosmetics, pluck their skin, and seek non-psychiatric medical therapy or surgery for imagined visual faults (Phillips et al., 2006).

The reasons for conflicting results in studies on body dysmorphic disorder are uncertain, as they may stem from differences in sample selection or cultural influences. While there is limited information on the hazards that lead to the growth of body dysmorphic disorder, the research aims to identify those specific to the disorder rather than other illnesses. These risk factors may include biological tendencies, nervousness, perfectionism, or nervous behaviors, which could have hereditary components. Additionally, experiencing childhood adversity, such as poor peer connections, social isolation, or bullying based on appearance or skills, may have adverse effects. Other factors contributing to body dysmorphic disorder onset include physical stigmata during teenage years, heightened aesthetic perception abilities, and education or training in the arts and design (Veale, 1996; Veale & Lambrou, 2002; Veale et al., 2002).

The exploration of body dysmorphic disorder reveals a profound connection with social anxiety. Extensive research consistently demonstrates a significant overlap between body dysmorphic disorder and social phobia. Individuals with body dysmorphia display notably elevated levels of social anxiety compared to those without clinical conditions (Phillips et al., 2017).

Social Anxiety

The DSM-5-TR describes social anxiety as a continuous fear of social situations or public displays that could lead to shame (American Psychiatric Association, 2023). The anxiety response could appear as a panic episode that is either situationally dependent or predisposed. Social anxiety can arise in various situations, including speaking, writing, or eating outside,

starting or sustaining discussions, attending gatherings, going on a date, getting together with new people, or talking to authorities. The essential characteristic of phobia of social settings is the anticipation of unfavourable evaluation by others, and public speaking is the most common social circumstance people dread. The DSM-5-TR specifies that a generalized social anxiety disorder should be diagnosed "when the person's worries are associated with engaging in social situations" and uses the number of feared social situations to identify DSM subtypes,., Studies have reported that the general population's point prevalence rates for body dysmorphic disorder range from 0.7 percent to 2.4 percent (Faravelli et al., 1997; Koran et al., 2008; Otto et al., 2001; Rief et al., 2006).

Additionally, research has indicated a relationship between body dysmorphic disorder and social anxiety disorder in terms of clinical details, socioeconomic attributes, duration and onset, clinical characteristics, and therapy results (Fang & Hofmann, 2010; Fang et al., 2011; Kelly et al., 2010). Fang and Hofmann (2010) reported that 4.8-12 percent of people with social anxiety and 12-68.8 percent of people with BDD fulfill the requirements for both disorders. The pervasive fear described in social anxiety often extends to concerns about one's physical appearance, linking it with sociocultural attitudes. Sociocultural attitudes toward appearance shaped by societal standards from classmates, families, and media contribute to internalization and comparison of ideal appearance, impacting mental health (Liao et al., 2023).

Sociocultural Attitudes Towards Appearance

Sociocultural attitudes towards appearance, which refer to societal standards and values placed on physical appearance, can significantly impact body image and self-esteem (Cash & Pruzinsky, 2002). According to Thompson's sociocultural attitudes toward appearance theory, these attitudes are perpetuated through classmates, families, and media, which affect physical perception through the internalization and comparison of ideal appearance (Schaefer et al.,

2015). Research has shown that parental care and insecure attachments can protect against absorbing perfect media portrayals and experiencing body discontent (De Vries & Vossen, 2019). A lack of emotional support and care may increase internalization and comparison, potentially leading to mental illnesses such as body dysmorphic disorder and social anxiety (Morton et al., 2020). According to Heinberg (1996), one of the primary factors contributing to distorted body image is sociocultural pressure, particularly among women, to conform to societal norms for body appearance. The sociocultural attitudes towards appearance describe women's awareness and internalization of Western ideals for a thin body ideal. Smolak et al. (2001) and Heinberg et al. (1994) explain that awareness of societal standards for appearance is influenced by media exposure and the opinions of those in one's immediate environment. Additionally, Williams et al. (2003) found a correlation between exposure to newspapers and the unconscious acceptance of thinness norms, while T.V. viewing was related to awareness but not internalization.

Theoretical Framework

The proposed research can be approached from different theoretical perspectives.

Cognitive-Behavioural Model: According to Veale (2001, 2002) and Veale et al. (1996), a proposal has been put forward that highlights the importance of selective attention to an exaggerated body image and behaviors such as staring in the mirror in maintaining the self as an appealing element. This proposal is similar to social phobia (Clark & Wells, 1995), characterized by an obsessive preoccupation with oneself and processing the persona as a public matter. Individuals with body dysmorphic disorder tend to judge themselves primarily based on their appearance and may experience varying degrees of social anxiety that can verge on paranoia, which sets body dysmorphic disorder apart from social phobia. Body dysmorphic disorder sufferers often indulge in repetitive behaviors, such as mirror gazing. Despite frequent

reassurances from family members or close friends that they appear normal, sufferers often disregard these affirmations. The thought of "They are just being nice to me" or "All parents think their children look fine" crosses their minds, causing them to believe they are being deceived or mocked.

Social Comparison Theory: According to Festinger's social comparison theory (1954), individuals require an accurate evaluation of their thoughts and abilities, which they achieve through comparing themselves. When individuals compare themselves to others perceived as inferior, it is referred to as a downward comparison. Conversely, when people compare themselves to those viewed as superior to them, it is referred to as an upward comparison. Gibbons (1986) suggested that negative self-comparisons may boost one's self-esteem, while comparing oneself favorably to others can have the opposite effect (Tesser et al., 1988). Research has found that engaging in upward social comparison, such as comparing one's body to the cultural ideals portrayed in media pictures, can lead to body dissatisfaction and social anxiety (Cooley & Toray, 2001; Kaye et al., 2002).

Self-Discrepancy Theory (SDT): According to self-discrepancy theory, three crucial areas of self-belief aid in understanding emotional experiences. These three types of selves include the actual, ideal, and should or ought (Higgins, 1987). The best possible and realistic selves are defined as self-guides. A person's susceptibility to unpleasant feelings is determined by a discrepancy between their true selves and self-guides. For example, a self-actual and self-ideal conflict can make a person more susceptible to depressive emotions such as sadness and disappointment due to unfulfilled ambitions and objectives. Furthermore, a self-actual/other should discrepancy can lead to anxiety resulting from the perception of failing to meet obligations and deserving punishment. This anticipation of unfavourable outcomes can cause fear in individuals with social phobia or body dysmorphic disorder, who have a noticeable gap

between how they view themselves and how they believe others should view them (Strauman, 1989).

The Heimberg Model of Social Anxiety: According to a study, the evaluation process begins with the audience's perception of the subject, including anyone who can evaluate them, regardless of whether they do so. This perception can lead the individual with social anxiety to imagine how they are being viewed, resulting in a mental representation of "Your image of my image of you." Due to a history of negative social experiences and erroneous self-perceptions, individuals with social anxiety often believe that the audience has a low view of them while simultaneously feeling that they have unreasonably high expectations for their performance. This discrepancy creates a mathematical problem, leaving the individual feeling inadequate and anxious about the evaluation process. This anxiety can contribute to a vicious cycle, as attention bias causes the audience to interpret any visible signs of anxiety negatively, further deflating the individual's self-image. As long as the individual is in this scenario, the cycle continues, and they anticipate similar situations in the future (Heimberg et al., 2010).

Sociocultural Model: People with body dysmorphic disorder and social anxiety may be particularly vulnerable to societal norms and pressures, which can worsen their negative self-perceptions and distorted thought patterns. These societal influences are evident in media representations, cultural ideals, and social expectations, emphasizing that appearance and behavior impact success and happiness. The sociocultural model proposes that social change interventions can effectively prevent and treat body dysmorphic disorder and social anxiety by reducing individuals' stress and anxiety and improving their overall well-being. These interventions promote a more positive and realistic attitude towards appearance and social behavior (Thompson & Stice, 2001).

Components of Body Dysmorphic Disorder, Social Anxiety and Societal Attitudes Towards Appearance

Cognitive. People with body dysmorphic disorder may hold negative perceptions about their physical attributes and themselves, which can affect their mental well-being and lead to social anxiety (Feusner et al., 2010). For example, they may feel their skin is imperfect or their nose is too broad. The unfavorable thoughts and beliefs can assist in the emergence of body dysmorphic disorder and related concerns and distress. They might also worry that others will criticize them for their perceived physical defects, which can cause shame and embarrassment.

Behavioural. According to Feusner et al. (2010), people who suffer from body dysmorphic disorder may harbor negative perceptions about their physical attributes and themselves, which can harm their mental well-being and lead to social anxiety. These individuals may have sentiments of humiliation and disgrace because of their imagined bodily imperfections, worrying that others will criticize them. That can contribute to body dysmorphic disorder-related concerns and distress, such as feeling that their skin is flawed or their nose is too broad.

Emotional. According to Sarwer et al. (2010), people with body dysmorphic disorder may experience various emotions related to their appearance, such as shame, despair, and anxiety. They often suffer from high anxiety concerning their looks and social situations, fearing their appearance might be scrutinized or evaluated. The emotional component of body dysmorphic disorder is also linked to depression and hopelessness. These emotions may increase general emotional arousal and decrease the person's ability to handle social situations, potentially leading to social anxiety.

Interpersonal. According to Wardle and Rogers (2014), the development and persistence of body dysmorphic disorder (BDD) and social anxiety (SA) can be influenced by interpersonal factors such as social interactions and relationships. Individuals with body dysmorphic disorder may have experienced criticism or ridicule regarding their appearance from peers or family members. At the same time, those with social anxiety may have encountered negative social situations that reinforced their fears of rejection or humiliation. However, positive relationships and social support can protect against the harmful effects of body dysmorphic disorder and social anxiety, among other interpersonal issues.

Factors of Body Dysmorphic Disorder, Social Anxiety, and Societal Attitudes Towards Appearance

Biological Factors. Research suggests that hereditary and neurobiological factors could contribute to the growth and persistence of body dysmorphic disorder and social anxiety (Feusner et al., 2010; Heimberg & Becker, 2002; Ruscio et al., 2010). Specifically, people with body dysmorphic disorder may exhibit altered brain functioning in regions associated with visual processing and emotional regulation, which may manifest early in life. Likewise, social anxiety has been linked to structural and functional changes in brain regions connected to threat perception and social cognition. Studies have indicated that both disorders may have a genetic component, with certain genetic variations potentially increasing susceptibility to these conditions.

Psychological Factors. According to Phillips (2005), those with body dysmorphic disorder often hold distorted beliefs about their appearance and have negative self-perceptions, leading them to engage in repetitive and obsessive behaviors such as inspection, grooming, and seeking reassurance. Similarly, those with social anxiety may turn to avoidance or safety behaviors such as alcohol or drug abuse to manage their anxiety in social situations (Heimberg

& Becker, 2002). These maladaptive cognitive and behavioral patterns may contribute to developing and exacerbating body dysmorphic disorder and social anxiety symptoms.

Sociocultural Factors. Wardle and Rogers (2014) state that sociocultural factors, such as social and cultural norms and beliefs, may contribute to the management of body dysmorphic disorder and social anxiety. Western societies' emphasis on physical beauty and social status can lead to body dysmorphic disorder and social anxiety development. The media and advertising often depict unrealistic and idealized beauty standards and social success, leaving individuals who do not conform to these standards feeling inadequate and ashamed. Furthermore, social factors such as bullying, exclusion, and discrimination during childhood can fuel negative self-perceptions and beliefs about one's worth and social ability, potentially leading to body dysmorphic disorder and social anxiety (Ruscio et al., 2010).

Environmental Factors. According to Moscovitch (2009), environmental factors such as stressors and life experiences can contribute to the growth and persistence of body dysmorphia and social anxiety. For instance, individuals with body dysmorphic disorder may have experienced a significant life event like a breakup or job loss that triggered their symptoms. At the same time, those with social anxiety may have undergone a traumatic experience, such as a public speaking failure or social rejection.

Cognitive Biases. According to Veale and Riley (2001), individuals with body dysmorphic disorder and social anxiety may exhibit cognitive biases that lead them to view themselves and their surroundings in a negative light. For example, those with social anxiety may perceive a greater likelihood of receiving negative social feedback, while those with body dysmorphic disorder may hyper-focus on perceived imperfections in their appearance. These cognitive biases may also affect the relationship between body dysmorphia, social anxiety, and

societal attitudes towards appearance. They could play a role in the growth and persistence of these conditions.

Affective Dysregulation. According to Diedrich and Voderholzer (2015), affective dysregulation, characterized by difficulty managing emotions and a tendency towards negative emotions and avoidance of unpleasant stimuli, may contribute to developing and maintaining body dysmorphic disorder and social anxiety. Compulsive appearance-related behaviors as a means of emotional control may also be linked to these conditions and sociocultural beauty ideals.

Attentional Biases. According to Mancuso et al. (2016), attentional biases are prevalent among people with social anxiety and body dysmorphic disorder, leading them to selectively focus on stimuli related to appearance, such as their or others' physical characteristics. This preoccupation with perceived flaws in their appearance or others' looks can lead to the growth and persistence of these disorders. Additionally, attentional biases may play a role in the association between body dysmorphic disorder, social phobia, and societal attitudes towards appearance, as individuals are more likely to be influenced by media messages and social environments that emphasize appearance.

Appearance-Related Teasing. According to Murray et al. (2014), negative comments or behavior directed towards one's physical appearance, known as appearance-related teasing, can contribute to managing body dysmorphic disorder and social anxiety. Individuals may internalize these unfavorable messages and become fixated on perceived imperfections in their appearance. Appearance-related teasing can also reinforce societal norms and expectations for social behavior and appearance, potentially linking body dysmorphic disorder and social anxiety to sociocultural views towards appearance.

Social Support. According to Cabezas et al. (2017), positive social connections and interactions can protect against the adverse outcomes of body dysmorphic disorder and social anxiety. Furthermore, the link between body dysmorphic disorder, social anxiety, and attitudes towards appearance may be influenced by social support, as individuals with strong social connections are less likely to internalize negative messages about their appearance and more likely to adopt positive attitudes towards themselves and others.

According to research, the connection between body dysmorphic disorder, social anxiety, and appearance-related sociocultural views is influenced by a combination of personal, social, and cultural variables interacting with five specific variables.

Literature Review

According to Veale (2004), individuals with body dysmorphic disorder experience overwhelming fear of potential bodily deformities that they may not have noticed. The dysmorphophobia individual is often depressed and constantly checks their appearance in mirrors, measuring their nose length and examining their skin for imperfections. The only way to alleviate the anxiety caused by these attacks is to measure body proportions or limb straightness until the individual is reassured that no deformities have occurred. The attack of doubts regarding one's appearance can escalate to significant pain and desperation if left unaddressed. While some concern about one's appearance is considered normal, excessive worries that significantly affect one's quality of life may indicate body dysmorphic disorder. Although the term appearance anxiety was coined by Morselli over a century ago, research indicates that body dysmorphic disorder is still underdiagnosed (Veale et al., 2016). Without proper therapy, body dysmorphic disorder can have a chronic course, and failure to recognize its symptoms can harm a person's mental and physical well-being (Phillips et al., 2013).

Body dysmorphic disorder, as outlined in the DSM-5, involves an overwhelming concern and fixation on an imagined deficiency or physical anomaly, leading to extreme sadness and diminished functioning (American Psychiatric Association, 2013). The ICD-11 from the World Health Organization characterizes body dysmorphic disorder as a continuous obsession with a few imagined physical imperfections that are undetectable or marginally perceptible to others, often accompanied by notions of reference and fear of judgment. The requirement for body dysmorphic disorder also highlights the recurring actions or mental activities in reaction to appearance-related worries and emotional distress (Cororve & Gleaves, 2001).

According to Kaye et al. (2007), people with body dysmorphic disorder experience recurrent actions and challenging ideas to regulate or avoid. People with body dysmorphic disorder tend to focus on distinctive characteristics of their looks, with the skin, nose, and hair on the face and head being the most commonly affected areas. They typically worry about 5-7 body parts in their life, and some may experience muscle dysmorphia, which causes them to feel that their body is either too thin or lacks enough muscle. Body dysmorphic disorder patients in mental health facilities may spend up to 8 hours daily worrying about their appearance, with 25% doing so for even longer. These preoccupations are distressing and often related to bad feelings, such as guilt, disgust, worries, and melancholy. Body dysmorphic disorder typically emerges in teenage years, with an average age of onset at 16 years (Phillips & Diaz, 1997). It affects 2.2% of U.K. adolescents (Veale et al., 2016) and has been associated with the worst mortality rates of any psychological illness (Menard et al., 2006; Phillips et al., 2006; Veale et al., 2016). According to Phillips et al. (2006), young people diagnosed with body dysmorphic disorder may struggle to go to school, socialize, and depart from their home due to appearance preoccupations, which can persist for several months or even years. In a study by Albertini and Phillips (1999), 15% of teens were pulled from school completely due to body dysmorphic

disorder-related stress. While research into the experiences of adults diagnosed with body dysmorphic disorder is gradually increasing, studies suggest that adolescents with body dysmorphic disorder frequently feel hopeless and suicidal and indulge in obsessive grooming, excoriation, frequent self-checking, and applying cosmetics (Phillips, 2021; Thungana et al., 2018). It is possible for individuals to also process visual information locally, experience rumination, and possess concerns that can consume approximately eight hours or more of their day, causing difficulty in resisting or controlling them (Phillips & Hollander, 2008; Feusner et al., 2010).

Additionally, people with body dysmorphic disorder may persistently feel unattractive (Phillips & Diaz, 1997). However, research into the lived experience of body dysmorphic disorder among young people and their families still needs to be completed (Phillips et al., 2006b). As adolescence is the period in which body dysmorphic disorder usually appears, this is an important stage in identity formation (Marcia, 1991; Meeus, 1996; Waterman, 1993). Adolescents in Western society are faced with an increasingly narrow and prescriptive ideal of appearance often equated with accomplishment, pleasure, and likability (All Party Parliamentary Group on Body Image, 2012; Mental Health Foundation, 2019; Women and Equalities Committee, 2020). Such cultural ideals can have a powerful impact on adolescents, for whom identity formation is a critical developmental task. During adolescence, individuals experiment with and challenge different identity strategies, moving from infantile identifications to more complex and nuanced self-representations (Kroger, 2004; Marcia, 1989). However, adults may also create unreal images of themselves based on social opinions that are not always to conscious awareness (Guichard & Huteau, 2001; Santisi et al., 2014; Wigfield & Wagner, 2005).

According to Phillips (2004), individuals with body dysmorphic disorder may hold misconceptions concerning their looks, with approximately 32% to 38% of sufferers having such beliefs. While not a primary psychotic disorder, delusional beliefs are associated with higher severe body dysmorphic disorder indications. Veale et al. (1996) distinguish between body dysmorphic disorder sufferers with good insight and those with poor insight, with the latter group being convinced that their disorder-specific beliefs are accurate and not open to alternative explanations. This persistent lack of insight significantly impairs social, occupational, academic, and role functioning. Body dysmorphia is frequently comorbid with other mental conditions, such as melancholia, social anxiety disorder, obsessive-compulsive disorder, and substance abuse disorders (Phillips et al., 2005). The DSM-IV-TR diagnostic criteria for body dysmorphic disorder do not include obsessive and safety behaviors, but there is consideration of including them in the DSM-5 criteria (Phillips et al., 2005). Notably, almost everyone with body dysmorphic disorder engages in particular behaviors related to their concerns about their looks, such as mirror gazing and skin peeling (Phillips et al., 1998). Like obsessive-compulsive disorder, the connection between ideas and actions in body dysmorphic disorder appears comparable, with compulsive behaviors reacting to excessive ideas about looks. These behaviors are challenging to resist because they are repetitive, time-consuming, and repetitive. Safety behaviors lessen or avoid unpleasant emotions, avert undesirable outcomes, such as humiliation or embarrassment, and hide disfavored physical parts (e.g., with a hat, makeup, or sunglasses).

Individuals diagnosed with body dysmorphic disorder often engage in compulsive habits, such as comparing themselves to others, which can lead to discomfort and difficulty concentrating (Veale & Riley, 2001). Up to 90% of those with body dysmorphic disorder repetitively check their appearance in mirrors and other shiny surfaces in hopes of looking presentable but often leave feeling worse about themselves. Other repetitive behaviors include

excessive grooming, tanning, and seeking reassurance about their appearance, unnecessary buying of cosmetics, constantly altering outfits to find the ideal one, and engaging in excessive exercise, such as lifting in cases of muscle dysmorphia. Additionally, 27% to 45% of people with body dysmorphic disorder pick at their skin to conceal perceived imperfections (Veale & Riley, 2001).

Individuals with body dysmorphic disorder engage in recurring actions such as examining their appearance in mirrors and other reflective surfaces, excessively grooming, tanning, and constantly changing outfits to find the most flattering one (Veale & Riley, 2001). They may scratch their skin to address perceived flaws, which can lead to burst blood vessels and skin conditions (Grant et al., 2006). Furthermore, some body dysmorphic disorder patients may consume more than 3 gallons of water daily to make their faces appear fuller. These behaviors can lead to avoidance of social interactions and job opportunities due to the fear of being judged negatively (Kelly et al., 2010; Pinto & Phillips, 2005).

According to clinical evidence, while avoidance may temporarily relieve anxiety and discomfort associated with body dysmorphic disorder, it may ultimately exacerbate the severity and chronicity of the condition rather than alleviate symptoms. Body dysmorphic disorder has a long history, with examples of imagined ugliness dating back millennia (Phillips, 2005). In 1980, dysmorphophobia was included in the DSM-III as an unusual somatoform illness. It was later renamed and retained as body dysmorphic disorder in the DSM-III-R, partly due to disputes over the ambiguity of the terminology (Jorgensen et al., 2001). When there is no physical deformity or defect, body dysmorphic disorder is explained by constant anxiety about one's perceived unattractive or imperfect appearance (American Psychiatric Association, 1994).

Phillips et al. (2005) state that individuals with body dysmorphic disorder constantly have thoughts about their appearance and engage in repeated behaviors such as mirror gazing, seeking sympathy, and studying ways to improve their appearance. The skin, hair, and nose are the most frequently mentioned areas of concern. Body dysmorphic disorder can negatively impact one's quality of life by causing avoidance of social situations and places. In extreme cases, individuals may become confined to their homes out of fear of being observed by others (Phillips et al., 1993). Researchers have suggested that body dysmorphic disorder may be an obsessive-compulsive spectrum disorder due to similarities with obsessive-compulsive disorder in terms of population statistics, duration, dual diagnosis, genetics, and treatment outcomes (Phillips et al., 1995, 2007; Storch et al., 2008; Chosak et al., 2008). Reports indicate that as much as 30% of individuals have both body dysmorphic disorder and obsessive-compulsive disorder (Phillips et al., 2005; Gunstad & Phillips, 2003).

Bienvenu et al. (2000) find that obsessive-compulsive disorder is more common in those with a family history of obsessive-compulsive disorder, such as body dysmorphia and health anxiety. However, body dysmorphic disorder categorization and definition continue to be subject to debate, with some academics arguing that it collapses under a one-dimensional construct of dysmorphic worry (Oosthuizen et al., 1998). Some propose that body dysmorphic disorder may be part of the affective spectrum of illnesses with a similar etiology (Phillips et al., 1995). More investigation is required to explore the connection between psychology and beauty, particularly as societal norms and social interactions, such as those on social media, can influence perceptions of beauty. Body dysmorphic disorder patients are excessively concerned with their apparent looks, highlighting the complex interplay between psychology and physical appearance. According to the American Psychiatric Association (1994), the detection of body dysmorphic disorder requires a slight physical anomaly and significant distress or disability that affects one's ability to function in employment or social settings.

Studies by Phillips and Diaz (1997), Neziroglu et al. (1996), and Veale et al. (1996) show that body dysmorphic disorder frequently coexists with other forms of mental illness, including mood disorders, social anxiety, and obsessive-compulsive disorder. Body dysmorphic disorder can present itself in different ways, ranging from individuals with muscle dysmorphia to those with bipolar disorder and self-injury (Pope et al., 1997).

Individuals with body dysmorphic disorder obsess over perceived flaws in multiple body parts, such as skin, hair, and facial features, focusing on eyes, nose, lips, mouth, jaw, and chin (Phillips et al., 1993). Common complaints include facial flaws, asymmetry, and bodily traits beyond proportion, such as variations in skin tone, rosiness, lines, birthmarks, pimples, marks, and early alopecia. The level of specificity of these complaints varies, with some being precise while others are vague or simply an impression of unattractiveness. Individuals who have undergone cosmetic surgery may shift their attention to another body part as their fixation may change over time (Phillips et al., 1994). Beliefs regarding physical flaws are often subjective and personal. For instance, one patient believed his large nose would render him unloved and alone, making him appear like a thief. Similarly, another patient was so disgusted by her skin defects that she viewed them as dirty and felt overly self-conscious about them. These patients typically lack comprehension and are more prone to delusions of reference, where they feel that everyone around them is aware of their defect and judges or degrades them due to their appearance. Another characteristic of body dysmorphic disorder is the patient's time-consuming behaviors to investigate the flaw continuously or to cover it up or correct it. These behaviors include excessive grooming, which can be harmful, especially when it comes to the skin, hiding the defect with clothing or makeup, picking at one's skin, seeking reassurance, dieting, and getting cosmetic surgery or dermatological treatment. Studies have shown that the prevalence of body dysmorphic disorder in the public is 0.7%, with milder cases

being more common among adolescents and young adults (Otto et al., 2001; Bohne et al., 2002; Faravelli et al., 1997). It has been observed that an equal number of men and women visit mental health facilities for body dysmorphic disorder-related issues, with unmarried, separated, and jobless individuals being susceptible. While no cross-cultural studies on body dysmorphic disorder have been conducted, case studies suggest that the disorder occurs consistently in all societies. However, certain societies may place greater value on appearance, which might increase the prevalence of plastic surgeries and body dysmorphic disorder. Although body dysmorphic disorder usually manifests during adolescence, patients often visit general practitioners, dermatologists, or cosmetic surgeons before receiving a formal diagnosis from a mental health practitioner (Phillips, 1991). Children with body dysmorphic disorder may exhibit suicidal tendencies and school avoidance. Patients with body dysmorphic disorder often feel misunderstood and might hide their symptoms to avoid being labeled arrogant or vain. Regrettably, some health practitioners may stigmatize them or disregard their symptoms because they believe that only actual disfigurement warrants attention or that body dysmorphic disorder is synonymous with body dissatisfaction.

During adolescence, it is crucial to study the risk factors for body dysmorphic disorder before its onset. Although many adolescents may poke fun at their appearance, only a small fraction develop body dysmorphic disorder. Therefore, future research should focus on identifying factors that indicate a persistently high level of self-consciousness, enabling the development of therapies for at-risk individuals. Body dysmorphic disorder has received far less attention and research than other body image disorders, such as eating disorders. While many potential determinants for body dysmorphic disorder exist, they remain theoretical. According to Veale et al. (1996), a cognitive-behavioral approach emphasizing symptom maintenance is one option for treating body dysmorphic disorder. When a person sees a reflection of themselves, like in a mirror, it can trigger a warped perception of their appearance

that was already present in their mind. Through selective attention, the individual becomes more aware of the image and its specific aspects, using it to construct their perception of how they look to others and themselves. Findings regarding imagery in body dysmorphic disorder are derived from a descriptive study that used semi-structured interviews and questionnaires to compare 18 healthy controls with patients diagnosed with body dysmorphic disorder (Osman et al., 2004).

A study by Phillips (2005) states that individuals with body dysmorphic disorder and without dysmorphic body image had the same likelihood of having random thoughts about their appearance. However, adults with body dysmorphic disorder were more susceptible to perceive these thoughts as unfavourable, recurrent, and vivid compared to those without body dysmorphic disorder. Additionally, the images of themselves that body dysmorphic disorder patients had were distorted, with the flawed features accounting for a more significant portion of the overall image. The study found that body dysmorphic disorder patients tended to describe visual impressions, often accompanied by other experiences such as physiological hunger or exhaustion. The study also revealed that body dysmorphic disorder patients were more prone to consider themselves from the standpoint of a viewer, which is consistent with findings in social phobia. The act of viewing oneself from the perspective of another is known as an observer's perspective, while viewing oneself from within their body is referred to as a field perspective. According to Veale (2002), people with body dysmorphic disorder may encounter heightened self-focused attention to specific body parts, leading to a distorted body image. This is due to the activation of imagery and subsequent magnification of specific aspects, followed by negative evaluation and judgment of appearance based on personal presumptions and values. These beliefs often center on the idea that one's worth is dependent on their appearance and lead to safety practices such as mirror inspection or concealing. However, these behaviors can reinforce the fixation and perpetuate a vicious cycle of doubt.

According to a study by Didie, Wilkins, Moustafa, and Phillips (2008) that included 200 adults with BDD, the disorder is associated with a significant decrease in mental and social functioning and a markedly diminished standard of living. In the research, psychopathology caused 36% of individuals to miss a week of work, while signs of body dysmorphic disorder caused 11% of participants to withdraw from school. Additionally, people with body dysmorphic disorder typically have considerably worse psychological wellness, emotional stability, ratings for the overall standard of living, interactions with others, and comparisons to everyone else, with lower scores than those with clinical depression or diabetes. It has been found that individuals with more severe body dysmorphic disorder may have difficulty holding down jobs, attending or being in school, or maintaining relationships, with between 27% and 31% of sufferers spending at least a week entirely housebound as a result of their symptoms, and more than 40% being admitted to a mental institution (Phillips & Diaz, 1997; Phillips et al., 2005).

Body Dysmorphic Disorder and Social Anxiety. Body dysmorphic disorder and social anxiety are two separate but related disorders. There are notable clinical parallels between the two disorders, especially regarding high degrees of avoidance and social anxiety. Because of their perceived physical defects, people with body dysmorphic disorder frequently suffer from extreme social anxiety, which makes them avoid social situations just like those with social anxiety. Body dysmorphia is defined as an illness anxiety disorder in the fourth edition of the DSM and is often under-recognized and understudied, remaining a significant issue in the literature (Chartier et al., 2003). According to earlier research (Hollander & Aronowitz, 1999), among disorders linked to social anxiety, body dysmorphic disorder comes in fourth, behind basic concerns, drinking, and profound depression. However, research looking into social anxiety incidence rates often excludes body dysmorphic disorder, resulting in a lack of information and a potential underestimation of the comorbidity between social

anxiety and body dysmorphic disorder. It has been found that up to 12-68.8% of people with body dysmorphic disorder also have social anxiety, and 4.8-12% of people with social anxiety also have body dysmorphic disorder. The commonness of social anxiety may differ due to variations in sample sizes, recruiting tactics, and body dysmorphic disorder evaluation methods among people with body dysmorphic disorder. Several studies have been conducted on body dysmorphic disorder patients, with sample sizes from 16 to 293 (Zimmerman & Mattia, 1998; Gunstad & Phillips, 2003). In a study of anxiety disorder outpatients, 6.7% (11/165) met the diagnostic criteria for body dysmorphic disorder (Wilhelm et al., 1997). Another research comprised people with anxiety disorders and major depression indicated that body dysmorphic disorder was most common in those with social anxiety (11%) and obsessive-compulsive disorder (8%), as well as serious melancholia (Brawman-Mintzer et al., 1995). As a result, evidence suggests that social anxiety and body dysmorphic disorder are closely related.

Social anxiety subtype can influence the link between body dysmorphic disorder and social anxiety. Future studies should analyse if body dysmorphic disorder co-exists mostly with social anxiety disorder and if it is generalized or not by identifying the prevalence of dreaded communal settings among body dysmorphic disorder patients to investigate this potential further. According to longitudinal research, the average age of beginning for generalized social anxiety is 14 years, and it typically begins in childhood or adolescence (Wittchen & Fehm, 2003; Yonkers et al., 2001). In contrast to other social phobias, the fear of individualized public speaking develops eventually (Heimberg et al., 2000; Hofmann, Heinrichs, et al., 2004), and general social anxiety can occur two years earlier than non-generalized (Holt et al., 1992; Schneier et al., 1991; Wittchen et al., 1999). BDD typically starts from late infancy to early adolescence, around age 16 (Coles et al., 2006; Gunstad & Phillips, 2003; Phillips et al., 2005). Studies indicate that social anxiety and generalized BDD tend to have a chronic nature (Hofmann & Otto, 2008; Moutier & Stein, 1999; Wilhelm, 2006). According to multiple

studies, the appearance of social anxiety disorder typically occurs before the start of subsequent coexisting diseases such as severe depressive disorder and substance abuse issues (Bittner et al., 2004; Chartier et al., 2003; Keller, 2003; Kessler et al., 1999; Lepine & Pelissolo, 1998; Lydiard, 2001; Schneier et al., 1992; Stein et al., 2001; Van Ameringen et al., 1991; Zimmermann et al., 2003). U.S. National Comorbidity Survey epidemiological statistics indicate that one study, for instance, found that 68.5% of people with social anxiety disorder and emotional disturbances suggested that social anxiety occurred before melancholy by 12.3 years on average (Kessler et al., 1999). The earlier beginning of social anxiety in comorbid depression patients may, however, reflect that social anxiety disorder starts in youth and depression starts early to mid-adulthood. According to this study, a risk factor for the emergence of subsequent comorbid illnesses may be social anxiety.

The idea that several etiological variables and processes may influence the formation and ongoing persistence of social anxiety and body dysmorphic disorder complicates further research on the link between them (Phillips & Stout, 2006). For instance, social anxiety and body dysmorphic disorder probably have high rates of comorbidity because they are related illnesses with overlapping origins, causes, and symptoms (Phillips & Stout, 2006). Having social anxiety disorder may make someone more likely to develop body dysmorphic disorder; it is also possible that they have different causes but the existence of one theory can't negate the existence of the other (Phillips & Stout, 2006). That might be the cause of certain research discrepancies. One study examining 200 body dysmorphic disorder patients for three years showed no long-term relationships among social anxiety and body dysmorphic disorder (Phillips & Stout, 2006). Likewise, another study found that having social anxiety disorder with body dysmorphic disorder did not lessen the likelihood of body dysmorphic disorder relapse (Coles et al., 2006). And since there is insufficient statistical power, these analyses were

constrained, and the status of social anxiety and body dysmorphic disorder as independent diseases was not declared (Coles et al., 2006; Phillips & Stout, 2006).

Kelly (2010) latest investigation among body dysmorphic disorder patients (without a social anxiety diagnosis) discovered that symptoms of social anxiety were found to be significantly linked to lower levels of psychosocial functioning after a year, without considering body dysmorphic disorder, indicating the association between body dysmorphic disorder and underlying social anxiety. These detailed discrepancies can indicate several etiological processes at work, which is possible or even likely. Evidence reveals that social anxiety and body dysmorphic disorder are comparable in lived experiences, diagnostic traits, psychological prejudices, medication and therapy outcomes, and are even considered as varieties of the same condition within some communities, as will be explored in the later section. Furthermore, shared risk factors, including increased sensitivity to rejection, may impact both social anxiety and body dysmorphic disorder. Extensive epidemiological analysis has indicated that social anxiety is more common in women, like the Epidemiologic Catchment Area for National Comorbidity Survey (Kessler et al., 1994; Schneier et al., 1992). Studies based on populations have shown that similar outcomes apply to body dysmorphic disorder. For example, a survey of over 2,500 people in the United States discovered body dysmorphic disorder rates of 2.5% for women and 2.2% for men, with a small female predominance (Koran et al., 2008). Additionally, research of women aged 36 to 44 from a community sample revealed that 0.7% had body dysmorphic disorder in this age group (Otto et al., 2001). Clinical samples of body dysmorphic disorder have shown contradictory results regarding gender distributions, with some research reporting fair gender representation (Phillips & Diaz, 1997) and some suggesting that the frequency of body dysmorphic disorder is higher in women (Phillips et al., 2006). The methodological diversity in sample size and sampling techniques among research might cause such discrepancies, but further studies are required to better understand the gender

differences in body dysmorphic disorder and social anxiety (Kessler et al., 2005; Phillips et al., 2005; Rief et al., 2006).

Moreover, in an emotional Stroop paradigm, body dysmorphic disorder patients interpret emotional input selectively, regardless of its valence. This effect is strong when the knowledge is consistent with body dysmorphic disorder; however, the body dysmorphic disorder patients in the present study did not show the greatest interference to body dysmorphic disorder -danger words, while body dysmorphic disorder patients do show the most interference in anxiety disorders such as social anxiety. Hence, the body dysmorphic disorder patients' emotional Stroop interference pattern might reflect their fevered ideal of beauty and ugliness-detecting ability. The Stroop task was modified into a form of the blocked task: words of the same type were presented on cards in a blocked manner. The approach permits participants to attend to both distractor and threat stimuli simultaneously instead of focusing solely on the danger stimuli. However, it is critiqued for its evaluation of attentional biases. Thus, a greater evaluation of focused attention processing in body dysmorphic disorder is necessary. This evaluation should include additional, perhaps more sensitive attentional accommodation tests, such as the probe detection paradigm (Amir & Foa, 2001). These studies shed light on the attentional bias patterns in body dysmorphic disorder and social anxiety patients and reveal the mechanisms behind their persistence. The results of this study were used to modify the Stroop task, which entailed blocking the presentation of words of the same kind on cards. However, this technique has received critique for assessing post-concentration biases, as instead of only focusing on danger stimuli, individuals can alternately give attention to distractor and threat cues (Amir & Foa, 2001; Fox, 1994). Selective attention in body dysmorphic disorder requires more investigation, with an emphasis on novel metrics such as the probe detection paradigm. According to academic sources, this can help people with body dysmorphic disorder and social anxiety understand attentional bias.

Body Dysmorphic Disorder and Sociocultural Attitudes Towards Appearance

The perception of beauty is a topic of great controversy, with much debate surrounding whether it is predefined by particular "standards" embedded into intrinsic behavior or if it is subjective and varies depending on the beholder. However, research suggests that humans have evolved to value particular facial proportions as an essential indicator of attractiveness (Harpal et al., 2018). This view proposes that symmetry denotes excellent health and genetics, and therefore, humans favor beauty ideals since evolution (Jones et al., 2001). Note the importance that beauty ideals can differ considerably among cultures, nations, and historical times and that the perception of beauty is likely influenced by biological, psychological, social, and cultural factors, making it a complex topic that requires further research. According to recent studies, facial characteristics such as symmetry, sexual dimorphism, and skin uniformity can impact beauty. However, contextual circumstances and perceptual adaptation also shape our perception of attractiveness (Rhodes et al., 2003). Perceptual adaptation refers to how our exposure and experiences can change how we perceive our surroundings. Even a brief exposure to specific features can alter a person's perception of beauty, which is compounded by constant exposure to images on social media and television (Maymone et al., 2019).

Research has shown that repeated exposure to certain traits can change a person's perception of the "beauty ideal," with some people even preferring their mirror image over their actual photo due to the prevalence of selfie culture (Mita et al., 1977). However, it is essential to acknowledge the diversity of ethnicities and unique facial features, as different cultures have varying beauty standards (Maymone et al., 2017). Research has shown that people tend to find faces more attractive when they are familiar or similar to their own (Jones & Hill, 1993). This phenomenon is based on facial averageness, the mathematical mean of all the faces a person has ever seen. The idea of facial beauty is heavily influenced by this concept, as it is believed to be driven by a desire for genetic heterozygosis and overall well-being (Hockings et al.,

2012). Many different cultures share this belief, as increasing facial averageness has been found to make faces more desirable in non-Western cultures. On the other hand, decreasing face averageness resulted in decreased attractiveness. That may explain why different cultures and ethnicities have varying beauty standards. In addition to beauty standards, features of the body and face are valued differently in various cultures. For example, ideal facial features in Asian cultures are oval type, big eyes, and firm jawline (Samizadeh, 2019), while Caucasian cultures value thin bodies, prominent cheekbones, small noses, and wide eyes (Coetzee et al., 2019). Beauty standards also vary regarding body image (B.I.) across cultures. For instance, African American women often perceive bigger hips as feminine, while several African nations associate being underweight with poor health (Maxfield et al., 2019). Despite these cultural differences, there is a consensus on what is attractive, thanks to advances in technology and connectivity.

Previous studies have focused on the sociocultural perceptions of beauty among Caucasian or European undergraduate women (Cashel et al., 2003). However, research suggests that boys and men are increasingly affected by anabolic steroid usage, dietary habits, and body image concerns (Drewnowski et al., 1995). Adolescents are exposed to societal ideals of physical appearance through popular culture, a benchmark for self and social assessment (Rudd & Lennon, 2001). In the early stages of adolescence, belonging to a peer group and achieving fame are significant markers of identity formation (Brinthaupt & Lipka, 2002). Adolescents rely on various sources of information to define their identity, including the media, which is rife with unrealistic beauty standards and the assumption that achieving the perfect look leads to social benefits (Northup & Liebler, 2010; Frith et al., 2005). Internalizing these signals can lead to social appearance anxiety, affecting both genders and negatively impacting self-image and general well-being (Hart et al., 2008; Levinson & Rodebaugh, 2011). Boys and girls seek out magazines for advice on themes linked to physical beauty that they can use to

improve their appearance, making magazines a stronger predictor of body dissatisfaction than other media sources like television (Levine et al., 1994; Harrison & Cantor, 1997). Additionally, periodicals aimed at young women frequently demonstrate how celebrities' ideal looks can be imitated through fashion, cosmetics, and beauty products (Duke, 2002), perpetuating the idea that everyone can and should strive for attractiveness (Burkley et al., 2014). Research has extensively studied the significance of appearance-focused periodicals on body image and dissatisfaction (Slater & Tiggemann, 2014; Tiggemann et al., 2013).

Selfies have rapidly become a popular photographic genre in today's society (Ward et al., 2018). As per a study by the American Academy of Facial Plastic and Reconstructive Surgeons, 42% of responding surgeons affirmed that patients seek cosmetic procedures to enhance their selfies and pictures on social media (American Academy of Facial Plastic and Reconstructive Surgery, 2022). However, the widespread use of selfies has negative consequences, such as a 30% increase in nose breadth, which does not accurately represent the nose's three-dimensional appearance. Furthermore, selfies are frequently criticized, associated with narcissism and dishonesty (Diefenbach & Christoforakos, 2017). Research has shown that digital cameras produce the most significant first-impression scores compared to selfies, filtered selfies, and rear-facing smartphone cameras (Cristel et al., 2021). In a consultation, an aesthetic practitioner could advise patients that while they may appreciate their selfie or filtered selfie, others may prefer the best impression from a digital camera. A study revealed that most participants preferred viewing more common pictures on social media than selfies, with a more significant agreement on potential negative than positive consequences (Cristel et al., 2021). Self-presentation may be an essential element in the success of selfies since it satisfies self-presentational requirements without appearing narcissistic.

According to studies led by Leit et al. (2001) and Guillen et al. (1994), the weight and size of male and female portrayals in the media have significantly changed over the past two

decades. The idealized physique depicted in the media has become significantly svelter for women and more muscular for males, as reported by Katzmarzyk et al. (2001). This idealized physique is often associated with pleasure, attractiveness, and success in life, as Tiggemann et al. (2002) noted. However, Martin et al. (2010) found that this idealized physique, which viewers strive to achieve, is 15% lighter than the healthy weight for both men and women. As a result, some individuals may experience psychological symptoms such as body dysmorphic disorder, while others may not, depending on how they assimilate and internalize societal ideals and norms. Teenagers between the ages of 8 and 18 often watch up to 4.5 hours of television daily (Rideout et al., 2010).

According to Flannery-Schroeder (1996), teenagers are frequently exposed to unrealistic body standards promoted by the media, leading them to believe that being overweight is undesirable while being thin is desirable. Research conducted on teenagers aged 6 to 12 by McCabe (2003) suggests that boys are more concerned with building muscle, while girls focus more on losing weight. These societal norms contribute to the pressure many teenagers feel to attain a perfect body, resulting in body dissatisfaction, as Labre (2002) noted. Body dissatisfaction can result in sadness and low self-confidence, as shown by Paxton et al. (2006). Furthermore, adolescents who have poor self-esteem are more prone than non-anxious children to develop social anxiety (Feldman et al., 2010). As evidenced by Albano et al. (2007), the increasing pressure to conform to societal ideals of attractiveness in Western cultures has a detrimental effect on young people's self-perception and confidence, which could lead to social anxiety.

According to Frith et al. (2005), magazines play a significant role in setting beauty standards by intentionally selecting models who conform to prevailing ideal attractiveness. Yan and Bissell (2014) found that the covers of popular fashion magazines like Vogue often feature models who embody these beauty ideals, promoting the notion that external appearance is more

important than internal qualities. Advertisements in magazines further reinforce these standards by showcasing attractive models and offering advice on how readers can attain the ideal appearance (Cortese, 2007). Willis and Knobloch-Westerwick (2014) and Labre (2005) suggest that magazines contain a disproportionate amount of information about beauty and appearance-related behaviours. Such messages may be particularly impactful for adolescents, who are more likely to feel anxious and experience emotional discomfort if they perceive that 34 they do not measure up to ideal standards of attractiveness (Veale et al., 2003). Monro and Huon's (2005) an experimental study found that exposure to idealized images in advertising is connected with greater levels of "social anxiety" in young women.

Sociocultural Attitudes Towards Appearance and Social Anxiety. Social anxiety disorder is defined by a recurrent dread of social or performance settings that might lead to disgrace or shame (American Psychiatric Association, 2000; Diagnostic and Statistical Manual of Mental Disorders, 4th Ed.). Social, professional, and academic functioning are significantly impaired in people with SA (Safren et al., 1997; Schneier et al., 1994). In the opinion of Holt et al. (1992), professional speaking, casual speaking, being watched, and expressing oneself are the four primary scenarios that people with social anxiety disorder worry about the most. However, the fear of negatively evaluating one's appearance has not gotten sufficient interest. This dread may also be relevant in understanding eating illness and BDD, often linked to illness and SA (American Psychiatric Association, 2000). A measure that taps into SA and a negative body image may be helpful given the connection between these variables (Coles et al., 2006; Hinrichsen et al., 2004; Pinto & Phillips, 2005). Highly anxious individuals may be much more vulnerable to the adverse effects of media exposure on self-perception. Media exposure's impact on self-perception depends on various mediators, such as existing social anxiety variables. Arciszewski (2011) found that women with lower self-esteem were more susceptible to the danger induced by various interpretations of thin-ideal pictures in the media. Future

studies should look into how teenage media exposure affects various social anxiousness, given body image issues. According to various studies, people with a SA and BDD tend to portray distorted negative perception when faced with unclear social knowledge (Amir et al., 1998; Heinrichs & Hofmann, 2001; Hofmann, 2007; Buhlmann, Wilhelm et al., 2002). As an instance, research on 32 individuals who gone for therapy for generalized social anxiety disorder required them to order three 35 perspectives (positive, negative, and neutral) based on how likely they were to cross their minds in 22 crowded and unsocial situations (Amir et al., 1998). However, whether the media or other factors cause more harm to teenagers regarding weight issues and body dissatisfaction remains unanswered. According to Wilhelm et al. (2002), Those who suffer from body dysmorphic disorder are probably believe that negative notions are relatively more common in society and BDD related circumstances than people with OCD and placebo groups. These results imply that those with generalized social anxiety and body dysmorphic disorder have a similar negative cognitive bias toward information that is unclear to society. Lucas and colleagues showed that social interactions have distinct functions in societies that are collectivistic compared to individualistic (Lucas et al., 2000). Individual ideas and feelings more directly influence behavior in societies that value individualism. Collectivist societies place a great value on maintaining peace within the group, and workplace standards and traditions have a significant impact on behavior. Therefore, more social norms and principles may exist in collectivistic cultures than in individualistic cultures, making social faux pas more apparent. Strict social norms on proper behavior in particular social contexts are meant to be established in countries in Southern Europe, Asia, South America, and the Pacific Islands (Argyle et al., 1986). An individual faces consequence, like expulsion from the community, if they violate certain social norms. Consequently, people in these nations must perceive their social behavior as proper and constructive (Suh et al., 1998). Furthermore, in cultures that are collectivistic but not individualistic, norms are a powerful

predictor of life satisfaction. Thus, the alignment of a person's cultural orientation with cultural norms may be what causes social anxiety and other mental illnesses, especially when the person displays extreme individualist ideals (idiocentric) or severe collectivist orientation (allocentric). Caldwell-Harris and Aycicegi (2006) investigated this theory by giving a battery of clinical and personality 36 assessments, as well as individualism-collectivism scenarios, to college students in Boston and Istanbul. Among students in Boston, a city known for its individualism, collectivism scores had a significant connection with SA, melancholia, OCD and dependent personality. There was a negative association between the individualism scores and the same statistics. Among students residing in Istanbul, a collectivist society, individualism was strongly correlated with scores for “paranoid”, “schizoid”, “narcissistic”, “borderline”, and “antisocial personality disorders”. Low symptom reporting on these measures was linked to collectivism. These findings imply that social anxiety and other clinical symptoms are linked to conflicts between individual values and societal values. This idea supports the conclusions of a study that looked at the relationships between social withdrawal in adolescence and the reasons behind it, as well as the frequency of social withdrawal and emotional discomfort in early maturity. According to the findings, hesitant and introverted Koreans performed better socially and emotionally than their Australian peers (Kim et al., 2008).

Heinrichs et al. (2006) investigated the association between social anxiety, blushing fear, and an individual's perceived and personal cultural norms. Participants from eight different countries completed vignettes that depicted social contexts and evaluated whether the main actor's behavior was acceptable in society from both a cultural and personal standpoint. Individualistic and collectivistic countries had somewhat different patterns in personal and societal standards. Cultural norms suggest that countries with collectivistic cultures were more tolerant of socially reserved and reclusive behaviors than those with individualistic cultures.

Regarding people's personal opinions on socially isolated behavior, however, there was no difference between countries that were collectivistic and individualistic. In comparison to individualistic countries, collectives reported higher degrees of social anxiety and blushing panic. There have been significant positive correlations found between the degree of social anxiety or blushing fear symptoms and the acceptance of attention-avoiding behaviors in a society. In a nutshell, research suggests that social anxiety might be connected to various cultural norms in different nations, even though individualism compared to the collectivism debate does not adequately represent the pertinent norms. More specifically, social norms and standards for openly showing indicators of social anxiety may be connected to the societal variations in the stated degree of social anxiety. Interpreting the results with caution is necessary as their foundation is limited to non-clinical student samples (Schreier et al., 2010).

Body dysmorphia, defined as a concern about perceived defects in appearance, plays a pivotal role in influencing sociocultural attitudes towards appearance. Those with body dysmorphic disorder tend to amplify and perpetuate prevailing societal standards, thereby unintentionally reinforcing certain appearance ideals within their communities. Their active search for validation or reassurance, particularly on social platforms, can inadvertently set or intensify appearance-related pressures among peers and the wider youth demographic (Waqar et al., 2022). Furthermore, the behavioral patterns of those with body dysmorphic disorder, including their consumption of beauty and cosmetic products or services, can indirectly shape societal views on what's deemed 'desirable' or 'ideal'. Using sociocultural perceptions toward appearance as an intermediary in the study, it becomes evident that body dysmorphic disorder can lead to heightened social anxiety in young adults. This relationship can be attributed to the continuous feedback loop where body dysmorphic disorder sufferers' behaviors influence sociocultural attitudes, which in turn intensify appearance-related concerns and anxieties in the broader young adult population. In essence, body dysmorphic disorder not only predicts social

anxiety through direct means but also indirectly by shaping and reinforcing societal views on appearance, which then contribute to appearance-related anxieties in young adults. In summary, body dysmorphic disorder, while influenced by sociocultural attitudes, also plays a significant role in shaping these very attitudes. This cyclical relationship, with sociocultural attitudes acting as a mediator, amplifies the predictive capacity of body dysmorphic disorder on social phobia in young adults (Mana et al., 2021).

Rationale

The main purpose of this study is to investigate how body dysmorphic disorder predicts social anxiety among young adults, with a particular focus on the mediating role of sociocultural attitudes towards appearance. Veale's Cognitive Behavioural Model (2001, 2002) underscores that adults with body dysmorphic disorder often evaluate themselves based on their physical appearance, which can lead to social anxiety. Body dysmorphic disorder sufferers frequently engage in behaviors such as mirror checking, despite reassurance from others, resulting in feelings of deception or ridicule. This characteristic behavior distinguishes body dysmorphic disorder from social anxiety.

Research in Pakistan, such as Rathore et al. (2022), found that a significant portion of students (11.7%) experienced body dysmorphia. Although no gender differences were observed, men were equally concerned about their appearance as women. This study, however, did not delve into the sociocultural factors that might mediate the relationship between body dysmorphic disorder and social anxiety, leaving a gap in understanding how societal norms influence these conditions.

Further research by Taqui et al. (2008) highlighted the prevalence of body dysmorphic disorder among Pakistani medical students, with notable gender differences in symptoms and

body concerns, which were linked to the influence of media on body image. However, these findings have not been sufficiently explored in the context of general young adults, particularly concerning how these sociocultural pressures mediate the relationship between body dysmorphic disorder and social anxiety.

Bano et al. (2019) also observed high levels of social anxiety among adolescents in Karachi, with no significant gender differences. However, the study did not explore the role of sociocultural attitudes in shaping these anxieties, particularly in a population transitioning from adolescence to adulthood. This omission underscores the need for research that targets young adults more broadly, beyond specialized subgroups like medical students, to better understand the general population's experiences.

In examining the broader literature, inconsistencies emerge regarding gender differences in body dysmorphic disorder and social anxiety. For instance, while Rathore et al. (2022) found no significant gender differences, Taqui et al. (2008) reported otherwise. These inconsistencies suggest that the relationship between body dysmorphic disorder, social anxiety, and sociocultural attitudes may be more nuanced, particularly in different cultural contexts where norms and expectations vary significantly between genders.

Despite the extensive research on body dysmorphic disorder and social anxiety in Western contexts, there is a lack of culturally sensitive research in non-Western settings like Pakistan. Studies like Arciszewski (2011) have documented the influence of Western media on body image and self-esteem, but their relevance to Pakistani youth, who may be influenced by different societal norms, remains underexplored. This study aims to address this gap by providing a culturally nuanced perspective on how sociocultural attitudes towards appearance mediate the relationship between body dysmorphic disorder and social anxiety among young adults in Pakistan.

By filling these gaps, this study will contribute to a broader understanding of the complex interactions between body dysmorphic disorder, social anxiety, and sociocultural attitudes in a non-Western context. The findings can inform culturally sensitive therapeutic approaches and interventions, ultimately aiding in the development of better support systems for individuals affected by these conditions.

Objective of Study

The current study has following objectives:

1. To investigate the relationship between body dysmorphic disorder, social anxiety and sociocultural attitudes towards appearance among young adults.
2. To investigate the effect of body dysmorphic disorder on social anxiety among young adults.
3. To study the role of sociocultural attitudes on appearance as a mediator in the relationship between body dysmorphic disorder and social anxiety among young adults.
4. To investigate the effect of demographic variables like age, gender, education, and marital status and employment status among young adults concerning body dysmorphic disorder, social anxiety and sociocultural attitudes towards appearance.

Hypotheses

Following are the hypotheses of the current study:

1. There is a positive correlation between body dysmorphic disorder, social anxiety, and sociocultural attitudes towards appearance among young adults.
2. Body dysmorphic disorder leads to sociocultural attitudes towards appearance among young adults.
3. Body dysmorphic disorder leads to social anxiety among young adults.

4. Sociocultural attitudes towards appearance mediate the relationship between body dysmorphic disorder and social anxiety among young adults.
5. Female young adults are higher at body dysmorphic disorder than male young adults.

Conceptual Framework

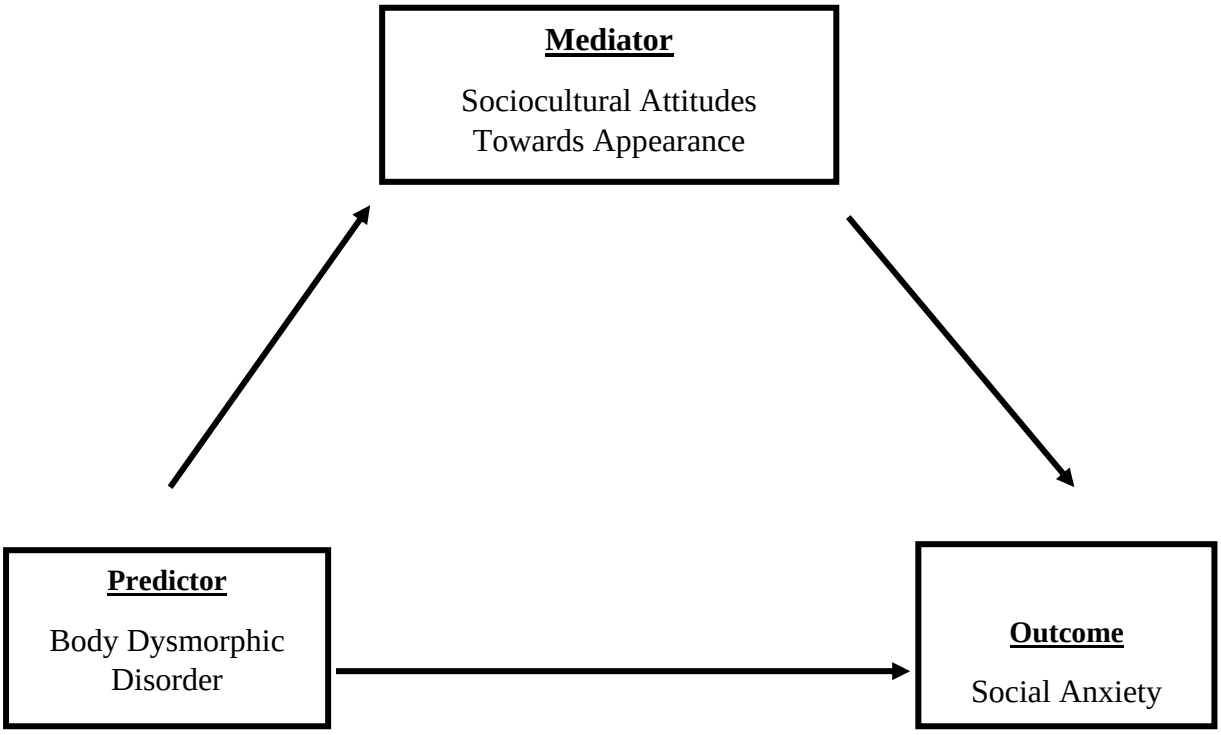

Figure 1

Simple Mediation Model

Chapter 2

Method

Research Design

It was a cross-sectional research design in which quantitative and survey research design methods was used to assess the sample.

Sample

The study included 400 young adults aged between 18 and 29 years old. The participants had different marital statuses, such as married and unmarried/single, employment statuses, including employed and unemployed/students, and education levels ranging from graduate to post-graduate. The data was collected using a convenient sampling method. The study focused on young adult males and females who scored higher on the Body Dysmorphic Disorder Questionnaire. The participants were exclusively drawn from the areas of Rawalpindi and Islamabad.

Inclusion Criteria. Participants must exhibit high scores on the Body Dysmorphic Disorder Questionnaire (Phillips, 2005) indicating the presence of body dysmorphic disorder symptoms. Only individuals who do not have a primary diagnosis of other mental health disorders, such as depression, anxiety disorders, or other psychiatric conditions, are included.

Exclusion Criteria. Participants with low scores on the Body Dysmorphic Disorder Questionnaire (Phillips, 2005) indicating the absence or minimal presence of body dysmorphic disorder symptoms, are excluded. Participants with a diagnosed mental health disorder, such as depression, anxiety disorders, or any other psychiatric condition, are excluded to prevent confounding variables.

Operational Definitions

Body Dysmorphic Disorder (BDD): Body dysmorphic disorder is characterized by an obsessive concern with one or more perceived defects or flaws in physical appearance, which

may be minor or even unnoticeable to others. This preoccupation often leads to significant distress and repetitive behaviors, such as mirror checking or seeking reassurance. In this study, body dysmorphic disorder was measured using the Body Dysmorphic Disorder Questionnaire (BDDQ; Phillips, 2005), where a score indicating a strong preoccupation with appearance and associated distress was considered indicative of body dysmorphic disorder.

Social Anxiety: Social anxiety refers to a persistent and intense fear of social situations where the individual believes they may be judged or scrutinized by others, leading to feelings of embarrassment or humiliation. This anxiety can interfere with daily activities and social interactions. In this study, social anxiety was assessed using the Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987), with higher scores reflecting greater levels of anxiety in social situations.

Sociocultural Attitudes Towards Appearance: Sociocultural attitudes towards appearance encompass the beliefs, values, and pressures imposed by society regarding physical appearance. These attitudes can significantly influence an individual's body image and self-esteem. In this study, sociocultural attitudes were measured using the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3; Heinberg et al., 1995), where higher scores indicate a stronger internalization of societal beauty standards and perceived pressure to conform to these ideals.

Instruments

Demographic Sheet

The demographic sheet consists of gender, age, education, marital status, employment status and residency.

Body Dysmorphic Disorder Questionnaire (BDDQ)

The BDD-Q is a quick self-assessment four-item test used to screen for BDD (Phillips, 2005). To be screened positive for body dysmorphic disorder, individuals are required to report excessive worry about their looks, with main worry unrelated to weight, causing significant distress or difficulty in daily life, and spending at least an hour per day worrying about their appearance. Cronbach's Alpha is $\alpha = 0.76$. The BDDQ was graded on a scale of 0 to 4. The 0–4 rating scale was used to assess how well the questionnaire could differentiate between body dysmorphic disorder and non- body dysmorphic disorder at progressively higher appearance concern levels. Negative body dysmorphic disorder screening was defined as a BDDQ score of 0–2. A positive body dysmorphic disorder screening resulted from a BDDQ score of 3–4, which was equivalent to meeting the body dysmorphic disorder criteria.

Liebowitz Social Anxiety Scale (LSAS)

LSAS is a self-administered or clinician rating questionnaire developed by Michael Liebowitz (1987). It assessed patients' fear of interacting socially and avoidance of not going to social settings. It considers how social phobia affects life across various situations and social anxiety disorders. Cronbach's Alpha is $\alpha = 0.96$. Each of the 24 items on the scale has two 4-point Likert-type ratings. The initial rating, which goes from 0 (none) to 3 (severe), represents fear/anxiety, while the second, which goes from 0 (never) to 3 (usually), represents avoidance. Never (0%), sometimes (1-33%), often (33–67%), and typically (67–100%). The sum of the evaluations for fear and avoidance yields the final score. A maximum of 144 points are possible. 0–29 indicates that “you do not have social anxiety”, 30–49 indicates “mild social anxiety”, 50–64 indicates “moderate social anxiety”, 65–79 indicates “marked social anxiety”, 80–94 indicates “severe social anxiety”, and > 95 indicates “very severe social anxiety”.

Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ-3)

The “sociocultural attitudes towards appearance questionnaire” is a 30 items scale created by Heinberg, Thompson, and Stormer (1995). The 30-item SATAQ-3 is a tool used to

gauge public acceptance of Western sociocultural beauty standards as they are portrayed in the media. The items are graded from certainly disagree (1) to agree (5) on a five-point answer scale. Higher scores correspond to more media acceptance. There were reversed items (3, 6, 9, 12, 13, 19, 27, 28) indicating that the score is reversed (i.e., 5= definitely disagree to 1= definitely agree). Information (INFO), Perceived Pressure (PRESS), Internalization-General (INT-GEN), and Internalization-Athlete (INT-ATH) are the four factors/subscales that make up the SATAQ-3. In particular, INFO is made up of nine questions (1,5,9,13,17,21,25,28,29) that assess the degree to which media messages about Western beauty standards are recognized as having societal significance; The PRESS measure, which consists of seven items (2,6,10,14,18,22,26), gauges how much pressure people feel to fit in with the Western ideals that the media presents; the INT-GEN measure, which consists of nine items (3,4,7,8,11,12,15,16,27), measures internalization of the athletic ideal, and the INT-ATH measure, which consists of five items (19,20,23,24,30) (Thompson et al., 2004).

Procedure

This study used a cross-sectional research method for data collection to achieve the research objective. For survey distribution, a self-report, web-based, online, and printed questionnaire was developed for 400 adults (rated higher on Body Dysmorphic Disorder Questionnaire). The initial sample consisted of 463 participants. After a thorough screening process, 400 participants were identified as meeting the criteria for Body Dysmorphic Disorder. This selection process ensured that the study focused specifically on individuals screened for body dysmorphic disorder, allowing for more accurate and relevant findings regarding the prevalence and characteristics of the disorder within this group. This study was conducted on those participants who have different background in context of gender, age, education, material status and employment. Following a brief overview of the research, participants' informed permission was sought. After that, all of the questions were answered and the data was

gathered. It was open permission if any respondents are not interested, he/ she can ignore the questionnaire. In addition, respondents were asked to answer truthfully, and they received a thank-you for their participation at the conclusion. Participants were screened using body dysmorphic disorder questionnaire (Phillips, 2005). The body dysmorphic disorder questionnaire assesses body dysmorphic disorder symptoms' presence and severity. While valuable for indicating body dysmorphic disorder likelihood, a definitive diagnosis typically requires an in-person interview by a mental health professional. Valid across various settings, including psychiatric outpatient samples, the body dysmorphic disorder questionnaire aids in identifying potential body dysmorphic disorder cases (Brohede, 2013). Its validation in diverse populations, like Iranian society, enhances its screening efficacy (Hesam, 2021). However, comprehensive diagnostic evaluation by professionals remains essential for accurate diagnosis and intervention.

Chapter 3

Results

Table 1

Frequencies and Percentages of Demographic Variables (N=400)

Variable	Category	*f*	*%*
Gender	Male	195	48.7
	Female	205	51.3
Age	Below 25	204	51.0
	Above 25	196	49.0
Education	Graduate	171	42.8
	Post Graduate	229	57.3
Material Status	Single/Unmarried	327	81.8
	Married	73	18.3
Employment Status	Employed	113	28.2
	Unemployed	287	71.8
Residential	Islamabad	216	54.0
	Rawalpindi	184	46.0

Note: *f* = Frequency *%*= Percentage

Above table show the frequency and percentage of demographic information of the respondents. Above table shows that there were 50 (50.0%) male respondents and 50 (50.0%) were female respondents. The tables showed that 204 (51.0%) respondents were below the age of 25 year and 196 (49.0.0%) respondents were above the age of 25 year.

Moreover, above table also indicated about status of education of the respondents. Table showed that 327 (81.8%) respondents were single/unmarried and 73 (18.3%) respondents were married. Table also showed that 171 (42.8%) respondents were graduated and 229 (57.3%) respondents were post graduated. The table indicated that 113 (28.2%) respondents were employed and 287 (71.8%) were unemployed and 216 (54.0%) respondents were from Islamabad and 184 (46.0%) respondents were from Rawalpindi.

Table 2

Descriptive Statistics and Alpha Reliability Coefficient of Body dysmorphic disorder, Social Anxiety and Sociocultural Attitudes toward Appearance (N=400)

Variables	*K*	α	*M(SD)*	Range		Skewness	Kurtosis
				Actual	Potential		
BDD	04	.60	5.39(1.22)	3-4	0-4	2.68	1.74
SATA	30	.93	79.73(17.31)	33-116	30-150	-.61	-.39
SA	24	.73	78.91(8.58)	0-101	0-144	-1.76	2.87

Note: BDD= Body dysmorphic disorder; SA=Social Anxiety; SATA=Sociocultural Attitudes toward Appearance, **α** = Cronbach's Alpha, K=number of items

Above table shows the descriptive statistics and psychometric properties of the study variables. The Cronbach's Alpha value of body dysmorphic disorder questionnaire is .60, which suggests a moderate internal consistency. The Cronbach's Alpha value of sociocultural attitudes towards appearance is .93 which suggests excellent internal consistency. The Cronbach's Alpha of social anxiety scale is .73, indicating good internal consistency. The reliability analysis indicates that all these scales are internally consistent. The results also revealed that the Skewness and kurtosis of all the scales lies in normal range showing normal distribution of data.

Table 3

Pearson correlation of Body Dysmorphic Disorder, Sociocultural Attitudes toward Appearance and Social Anxiety among young adults (N=400)

Sr. No	Variables	1	2	3
1	Body Dysmorphic Disorder	-	.25**	.10*
2	Sociocultural attitudes toward appearance	-	-	.06
3	Social anxiety	-	-	-

Note: ***p<.001, **p<.01, *p<.05

The table 3 shows the result of correlation analysis on the current sample (N= 400). The analysis indicates that there is a significant positive relation was found between body dysmorphic disorder and sociocultural attitudes towards appearance (r=.25**, p< .01). A significant positive correlation between body dysmorphic disorder and social anxiety (r=.10*, p< .05). There is a non-significant positive correlation between sociocultural attitudes towards appearance and social anxiety among young adults.

Table 4

Pearson correlation of Body Dysmorphic Disorder and subscales of Sociocultural Attitudes toward Appearance among young adults (N=400)

Sr. No	Variables	1	2	3	4	5
1	Body Dysmorphic Disorder	-	.20**	.24**	.28**	.22**
2	Internalization General Subscale	-	-	.72**	.82**	.81**
3	Internalization Athlete Subscale	-	-	-	.75**	.82**
4	Pressure Subscale	-	-	-	-	.81**
5	Information Subscale	-	-	-	-	-

Note: ***p<.001, **p<.01, *p<.05

The table 4 shows the result of correlation analysis on the current sample (N= 400). The analysis indicates that there is a significant positive correlation between "body dysmorphic disorder" and Internalization General Subscale of "sociocultural attitudes toward appearance**"** (r=.20**, p< .01), Internalization Athlete Subscale of "sociocultural attitudes toward appearance" (r=.24**, p< .01), Pressure Subscale of sociocultural attitudes toward appearance (r=.28**, p< .01) and Information Subscale of **"**sociocultural attitudes toward appearance**"** (r=.22**, p< .01).

Table 5

Simple Linear Regression Showing Body Dysmorphic Disorder leads to social anxiety among young adults (N=400)

	Social Anxiety				
Variable	*B*	*SEB*	*β*	*t*	*P*
Constant	70.49	.89		78.51	.001
BDD	.06	.03	.10	2.03	.043

Note: R=.10; R^2=.01, BDD= Body Dysmorphic Disorder

Table 5 shows the impact of body dysmorphic disorder on social anxiety among young adults. The R^2 value of .01 revealed that the body dysmorphic disorder explained 1% variance in the social anxiety with F=4.12, $p<.05$. The findings revealed that there is a statistically significant positive relationship between body dysmorphic disorder and social anxiety among young adults.

Table 6

Mediating effect of sociocultural attitudes towards appearance between body dysmorphic disorder and social anxiety among young adults (N=400)

	Predictors			Outcome		
				Social Anxiety		
	Model	R^2	β	*p*	t	95% BaCI
1.	Constant		70.49	.000	78.51	[68.72, 72.26]
	Body Dysmorphic Disorder	.01	.06	.043	2.02	[.00, .12]
2.	Constant		67.72	.000	18.22	[60.41, 75.03]
	Body Dysmorphic Disorder		.05	.078	1.76	[-.00, .12]
	Sociocultural Attitudes Towards Appearance	.01	.03	.442	.76	[-.05, .12]

For step 1: F= 28.25***, For step 2: F= 2.35

Note R^2 = Explained variance, BaCI= Biased corrected confidence interval

Table 6 analysis of the table suggests that the mediating effect of sociocultural attitudes towards appearance between body dysmorphic disorder and social anxiety among young adults is non-significant. In Model 1, body dysmorphic disorder significantly predicts social anxiety with a small effect size, as indicated by β=.06, t=2.02, p=.043, and a 95% BaCI [.00, .12]. This suggests that body dysmorphic disorder alone can explain a slight but significant portion of the variance in social anxiety.

However, in Model 2, when sociocultural attitudes towards appearance are added as a mediator, the relationship between body dysmorphic disorder and social anxiety becomes non-significant (β=.05, t=1.76, p=.078, 95% BaCI [-.00, .12]). The sociocultural attitudes themselves do not significantly predict social anxiety (β=.03, p=.442), indicating that they do not play a substantial mediating role.

Figure 2

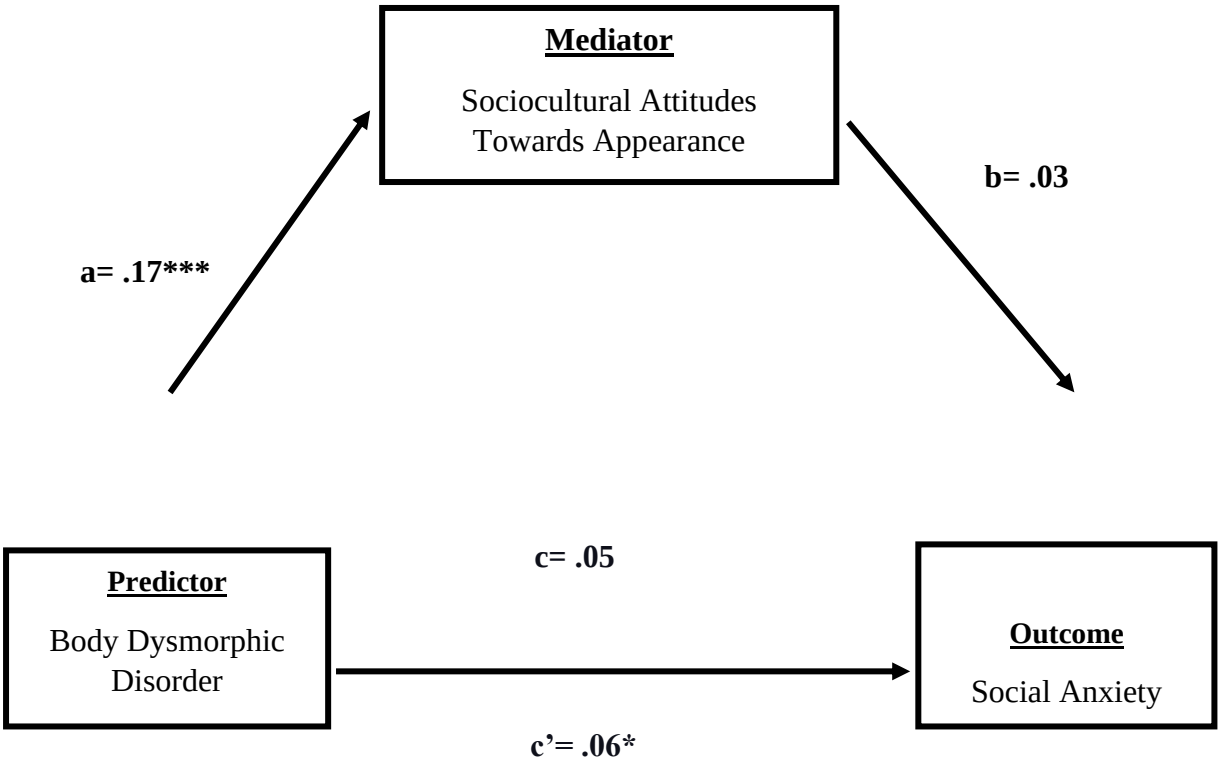

Table 2 explains that the mediation by sociocultural attitudes towards appearance is non-significant. This suggests that while body dysmorphic disorder significantly influences sociocultural attitudes, these attitudes do not substantially contribute to explaining social anxiety. The direct effect of body dysmorphic disorder on social anxiety remains significant, indicating that body dysmorphic disorder directly impacts social anxiety more than it does through the mediator. This weak mediation could be due to the low effect of sociocultural attitudes on social anxiety, implying that other factors may play a more critical role in linking body dysmorphic disorder to social anxiety.

Table 7

Mean, Standard Deviation and t-values along male and female on Body Dysmorphic Disorder among young adults (N=400)

	Male (N=195)	Female (N=205)			95% CI		
Variables	*M (SD)*	*M (SD)*	*t (400)*	*P*	*LL*	*UL*	*Cohen's d*
BDD	11.79 (21.27)	16.77 (28.18)	2.00	.000	.09	9.87	.19
SATA	79.45 (16.71)	80.02 (17.95)	.32	.174	-2.84	3.97	.03
SA	70.50 (16.26)	72.34 (14.98)	1.17	.093	-1.24	4.91	.11

Note: CI= Confidence Interval, LL=Lower Limit, UL= Upper Limit, BDD= Body dysmorphic disorder, SA= Social Anxiety, SATA= Sociocultural attitudes towards appearance

Table 7 shows the difference between male and female young adults on body dysmorphic disorder, sociocultural attitudes towards appearance and social anxiety. Findings revealed that there was significant mean difference between male and female young adults on body dysmorphic disorder. The mean column shows that female young adults are high on body dysmorphic disorder with (*M*=16.77, SD=28.18) as compared to male young adults (M=11.79, SD=21.27). Furthermore, that there was non-significant mean difference between male young adults and female young adults on sociocultural attitudes appearance and on social Anxiety.

Table 8

Mean, Standard Deviation and t-values along age on Body Dysmorphic Disorder among young adults (N=400)

Variables	Below 25 (N=204) M (SD)	Above 25 (N=196) M (SD)	t (400)	P	95% CI LL	95% CI UL	Cohen's d
BDD	19.55 (31.78)	8.67 (12.80)	4.45	.001	6.07	15.67	.04
SATA	80.52 (16.74)	78.90 (17.88)	.93	.395	-1.78	5.02	.09
SA	72.87 (15.27)	69.86 (15.94)	1.92	.052	-.05	6.07	.19

Note: CI= Confidence Interval, LL=Lower Limit, UL= Upper Limit, BDD= Body dysmorphic disorder, SA= Social Anxiety, SATA= Sociocultural attitudes towards appearance

Table 8 shows the difference between age groups from below age 25 years and above age 25 years on body dysmorphic disorder, sociocultural attitudes towards appearance and social anxiety among young adults. Findings revealed that there was significant mean difference between below age 25 years' young adults and above age 25 years young adults on body dysmorphic disorder among young adults. The mean column shows that below age 25 years young adults are high on body dysmorphic disorder with (*M*=19.55, SD=31.78) as compared to above age 25 years young adults (M=8.67, SD=12.80). Furthermore, there was non-significant mean difference between below 25 years young adults and above age 25 years' young adults on sociocultural attitudes appearance and on social anxiety.

Table 9

Mean, Standard Deviation and t-values along education on Body Dysmorphic Disorder among young adults (N=400)

Variables	Graduate (N=171) M (SD)	Post Graduate (N=229) M (SD)	t (400)	P	95% CI LL	95% CI UL	Cohen's d
BDD	15.68 (27.41)	13.13 (22.99)	1.01	.024	2.41	7.51	.10
SATA	79.92 (17.48)	79.59 (17.22)	.19	.557	3.10	3.78	.01
SA	70.51 (16.05)	72.06 (15.36)	-.98	.408	4.66	1.56	.09

Note: CI= Confidence Interval, LL=Lower Limit, UL= Upper Limit, BDD= Body dysmorphic disorder, SA= Social Anxiety, SATA= Sociocultural attitudes towards appearance

Table 9 shows the difference between graduates and post graduates on body dysmorphic disorder, sociocultural attitudes towards appearance and social anxiety among young adults. Findings revealed that there was considerable variance among graduates and above graduates on body dysmorphic disorder among young adults. The mean column shows that graduates young adults are high on body dysmorphic disorder with (*M*=15.68, SD=27.41) as compared to post graduates' young adults (M=13.13, SD=22.99). Furthermore, there was non-significant mean difference between graduate's young adults and post graduate's young adults on sociocultural attitudes appearance and on social anxiety.

Table 10

Mean, Standard Deviation and t-values along marital status on Body Dysmorphic Disorder among young adults (N=400)

	Unmarried (N=327)	Married (N=73)			95% CI		
Variables	*M (SD)*	*M (SD)*	*t (400)*	*P*	*LL*	*UL*	*Cohen's d*
BDD	15.56 (26.64)	8.22 (14.09)	2.28	.001	1.01	13.66	.34
SATA	80.28 (17.50)	77.27 (16.32)	1.34	.470	1.39	7.40	.17
SA	71.85 (15.24)	69.38 (17.37)	1.21	.093	1.52	1.90	.15

Note: CI= Confidence Interval, LL=Lower Limit, UL= Upper Limit, BDD= Body dysmorphic disorder, SA= Social Anxiety, SATA= Sociocultural attitudes towards appearance

Table 10 shows the difference between unmarried/single and married on body dysmorphic disorder, sociocultural attitudes towards appearance and social anxiety among young adults. Findings revealed that there was considerable variance among married young adults and unmarried/single young adults on body dysmorphic disorder among young adults. The mean column shows that unmarried/single young adults are high on body dysmorphic disorder with (*M*=15.56, SD=26.64) as compared to married young adults (M=8.22, SD=14.09). Furthermore, there was non-significant mean difference between unmarried/single young adults and married young adults on sociocultural attitudes appearance and on social anxiety.

Table 11

Mean, Standard Deviation and t-values along employment status on Body Dysmorphic Disorder among young adults (N=400)

	Employed (N=113)	Unemployed/Students (N=287)			95% CI		
Variables	*M (SD)*	*M (SD)*	*t (400)*	*P*	*LL*	*UL*	*Cohen's d*
BDD	7.98 (12.10)	16.68 (28.13)	-3.16	.000	14.08	3.30	.40
SATA	77.51 (16.82)	80.60 (17.45)	-1.61	.663	6.86	.68	.18
SA	69.97 (18.13)	71.96 (14.57)	-1.14	.031	5.40	1.43	.12

Note: CI= Confidence Interval, LL=Lower Limit, UL= Upper Limit, BDD= Body dysmorphic disorder, SA= Social Anxiety, SATA= Sociocultural attitudes towards appearance

Table 11 shows the difference between employed and unemployed/students on body dysmorphic disorder, sociocultural attitudes towards appearance and social anxiety among young adults. Findings revealed that there was considerable variance among employed and unemployed/students on body dysmorphic disorder among young adults. The mean column shows that unemployed/students' young adults are high on body dysmorphic disorder with (*M*=16.68, SD=28.68) as compared to employed young adults (M=7.98, SD=12.10). There was no significant mean difference between unmarried/single young adults and married young adults on sociocultural attitudes appearance. Furthermore, there was significant mean difference between employed young adults and unemployed/students' young adults on social anxiety. The mean column shows that unemployed/students' young adults are high on social

anxiety with (*M*=71.96, SD=14.57) as compared to employed young adults (M=69.97, SD=18.13).

Chapter 4

Discussion

Body dysmorphic disorder has a profound effect on how people view themselves in comparison to socially acceptable criteria of beauty. Extreme obsession with perceived appearance faults is common in people with body dysmorphic disorder, and this can result in unfavorable self-image assessments based on social standards. People with skewed ideas of themselves may have social anxiety because they fear rejection or unfavorable evaluations because of their perceived shortcomings. Individuals' internalization and reactions to societal beauty standards are shaped by sociocultural ideas toward appearance, which also serve as a significant mediating factor in this relationship. People who suffer from body dysmorphic disorder may become more distressed and anxious when these attitudes perpetuate unattainable norms, which can negatively affect their social relationships and general well-being. Several sources of evidence suggest that social anxiety is associated with significant impairment in psychosocial functioning. For instance, Acarturk et al. (2008) found that higher numbers of endorsed social fears were associated with poorer psychosocial functioning in a community sample.

The first hypothesis of the study was that there is a positive relationship between body dysmorphic disorder, social anxiety and sociocultural attitudes towards appearance among young adults. There is a non-significant relationship between sociocultural attitudes toward appearance and social anxiety. The findings of current study supported the hypothesis that revealed that there is a statistically significant positive relationship between body dysmorphic disorder and social anxiety among young adults Table (4). In my opinion, it seems sense that body dysmorphic disorder and social anxiety are interrelated. These diseases are characterized by a deep dread of being judged negatively by others, a concern that may be made worse by societal norms that place a premium on physical beauty. Due to the widespread influence of

social media and the societal value placed on specific body types, young adults are especially susceptible to these pressures. This combination of variables can lead to a vicious cycle in which body dysmorphic tendencies are reinforced by social anxiety driven by appearance worries.

Hollander & Aronowitz (1999) extensive research has investigated the comorbidity between social anxeity and other psychological disorders, including mood disorders, other anxiety disorders, and substance use disorders. Few studies, however, have examined the relationship between social anxiety and body dysmorphic disorder, despite evidence indicating that body dysmorphic disorder is the fourth most common comorbid disorder among individuals with social anxiety. Body dysmorphic disorder is marked by an excessive preoccupation with a slight or imagined defect in appearance. This imagined defect is related to a fear of negative evaluation by others, which is the core feature of social anxiety. In addition, body dysmorphic disorder is conceptualized as a form of social anxiety in certain Eastern cultures.

Fang et al. (2010) conducted a study examining the relationship between social anxiety and body dysmorphic disorder have not distinguished the diagnostic subtypes of social anxiety (i.e., the generalized subtype and the additional diagnosis of avoidant personality disorder). There is an overall lack of information about the number and content of social fears in patients with body dysmorphic disorder, as studies have only reported the presence or absence of a diagnosis of social anxiety, or severity of self-reported social anxiety symptoms in body dysmorphic disorder patients. Some evidence suggests that body dysmorphic disorder may be more closely related to the generalized subtype of social anxiety. Studies have shown that body dysmorphic disorder is highly comorbid with avoidant personality disorder (Veale etal., 1996), which tends to occur more commonly with generalized social anxiety (Schneier et al., 1991). Furthermore, data on social anxiety symptoms in body dysmorphic disorder patients indicate

high levels of social anxiety, which is comparable to severity of social anxiety symptoms found in patients with generalized social anxiety (Coles et al., 2006). Sociocultural perspectives on appearance are important in understanding this relationship. Ahmadpanah et al.'s (2019) study focused on how societal norms affect people's self-esteem and the emergence of body dysmorphic disorders. Young adults who live in societies where physical beauty is highly valued may feel more pressure to fit in, which worsens symptoms of both body dysmorphic disorder and social anxiety.

There might be a number of reasons for the non-significant correlation between social anxiety and sociocultural beliefs toward beauty. The fact that different people react differently to societal constraints might be one explanation; not everyone internalizes social demands in a way that makes them worse for social anxiety. Furthermore, there may be a direct correlation between sociocultural views and social anxiety, but this association may be obscured by mediating factors like self-esteem, body image flexibility, and childhood traumas (Sinem et al. 2022). Moreover, as cultural settings affect how people understand and respond to sociocultural norms, cultural variations in how social anxiety is expressed and experienced may possibly be a factor in this lack of relevance (Hofmann et al. 2010).

According to the hypothesis that body dysmorphic disorder leads to sociocultural attitudes towards appearance among young adults. The findings revealed that people with higher levels of body dysmorphic disorder are more likely to internalize societal beauty ideals and experience pressure to meet these norms in Table (4). According to general perspective, Today's culture's extensive emphasis on physical beauty may have a big influence on people's behavior and sense of self especially for young people. One of the most notable examples of the significant consequences of these standards is body dysmorphic disorder. Body dysmorphic disorder patients frequently experience pain and harmful behaviors as a result of their intense concern with imagined physical flaws. This study underscores the noteworthy influence of

social beauty standards on mental health, establishing a connection between body dysmorphic disorder and sociocultural perspectives on appearance.

According to Ahmadpanah et al. (2019), there is a strong correlation between body dysmorphic disorder symptoms and sociocultural attitudes toward beauty. This suggests that people with body dysmorphic disorder are more susceptible to social pressures related to appearance and body image. The association with the Internalization Athlete Subscale suggests that this internalization of beauty standards extends beyond broad ideals to athletics. This is a reflection of the particular demand to have an athletic body type, which is frequently idealized in popular culture and the media. Kaplan et al. (2014) also observed a link between body dysmorphic disorder and an increased vulnerability to socially acceptable beauty standards. It has been noted that those who suffer from body dysmorphic disorder are more prone to act in ways that attempt to fulfil these expectations, which feeds the vicious cycle of worry and self-loathing. This is consistent with the positive association that was shown between body dysmorphic disorder and the SATAQ's Pressure and Information subscales, suggesting that these people are internalizing social norms in addition to experiencing serious pressure and looking for information about them.

According to the hypothesis that body dysmorphic disorder leads to social anxiety among young adults. The findings revealed that body dysmorphic disorder statistically leads social anxiety among young adults Table (5). According to general perspective, body dysmorphic disorder and social anxiety are closely related, especially in young people. Body dysmorphic disorder is typified by an obsession with one's looks and can cause a great deal of discomfort as well as impairment in day-to-day functioning. Social anxiety can worsen in people with body dysmorphic disorder when they are in social situations because of their strong fear of being judged adversely because of their perceived physical flaws. Based on this link, it

appears that young people with body dysmorphic disorder are more likely to have elevated social anxeity.

The DSM-5 (American Psychiatric Association, 2013) defines social anxiety as a marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny or evaluation by others. In recent years, variable rates of prevalence for body dysmorphic disorder in the general population have been reported ranging from 0.7% (Otto et al., 2001) through 1.1% (Bienvenu et al., 2000) to 1.7% (Rief et al., 2006). Higher rates of body dysmorphic disorder have been noted among college samples which range from 2.5% (Sarwer et al., 2005) to 5.3% (Bohne et al., 2002; Taqui et al., 2008). Body dysmorphic concerns generally appear to be stable across short periods of time (Phillips, 2000) and data from non-clinical populations indicate an inconsistent sex ratio, with some studies indicating that a higher proportion of females than males have body image concern It is characterized by social fears, excessive discomfort, negative rumination, and somatic symptoms such as trembling, blushing and sweating before, during, and after social interaction (Heiser et al., 2009). An adolescent who suffers from this kind of anxiety avoids social interactions (e.g., having a conversation, meeting unfamiliar people). However, public speaking is the most commonly feared social situation (Hinojo-Lucena et al., 2020) for adolescent that suffers from such anxiety. In a study conducted by Fang in 2010, it was highlighted that social anxiety and body dysmorphic disorder are not only highly comorbid but also share similar characteristics in terms of age of onset, chronic trajectory, and cognitive patterns. This study underscores the intertwined nature of these two disorders and points toward potential shared mechanisms or underlying factors contributing to their coexistence. Research found that subjects with both body dysmorphic disorder and social anxiety experienced elevated levels of social anxiety. Interestingly, the additional social anxiety experienced appeared to be somewhat independent

of body dysmorphic disorder, suggesting that these disorders can independently contribute to heightened anxiety levels (Coles, 2006).

The finding that sociocultural attitudes towards appearance do not mediate the relationship between body dysmorphic disorder and social anxiety among young adults (Table 6) could suggest several possibilities. Firstly, it might indicate that the direct impact of body dysmorphic disorder on social anxiety is so strong that sociocultural attitudes do not significantly alter or influence this relationship. In other words, individuals with body dysmorphic disorder may experience social anxiety directly due to their distorted self-perception, regardless of external sociocultural pressures. Another possibility is that while sociocultural attitudes towards appearance may influence body image concerns in general, they might not be as significant for individuals with body dysmorphic disorder, who typically have a more intense and pathological focus on perceived flaws. These individuals might be less influenced by societal standards and more by their internalized and distorted body image, which directly feeds into their social anxiety. Confounding variables such as self-esteem, personality traits (e.g., perfectionism), and other psychological disorders (e.g., depression) might play a more critical role in this relationship. These factors could potentially overshadow the influence of sociocultural attitudes, making it difficult for them to emerge as significant mediators.

Veale and Neziroglu (2010) suggest that individuals with body dysmorphic disorder have a deep-seated preoccupation with their appearance that is often resistant to external influences, such as sociocultural attitudes. This might explain why sociocultural attitudes do not mediate the relationship between body dysmorphic disorder and social anxiety, as body dysmorphic disorder is driven more by internalized beliefs rather than external societal pressures.

Cash and Smolak (2011) note that while sociocultural factors are significant in the development of body image concerns, they might not have a strong mediating effect in clinical populations with severe disorders like body dysmorphic disorder. This supports the idea that body dysmorphic disorder could directly lead to social anxiety without the need for external sociocultural mediation.

Phillips et al. (2006) emphasize that body dysmorphic disorder is often accompanied by other psychological conditions, such as depression and anxiety, which may have a more direct influence on social anxiety than sociocultural attitudes. This could mean that these comorbid conditions, rather than sociocultural attitudes, are more relevant mediators in the relationship between body dysmorphic disorder and social anxiety.

Moreover, it was stated that female young adults are higher at body dysmorphic disorder than male young adults and the statistical outcomes indicated that there was significant mean difference between male and female young adults on body dysmorphic disorder which shows that female young adults have high level of body dysmorphic disorder as compared to male young adults Table (7).

A study by Phillips et al. (2006) that females report greater appearance dissatisfaction, worry more about appearance in public, are more upset by someone noticing their appearance and comment more frequently about their appearance. These findings reflect greater importance of appearance for females than males in most societies. My own observations suggest that women, particularly young adult women, frequently voice greater concerns about their looks than do men. This discovery is consistent with the expectations and pressures that society places on women to conform to particular ideals of beauty. Higher levels of body dysmorphic disorder in women may result from these influences.

An unattractive appearance is considered a liability for females (Bergner et al., 1985). Moreover, as Striegel-Moore and Franko (2002) put it, beauty is an integral element of the

female sex role stereotype, and females' bodies are likely to be regarded in an evaluative and objectifying way. With increased public attention on bodyweight and appearance, endorsed by the media (Thompson and Heinberg, 1999) increasingly, negative body image in females has been empirically related to anxiety, lowered self-esteem (Thompson and Altabe, 1991), depression (Denniston et al., 1992), plastic surgery (Pruzinsky, 1996), internalized media and societal ideals (Brown et al., 1990), acculturation (Joiner & Kashubeck, 1996; Perez et al., 2002), exposure to Western societies (Dolan, 1991) and increased spending on items claiming to guarantee weight loss (Brownell and Rodin, 1994). Body dysmorphic disorder predominantly affects the way individuals perceive themselves, often due to perceived flaws that might be minor or unnoticeable to others. A study by Veale et al. (2014) found that women are more likely to report dissatisfaction with their bodies, which can sometimes manifest as body dysmorphic disorder symptoms. Women, particularly in young adulthood, face societal pressures concerning appearance, which may exacerbate or precipitate body dysmorphic disorder symptoms. This narrative says that women are more influenced by societal beauty standards than men. A similar observation was made by Coles et al. (2006), who noted that while women might be more overtly targeted by beauty standards, men too face pressures, such as muscularity ideals, which can influence their self-perception.

There is also non-significant mean difference between male young adults and female young adults on sociocultural attitudes appearance and on social anxiety. There might be a number of reasons for the non-significant correlation between social anxiety and sociocultural beliefs toward beauty. The fact that different people react differently to societal constraints might be one explanation; not everyone internalizes social demands in a way that makes them worse for social anxiety. Furthermore, there may be a direct correlation between sociocultural views and social anxiety, but this association may be obscured by mediating factors like self-esteem, body image flexibility, and childhood traumas (Sinem et al., 2022). Moreover, as

cultural settings affect how people understand and respond to sociocultural norms, cultural variations in how social anxiety is expressed and experienced may possibly be a factor in this lack of relevance (Yu Jin et al., 2022).

Limitations and Suggestions

As like other studies, the current study has few limitations and suggestions which are derived on the bases of major findings of the study.

- The study did not account for potential confounding variables such as baseline levels of social anxiety or prior mental health issues, which could have influenced the relationship between body dysmorphic disorder and social anxiety.
- The sample was drawn from only two cities, which limits the generalizability of the findings to other regions or diverse populations.
- The relatively small sample size may limit the statistical power of the study, making it difficult to detect significant effects or generalize the results to the broader population.
- The use of self-report inventories introduces the possibility of social desirability bias, where participants may have responded in a manner they perceived as socially acceptable rather than reflecting their true feelings.
- The study focused on mediating variables without considering potential moderating factors that could have altered the strength or direction of the relationships observed.

The current study has recommended few suggestions for future researchers.

- In future, such type of issues must be checked with the help of qualitative research designs.
- For future researchers, these variables must check with the help of large sample size.
- The current study suggested that in future new variables should be added in this study and tested on large sample size.

- To give a more thorough knowledge of the interactions between the factors analyzed, future study should think about examining moderating variables in addition to mediating variables.
- For upcoming students there is need to conduct these types of studies on cross culture as well.

Implication

- The study can help develop culturally sensitive treatments for body dysmorphic disorder and social anxiety among young adults.
- Understanding the role of sociocultural attitudes can aid mental health professionals in addressing body dysmorphic disorder and social anxiety.
- The study can inform public health initiatives and educational programs to reduce appearance-related anxieties in youth.
- The research adds a cultural perspective to global literature, encouraging similar studies in diverse settings.

Conclusion

Lastly, the analysis revealed that the factors under investigation were correlated. The results showed that body dysmorphic disorder, social anxiety, and sociocultural attitudes toward appearance all had positive and significant relationships. In contrast, the relationships between social anxiety and sociocultural attitudes toward appearance were not statistically significant. The current study's findings demonstrated that body dysmorphic disorder leads to social anxiety among young adults. The present study shows that body dysmorphic disorder has an impact on sociocultural attitudes towards appearance among young adults. Furthermore, the finding of present study shows that sociocultural attitudes towards appearance don’t mediate the relationship between body dysmorphic disorder and social anxiety among young adults. Finding showed that female young adults have higher at body dysmorphic disorder as

compared to male young adults. Finding revealed that age below 25 years old young adults have higher at body dysmorphic disorder as compared to above 25 years old young adults. Moreover, finding showed that graduate young adults have higher at body dysmorphic disorder as compared to post graduate young adults. Findings also revealed that unmarried/single young adults have higher at body dysmorphic disorder as compared to married young adults. Lastly findings showed that unemployed/students' young adults have higher at body dysmorphic disorder as compared to employed young adults.

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Annex A. Inform Consent Form

Name: Muqadas Ali

MS Psychology

I, Muqadas Ali, a student of MS Psychology at International Islamic University Islamabad, am conducting research on the topic "Body Dysmorphic Disorder Predicting Social Anxiety Among Young Adults: Mediating Role of Sociocultural Attitudes Towards Appearance." I kindly request your participation in this study. The purpose of your participation is to help identify the situations you are facing.

If you agree to participate, the procedure will involve filling out questionnaires, which will take approximately 15-20 minutes. I will provide instructions on how to complete the questionnaire.

Please be assured that the records of your data will be kept confidential and will not be shared with anyone. Your identity will also be kept confidential. Upon completing the study, the records will be destroyed to ensure that no one can access them.

Thank you for considering participating in this study.

Annex B. Demographic Sheet

Gender	☐ Male	☐ Female
Age:	☐ Above 25	☐ Below 25
Education Level:	☐ Graduate	☐ Post-Graduate
Marital Status:	☐ Married	☐ Unmarried/Single
Employment Status:	☐ Employed	☐ Unemployed/Student
Residency:	☐ Islamabad	☐ Rawalpindi

Annex C. Permission from author for using scale

Request for Permission to Use BDDQ in Thesis

Katharine Phillips <kap9161@med.cornell.edu> Sat, Sep 30, 2023 at 10:27 PM

To: Muqadas Ali <muqaddasali712@gmail.com>
Cc: Tom Young <tyoung@proemhealth.com>

Dear Muqadas,

Attached please find the BDDQ and its original psychometrics paper. Please cite the scale and its original psychometrics paper in any associated research you may publish.

Best,

Dr. Phillips

Request for Permission to Use Liebowitz Social Anxiety Scale (LSAS) in Thesis

Ann Draine <adraine@medicalresearchnetwork.com> Mon, Oct 2, 2023 at 9:21 PM

To: Muqadas Ali <muqaddasali712@gmail.com>
Cc: MLiebowitz@medicalresearchnetwork.com

Hello,

Please see below and attached from Dr. Liebowitz:

Dear Muqadas Ali

I am happy to give you permission to use the LSAS for your research project. Please find attached the scale, a user manual and a scoring guide

Best wishes

Michael Liebowitz MD

Request for Permission to Use SATAQ-3 in Thesis

JK Thompson <Thompson@thompsonjk2003.com> Tue, Oct 12, 2023 at 11:02 PM

To: Muqadas Ali <muqaddasali712@gmail.com>
Cc: Thompson@thompsonjk2003.com

Hello,
Thank you for your email and for your interest in the Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3).

I am happy to give you permission to use the SATAQ-3 in your thesis.Please ensure that the scale is used solely for academic purposes and that proper citation is included in your work. For your reference, you can cite the scale as follows:

> Thompson, J.K., van den Berg, P., Roehrig, M., Guarda, A.S., & Heinberg, L.J. (2004). The Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders, 35(3)*, 293-304.

Additionally, I recommend reviewing the original publication for detailed information on the development and validation of the scale. If you require any further guidelines or resources, please feel free to reach out.

Best Wishes,

J.K. Thompson

Annex D. Letter for data collection

INTERNATIONAL ISLAMIC UNIVERSITY, ISLAMABAD
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF PSYCHOLOGY
051-9019886

No. IIU-FSS/PSY/2023

This is to certify that Ms. Muqadas Ali, Registration No. 433-FSS/MSCPFF21 is a bona fide MS scholar enrolled in MS Psychology degree program, Psychology Department, International Islamic University Islamabad. Currently, she is working on her research title "**BODY DYSMORPHIC DISORDER PREDICTING SOCIAL ANXIETY AMONG YOUNG ADULTS: MEDIATING ROLE OF SOCIOCULTURAL ATTITUDES TOWARDS APPEARANCE**" under the supervision of Dr. Mussarat Jabeen, Lecturer, at Psychology Department, IIUI. The researcher has a requirement to collect data from this prestigious institution for completion of her research. It is assured that the data from this institute would be kept confidential and used only for research and publication.

Dr. Mussarat Jabeen
Lecturer
Department of Psychology, IIUI

Annex E. Body Dysmorphic Disorder Questionnaire

This questionnaire asks about concerns with physical appearance. Please read each question carefully and circle the answer that is true for you. Also write in answers where indicated.

1) Are you worried about how you look? ☐ Yes ☐ No

NOTE: If you answered "No" to either of the above questions, you are finished with this questionnaire. Otherwise please continue.

2) Is your main concern with how you look that you aren't thin enough or that you might get too fat? ☐ Yes ☐ No

3) How has this problem with how you look affected your life?

• Has it often upset you a lot? ☐ Yes ☐ No

• Has it often gotten in the way of doing things with friends, dating, your relationships with people, or your social activities? ☐ Yes ☐ No

• Has it caused you any problems with school, work, or other activities? ☐ Yes ☐ No

• Are there things you avoid because of how you look? ☐ Yes ☐ No

4) On an average day, how much time do you usually spend thinking about how you look? (Add up all the time you spend in total in a day, then circle one.)

(a) Less than 1 hour a day (b) 1-3 hours a day (c) More than 3 hours a day

Annex F. Liebowitz Social Anxiety Scale

Fill out the following questionnaire with the most suitable answer listed below. Base you answer on you experience in the past week and, if you have completed the scale previously, be as consistent as possible in your perception of the situation described. Be sure to answer all items.

Fear or Anxiety:	Avoidance:
0 = None	**0** = Never
1 = Mild	**1** = Occasionally
2 = Moderate	**2** = Often
3 = Severe	**3** = Usually

	Fear or anxiety	**Avoidance**
1. **Telephoning in public -** speaking on the telephone in a public place		
2. **Participating in small groups** – having a discussion with a few others		
3. **Eating in public places** – do you tremble or feel awkward handling food		
4. **Drinking with others in public places** – refers to any beverage including alcohol		
5. **Talking to people in authority** – for example, a boss or teacher		
6. **Acting, performing or giving a talk in front of an audience** – refers to a large audience		
7. **Going to a party** – an average party to which you may be invited; assume you know some but not all the people at the party		
8. **Working while being observed** – any type of work you might do including school work or housework		
9. **Writing while being observed** – for example, signing a check in a bank		
10. **Calling someone you don't know very well**		
11. **Talking with people you don't know very well**		
12. **Meeting strangers** – assume other are of the average importance to you		
13. **Urinating in a public bathroom** – assume that others are sometimes present, as might normally be expected		
14. **Entering a room when others are already seated** – refers to a small group, and nobody has to move seats for you		
15. **Being the center of attention** – telling a story to a group of people		
16. **Speaking up at a meeting** – speaking from your seat in a small meeting or standing up in place in a large meeting		

17. **Taking a written test**		
18. **Expressing appropriate disagreement or disapproval to people you don't know very well**		
19. **Looking at people you don't know very well in the eyes** – refers to appropriate eye contact		
20**. Giving a report to a group** – refers to an oral report to a small group		
21. **Trying to pick up someone** – refers to a single person attempting to initiate a relationship with a stranger		
22. **Returning goods to a store where returns are normally accepted**		
23. **Giving an average party**		
24. **Resisting a high-pressure salesperson** – avoidance refers to listening to a salesperson too long		

Annex G. Sociocultural Attitudes Towards Appearance Questionnaire-3

Please read each of the following items carefully and indicate the number that best reflects your agreement with the statement.

Definitely Disagree = 1

Mostly Disagree = 2

Neither Agree nor Disagree = 3

Mostly Agree = 4

Definitely Agree = 5

1. TV programs are an important source of information about fashion and "being attractive." _____
2. I've felt pressure from TV or magazines to lose weight. _____
3. I do not care if my body looks like the body of people who are on TV. _____
4. I compare my body to the bodies of people who are on TV. _____
5. TV commercials are an important source of information fashion and "being attractive." _____
6. I do not feel pressure from TV or magazines to look pretty. _____
7. I would like my body to look like the models who appear in magazines. _____
8. I compare my appearance to the appearance of TV and movie stars. _____
9. Music videos on TV are not an important source of information about fashion and "being attractive." _____
10. I've felt pressure from TV and magazines to be thin. _____
11. I would like my body to look like the people who are in movies. _____
12. I do not compare my body to the bodies of people who appear in magazines. _____

13. Magazine articles are not an important source of information about fashion and "being attractive." _____

14. I've felt pressure from TV or magazines to have a perfect body. _____

15. I wish I looked like the models in music videos. _____

16. I compare my appearance to the appearance of people in magazines. _____

17. Magazine advertisements are an important source of information about fashion and "being attractive." _____

18. I've felt pressure from TV or magazines to diet. _____

19. I do not wish to look as athletic as the people in magazines. _____

20. I compare my body to that of people in "good shape." _____

21. Pictures in magazines are an important source of information about fashion and "being attractive". _____

22. I've felt pressure from TV or magazines to exercise. _____

23. I wish I looked as athletic as sports stars. _____

24. I compare my body to that of people who are athletic. _____

25. Movies are an important source of information about fashion and "being attractive". _____

26. I've felt pressure from TV or magazines to change my appearance. _____

27. I do not try to look like the people on TV. _____

28. Movie starts are not an important source of information about fashion and "being attractive". _____

29. Famous people are an important source of information about fashion and "being attractive." _____

30. I try to look like sports athletes. _____