



Exploring the Cognitive-Affective Components of Body Image Disturbance in Adolescent Girls

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ABSTRACT

Objective: This study aimed to explore the cognitive and affective components of body image disturbance (BID) in adolescent girls.

Methods and Materials: A qualitative research design based on a phenomenological approach was employed to investigate the lived experiences of 20 adolescent girls aged 13–18 from various regions in Malaysia. Participants were selected through purposive sampling and took part in in-depth, semi-structured interviews, which were conducted in private settings to ensure confidentiality and comfort. Data collection continued until theoretical saturation was achieved. Interviews were transcribed verbatim and analyzed thematically using NVivo 14 software. The analysis followed Braun and Clarke's six-step method, incorporating both inductive and deductive coding strategies to identify recurrent cognitive, emotional, and behavioral patterns.

Findings: Four overarching themes emerged: (1) Cognitive Evaluations of Body Image, including internalized ideals, social comparison, and self-objectification; (2) Affective Experiences, such as shame, anxiety, and body-related emotional fluctuations; (3) Sociocultural Influences, encompassing family, peer, media, and cultural pressures; and (4) Coping and Regulation Strategies, which ranged from avoidance and compensatory behaviors to cognitive reframing and peer support. Participants described a dynamic and often distressing relationship with their bodies, marked by internalized societal expectations and emotionally charged self-appraisal.

Conclusion: This study highlights the interrelated cognitive and affective processes underlying BID in adolescent girls, emphasizing the role of sociocultural context in shaping these experiences. The findings underscore the need for holistic, culturally sensitive interventions that address not only distorted thoughts but also emotional regulation and social influences.

Keywords: *Body image disturbance; adolescent girls; cognitive-affective processes.*

1. Introduction

Body image disturbance (BID) has emerged as a pervasive and multifaceted issue among adolescent girls, with cognitive and emotional processes playing central roles in its formation and maintenance. Body image encompasses one's perceptions, thoughts, and feelings about their physical appearance, and its disturbance is characterized by persistent dissatisfaction, distortions in body perception, and maladaptive behavioral responses (Carey & Preston, 2019; Vocks & Bauer, 2015). The developmental stage of adolescence is particularly vulnerable due to biological, psychological, and social transitions that intersect with internalized appearance ideals and social comparisons (Ghai et al., 2014; Legenbauer et al., 2014). As body image becomes a key component of self-concept during this period, disruptions in its development can contribute to a host of adverse psychological outcomes, including anxiety, depression, and disordered eating (Hamamoto et al., 2022; Junne et al., 2016).

Contemporary research has emphasized the multidimensionality of BID, distinguishing between perceptual, cognitive, affective, and behavioral components (Giuliano et al., 2025; Lewer et al., 2015). Among these, cognitive-affective factors have been identified as particularly influential in predicting the severity and chronicity of distress in youth populations (Altman et al., 2017; Ertl & Ajayi, 2025). Cognitively, individuals with BID may exhibit rigid beliefs about the "ideal" body, engage in self-objectification, and experience distorted body size estimation (Brizzi & Riva, 2024; Karsan et al., 2024). Affectively, body-related shame, anxiety, and disgust emerge as core emotional responses that perpetuate negative self-evaluation and social withdrawal (Akram et al., 2021; Wayda-Zalewska et al., 2021). These interwoven cognitive-affective experiences create a feedback loop, where heightened self-focus and emotional dysregulation exacerbate body dissatisfaction and reinforce maladaptive behaviors.

The neural basis of BID further illuminates its cognitive-affective underpinnings. Neuroimaging studies have shown alterations in visual and socio-emotional processing regions, suggesting that individuals with BID process bodily cues and social feedback differently (Hamamoto et al., 2024; Ho & Lenggenhager, 2021). These findings are aligned with evidence of maladaptive attentional biases and heightened sensitivity to appearance-related stimuli, especially in adolescent girls (Groves, 2017; Porras-García et al., 2020).

For example, body-related attentional bias, where individuals disproportionately focus on perceived flaws, mediates the link between BMI and dissatisfaction, reinforcing internalized stigma and negative affect (Porras-García et al., 2020). Furthermore, the disruption in multisensory body perception—such as in egocentric vs. allocentric spatial framing—may intensify the subjective disconnect between how one looks and how one feels, contributing to BID persistence (Brizzi & Riva, 2024).

Adolescents today are exposed to a highly visual and evaluative culture, exacerbated by digital media platforms where idealized beauty standards are omnipresent (Skubisz & Blancher, 2022; Zainab & Ahmad, 2021). Social media, in particular, fosters environments of constant comparison, self-surveillance, and validation-seeking behaviors that disproportionately affect young girls. These experiences contribute to the internalization of narrow appearance ideals and foster chronic self-objectification, which in turn undermines emotional well-being (Hamamoto et al., 2022; Spinoni et al., 2023). Girls often report evaluating their self-worth based on social feedback—likes, comments, or peer comparisons—which activates the cognitive-affective circuitry associated with body surveillance and appearance anxiety (Ghai et al., 2014; He et al., 2021). This feedback loop mirrors findings from experimental studies showing that negative social evaluation and visual stimuli can elicit body-related shame and fear responses in adolescents with BID (Altman et al., 2017; Junne et al., 2016).

In addition to social and media pressures, individual differences in emotion regulation and cognitive control are key mechanisms in BID development. Poor regulation of negative emotions such as shame or anxiety has been consistently linked to higher levels of body dissatisfaction and disordered eating behaviors (Lewer, Kosfelder, et al., 2017; Wayda-Zalewska et al., 2021). Girls who lack adaptive coping strategies may resort to avoidance, self-criticism, or compulsive checking behaviors as attempts to manage distressing body-related thoughts and emotions (Hamamoto et al., 2024; Lewer, Bauer, et al., 2017). Moreover, perfectionistic thinking styles and rigid cognitive schemas about attractiveness have been shown to amplify affective vulnerability and predict low body compassion (Altman et al., 2017; Lewer et al., 2015). This cognitive rigidity may contribute to the persistence of maladaptive beliefs even in the face of contradictory evidence or support.

Emerging models suggest that BID in adolescents must be conceptualized within a biopsychosocial framework. Neurocognitive vulnerabilities—such as distorted body

schema and attentional bias—interact with psychosocial stressors including peer pressure, family criticism, and media exposure (Carey & Preston, 2019; Groves, 2017). For example, adolescents with negative early experiences, such as bullying or maltreatment, are more likely to develop insecure attachment patterns and low self-esteem, which can manifest in heightened body dissatisfaction later in life (He et al., 2021; Wendler-Bödicker et al., 2021). These patterns are often gendered, with adolescent girls reporting more frequent and intense concerns about weight, shape, and appearance compared to boys (Legenbauer et al., 2014; Vocks & Bauer, 2015). As a result, they may become more susceptible to the internalization of the thin ideal and the development of BID.

Moreover, empirical studies have begun to disaggregate BID into discrete components—cognitive, affective, and perceptual—to better target interventions. Cognitive-behavioral and exposure-based therapies, for instance, have demonstrated efficacy in reducing negative body-related beliefs and improving emotion regulation among adolescent girls with high levels of body dissatisfaction (Ertl & Ajayi, 2025; Lewer, Bauer, et al., 2017). Interventions that enhance body compassion, mindfulness, and affective awareness may further buffer against the harmful effects of cognitive distortions and emotional dysregulation (Altman et al., 2017; Giuliano et al., 2025). Likewise, digital tools and virtual reality therapies have shown promise in recalibrating body size perception and reducing attentional bias, offering innovative pathways for BID treatment (Brizzi & Riva, 2024; Karsan et al., 2024).

Despite this growing body of evidence, relatively few studies have explored the lived experiences of adolescent girls navigating the intersection of cognitive and emotional processes related to body image. Much of the existing literature is quantitative, relying on self-report scales or experimental manipulations, which may not fully capture the subjective meanings, internal dialogues, and social contexts that shape BID (Giuliano et al., 2025; Skubisz & Blancher, 2022). A qualitative approach is thus warranted to uncover the nuanced experiences and personal narratives that inform how adolescent girls think and feel about their bodies. Such insights are crucial for informing culturally sensitive and developmentally appropriate interventions, especially in diverse socio-cultural contexts where body norms and gender expectations vary.

This study aims to fill this gap by exploring the cognitive-affective components of body image disturbance in

adolescent girls, focusing on their personal experiences, emotional responses, and thought patterns.

2. Methods and Materials

2.1. Study design and Participant

This study employed a qualitative research design with a phenomenological approach, aiming to explore the cognitive-affective components underlying body image disturbance in adolescent girls. The phenomenological method was chosen to gain a deep understanding of the lived experiences and internal processes related to body image concerns among adolescents.

Participants were selected through purposive sampling, targeting adolescent girls aged 13 to 18 who self-identified as experiencing dissatisfaction with their body image. The inclusion criteria required participants to be currently enrolled in secondary school, fluent in Malay or English, and willing to discuss their personal experiences related to body image. A total of 20 adolescent girls from various urban and semi-urban areas in Malaysia participated in the study. The recruitment continued until theoretical saturation was reached, meaning no new themes or insights emerged from the data.

2.2. Measures

Data were collected using semi-structured, in-depth interviews conducted face-to-face in private rooms at schools or local community centers to ensure comfort and confidentiality. The interviews were guided by a flexible interview protocol that included open-ended questions exploring participants' cognitive evaluations of their body image (e.g., self-perceptions, comparisons, internalized ideals) and affective experiences (e.g., shame, anxiety, pride, frustration). Probing questions were used to elicit deeper responses and to clarify meanings when necessary.

Each interview lasted approximately 45 to 75 minutes and was audio-recorded with the participants' and their guardians' informed consent. Field notes were also taken to document non-verbal cues and contextual factors. All interviews were transcribed verbatim and anonymized prior to analysis.

2.3. Data Analysis

The interview transcripts were analyzed using thematic analysis guided by Braun and Clarke's six-step framework. The analysis process was facilitated by NVivo 14 qualitative

data analysis software, which supported the coding and categorization of data into themes and subthemes. The steps included familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report.

Coding was both inductive and deductive: initial themes emerged organically from the data while remaining sensitive to theoretical concepts associated with body image disturbance, such as self-objectification, internalized beauty standards, and affective dysregulation. An audit trail was maintained to ensure transparency in coding decisions, and peer debriefing with qualitative research experts was conducted to enhance the credibility and confirmability of the findings.

To ensure trustworthiness, the study adhered to the criteria of credibility, dependability, confirmability, and transferability. Member checking was performed with five participants to verify the accuracy of the interpreted themes. Reflexive journaling by the researchers further helped in bracketing biases throughout the research process.

3. Findings and Results

The study included 20 adolescent girls from various regions of Malaysia, ranging in age from 13 to 18 years ($M = 15.4, SD = 1.7$). The majority of participants ($n = 12, 60%$) were in lower secondary school (Forms 1–3), while the remaining ($n = 8, 40%$) were in upper secondary school (Forms 4–5). In terms of ethnicity, the sample consisted of 13 Malay participants (65%), 4 Chinese participants (20%), and 3 Indian participants (15%). All participants were unmarried and identified as cisgender female. Most ($n = 17, 85%$) reported using social media daily, and 14 participants (70%) explicitly acknowledged prior or current concerns about their body image before participating in the study. The diversity in age, schooling level, and ethnic background provided a broad perspective on the cognitive and emotional experiences related to body image disturbance in Malaysian adolescents.

Table 1

Themes, Subthemes, and Concepts Related to Body Image Disturbance in Adolescent Girls

Category (Theme)	Subcategory (Subtheme)	Concepts (Open Codes)
1. Cognitive Evaluations of Body Image	Internalized Appearance Ideals	Thinness ideal, flawless skin, social media beauty standards, perfect curves, fair skin
	Self-Objectification	Constant body checking, viewing self from others' eyes, disconnection from body, mirror obsession
	Social Comparison	Comparing with peers, influencers, older siblings, feeling inferior, idealizing others
	Perfectionism and Control	Desire for symmetry, obsession with weight, over-focus on body proportions, strict routines
	Body Surveillance	Monitoring posture, diet tracking, wardrobe anxiety, camera self-awareness
2. Affective Experiences Associated with Body Image	Shame and Embarrassment	Avoiding mirrors, hiding body parts, discomfort in PE class, fear of judgment
	Body Anxiety	Fear of gaining weight, dread before social events, obsession with selfies, scale anxiety
	Pride and Temporary Confidence	Compliments, wearing makeup, outfit success, weight loss moments
	Emotional Suppression	Bottling up feelings, avoiding discussions, emotional numbness, pretending to be fine
	Mood Fluctuations	Body image affecting daily mood, irritability, sadness after eating, elation after validation
3. Sociocultural Influences on Body Image	Self-Disgust	Calling body ugly, feeling dirty or unworthy, rejection of body parts, harsh self-criticism
	Family Influences	Parental comments, sibling teasing, diet culture at home, being weighed by parents
	Peer Pressure and Bullying	Friends' jokes, exclusion due to looks, direct body shaming, group dieting
	Media and Celebrity Influence	Instagram filters, K-pop idols, fashion models, YouTube influencers, TikTok trends
	Cultural Norms and Expectations	Pressure to be modest yet attractive, stigma around weight, gendered beauty expectations
	School Environment	Uniform anxiety, teacher bias toward thin students, locker room tension

4. Coping and Regulation Strategies	Avoidance Behaviors	Skiping meals, avoiding shopping, no mirror use, staying home, avoiding swimsuits
	Compensatory Behaviors	Excessive exercising, calorie counting, makeup use, layering clothes
	Cognitive Reframing Attempts	Trying to focus on personality, seeking body neutrality, self-affirmation practices
	Seeking Validation and External Approval	Posting selfies, waiting for likes, fishing for compliments, asking “Do I look fat?”
	Peer Support and Conversations	Talking to trusted friends, shared experiences, group venting, body positivity discussions
	Self-Isolation	Withdrawing from social activities, avoiding group photos, spending more time alone
Maladaptive Regulation	Emotional	Overeating in distress, self-criticism loops, crying secretly, suppressing feelings with screen time

1. Cognitive Evaluations of Body Image

Internalized Appearance Ideals. Many participants articulated deeply internalized societal and media-driven appearance ideals. These included a persistent drive for thinness, flawless skin, and certain body proportions. Participants frequently cited social media platforms such as Instagram and TikTok as shaping their perceptions of the “ideal” body. As one participant noted, *“Everyone on Instagram has a tiny waist, long legs, and perfect skin. I feel like I have to look like that too, even though I know it's edited.”* These ideals were not merely external pressures but had become part of the participants’ internal self-evaluation frameworks.

Self-Objectification. Participants often described viewing their bodies as external objects to be evaluated. This self-objectification manifested in behaviors such as frequent mirror-checking, preoccupation with angles in photographs, and a tendency to imagine how others perceived them physically. One girl expressed, *“When I walk, I always wonder what people are thinking about my legs or my face. It's like I can't see myself from inside, only from outside.”* This detachment from embodied experience heightened feelings of self-surveillance and anxiety.

Social Comparison. Cognitive distortions were often fueled by frequent social comparison. Many adolescents compared themselves with classmates, social influencers, or even siblings, often concluding that they were “less than” others. A participant shared, *“My sister is so skinny and pretty, and my mom always says she could be a model. I feel invisible next to her.”* These comparisons were a constant source of dissatisfaction and contributed to negative self-image.

Perfectionism and Control. An intense desire for bodily perfection and control was prominent. Several participants reported setting rigid standards for weight, symmetry, and specific measurements, leading to chronic dissatisfaction. This perfectionism extended to grooming routines and daily

habits. One adolescent explained, *“If I gain even one kilo, I feel like I failed. I weigh myself every morning, and I have to make it right again.”* The compulsive need for control often led to anxiety when results didn’t align with expectations.

Body Surveillance. Closely related to perfectionism, many girls described a habit of continuous monitoring of their bodies, especially in social contexts. This included adjusting posture, obsessing over outfits, and modifying facial expressions. One participant admitted, *“I feel like a camera is always on me. I suck in my stomach and keep checking if my hair is okay, even in class.”* Such hypervigilance created significant mental strain and emotional fatigue.

2. Affective Experiences Associated with Body Image

Shame and Embarrassment. Experiences of shame were frequent and intense. Participants reported avoiding mirrors, wearing oversized clothing, or feeling humiliated during gym class. As one girl shared, *“I always wear a jacket even when it's hot. I just hate people seeing my arms.”* These feelings of shame often inhibited social participation and increased body concealment behaviors.

Body Anxiety. Persistent anxiety related to appearance was another common affective theme. This included fear of gaining weight, dread of being photographed, and anticipatory worry before attending social events. One adolescent stated, *“I panic before parties. I try on like ten outfits and cry because none of them make me look skinny.”* This form of anxiety was not occasional but described as chronic and distressing.

Pride and Temporary Confidence. In contrast, some participants acknowledged moments of pride or confidence linked to appearance validation. These moments, however, were short-lived and often dependent on external feedback. One participant remarked, *“When someone says I look good, I feel better for a while. But then it fades, and I go back to hating myself.”* These fluctuations highlight the unstable

emotional grounding of body image in external reinforcement.

Emotional Suppression. Many participants reported avoiding emotional expression or discussions about their body dissatisfaction. This suppression often led to isolation or internalized distress. A girl confessed, *"I don't talk about it. What's the point? I just smile and pretend I'm fine."* The suppression of negative emotions often coexisted with heightened emotional sensitivity.

Mood Fluctuations. Participants described how their body image had a direct influence on daily mood. Feelings of sadness, irritability, or elation were frequently linked to weight, appearance, or validation experiences. One adolescent shared, *"If I think I look fat one day, I can't concentrate at all. It ruins everything."* These mood changes suggest the emotional centrality of body image in their daily functioning.

Self-Disgust. Some participants went beyond dissatisfaction to express disgust or hatred toward their bodies. This included harsh language, denial of specific body parts, or statements of self-loathing. As one participant bluntly stated, *"I look in the mirror and think, 'I hate this body.' I feel sick sometimes just seeing myself."* These expressions reflect deeper affective disturbance and potential risk for psychopathology.

3. Sociocultural Influences on Body Image

Family Influences. Participants frequently cited family members, especially parents and siblings, as influential in shaping their body image beliefs. Criticisms, jokes, or subtle comparisons reinforced negative self-perceptions. One girl said, *"My mom keeps asking if I gained weight. It's like she's more obsessed with my body than I am."* In some cases, body-focused conversations were normalized within family dynamics.

Peer Pressure and Bullying. Peers also played a central role in reinforcing appearance-based judgments. Some participants had experienced teasing, exclusion, or indirect comments that fueled insecurities. A participant noted, *"My friends joke that I have chubby cheeks. They laugh, but it hurts so much."* The desire for social acceptance made participants vulnerable to peer feedback, both positive and negative.

Media and Celebrity Influence. The portrayal of idealized bodies in media significantly shaped participants' body image. Influencers, models, and celebrities were often perceived as unattainable standards. As one adolescent stated, *"I follow K-pop stars, and they all have tiny waists and perfect faces. It makes me hate how I look."* Filters,

editing, and curated online personas further distorted perceptions of normalcy.

Cultural Norms and Expectations. Body image concerns were also influenced by cultural expectations, particularly those related to femininity, modesty, and family honor. One girl expressed, *"We're supposed to be modest, but also attractive. It's confusing. I don't know how to be both."* These conflicting norms created cognitive dissonance and heightened appearance-related stress.

School Environment. The school setting was described as another domain where appearance was evaluated. Uniforms, physical education classes, and teacher attitudes contributed to discomfort. A participant explained, *"Our teacher always picks the slim girls to be in front for performances. It makes the rest of us feel invisible."* These institutional cues reinforced social hierarchies based on looks.

4. Coping and Regulation Strategies

Avoidance Behaviors. Many adolescents coped with body dissatisfaction by avoiding situations that exposed their bodies or triggered anxiety. This included skipping meals, avoiding mirrors, or refraining from attending social events. One participant shared, *"I stopped going swimming because I can't stand wearing a swimsuit in front of people."* Avoidance provided temporary relief but perpetuated negative body image.

Compensatory Behaviors. Some participants engaged in compensatory actions such as excessive exercise, restrictive dieting, or strategic clothing choices to control or conceal their appearance. One adolescent admitted, *"I work out twice a day. If I skip a session, I feel like a failure."* These behaviors often bordered on compulsivity and were emotionally taxing.

Cognitive Reframing Attempts. Despite the challenges, several participants described efforts to shift their focus from appearance to internal traits. They reported trying to embrace body neutrality or self-affirmation techniques. A participant said, *"Sometimes I remind myself that my body doesn't define my worth, but it's hard to believe it all the time."* These attempts reflect early-stage resilience strategies.

Seeking Validation and External Approval. A significant number of adolescents relied on social feedback to regulate self-esteem. Posting selfies, asking for appearance-related opinions, or seeking compliments were common. One girl explained, *"I post a picture and wait for the likes. If there are none, I feel ugly."* This reliance on external approval often led to fluctuating self-worth.

Peer Support and Conversations. In some cases, peer dialogue served as a protective factor. Sharing experiences with friends, engaging in body-positive conversations, or venting helped participants feel understood. As one girl expressed, *“When my best friend tells me she also feels bad sometimes, it makes me feel less alone.”* Such connections provided emotional validation and solidarity.

Self-Isolation. Conversely, some adolescents reported withdrawing from social interactions altogether to escape appearance-related scrutiny. This isolation often deepened feelings of alienation. One participant shared, *“I stopped hanging out with friends. I just didn’t want anyone to see me.”* This response, while protective, reinforced negative self-evaluation.

Maladaptive Emotional Regulation. Some participants turned to maladaptive strategies such as emotional eating, negative self-talk, or excessive screen time to cope with body image-related distress. One adolescent confessed, *“When I feel ugly, I eat a lot, then feel worse. It’s a cycle I can’t break.”* These patterns highlighted the emotional toll of body dissatisfaction and the urgent need for supportive interventions.

4. Discussion and Conclusion

This study explored the cognitive-affective components of body image disturbance (BID) in adolescent girls through qualitative thematic analysis of in-depth interviews with 20 participants from Malaysia. The findings revealed four major thematic categories: cognitive evaluations of body image, affective experiences, sociocultural influences, and coping and regulation strategies. These categories encompassed a range of interrelated subthemes, including internalized ideals, self-objectification, appearance-related shame, body surveillance, and maladaptive emotional regulation. The analysis highlights how adolescents interpret, emotionally respond to, and behaviorally cope with their body image within a socially and culturally constructed context. These results not only align with existing theoretical models of BID but also extend our understanding of the developmental and experiential nuances of body dissatisfaction in diverse sociocultural environments.

The first thematic category, cognitive evaluations of body image, illuminated how adolescent girls internalize thin-ideal beauty standards and experience persistent self-objectification. Participants frequently reported evaluating themselves through external lenses and engaging in habitual

comparison with peers and media figures. These findings reflect previous research that identifies internalization of unrealistic appearance ideals as a central cognitive component of BID, especially in female adolescents (Carey & Preston, 2019; Lewer, Kosfelder, et al., 2017). According to multidimensional models of body image disturbance, distorted cognitions—such as the belief that appearance determines self-worth—are foundational to the emergence of negative body image (Ertl & Ajayi, 2025; Ho & Lenggenhager, 2021). Self-objectification, in particular, has been linked to decreased interoceptive awareness and a fragmented sense of body ownership, which intensify emotional dysregulation and psychological distress (Giuliano et al., 2025; Hamamoto et al., 2022).

The theme of affective experiences emerged as particularly salient in participants’ narratives, with emotions such as shame, anxiety, self-disgust, and sadness being closely tied to their bodily perceptions. These affective responses are consistent with previous studies demonstrating that body dissatisfaction is strongly associated with negative affect, especially among girls in late childhood and adolescence (Altman et al., 2017; Junne et al., 2016). Shame and anxiety appear to function both as outcomes and perpetrators of BID, reinforcing avoidance behaviors and hypersensitivity to perceived flaws (Akram et al., 2021; Lewer, Kosfelder, et al., 2017). This supports neurocognitive studies suggesting that affective responses to body-related stimuli involve heightened reactivity in brain regions associated with threat processing and self-referential judgment (Hamamoto et al., 2024; Ho & Lenggenhager, 2021). Furthermore, fluctuations in self-esteem based on external validation—such as social media feedback—echo previous findings on how contingent self-worth mechanisms exacerbate affective vulnerability (Skubisz & Blancher, 2022; Zainab & Ahmad, 2021).

The role of sociocultural influences was also prominent in shaping both cognitive and emotional aspects of body image. Participants described significant pressure from family, peers, and media platforms to conform to specific appearance norms. Media exposure, especially to curated social media images, contributed to unrealistic expectations and idealized self-perceptions (Carey & Preston, 2019; Spinoni et al., 2023). This aligns with prior research documenting the role of digital platforms in fostering self-surveillance, comparison, and dissatisfaction, particularly among adolescent girls (He et al., 2021; Skubisz & Blancher, 2022). The influence of family members, particularly parents and siblings, on body-related commentary and

expectations has also been well-documented in literature on adolescent body image concerns (Ghai et al., 2014; Wendler-Bödicker et al., 2021). The current findings underscore the multidirectional impact of sociocultural systems on individual cognition and affect, highlighting the need for contextualized understanding of BID.

One of the most nuanced aspects of the findings pertained to coping and regulation strategies. Participants described a range of responses, from maladaptive strategies such as avoidance and compulsive behaviors, to more constructive attempts like cognitive reframing and seeking peer support. These patterns mirror the coping spectrum identified in earlier studies, where adolescents with BID often alternate between affect-driven avoidance and effortful attempts at self-soothing or normalization (Altman et al., 2017; Lewer, Bauer, et al., 2017). Avoidance behaviors, such as skipping social events or covering perceived flaws, have been associated with short-term relief but long-term worsening of body dissatisfaction (Junge et al., 2016; Lewer et al., 2015). On the other hand, efforts toward emotional processing and social support—though less common—represent important resilience pathways that may be further developed in therapeutic contexts (Altman et al., 2017; Ertl & Ajayi, 2025).

In integrating the cognitive, affective, and behavioral dimensions of the findings, a cyclical model of BID emerges: adolescents internalize sociocultural ideals, which generate negative cognitive evaluations and emotional responses. These, in turn, fuel maladaptive regulation strategies that reinforce and perpetuate body dissatisfaction. This cycle is reinforced by contextual factors such as peer commentary, media consumption, and cultural expectations around femininity and beauty (Ghai et al., 2014; Wayda-Zalewska et al., 2021). Neurocognitive research further supports this model by revealing how attention, memory, and affective networks are altered in adolescents with BID, contributing to the persistence of maladaptive thoughts and feelings (Giuliano et al., 2025; Hamamoto et al., 2024).

Importantly, the findings offer support for multidimensional and integrative models of BID, which propose that treatment and prevention must address not only distorted cognitions but also emotional regulation and sociocultural awareness. Interventions such as body-compassion therapy, cognitive reappraisal training, and digital media literacy have demonstrated promising outcomes in reducing negative self-perceptions and improving affective resilience in adolescents (Altman et al., 2017; Spinoni et al., 2023). Additionally, the role of

immersive and multisensory interventions—such as virtual reality body illusions—has gained attention as a means of recalibrating distorted body schema and improving embodiment experiences (Brizzi & Riva, 2024; Karsan et al., 2024). These innovative methods are especially relevant for adolescents whose body image concerns are deeply tied to visual-spatial misperceptions and attentional biases.

The present study also contributes to the literature by offering a contextually grounded perspective from Malaysian adolescents, an understudied population in body image research. While much of the existing work has focused on Western samples, the current findings emphasize how cultural factors intersect with global beauty standards to shape unique experiences of BID. For example, some participants described navigating conflicting messages about modesty, attractiveness, and gender roles, which created cognitive dissonance and emotional confusion. These results support the call for culturally sensitive research that examines how BID manifests across diverse societies and challenges the universality of Western-centric models (Ghai et al., 2014; Wendler-Bödicker et al., 2021).

5. Limitations and Suggestions

Despite its contributions, this study has several limitations. First, the sample consisted solely of adolescent girls from urban and semi-urban regions of Malaysia, limiting the generalizability of the findings to other gender identities, age groups, and rural populations. Second, the self-reported nature of body dissatisfaction may have been influenced by social desirability or self-censorship, especially on sensitive topics such as shame, disgust, or maladaptive behaviors. Third, while the use of semi-structured interviews enabled rich, in-depth exploration, the absence of longitudinal data restricts insights into the temporal dynamics of body image experiences. Additionally, although NVivo software enhanced the transparency of thematic coding, the interpretation of data remains subjective and dependent on the researchers' positionality and analytic framework.

Future studies should aim to incorporate longitudinal and mixed-method designs to capture the evolution of cognitive-affective patterns in body image across adolescence. Expanding the sample to include boys, non-binary youth, and individuals from different cultural or religious backgrounds would also enhance the inclusivity and ecological validity of BID research. In addition, future research could explore the intersection of body image

disturbance with other mental health domains such as self-harm, identity development, or digital addiction. Given the growing role of social media in shaping adolescent self-concept, experimental designs that assess real-time emotional and cognitive responses to digital stimuli could provide valuable insights. Finally, neurophysiological and psychometric assessments may complement qualitative data to offer a more integrative view of the cognitive-affective architecture of BID.

Interventions aimed at addressing body image disturbance in adolescents should adopt a multifaceted approach that targets not only appearance-related cognitions but also underlying emotional responses and regulatory capacities. School-based programs can integrate media literacy education with emotional awareness training to help students critically evaluate beauty standards and develop healthier self-perceptions. Clinicians working with adolescents should consider incorporating techniques such as mindfulness, body compassion exercises, and cognitive restructuring into their therapeutic toolkit. Peer-based support groups may also be beneficial, offering shared experiences and reducing isolation. Importantly, caregivers and educators must be educated about the subtle ways in which language, modeling, and expectations can influence adolescents' body image development.

Authors' Contributions

Authors equally contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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