Pakistan Journal of Positive Psychology

Print ISSN : 3078-6428 | Online ISSN : 3078-6436
Pakistan Journal of Positive Psychology

Original Article

BEYOND THE SKIN: DYSMORPHIC CONCERNS AND SELF-OBJECTIFICATION AS PREDICTORS OF EMOTIONAL DISTRESS IN INDIVIDUALS WITH DERMATOLOGICAL CONDITIONS

Rukhsana Khan [a*], Maaz Sultan [b], & Namoos Karim [c]

[a,b,c] National institute of Psychology, Quiad-i-Azam University, Islamabad, Pakistan

*Correspondence to: Ms. Rukhsana Khan, National institute of Psychology, Quiad-i-Azam University, Islamabad, Pakistan. Email: rukhsanakhan2000@outlook.com

KEYWORDS:
Dysmorphic Concern, Self-Objectification, Emotional Distress, Depression, Anxiety, Dermatological Conditions, Pakistan

CITE THIS ARTICLE:
Khan, R., Sultan, M., & Karim, N. (2026). Beyond the skin: dysmorphic concerns and self-objectification as predictors of emotional distress in individuals with dermatological conditions. Pakistan Journal of Positive Psychology, 3(9), 138-146.

ABSTRACT

Visible skin conditions can expose people to appearance-related distress, yet the psychological processes that link appearance cognitions to emotional distress remain little studied in South Asian clinical samples. This cross-sectional study examined dysmorphic concern and self-objectification as predictors of emotional distress (depression, anxiety, and stress) among people with dermatological and aesthetic conditions in Pakistan, and explored group differences by gender, family system, family history of skin conditions, and posting of photographs on social media. A purposive sample of 200 adults (82 men, 118 women) from dermatology departments and aesthetic clinics in Islamabad and Rawalpindi completed the Dysmorphic Concern Questionnaire, the Self-Objectification Questionnaire, and the Depression Anxiety Stress Scales-21. Dysmorphic concern was significantly associated with emotional distress ($p<.05$), and self-objectification ($p<.05$). Together they accounted for 46% of the variance in distress, and each made a unique contribution (dysmorphic concern $\beta = .63$; self-objectification $\beta = .17$). The unique contribution of self-objectification was clearest for anxiety ($\beta = .20$) and stress ($\beta = .17$) and was not significant for depression. Women reported higher depression, anxiety, and stress than men ($d = .50$–$.71$) but did not differ in dysmorphic concern or self-objectification. Participants who did not post photographs online reported higher dysmorphic concern and distress, and those living in joint families reported more distress and anxiety. The findings support routine psychological screening and culturally sensitive, family-inclusive psychological care within dermatology services.

I. INTRODUCTION

The skin is the body's largest organ, and it is also among its most visible markers of identity. It signals health, age, and often social standing before a person speaks. When skin conditions such as acne, pigmentary disorders, scarring, psoriasis, or hair loss appear, their effects rarely stay on the surface. Large multicentre work in Europe has shown that depression, anxiety, and suicidal ideation are more common among dermatology outpatients than in the general population (Dalgard et al., 2015), and reviews have documented the broad personal and social burden of skin disease (Basra & Shahrukh, 2009). The distress that accompanies a skin condition is often out of proportion to its clinical severity. How people see their own appearance, and what they think others see, appears to matter as much as the lesion itself. These processes are likely to be amplified in Pakistan and other South Asian societies, where clear and fair skin is closely tied to ideas of beauty, health, social desirability, and marriageability. Stigma about mental illness, limited access to psychological services, and a dermatological care system that

seldom screens for emotional difficulties mean that many patients carry the emotional burden of their skin condition alone. Image-centred social media and the growing availability of aesthetic procedures add further pressure to conform to narrow ideals. Despite this, psycho-dermatological research from Pakistan is sparse, and much of the available work on appearance preoccupation has used student rather than clinical samples (Taqui et al., 2008).

Dysmorphic Concern

Dysmorphic concern refers to excessive preoccupation with perceived defects in appearance, irrespective of how noticeable they are to others (Oosthuizen et al., 1998). It lies on a continuum with body dysmorphic disorder but is broader, covering subclinical and clinically relevant appearance preoccupation that produces distress and impairment without necessarily meeting diagnostic thresholds (Veale, 2004). The Dysmorphic Concern Questionnaire (DCQ) was developed to measure this dimension and works well as a brief screening tool (Mancuso et al., 2010). Dysmorphic concern is elevated in cosmetic and dermatological settings: it was the strongest independent predictor of psychiatric morbidity among plastic surgery outpatients (Kisely et al., 2002), and it explained substantial variance in mood disturbance and social anxiety among people seeking cosmetic enhancement even when few met criteria for body dysmorphic disorder (Castle et al., 2004). A systematic review likewise found body dysmorphic disorder to be markedly more common in dermatological and cosmetic settings than in the community (Veale et al., 2016).

Self-Objectification

Objectification theory proposes that, in cultures that treat bodies as objects to be looked at, people come to take an observer's perspective on themselves, monitor their appearance habitually, and base their self-worth on how they look (Fredrickson & Roberts, 1997). This self-objectification is associated with body shame, appearance anxiety, depressed mood, and lower well-being (Moradi & Huang, 2008; Tiggemann & Kuring, 2004). Exposure to idealised imagery and appearance-focused social media activity is related to body image disturbance (Meier & Gray, 2014), and self-objectification predicts more favourable attitudes towards cosmetic surgery (Calogero et al., 2010). Although most of this literature concerns women, appearance monitoring is not confined to them, and the Likert version of the Self-Objectification Questionnaire allows the construct to be assessed in both sexes (Noll & Fredrickson, 1998; Wollast et al., 2021). In dermatology the skin is both visible and evaluated, so a self-objectifying stance may magnify the perceived social cost of even minor skin changes;

Theoretical Framework

The present study draws on the Tripartite Influence Model of sociocultural theory (Thompson et al., 1999) together with objectification theory. The tripartite model holds that media, peers, and family transmit appearance ideals, which individuals take up through internalisation and appearance comparison (Fardouly et al., 2015; Thompson & Stice, 2001). In the integrated account used here, dysmorphic concern is the content of the preoccupation, which is the fixation on perceived flaws, and self-objectification is the process that sustains it through ongoing self-surveillance and appearance-contingent self-worth. Together they should heighten vulnerability to emotional distress, namely depression, anxiety, and stress. Gender was also of interest, since women face more explicit and rigid appearance standards, whereas men's concerns may be shaped by different ideals and by norms that discourage disclosure. Studies that combine validated measures of dysmorphic concern, self-objectification, and emotional distress in a single model are scarce, and almost none come from South Asian clinical samples. It is also unclear whether the two appearance cognitions make separate contributions to distress, and whether they relate differently to depression, anxiety, and stress.

The Present Study

The study addressed these gaps in a clinical sample of people with dermatological and aesthetic concerns in Pakistan. We tested two hypotheses. (H1) Dysmorphic concern and self-objectification will each be positively associated with emotional distress (depression, anxiety, and stress). (H2) Dysmorphic concern and self-objectification will each predict emotional distress, and will make unique contributions when considered together. We also explored group differences on the study variables by gender, family system, family history of skin conditions, and posting of photographs on social media.

II. METHOD

The study used a cross-sectional survey design in two phases. A try-out with ten participants checked item clarity and comprehension, and a pilot study with 60 participants from dermatology clinics in Rawalpindi and Islamabad assessed feasibility and the reliability of the instruments (Cronbach's α = .78 to .92). The main study, reported here, used the finalized questionnaire booklet

Participants

Participants were 200 adults (82 men, 118 women; M_{age} = 25.58 years, SD = 4.00) recruited by purposive sampling technique from the outpatient departments and waiting areas of hospital dermatology departments and cosmetic and aesthetic clinics in Islamabad and Rawalpindi. Inclusion criteria were age between 18 and 40 years, a diagnosed skin condition or a cosmetic or aesthetic concern for which treatment was being sought, and at least a graduate-level education, to ensure adequate comprehension of the questionnaires. People with a diagnosed psychiatric disorder other than body dysmorphic concern were excluded.

Measures

A demographic and clinical form recorded age, gender, education, marital status, region, self-reported socioeconomic status, family system, diagnosis, duration of diagnosis, current treatment, family history of skin conditions, comorbid medical conditions, number of clinic visits, main source of exposure to beauty standards (social media or peers and relatives), and whether the participant uploaded pictures of themselves on social media. **[I]** The seven-item Dysmorphic Concern Questionnaire (DCQ; Oosthuizen et al., 1998) measures preoccupation with perceived physical defects and associated distress and behaviours. Items are rated from 0 (not at all) to 3 (a lot) and summed, with higher scores indicating greater dysmorphic concern. Internal consistency was α = .83 in the present sample. **[II]** The Likert Self-Objectification Questionnaire (LSOQ; Wollast et al., 2021) adapts the ranking-based Self-Objectification Questionnaire (Noll & Fredrickson, 1998) to an 11-point rating format (1 = low impact, 11 = high impact). Five items concern appearance-based attributes (physical attractiveness, sex appeal, body measurements, weight, physical appearance) and five concern competence-based attributes (health, physical fitness, energy level, muscular strength, physical coordination). In the analyses reported here, item responses were summed to give subscale scores and a total score (range 10–110). Reliability in this sample was α = .87 for the total score, .75 for the appearance subscale, and .83 for the competence subscale. **[III]** The Depression Anxiety Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995) comprises three seven-item subscales (depression, anxiety, stress) rated from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time) for the past week. Emotional distress was the total of the three subscales, with higher scores indicating greater distress. Reliability was α = .93 for the total score, and the subscales ranged from α = .80 to .86.

Procedure

Permission to collect data was obtained from the participating hospitals and clinics through the National Institute of Psychology. The researcher approached patients in person in outpatient departments and waiting areas, explained the purpose and scope of the study, and stressed that participation was voluntary, responses were confidential, and participants could withdraw at any time without penalty. Written informed consent was obtained from every participant, who then completed the questionnaire booklet in the presence of the researcher, who was available to answer queries.

III. RESULTS

Table I: Demographic and Clinical Characteristics of the Sample (N = 200)

Variables	N	%	Variables	N	%
Gender			SES		
Male	82	41%	Lower	5	2.5%
Female	118	59%	Middle	190	95%
Education			Upper	5	2.5%
Graduate	130	65%	Family System		
Post Graduate	70	35%	Joint	34	17%
Marital Status			Nuclear	166	83%
Single	130	65%	Diagnosis duration		
Married	70	35%	Less than year	106	53%
Region			Year/more than a year	94	47%
Urban	131	65.5%	Family Derm. Issues		
Rural	69	34.5%	Yes	52	26%
Exposure to Beauty Standard			No	148	74%
Social Media	155	77.5%	Comorbidity		
Peers & Reviews	45	22.5%	Yes	19	9.5%
Diagnose With			No	181	90.5%
AAS	63	31.5%	Current Treatment		
PD	39	19.5%	NIP	3	1.5%
IAD	32	16%	MIP	108	54%
ODI	4	2%	OP	72	36%
CAC	28	14%	IS	17	8.5%
Hair Fall	34	17%			
variables	M	SD			
Age	25.5	4.00			
Number of visits	1.07	.36			

Table 1 shows the demographic and clinical profile of the sample. Most participants were graduates (65%), single (65%), from the middle socioeconomic class (95%), and lived in nuclear families (83%) and urban areas (65.5%). The most common presentations were acne and acne scars (31.5%), pigmentary disorders (19.5%), hair fall (17%), and inflammatory and allergic disorders (16%). Most participants were receiving minimally invasive procedures (54%) or oral and pharmacological treatment (36%). Social media was the main source of exposure to beauty standards for 77.5% of participants, and peers and relatives for 22.5%

Table II: Descriptive Statistics and Reliability of the Study Variables (N = 200)

Scale	k	α	*M*	*SD*	Skew	Kurtosis
Dysmorphic concern (DCQ)	7	.83	6.00	4.56	1.01	0.12
Self-objectification (LSOQ total)	10	.87	76.08	19.88	0.20	−1.45
Appearance-based items	5	.75	37.34	10.34	−0.68	−0.08
Competence-based items	5	.83	38.74	11.09	−0.59	−0.28
Emotional distress (DASS-21)	21	.93	20.04	14.06	0.70	−0.40
Depression	7	.80	7.66	5.23	0.76	−0.37
Anxiety	7	.84	5.51	5.26	1.02	0.63
Stress	7	.86	6.82	4.65	0.57	−0.60

Table 2 gives descriptive statistics and reliabilities. All scales showed acceptable internal consistency (α = .75 to .93), and skewness and kurtosis were within ±3 for all variables, so the data were treated as approximately normal.

Table III: Correlations Among the Study Variables (N = 200)

Variable	1	2	3	4	5	6
1. Dysmorphic concern	–					
2. Self-objectification	.16*	–				
3. Emotional distress	.66**	.27**	–			
4. Depression	.67**	.19**	.93**	–		
5. Anxiety	.57**	.29**	.91**	.74**	–	
6. Stress	.61**	.26**	.94**	.84**	.79**	–

***p* < .01

Table 3 shows the correlations. Dysmorphic concern was strongly and positively associated with emotional distress (r = .66, p < .01) and with each of its components: depression (r = .67), anxiety (r = .57), and stress (r = .61). Self-objectification was weakly related to dysmorphic concern (r = .16, p < .05) and modestly related to emotional distress (r = .27, p < .01), depression (r = .19), anxiety (r = .29), and stress (r = .26). These results support H1. The three distress components were highly intercorrelated (r = .74 to .84).

Table IV: Dysmorphic Concern and Self-Objectification as Predictors of Emotional Distress and Its Components (N = 200)

Outcome	DC β	DC p	SO β	SO p	R^2	F(2, 197)
Emotional distress	.63	<.001	.17	.002	.46	85.04
Depression	.66	<.001	.09	.11	.46	82.55
Anxiety	.54	<.001	.20	<.001	.37	56.73
Stress	.58	<.001	.17	.003	.40	65.44

Entered together, dysmorphic concern and self-objectification explained 46% of the variance in emotional distress, F (2, 197) = 85.04, p < .001 (Table 4). Dysmorphic concern was the stronger predictor (β = .63, p < .001), and self-objectification also made a significant unique contribution (β = .17, p = .002). The pattern differed across the distress components. Dysmorphic concern was a strong unique predictor of depression (β = .66), anxiety (β = .54), and stress (β = .58). Self-objectification uniquely predicted anxiety (β = .20, p < .001) and stress (β = .17, p = .003) but not depression (β = .09, p = .11). These results support H2.

Table V: Statistically Significant Group Differences on the Study Variables

Variable	Group 1 M (SD)	Group 2 M (SD)	t	p	Cohen's d
Gender: men (n = 82) vs. women (n = 118)					
Emotional distress	14.80 (11.42)	23.64 (14.61)	−4.57	<.001	.67
Depression	6.18 (4.43)	8.69 (5.51)	−3.42	.001	.50
Anxiety	3.46 (4.02)	6.93 (5.56)	−4.84	<.001	.71
Stress	5.09 (3.77)	8.02 (4.85)	−4.57	<.001	.67
Posts pictures online: yes (n = 96) vs. no (n = 104)					
Dysmorphic concern	4.79 (3.38)	7.12 (5.20)	−3.71	<.001	.53
Emotional distress	16.00 (11.36)	23.73 (15.29)	−4.02	<.001	.57
Depression	6.19 (3.98)	9.02 (5.86)	−3.96	<.001	.56
Anxiety	4.26 (4.50)	6.66 (5.66)	−3.31	.001	.46
Stress	5.48 (4.05)	8.05 (4.85)	−4.02	<.001	.57
Family system: nuclear (n = 166) vs. joint (n = 34)					
Emotional distress	19.13 (14.38)	24.47 (11.59)	−2.03	.04	.40
Anxiety	5.14 (5.36)	7.32 (4.37)	−2.23	.03	.44
Family history of skin conditions: yes (n = 52) vs. no (n = 148)					
Self-objectification	35.20 (32.06)	50.55 (32.81)	−2.90	.004	.47
Emotional distress	16.59 (11.67)	21.23 (14.65)	−2.05	.04	.35
Depression	6.06 (4.14)	8.22 (5.46)	−2.60	.01	.44

Group comparisons are summarized in Table 5. Women reported significantly more emotional distress than men, with medium to large differences for depression (d = .50), stress (d = .67), emotional distress overall (d = .67), and anxiety (d = .71). Men and women did not differ in dysmorphic concern or self-objectification (both p > .10). Participants who did not upload pictures of themselves on social media (n = 104) reported more dysmorphic concern and more emotional distress, with medium effects (d = .46 to .57), than those who did (n = 96); the groups did not differ in self-objectification. Participants from joint families (n = 34) reported more emotional distress and anxiety than those from nuclear families (d = .40 and .44). Finally, participants with no family history of skin conditions reported higher self-objectification, depression, and overall distress than those with a family history (d = .35 to .47).

IV. DISCUSSION

This study examined dysmorphic concern and self-objectification as predictors of emotional distress in people with dermatological and aesthetic concerns in Pakistan. Dysmorphic concern showed a strong association with depression, anxiety, and stress, and self-objectification a smaller one. Both predicted distress when considered together, and between them they accounted for nearly half of its variance. Distress, though not the appearance cognitions themselves, differed markedly between women and men.

Dysmorphic Concern and Emotional Distress

Dysmorphic concern was the stronger predictor of emotional distress (β = .63), and it predicted depression, anxiety, and stress to a similar degree. This agrees with earlier work in which dysmorphic concern was a leading correlate of psychiatric morbidity, mood disturbance, and social anxiety among people seeking cosmetic or surgical changes to their appearance (Castle et al., 2004; Kisely et al., 2002), and with multicentre evidence that emotional morbidity in dermatology outpatients is substantial (Dalgard et al., 2015). Preoccupation with perceived flaws, with the checking, comparison, and avoidance that go with it, is itself a source of anxiety, low mood, and tension. Because the design is cross-sectional, the reverse is also possible: people who are already low in mood or anxious may be more likely to focus on and magnify perceived flaws.

Self-Objectification and Emotional Distress

Self-objectification was associated with distress more modestly (r = .27) but made a unique contribution once dysmorphic concern was taken into account (β = .17). The two predictors were only weakly correlated (r = .16),

which suggests that preoccupation with specific perceived flaws and the broader habit of valuing the self through appearance contribute separately to emotional vulnerability, as the integrated framework proposed. The unique contribution of self-objectification was clearest for anxiety and stress and was not significant for depression. This is consistent with objectification theory's account of appearance anxiety as a consequence of habitually monitoring the self from an observer's perspective (Fredrickson & Roberts, 1997; Moradi & Huang, 2008), and with the finding that links between objectification and depressed mood are often carried by body shame and appearance anxiety rather than being direct (Tiggemann & Kuring, 2004). In a setting in which people with skin conditions expect to be looked at and judged, anticipatory worry and tension may be the most immediate emotional cost of an objectifying self-view.

Gender, Photograph Posting, and Family Context

Women reported more depression, anxiety, and stress than men, with medium to large effects, in line with the general finding that women report higher levels of emotional symptoms. Women and men did not, however, differ in dysmorphic concern or self-objectification. In this clinical sample, in which every participant had a skin or appearance concern, the gender gap therefore lay in the emotional response rather than in the appearance cognitions themselves. This differs from the expectation, drawn from literature on general populations, that women would report higher appearance preoccupation (Fredrickson & Roberts, 1997), and it may reflect the shared salience of visible skin conditions for both sexes. Participants who did not upload pictures of themselves online reported more dysmorphic concern and more distress. Avoidance and camouflage of the feared feature are core behavioural features of dysmorphic concern (Veale, 2004), and not posting photographs may be one form of that avoidance. The reverse direction is also plausible, because people with fewer appearance worries may simply feel freer to post. Participants living in joint families reported more distress and anxiety, which may reflect less privacy and more frequent comment on appearance from extended relatives; this group was small (n = 34), so the estimate is imprecise. Participants without a family history of skin conditions reported higher self-objectification, depression, and distress. One speculative explanation is that people who have seen relatives live with similar conditions regard skin problems as more ordinary, or can draw on a family member's experience, but this was not examined.

Implications

The findings point to the value of integrating psychological care into dermatological services. Brief screening for dysmorphic concern and emotional distress, for example with the DCQ and DASS-21, could help identify patients at risk, with locally validated cut-offs developed in the meantime. For patients with high dysmorphic concern or self-objectification, cognitive-behavioural approaches that address appearance preoccupation, checking, and avoidance, and that target anxiety directly, are a logical focus, and media-literacy and mindfulness-based components may help to reduce appearance-contingent self-worth. Because distress was higher among people living in joint families, family-based psychoeducation, which includes helping relatives to understand the effect of appearance-related comments, may be useful in this setting. Women, who reported more distress, and people who avoid sharing images of themselves may merit particular attention, and wider public-health messaging that challenges narrow beauty ideals and mental-health stigma would complement clinical work.

Limitations and Future Directions

Several limitations should be considered. The cross-sectional design precludes causal and temporal inferences, so the findings describe associations and cannot show that appearance cognitions cause distress. All measures were self-reported, which carries risk of response bias, and no clinician-rated severity of the skin condition was available. Participants were recruited purposively from clinics in two neighbouring cities and were all educated to graduate level, so the findings may not generalise to people with less education, to rural populations, or to other regions. The sample combined medical dermatological conditions and aesthetic concerns, and the study was not designed to compare diagnostic groups. The LSOQ total was computed by summing all ten items rather than by contrasting appearance and competence scores, so it reflects the overall salience of body-related attributes and not the appearance-minus-competence differential, which may alter the results for self-objectification. The regression statistics were derived from the correlation matrix, and the three distress components were highly intercorrelated, so differences between components should be interpreted cautiously. Finally, the questionnaires had not been formally validated for Pakistani clinical samples beyond the pilot reliability checks. Future studies should use

longitudinal designs, clinician-rated severity, difference-score or alternative measures of self-objectification, and direct measures of social pressure and social support, and should test whether psychological interventions that reduce dysmorphic concern and anxiety improve emotional outcomes in dermatology patients.

V. CONCLUSION

Among people attending dermatology and aesthetic clinics in Pakistan, dysmorphic concern was a strong, and self-objectification a smaller but independent, predictor of emotional distress, with self-objectification contributing mainly through anxiety and stress. Distress was heavier among women, among people who avoided posting photographs online, and among people living in joint families. Skin conditions are therefore psychological as well as medical events, and attending to how patients see themselves and how they are seen by others is needed in dermatological care.

Disclosure Statement

No potential conflict of interest was reported by the authors.

Funding

The author received no funding from any organizations.

VI.REFERENCES

Basra, M. K. A., & Shahrukh, M. (2009). Burden of skin diseases. Expert Review of Pharmacoeconomics & Outcomes Research, 9(3), 271–283.

Calogero, R. M., Pina, A., Park, L. E., & Rahemtulla, Z. (2010). Objectification theory predicts college women's attitudes toward cosmetic surgery. Sex Roles, 63(1–2), 32–41. https://doi.org/10.1007/s11199-010-9759-5

Castle, D. J., Molton, M., Hoffman, K., Preston, N. J., & Phillips, K. A. (2004). Correlates of dysmorphic concern in people seeking cosmetic enhancement. Australian & New Zealand Journal of Psychiatry, 38(6), 439–444.

Dalgard, F. J., Gieler, U., Tomas-Aragones, L., Lien, L., Poot, F., Jemec, G. B. E., Misery, L., Szabo, C., Linder, D., Sampogna, F., Evers, A. W. M., Halvorsen, J. A., Balieva, F., Szepietowski, J., Romanov, D., Marron, S. E., Altunay, I. K., Finlay, A. Y., Salek, S. S., & Kupfer, J. (2015). The psychological burden of skin diseases: A cross-sectional multicenter study among dermatological out-patients in 13 European countries. Journal of Investigative Dermatology, 135(4), 984–991.

Fardouly, J., Diedrichs, P. C., Vartanian, L. R., & Halliwell, E. (2015). Social comparisons on social media: The impact of Facebook on young women's body image concerns and mood. Body Image, 13, 38–45.

Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. Psychology of Women Quarterly, 21(2), 173–206.

George, D., & Mallery, P. (2010). SPSS for Windows step by step: A simple guide and reference, 17.0 update (10th ed.). Pearson.

Kisely, S., Morkell, D., Allbrook, B., Briggs, P., & Jovanovic, J. (2002). Factors associated with dysmorphic concern and psychiatric morbidity in plastic surgery outpatients. Australian & New Zealand Journal of Psychiatry, 36(1), 121–126.

Lovibond, S. H., & Lovibond, P. F. (1995). Manual for the Depression Anxiety Stress Scales (2nd ed.). Psychology Foundation of Australia.

Mancuso, S. G., Knoesen, N. P., & Castle, D. J. (2010). The Dysmorphic Concern Questionnaire: A screening measure for body dysmorphic disorder. Australian & New Zealand Journal of Psychiatry, 44(6), 535–542.

Meier, E. P., & Gray, J. (2014). Facebook photo activity associated with body image disturbance in adolescent girls. Cyberpsychology, Behavior, and Social Networking, 17(4), 199–206.

Moradi, B., & Huang, Y.-P. (2008). Objectification theory and psychology of women: A decade of advances and future directions. Psychology of Women Quarterly, 32(4), 377–398.

Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. Psychology of Women Quarterly, 22(4), 623–636.

Oosthuizen, P., Lambert, T., & Castle, D. J. (1998). Dysmorphic concern: Prevalence and associations with clinical variables. Australian & New Zealand Journal of Psychiatry, 32(1), 129–132.

Taqui, A. M., Shaikh, M., Gowani, S. A., Shahid, F., Khan, A., Tayyeb, S. M., Naqvi, H. A., & Mazahir, S. M. (2008). Body dysmorphic disorder: Gender differences and prevalence in a Pakistani medical student population. BMC Psychiatry, 8, Article 20.

Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). Exacting beauty: Theory, assessment, and treatment of body image disturbance. American Psychological Association.

Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. Current Directions in Psychological Science, 10(5), 181–183.

Tiggemann, M., & Kuring, J. K. (2004). The role of body objectification in disordered eating and depressed mood. British Journal of Clinical Psychology, 43(3), 299–311.

Veale, D. (2004). Body dysmorphic disorder. Postgraduate Medical Journal, 80(940), 67–71.

Veale, D., Gledhill, L. J., Christodoulou, P., & Hodsoll, J. (2016). Body dysmorphic disorder in different settings: A systematic review and estimated weighted prevalence. Body Image, 18, 168–186