



Body Image in The Digital Era: Thinspiration, Fitspiration, and Related Disorders

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ABSTRACT

This review examines body image concepts in the digital age. It evaluates the societal and mental health impacts of phenomena such as Thinspiration, Fitspiration, Body Dysmorphic Disorder (BDD), Muscle Dysmorphia (MD), and the use of Appearance and Performance Enhancing Drugs (APEDs). Thinspiration and Fitspiration, as products of digital culture, promote unrealistic beauty and fitness standards, leading to psychological distress. BDD and MD are mental health issues that deeply affect individuals' well-being. The use of APEDs raises health and ethical concerns and is seen as connected to these phenomena. Thinspiration and Fitspiration spread through social media, promoting ideals of extreme thinness and fitness. BDD and MD involve mental health issues characterized by obsessive focus on physical flaws. The use of APEDs stems from the desire to achieve these ideals and carries serious health risks. The media and health industries play a significant role in the proliferation of these phenomena. Ethical marketing practices are emphasized as necessary to mitigate the negative impacts on body image. The review highlights the negative effects of societal beauty and performance standards on individuals and underscores the importance of adopting a more inclusive approach to body image. Education and policy development are seen as crucial for promoting healthier body image perceptions and practices. Societal change and the adoption of more inclusive body image approaches can positively impact individuals' mental and physical health. Educational programs and awareness campaigns can promote healthy body image perceptions. Future research could examine the long-term effects of these phenomena and the effectiveness of intervention strategies. Additionally, studying the impact of media literacy programs on body image could be beneficial.

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ÖZ

Bu derleme, dijital çağda vücut imgesi kavramlarını incelemektedir. Thinspiration (Zayıflık Özentisi), Fitspiration (Spor Özentisi), Beden Algı Bozukluğu (BAB), Kas Dismorfisi (KD) ve Görünüm ve Performansı Artırıcı İlaçlar (GPAİ) gibi olguların toplumsal ve zihinsel sağlık üzerindeki etkilerini değerlendirmektedir. Zayıflık Özentisi ve Spor Özentisi dijital kültürün ürünleri olarak gerçek dışı güzellik ve spor standartlarını teşvik ederek psikolojik sıkıntılara neden olmaktadır. BAD ve KD, bireylerin zihinsel refahını derinden etkileyen zihinsel sağlık sorunlarıdır. GPAİ kullanımı, sağlık ve etik sorunlar yaratmakta ve bu olgularla bağlantılı görülmektedir. Zayıflık Özentisi ve Spor Özentisi, sosyal medya aracılığıyla yaygınlaşarak aşırı zayıflık ve fitness ideallerini desteklemektedir. BAD ve KD, bireylerin fiziksel kusurlarıyla saplantılı oldukları zihinsel sağlık sorunları arasında görülebilmektedir. GPAİ kullanımı, bu ideallere ulaşma arzusundan kaynaklanabilmekte ve ciddi sağlık riskleri taşıyabilmektedir. Medya ve sağlık endüstrisinin bu olguların yayılmasında önemli bir rol oynadığı söylenebilir. Etik pazarlama uygulamalarının, bireylerin vücut imajı üzerindeki olumsuz etkilerini azaltmak için gerekli olabileceği vurgulanmıştır. Derleme, toplumsal güzellik ve performans standartlarının bireyler üzerindeki olumsuz etkilerine dikkat çekmekte ve daha kapsayıcı bir vücut imajı yaklaşımının benimsenmesinin önemini vurgulamaktadır. Eğitim ve politika gelişimi, daha sağlıklı vücut imajı algıları ve uygulamalarını teşvik etmek için önemli görülebilir. Toplumsal değişim ve daha kapsayıcı vücut imajı yaklaşımlarının benimsenmesi, bireylerin zihinsel ve fiziksel sağlığını olumlu yönde etkileyebilir. Eğitim programları ve farkındalık artırma çalışmaları, sağlıklı vücut imajı algılarını teşvik edebilir. Gelecek araştırmalar, bu olguların uzun vadeli etkilerini ve müdahale stratejilerinin etkinliğini inceleyebilir. Ayrıca, medya okuryazarlığı programlarının vücut imajı üzerindeki etkilerini araştırmak faydalı görülmektedir.

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Introduction

In the digital age, social media and digital platforms significantly influence cultural expression, notably through the emergence of ‘Thinspiration’ and ‘Fitspiration.’ Thinspiration combines ‘thin’ and ‘inspiration,’ often glorifying extreme thinness and potentially promoting unhealthy weight loss practices. In contrast, Fitspiration, a blend of ‘fit’ and ‘inspiration,’ aims to encourage a healthier lifestyle centered on fitness and well-being, yet it can also perpetuate unrealistic body standards (Griffiths & Stefanovski, 2019). These trends are intertwined with BDD and MD, both characterized by an obsessive focus on perceived body flaws. Additionally, the rise in APEDs usage reflects a pursuit of idealized body types influenced by these cultural norms. This review explores the complex interplay between Thinspiration, Fitspiration, Body Dysmorphic Disorder (BDD), Muscle Dysmorphia (MD), and Appearance Performance Enhancement Drugs (APED) use (Cataldo et al., 2021), examining their psychological, sociocultural, and health industry. It aims to provide a comprehensive understanding of these issues, their effects on health, and the controversies they raise, contributing to the broader discussion on body image, mental health, and the media’s ethical responsibilities in shaping societal standards (Carvalho, A. (2023).

Methodology

This comprehensive review explores the interplay between Thinspiration, Fitspiration, BDD, MD, and the use of APEDs in the context of body image in the digital age. The review synthesizes findings from a wide range of sources to provide a thorough understanding of these phenomena and their impact on mental health and societal norms.

Search Strategy

Relevant literature was gathered using electronic databases, including PubMed, PsycINFO, Google Scholar, and JSTOR. Keywords such as “Thinspiration,” “Fitspiration,” “Body Dysmorphic Disorder,” “Muscle Dysmorphia,” “Appearance and Performance Enhancing Drugs,” “body image,” “social media,” and “digital culture” were used. Boolean operators were employed to refine search results.

Inclusion and Exclusion Criteria

Inclusion criteria:

- Articles published in peer-reviewed journals.
- Theoretical and empirical studies on Thinspiration, Fitspiration, BDD, MD, and APED use.
- Literature on psychological, sociocultural, and health industry impacts.
- Studies published in English.

Exclusion criteria:

- Articles not directly related to the review’s key concepts.
- Non-English language articles.
- Studies lacking substantial empirical or theoretical contributions.

Data Collection and Analysis

Titles, abstracts, and full texts were reviewed systematically to select relevant studies. The data was organized into key themes:

- Psychological impact of Thinspiration and Fitspiration.
- Characteristics and prevalence of BDD and MD.
- Role of APEDs in body image concerns.
- Influence of social media and digital culture.
- Health and fitness industry’s impact on body image perceptions.

Key findings were extracted, compared, and synthesized qualitatively to identify common themes and patterns.

Quality Assessment

Although not systematic, a basic quality assessment was performed, considering study design, sample size, methodology, and relevance. This ensured the inclusion of high-quality studies that provide valuable insights.

Ethical Considerations

No new data collection was involved, and thus, no ethical approval was required. Proper citation and acknowledgment of all sources were ensured.

Conceptual Overviews

To understand body image and self-perception complexities, it’s essential to examine Thinspiration, Fitspiration, BDD, MD, and the use of APEDs. Thinspiration, a digital age phenomenon, involves sharing content that idolizes extreme thinness, often through social media (Herceg, 2023). This content, including images and tips, promotes ultra-slender bodies as desirable, yet it’s linked to unhealthy weight loss methods and can exacerbate eating disorders like anorexia and bulimia (O’Brien, 2015). Thinspiration reflects a societal obsession with thinness, contributing to narrow beauty standards and impacting self-esteem and mental health (Anderson, 2016). Despite its motivational intent, Thinspiration raises significant health and societal concerns, highlighting the need for more inclusive and health-focused beauty standards (Alberga, Withnell & von Ranson, 2018).

Fitspiration emerged as a healthier alternative to Thinspiration, focusing on fitness, strength, and well-being. Popular on social media and fitness blogs, it includes workout routines, nutritional advice, and motivational content. However, despite its health-oriented image, Fitspiration faces criticism for promoting unrealistic body standards, often depicting highly sculpted, toned physiques. This can create unattainable expectations and shift the focus from health to appearance. Additionally, Fitspiration sometimes encourages excessive exercise, risking overtraining, injury, and mental health impacts (Webb et al., 2019). Therefore, while promoting fitness, it’s crucial to critically view Fitspiration content and emphasize diverse, healthy bodies and personal well-being over appearance (Tiggemann et al., 2018).

BDD is a mental health condition within the obsessive-compulsive spectrum, marked by a persistent preoccupation with perceived physical flaws, often unnoticeable to others (Frare et al., 2004). This fixation can cause significant emotional distress and lead to behaviors like excessive mirror checking and grooming. BDD sufferers may seek cosmetic procedures to fix their perceived flaws (Crerand, Menard & Phillips, 2010), but such attempts often fail to relieve the disorder and can worsen the obsession. Common in both men and women, BDD typically starts in adolescence, leading to social isolation, functional impairments, and sometimes co-occurring mental health issues like depression. Diagnosing and treating BDD can be challenging due to the shame associated with it. Effective treatments include Cognitive-Behavioral Therapy (CBT) and medications like SSRIs, highlighting the importance of early recognition and intervention for better outcomes (Griffiths et al., 2018).

MD, also known as “bigorexia” or “reverse anorexia,” is a subtype of BDD often found in bodybuilding and fitness circles. It involves an obsessive belief that one’s body isn’t muscular or lean enough, leading to intense dissatisfaction and a relentless pursuit of an idealized muscular physique (Strong, 2021). Individuals with MD may spend excessive time in the gym with extreme workout routines and follow highly restrictive diets focused on protein intake and calorie counting, potentially causing nutritional imbalances and health issues (Segura-García et al., 2010). A major concern in MD is the possible abuse of APEDs, including anabolic steroids, which carry significant health risks like hormonal imbalances and liver damage (Hildebrandt et al., 2010). MD represents an extreme end of body image concerns, often underreported and underdiagnosed due to societal glorification of muscular physiques (Phillips et al., 1995). Treatment typically involves cognitive-behavioral therapy and, in some cases, medication for related anxiety or depression, highlighting the need for increased awareness and support for those affected (Hogue et al., 2023).

The use of APEDs is a growing concern in society, encompassing the consumption of anabolic steroids and other performance enhancers to improve physical appearance and athletic performance (Hildebrandt & Alfano, 2012). Not limited to professional athletes, APED use extends to recreational gym-goers and those seeking idealized body types, influenced by media and cultural trends favoring muscularity and leanness (Harvey, 2020). However, APEDs pose serious health risks, including hormonal imbalances, liver damage, and cardiovascular issues, along with psychological effects like aggression and mood swings. The illegal and unregulated nature of many APEDs further increases these risks (Schreiber & Hausenblas, 2015).

Thinspiration, Fitspiration, BDD, MD, and Appearance and APED use are united by their focus on body image and societal appearance standards (Bucko, 2017). Each reflects the societal drive for a specific body ideal, often compromising physical and mental health (Aboody et al., 2020). Thinspiration and Fitspiration, promoted through media, encourage extreme thinness or fitness, while BDD and MD are clinical conditions with distorted body image perceptions (Boepple & Thompson, 2016). APED use is a behavioral response to these pressures, aiming to achieve

the desired physique (Strübel et al., 2022). The impacts vary: Thinspiration and Fitspiration can lead to unhealthy behaviors (Hung, 2022), whereas BDD and MD are linked to severe psychological distress (Hakim et al., 2021). Understanding these phenomena is key to addressing societal body image challenges and promoting healthier attitudes towards physical health (Raggatt et al., 2018).

Psychological and Behavioral Implications

The psychological landscape of Thinspiration, Fitspiration, BDD, MD, and APED use is intricate, deeply rooted in psychological processes, and significantly impacts behavior, body image, and self-esteem (Crossman, 2017). Thinspiration and Fitspiration involve social comparison, where individuals measure themselves against idealized media portrayals of thinness and fitness, often leading to body dissatisfaction and negative effects on self-esteem and mental well-being (Ramsey, 2021). This internalization of unrealistic body ideals can result in unhealthy behaviors like extreme dieting or excessive exercise. BDD and MD are characterized by an obsessive focus on perceived physical flaws, causing severe psychological distress (Corazza et al., 2019). APED use is a response to these societal pressures, posing health risks and reflecting a direct approach to altering appearance. Recognizing and addressing the psychological impact of these phenomena is vital for promoting healthier body image perceptions and overall mental health (Ganson et al., 2023).

BDD and MD are severe forms of psychological distress related to body image, characterized by an obsessive preoccupation with perceived physical inadequacies (Hrabosky et al., 2009). BDD manifests in repetitive behaviors like mirror checking or excessive grooming, aimed at hiding perceived flaws (Khemlani-Patel, 2022). This fixation often disrupts daily life and social interactions, leading to social isolation, depression, and sometimes suicidal thoughts. MD involves an intense belief of insufficient muscularity, driving excessive exercise, strict dieting, and sometimes steroid abuse, despite often having significant muscle mass (Murray et al., 2017). Sufferers experience anxiety and shame, leading to social and relationship difficulties. Both disorders involve a distorted body perception resistant to external reassurance, profoundly impacting mental health and overall well-being. BDD and MD represent the more extreme spectrum of body image concerns, highlighting the need for increased awareness, early detection, and comprehensive treatment strategies to support affected individuals (Cooper, 2018).

The use of APEDs is often a response to societal pressures for ideal body types, heavily influenced by Thinspiration, Fitspiration, and the distorted self-images seen in BDD and MD (Ferraro et al., 2008). Individuals turn to APEDs to rapidly achieve body standards glorified in media and culture, particularly those encouraged by Thinspiration and Fitspiration or to address perceived flaws related to BDD or MD. This behavior, rooted in issues of self-esteem and body dissatisfaction, reflects the internalization of societal beauty and performance standards, leading to the rationalization of APED use as a means to an end (McCabe & Ricciardelli, 2001). However, APEDs carry significant health risks, including hormonal

imbalances, cardiovascular issues, and psychological effects, often exacerbated by the lack of medical supervision in their use. This underscores the need for awareness and caution regarding the psychological motivations and health consequences of APED use (Sreshta et al., 2017).

The interplay of these concepts significantly impacts mental health. Persistent exposure to Thinspiration and Fitspiration can cultivate a relentless pursuit of an unattainable body ideal, contributing to anxiety, depression, and eating disorders. BDD and MD, as more severe psychological conditions, can lead to profound emotional distress and a range of psychiatric comorbidities. The use of APEDs, while offering a temporary solution to body image concerns, can further complicate the psychological landscape by introducing issues related to substance dependence and the health risks associated with these drugs (Trenton & Currier, 2005).

Sociocultural Context and Influences

The proliferation of Thinspiration, Fitspiration, BDD, MD, and the use of APEDs is deeply rooted in the sociocultural context. Societal norms, cultural values, and media portrayals significantly influence these phenomena, shaping public perception and individual behavior (Cuadrado et al., 2024).

Societal and cultural norms play a pivotal role in shaping perceptions of body image and physical appearance. Contemporary society often glorifies specific body types, setting up ideals that can have profound implications for individuals' self-perception and behavior (Duarte, Chinen & Fujimori, 2021). For women, the ideal is frequently one of extreme thinness, a standard prominently featured in Thinspiration content. For men, the emphasis tends to be on muscularity and a lean physique, as seen in Fitspiration content and in the context of MD (Krug et al., 2020).

These societal ideals are not merely aesthetic preferences but are deeply embedded in cultural narratives that link physical appearance with broader concepts of success, desirability, and health. The notion that a particular body type can be equated with personal and social success creates immense pressure on individuals to conform to these standards. This pressure is constantly reinforced through various media, including social media platforms, television, movies, and advertising, where these idealized body types are regularly depicted and celebrated (De Luca, Giorgetti & Cicconcelli, 2023).

The emphasis on physical perfection can lead to a range of negative outcomes. It creates a fertile ground for the development of body dissatisfaction, as individuals compare themselves unfavorably to these idealized images. This dissatisfaction can, in turn, lead to the development of serious mental health disorders such as BDD and MD. Individuals with BDD become fixated on perceived flaws in their appearance, while those with MD obsess over their muscularity and leanness (Quesnel et al., 2018).

Media Portrayal

The role of media in shaping and reinforcing societal body ideals is significant and far-reaching. Media platforms, including social media, magazines, movies, and television, play a crucial role in how body image standards

are presented and perceived by the public. These media often showcase highly curated, edited, and sometimes digitally altered images that depict unrealistic and unattainable standards of beauty and fitness (Thompson & Heinberg, 1999).

Thinspiration and Fitspiration content, which are particularly prevalent on online platforms, further amplify the impact of media on body image perceptions. These types of content are centered around showcasing idealized and often extreme versions of thinness and fitness (Hartmann et al., 2018), respectively. The pervasive nature of this content on social media platforms means that users are subjected to a continuous stream of images and messages that glorify these specific body types.

The constant exposure to such idealized body images can have several detrimental effects on individuals' perception of their own bodies. It can lead to a distorted view of what is normal or attainable, creating unrealistic expectations for one's physical appearance. This distortion can be particularly harmful to individuals who are already susceptible to body image concerns, contributing to the development of disorders such as BDD and MD. In BDD, individuals become obsessively preoccupied with perceived flaws in their appearance, while those with MD are fixated on the belief that they are not muscular enough (Simpson & Mazzeo, 2017).

Gender-specific Aspects

Gender-specific aspects play a significant role in how Thinspiration, Fitspiration, BDD, MD, and the use of APEDs manifest and impact individuals. While these phenomena can affect people of all genders, certain trends are observed in how they differentially impact men and women, as well as individuals across the gender spectrum (Narrow et al., 2008).

Thinspiration is predominantly associated with women, reflecting societal pressures and ideals that emphasize extreme thinness as a beauty standard for this demographic. The pervasive nature of Thinspiration content, which often glamorizes dangerously thin bodies and promotes restrictive diets, has been linked to a higher prevalence of eating disorders and body dissatisfaction among women. This influence can contribute to the development of anorexia nervosa (a serious mental health disorder characterized by an intense fear of gaining weight), bulimia nervosa (an eating disorder marked by cycles of binge eating followed by purging behaviors, such as vomiting or excessive exercise), and other related eating disorders, which are more commonly reported in women (Bozsik et al., 2018).

Fitspiration, on the other hand, and MD tend to be more closely associated with men. These phenomena focus on muscularity, leanness, and an athletic physique, reflecting a different set of societal standards for male bodies. Fitspiration content often showcases highly sculpted and toned male bodies, while MD involves an obsessive preoccupation with not being sufficiently muscular or lean. The pursuit of these ideals can lead to psychological issues such as body dissatisfaction, low self-esteem, and the development of MD. Additionally, the pressure to achieve a muscular physique may drive some men towards the use of APEDs, posing significant health risks (Bizjak, 2015).

It is important to acknowledge, however, that these phenomena are not exclusive to any single gender. Individuals across the gender spectrum can experience body image concerns and may be influenced by Thinspiration, Fitspiration, BDD, MD, and APED use. The specific ways in which these phenomena manifest can vary based on cultural, societal, and individual factors, including gender identity (Murashka, Liu & Peng, 2021).

Impact on Different Demographics

The influence of these phenomena extends beyond gender and includes age, ethnicity, and socio-economic status. Younger individuals, particularly adolescents, are more susceptible to the impacts of social media and peer pressure. Ethnic and cultural backgrounds also play a role in how body ideals are perceived and internalized. Additionally, socio-economic factors can influence access to resources for achieving these body ideals, such as gym memberships, diet plans, and even APEDs (Walker et al., 2009).

In summary, the sociocultural context plays a critical role in shaping the manifestation and impact of Thinspiration, Fitspiration, BDD, MD, and APED use. Understanding these influences is essential for addressing the broader societal challenges associated with body image and developing effective interventions and policies to promote healthier body image perceptions and practices (Dignard & Jarry, 2021).

Health and Fitness Industry's Role

The health and fitness industry plays a significant and dual role in the context of Thinspiration, Fitspiration, BDD, MD, and the use of APEDs. While these industries have the potential to promote health and well-being, they also contribute to the propagation of unrealistic body standards and related psychological issues (Coquet et al., 2018).

Contribution to Body Image Issues

The fitness and beauty industries often capitalize on societal body ideals to market their products and services. This is evident in advertising campaigns and product promotions that frequently feature models with idealized body types, aligning with Thinspiration and Fitspiration themes. Such portrayals can reinforce the notion that these body standards are both desirable and attainable, potentially exacerbating issues like BDD and MD. Furthermore, the promotion of supplements, diet plans, and fitness programs can sometimes border on encouraging extreme behaviors, contributing indirectly to the use of APEDs (Frew & McGillivray, 2005).

Mitigation Efforts

On the positive side, segments of the health and fitness industry are increasingly recognizing their role in shaping public perceptions of body image. There is a growing movement towards more inclusive and realistic portrayals of body types, as well as a focus on health and wellness rather than just appearance. Some brands and influencers are actively working to counteract the negative impacts of Thinspiration and Fitspiration by promoting body positivity, balanced lifestyles, and mental health awareness (Groesz et al., 2002).

Ethical Considerations

The ethical considerations in marketing and promoting health and fitness revolve around the balance between inspiring healthy lifestyle changes and not perpetuating harmful body ideals. Ethical marketing should avoid exploiting body image insecurities and instead focus on encouraging realistic, sustainable, and health-focused behaviors. Transparency in advertising, including the use of unedited images and the representation of a diverse range of body types, is also crucial. Additionally, the industry has a responsibility to ensure that products and services promoted are safe, effective, and do not encourage unhealthy or dangerous practices (Segar et al., 2011).

Controversies and Criticisms

Thinspiration, Fitspiration, BDD, MD, and the use of APEDs are surrounded by significant controversies and criticisms. These arise from their complex impact on individual and societal health, and the perspectives of healthcare professionals, advocacy groups, and affected individuals provide valuable insights into these issues (Blashill et al., 2020).

Thinspiration has been a particularly controversial phenomenon due to its close association with pro-anorexia (pro-ana) content. This type of content glorifies extreme thinness and often encourages practices associated with eating disorders. Thinspiration often features images of very thin individuals, along with tips and advice on how to achieve and maintain a similar physique. The danger of Thinspiration lies in its potential to trigger or exacerbate eating disorders, such as anorexia nervosa and bulimia nervosa, especially among susceptible individuals. It is criticized for creating and reinforcing an environment where disordered eating behaviors are normalized and even celebrated (Steeves, 2010).

Fitspiration, on the other hand, emerged as a response to the negative aspects of Thinspiration, ostensibly promoting a healthier focus on fitness and well-being. However, Fitspiration has not been immune to criticism. One of the main issues with Fitspiration is that it often blurs the lines between encouraging a healthy lifestyle and promoting an obsessive preoccupation with appearance and physical fitness. The content typically features highly toned and muscular bodies, which can create unrealistic expectations and pressures similar to those associated with Thinspiration. Fitspiration, therefore, despite its seemingly positive intentions, is also criticized for contributing to body dissatisfaction and the normalization of excessive exercise and strict dieting behaviors (Dignard, 2017).

Both Thinspiration and Fitspiration, despite their differences, are seen as contributing to broader societal issues of body dissatisfaction and the promotion of unhealthy behaviors. These movements reflect and reinforce narrow and often unattainable beauty and fitness standards, which can have detrimental effects on individuals' mental and physical health. The controversies surrounding Thinspiration and Fitspiration highlight the need for a more balanced and realistic portrayal of body image in media and the importance of promoting genuine health and well-being over appearance (Talbot et al., 2017).

Body Dysmorphic Disorder and Muscle Dysmorphia

BDD and MD are subjects of controversies and criticisms, primarily due to the misunderstandings and stigma surrounding these mental health conditions. Both disorders are characterized by an obsessive preoccupation with perceived physical flaws, yet they often remain underrecognized and misunderstood by the general public and even within certain healthcare settings (Marques et al., 2011).

One of the main challenges with BDD and MD is the lack of awareness and understanding among both the public and healthcare professionals. These disorders are often mistaken for mere vanity or an exaggerated concern with appearance, leading to a lack of empathy and appropriate support for those affected. The stigma attached to mental health disorders, particularly those related to body image, can further exacerbate the challenges faced by individuals with BDD and MD, making them reluctant to seek help (Sun & Rieder, 2022).

The misunderstanding of BDD and MD often leads to underdiagnosis or misdiagnosis. Many individuals with these disorders do not receive the appropriate treatment, which can have severe consequences for their mental and physical health. The complexity of these conditions requires specialized therapeutic approaches, typically involving CBT and, in some cases, medication. However, the lack of awareness can prevent individuals from accessing these resources (Phillips, 2004).

Critics also highlight the role of societal and cultural factors in the development and perpetuation of BDD and MD. The glorification of certain body types in media and popular culture, as well as the pressure to conform to these ideals, can contribute to the development of these disorders. This societal influence underscores the need for a broader change in how body image is portrayed and discussed in public discourse (Krebs et al., 2024).

Healthcare professionals and advocates emphasize the need for increased education and awareness about BDD and MD. Better understanding and recognition of these conditions are crucial for early identification and intervention. Additionally, there is a need for more robust support systems, including accessible mental health services and community-based resources, to assist individuals suffering from BDD and MD (Fisher, 2011).

Use of Apeds

The use of APEDs is surrounded by a host of controversies and criticisms, largely stemming from the significant health risks and ethical concerns associated with these substances. APEDs, including anabolic steroids, hormone enhancers, and other performance-enhancing drugs, are used to improve physical appearance and athletic performance, but their use is fraught with potential dangers and moral questions (Gawash et al., 2023).

One of the primary concerns surrounding APED use is the range of health risks and side effects that can occur. These substances can lead to hormonal imbalances, liver damage, cardiovascular issues, and psychological effects such as aggression and mood swings. The use of APEDs without medical supervision or proper understanding of dosages and side effects can exacerbate these risks, leading to serious long-term health consequences (Hildebrandt et al., 2011).

Critics point out that societal pressures to achieve an idealized physique play a significant role in driving individuals towards APED use. The glorification of certain body types in media and culture creates an environment where individuals feel compelled to use these substances to meet unrealistic standards of beauty and fitness. This pressure is often coupled with a lack of understanding about the potential harms of APED use, leading individuals to underestimate the risks involved (van Amsterdam et al., 2010).

There is a widespread call for stricter regulation of APEDs to prevent misuse and illegal distribution. Advocates argue for better education about the risks associated with APED use, both in terms of physical health and the legal implications of using these substances. Increasing awareness about the dangers of APEDs and providing accurate information can help individuals make more informed decisions about their use (Graham et al., 2008).

Perspectives from Healthcare Professionals and Advocacy Groups.

Healthcare professionals and advocacy groups emphasize the need for a more comprehensive and nuanced understanding of the issues related to body image. They advocate for strategies that go beyond mere symptom management to address the root causes of body dissatisfaction. This includes challenging and changing societal norms and media portrayals that perpetuate unrealistic and harmful body standards. These experts call for a multifaceted approach that combines mental health support, public health initiatives, and educational campaigns to promote a healthier and more realistic perspective on body image (Cash & Smolak, 2011).

There is also a strong call for increased research to better understand these phenomena and their impact on individuals. More resources are needed to develop effective interventions and support systems for those affected. Healthcare professionals and advocacy groups stress the importance of creating environments that foster body positivity and resilience against the pressures of societal body ideals (Hadley, Greenberg & Hollander, 2002).

Voices of Affected Individuals

Personal accounts from individuals who have experienced the impacts of Thinspiration, Fitspiration, BDD, MD, and APED use add a vital human dimension to these discussions. These narratives often reveal the deep struggles with self-esteem, body image, and the pursuit of unrealistic physical ideals. Many individuals describe the intense pressure they feel to conform to societal standards of beauty and fitness, and the toll this takes on their mental and physical health (Blomeley et al., 2018).

These personal stories highlight the real-world consequences of these phenomena and underscore the importance of empathy and support in addressing them. Hearing directly from those affected emphasizes the need for societal change, including the development of healthier attitudes towards body image and fitness. These narratives also serve as powerful reminders of the importance of creating supportive communities and accessible mental health resources for those struggling with these issues (Jerónimo & Carraça, 2022).

Interventions and Positive Alternatives

Addressing the challenges posed by Thinspiration, Fitspiration, BDD, MD, and the use of APEDs requires effective intervention strategies and the promotion of positive alternatives. These approaches should focus on fostering a healthy body image, encouraging balanced fitness practices, and supporting mental well-being.

Effective intervention strategies are essential for individuals affected by BDD, MD, and the psychological impacts of Thinspiration and Fitspiration, as well as those at risk of or currently using APEDs (Nagata et al. 2022). These strategies encompass a range of approaches, from therapeutic interventions to education and media literacy.

Therapy plays a crucial role in the treatment and support of individuals struggling with BDD (Kelly et al., 2017), MD, or the impacts of Thinspiration and Fitspiration. CBT is particularly effective in addressing the distorted perceptions and unhealthy behavior patterns associated with these issues. CBT helps individuals identify and challenge negative thoughts about their body image and develop healthier coping mechanisms. Additionally, group therapy and support groups offer valuable opportunities for individuals to share experiences, gain support, and learn coping strategies from others facing similar challenges. These therapeutic environments provide a sense of community and understanding, which can be instrumental in the recovery process.

Raising awareness about the risks associated with Thinspiration, Fitspiration, and APED use is critical. Educational programs, both in schools and communities, as well as on online platforms, can inform individuals about the dangers of pursuing unrealistic body ideals and the potential health consequences. These programs can also teach skills for body positivity and self-acceptance, helping to counteract the negative influences of media and cultural norms (Prnjak et al., 2020).

Developing media literacy skills is a key intervention strategy. It involves teaching individuals how to critically analyze and question the unrealistic body images presented in various media forms. By understanding how media content is created and the motives behind it, individuals can learn to separate realistic body images from manipulated or idealized ones. This critical perspective can help reduce the impact of harmful media content and promote a healthier and more realistic perception of body image (Outar, 2022).

Ensuring that individuals have access to mental health professionals and medical experts who are knowledgeable about these issues is vital. This includes providing resources and referrals for those seeking help with eating disorders, body dysmorphia, or issues related to APED use. Access to professional help can include therapy, medical treatment, nutritional counseling, and support for managing the psychological and physical aspects of these conditions (Scarth et al., 2023).

Movements and Approaches Promoting Healthy Body Image, Fitness Practices, and Mental Well-being

Movements and approaches that promote a healthy body image, inclusive fitness practices, and overall mental well-being are essential in countering the negative impacts of Thinspiration, Fitspiration, BDD, MD, and the use of APEDs. These positive initiatives provide alternative perspectives and practices that emphasize health, diversity, and self-acceptance (Fox, 1999).

This movement challenges the narrow and often

unattainable standards of beauty and fitness perpetuated by society and media. It emphasizes the acceptance and appreciation of all body types, advocating for self-love and respect for bodily diversity. The body positivity movement (BPM) encourages the idea that personal worth and value are not contingent on physical appearance, promoting a more inclusive and accepting view of beauty (Monks et al., 2021).

Health at Every Size (HAES) is an approach that shifts the focus from weight loss and achieving a specific body type to overall health and well-being. It advocates for balanced eating habits, engaging in joyful and sustainable physical activities, and respecting the natural diversity of body shapes and sizes. HAES challenges weight-centric health paradigms and promotes health and wellness at any size, emphasizing body respect and intuitive approaches to eating and exercise (Burgard, 2009).

Incorporating mindfulness and self-compassion into everyday life can significantly improve individuals' relationships with their bodies. Practices such as mindful eating, yoga, and meditation encourage greater self-awareness and self-acceptance. These practices help individuals to be present in the moment, recognize and accept their feelings and thoughts about their bodies, and foster a kinder and more compassionate attitude towards themselves (Augusta Quist Møller et al., 2019).

Fitness and wellness programs that are inclusive and cater to a wide range of needs and abilities can provide a healthy counterbalance to the unrealistic goals often promoted by Fitspiration. These programs focus on promoting individual health and well-being, rather than solely on appearance or achieving a specific physique. Inclusive programs emphasize realistic and attainable fitness goals, celebrating personal achievements and progress rather than comparison with others.

Conclusion

This review highlights the significant impact of digital phenomena such as Thinspiration and Fitspiration on body image and related mental health disorders, including BDD and MD. Thinspiration promotes unrealistic and unhealthy beauty standards, leading to psychological distress and the potential development of eating disorders. Fitspiration, while seemingly advocating for a healthy lifestyle, often perpetuates unattainable fitness ideals that can also result in negative mental health outcomes.

The common findings across the studies reviewed indicate a strong link between the consumption of digital content that emphasizes extreme physical ideals and the deterioration of individuals' mental health. Both BDD and MD are characterized by an obsessive focus on perceived body flaws, leading to significant emotional and psychological distress. The use of APEDs is often a direct response to societal pressures to achieve these unrealistic body standards, further exacerbating health risks.

The societal and cultural factors contributing to these disorders include the glorification of certain body types and the pressure to conform to these ideals. This pressure is reinforced by various media platforms, including social media, which often showcase highly curated and edited images that depict unrealistic body standards. These images contribute to body dissatisfaction and the

normalization of harmful behaviors, such as extreme dieting and excessive exercise.

From the synthesis of these studies, it is evident that societal and media influences play a critical role in shaping body image perceptions. The health and fitness industries also contribute to these issues by promoting and capitalizing on these ideals. The industries often exploit body image insecurities to market products and services, reinforcing the notion that these body standards are both desirable and attainable.

To address these pervasive issues, there is a need for comprehensive strategies that include education, policy development, and the promotion of healthier body image perceptions. Educational programs that foster media literacy and critical thinking about digital content are crucial. These programs can teach individuals how to critically analyze and question the unrealistic body images presented in various media forms. By understanding how media content is created and the motives behind it, individuals can learn to separate realistic body images from manipulated or idealized ones.

Additionally, promoting inclusive fitness practices and body positivity can help mitigate the negative impacts of Thinspiration and Fitspiration. Movements such as the BPM and HAES emphasize the acceptance and appreciation of all body types, advocating for self-love and respect for bodily diversity. These movements encourage the idea that personal worth and value are not contingent on physical appearance, promoting a more inclusive and accepting view of beauty.

Therapeutic interventions are also vital for individuals struggling with BDD, MD, and the psychological impacts of Thinspiration and Fitspiration. CBT is particularly effective in addressing the distorted perceptions and unhealthy behavior patterns associated with these issues. CBT helps individuals identify and challenge negative thoughts about their body image and develop healthier coping mechanisms. Group therapy and support groups offer valuable opportunities for individuals to share experiences, gain support, and learn coping strategies from others facing similar challenges.

Ensuring that individuals have access to mental health professionals and medical experts who are knowledgeable about these issues is essential. This includes providing resources and referrals for those seeking help with eating disorders, body dysmorphia, or issues related to APED use. Access to professional help can include therapy, medical treatment, nutritional counseling, and support for managing the psychological and physical aspects of these conditions.

Future research should focus on the long-term effects of these digital phenomena on body image and mental health. Investigating the effectiveness of intervention strategies, such as media literacy programs and therapeutic approaches like CBT, is essential. Moreover, examining the role of policy changes in promoting healthier body image standards could provide valuable insights. Studies could also explore the impact of inclusive and realistic portrayals of body types in media on body image perceptions and mental health outcomes.

In conclusion, addressing the interconnected issues of Thinspiration, Fitspiration, BDD, MD, and APED use requires a multifaceted approach that combines therapeutic

support, education, advocacy, and inclusive practices. By fostering a more accepting and realistic societal attitude towards body image and fitness, we can improve the mental and physical well-being of individuals in the digital era. The importance of education, policy development, and comprehensive strategies to promote healthier body image perceptions and practices cannot be overstated. This review underscores the need for societal change and the collective effort required to address these pervasive issues.

References

- Aboody, D., Siev, J., & Doron, G. (2020). Building resilience to body image triggers using brief cognitive training on a mobile application: A randomized controlled trial. *Behaviour Research and Therapy*, 134, 103723. <https://doi.org/10.1016/j.brat.2020.103723>
- Alberga, A. S., Withnell, S. J., & Von Ranson, K. M. (2018). Fitspiration and thinspiration: a comparison across three social networking sites. *Journal of Eating Disorders*, Vol 6(1), 1-10. <https://doi.org/10.1186/s40337-018-0227-x>
- Anderson, L. (2016). Harmful inspiration: The consequences of viewing thinspiration and fitspiration images. <https://doi.org/10.58809/SOUC9363>
- Augusta Quist Møller, S., L Shapiro, S., & Sami, S. (2019). Health benefits of (mindful) self-compassion meditation and the potential complementarity to mindfulness-based interventions: A review of randomized-controlled trials. *OBM Integrative and Complementary Medicine*, 4(1), 1-20. <https://doi.org/10.21926/obm.icm.1901002>
- Bizjak, D. E. (2015). *Fit Is The New Thin: Fitspiration and Body Satisfaction in College Age Women* (Doctoral Dissertation), California State University, Sacramento.
- Blashill, A. J., Grunewald, W., Fang, A., Davidson, E., & Wilhelm, S. (2020). Conformity to masculine norms and symptom severity among men diagnosed with muscle dysmorphia vs. body dysmorphic disorder. *PloS one*, 15(8), e0237651. <https://doi.org/10.1371/journal.pone.0237651>
- Blomeley, D., Phillipou, A., & Castle, D. J. (2018). Sizing it up: a systematic review of the nosology of muscle dysmorphia. *Clinical Research in Psychology*, 1(1), 1-10.
- Boepple, L., & Thompson, J. K. (2016). A content analytic comparison of fitspiration and thinspiration websites. *International Journal of Eating Disorders*, 49(1), 98-101. <https://doi.org/10.1002/eat.22403>
- Bozsik, F., Whisenhunt, B. L., Hudson, D. L., Bennett, B., & Lundgren, J. D. (2018). Thin is in? Think again: The rising importance of muscularity in the thin ideal female body. *Sex Roles*, 79, 609-615. <https://doi.org/10.1007/s11199-017-0886-0>
- Bucko, A. G. (2017). *Associations Amongst Physical Activity, Substance Use and Fitness Industry Trends*. Arizona State University.
- Burgard, D. (2009). What is "Health at Every Size"? In *The Fat Studies Reader* (pp. 41-53). New York: New York University Press. <https://doi.org/10.18574/nyu/9780814777435.001.0001>
- Carvalho, A. (2023). The ideal of the perfect body. *The body in the mind: exercise addiction, body image and the use of enhancement drugs* (p. 77-91). Cambridge: Cambridge University Press.
- Cash, T. F., & Smolak, L. (Eds.). (2011). *Body image: A handbook of science, practice, and prevention*. Guilford press.
- Cataldo, I., De Luca, I., Giorgetti, V., Cicconcelli, D., Bersani, F. S., Imperatori, C., ... & Corazza, O. (2021). Fitspiration on Social Media: Body-Image and Other Psychopathological Risks Among Young Adults. A Narrative Review. *Emerging Trends In Drugs, Addictions, And Health*, 1, 100010. <https://doi.org/10.1016/j.etched.2021.100010>
- Choo, L. (2022). The Impact of Fitspiration on Young Women:

A Review of the Literature.

- Cooper, M. (2018). Getting shredded: Improving our understanding of muscle dysmorphia and related symptomology. Downloaded date: 02.01.2024, <https://openresearch-repository.anu.edu.au/bitstream/1885/154284/1/Final%20Dissertation%20July%202018%20-%20Cooper,%20Marita%20.pdf>
- Coquet, R., Roussel, P., & Ohl, F. (2018). Understanding the paths to appearance- and performance-enhancing drug use in bodybuilding. *Frontiers in psychology*, 9, 1431. <https://doi.org/10.3389/fpsyg.2018.01431>
- Corazza, O., Simonato, P., Demetrovics, Z., Mooney, R., Van De Ven, K., Roman-Urrestarazu, A., ... & Martinotti, G. (2019). The emergence of Exercise Addiction, Body Dysmorphic Disorder, and other image-related psychopathological correlates in fitness settings: A cross sectional study. *PloS one*, 14(4), e0213060. <https://doi.org/10.1371/journal.pone.0213060>
- Crerand, C. E., Menard, W., & Phillips, K. A. (2010). Surgical and Minimally Invasive Cosmetic Procedures Among Persons With Body Dysmorphic Disorder. *Annals of Plastic Surgery*, Vol: 65(1), 11. <https://doi.org/10.1097/SAP.0b013e3181bba08f>
- Crossman, J. M. (2017). Fitspiration to inspire or to mire? A review of the literature and educational implications. *LEARNing Landscapes*, 10(2), 115-130. <https://doi.org/10.36510/learnland.v10i2.805>
- Cuadrado, J., Lulan, P., Sentenac, C., Legigan, C., & Michel, G. (2024). "Bigger, stronger, sicker", integrative psychological assessment for muscle dysmorphia: Case studies of two young women bodybuilders. *Psychiatry Research Case Reports*, 3(1), 100212. <https://doi.org/10.1016/j.psycr.2024.100212>
- De Luca, I. V., Giorgetti, D., & Cicconcelli, O. C. (2023). Exercise, Fitspiration, and the Role of Social Media. The body in the mind: exercise addiction, body image and the use of enhancement drugs (p. 93-107). Cambridge: Cambridge University Press.
- Dignard, N. A., & Jarry, J. L. (2021). The "Little Red Riding Hood effect": Fitspiration Is Just As Bad As Thinspiration For Women's Body Satisfaction. *Body Image*, 36, 201-213. <https://doi.org/10.1016/j.bodyim.2020.11.012>
- Dignard, N. A. (2017). *The effects of thinspiration and fitspiration on body satisfaction and appearance self-esteem are equivalent and mediated by appearance comparisons* (Doctoral dissertation, University of Windsor (Canada)).
- Duarte, L. S., Chinen, M. N. K., & Fujimori, E. (2021). Distorted Self-Perception And Dissatisfaction With Body Image Among Nursing Students. *Revista Da Escola De Enfermagem Da USP*, 55. <https://doi.org/10.1590/S1980-220X2019042903665>
- Ferraro, F. R., Muehlenkamp, J. J., Paintner, A., Wasson, K., Hager, T., & Hoverson, F. (2008). Aging, body image, and body shape. *The Journal of general psychology*, 135(4), 379-392. <https://doi.org/10.3200/GENP.135.4.379-392>
- Fisher, E. E. (2011). Communication and awareness about body dysmorphic disorder: A perspective from researchers and clinicians. *Unpublished manuscript, Colorado State University*.
- Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public health nutrition*, 2(3a), 411-418. <https://doi.org/10.1017/S1368980099000567>
- Frare, F., Perugi, G., Ruffolo, G., & Toni, C. (2004). Obsessive-compulsive disorder and body dysmorphic disorder: a comparison of clinical features. *European Psychiatry*, 19(5), 292-298. <https://doi.org/10.1016/j.eurpsy.2004.04.014>
- Frew, M., & McGillivray, D. (2005). Health clubs and body politics: Aesthetics and the quest for physical capital. *Leisure studies*, 24(2), 161-175. <https://doi.org/10.1080/0261436042000300432>
- Ganson, K. T., Pang, N., Testa, A., Jackson, D. B., & Nagata, J. M. (2023). Adverse Childhood Experiences and Muscle Dysmorphia Symptomatology: Findings from a Sample of Canadian Adolescents and Young Adults. *Clinical Social Work Journal*, 1-13. <https://doi.org/10.1007/s10615-023-00908-9>
- Gawash, A., Zia, H., Al-Shehab, U., & Lo, D. F. (2023). Association of Body Dysmorphic-Induced Anabolic-Androgenic Steroid Use With Mental Health Outcomes: A Systematic Review. *The Primary Care Companion for CNS Disorders*, Vol: 25(5), 49582. <https://doi.org/10.4088/PCC.23r03532>
- Graham, M. R., Davies, B., Grace, F. M., Kicman, A., & Baker, J. S. (2008). Anabolic steroid use: patterns of use and detection of doping. *Sports Medicine*, 38, 505-525. <https://doi.org/10.2165/00007256-200838060-00005>
- Griffiths, S., Castle, D., Cunningham, M., Murray, S. B., Bastian, B., & Barlow, F. K. (2018). How Does Exposure To Thinspiration And Fitspiration Relate To Symptom Severity Among Individuals With Eating Disorders? Evaluation Of A Proposed Model. *Body Image*, Vol: 27, 187-195. <https://doi.org/10.1016/j.bodyim.2018.10.002>
- Griffiths, S., & Stefanovski, A. (2019). Thinspiration And Fitspiration In Everyday Life: An Experience Sampling Study. *Body Image*, Vol: 30, 135-144. <https://doi.org/10.1016/j.bodyim.2019.07.002>
- Groesz, L. M., Levine, M. P., & Murnen, S. K. (2002). The effect of experimental presentation of thin media images on body satisfaction: A meta-analytic review. *International Journal of eating disorders*, 31(1), 1-16. <https://doi.org/10.1002/eat.10005>
- Hadley, S. J., Greenberg, J., & Hollander, E. (2002). Diagnosis And Treatment Of Body Dysmorphic Disorder In Adolescents. *Current Psychiatry Reports*, Vol: 4(2), 108-113. <https://doi.org/10.1007/s11920-002-0043-4>
- Hakim, R. F., Alrahmani, D. A., Ahmed, D. M., Alharthi, N. A., Fida, A. R., & Al-Raddadi, R. M. (2021). Association of body dysmorphic disorder with anxiety, depression, and stress among university students. *Journal of Taibah University Medical Sciences*, 16(5), 689-694. <https://doi.org/10.1016/j.jtumed.2021.05.008>
- Hartmann, A. S., Steenbergen, F., Vocks, S., Büsch, D., & Waldorf, M. (2018). How Healthy Is A Desire To Be Fit And Strong? Drives For Thinness, Leanness, And Muscularity In Women In Weight Training. *Journal of Clinical Sport Psychology*, Vol: 12(4), 544-561. <https://doi.org/10.1123/jcsp.2018-0022>
- Harvey, O. (2020). *Male anabolic androgenic steroid-users: a mixed-methods study. The voice of the AAS-user* (Doctoral dissertation, Bournemouth University).
- Herceg, L. (2023). Social Connectedness on Instagram: Understanding Young Women's Experience of Thinspiration and Fitspiration on Instagram. <https://doi.org/10.7939/r3-1ryj-kg93>
- Hildebrandt, T., Lai, J. K., Langenbucher, J. W., Schneider, M., Yehuda, R., & Pfaff, D. W. (2011). The Diagnostic Dilemma Of Pathological Appearance And Performance Enhancing Drug Use. *Drug And Alcohol Dependence*, Vol: 114(1), 1-11. <https://doi.org/10.1016/j.drugalcdep.2010.09.018>
- Hildebrandt, T., & Alfano, L. (2012). Drug use, appearance-and performance-enhancing. *Encyclopedia of body image and human appearance*, 392-98.
- Hildebrandt, T., Alfano, L., & Langenbucher, J. W. (2010). Body image disturbance in 1000 male appearance and performance enhancing drug users. *Journal of psychiatric research*, 44(13), 841-846. <https://doi.org/10.1016/j.jpsychires.2010.01.001>
- Hogue, J., Minister, C., Sampson, L., Campbell, G., & Mills, J. (2023). Young Women's Dialectical Responses To Fitspiration And Thinspiration: A Qualitative Study. *Eating Behaviors*, 50, 101758. <https://doi.org/10.1016/j.eatbeh.2023.101758>
- Hrabosky, J. I., Cash, T. F., Veale, D., Neziroglu, F., Soll, E. A.,

- Garner, D. M., ... & Phillips, K. A. (2009). Multidimensional body image comparisons among patients with eating disorders, body dysmorphic disorder, and clinical controls: a multisite study. *Body image*, 6(3), 155-163. <https://doi.org/10.1016/j.bodyim.2009.03.001>
- Hung, M. (2022). A content analysis on fitspiration and thinspiration posts on TikTok. *Cornell Undergraduate Research Journal*, 1(1), 55-62. <https://doi.org/10.37513/curj.v1i1.662>
- Jerónimo, F., & Carraça, E. V. (2022). Effects Of Fitspiration Content On Body Image: A Systematic Review. *Eating and Weight Disorders-Studies on Anorexia, Bulimia And Obesity*, Vol: 27(8), 3017-3035. <https://doi.org/10.1016/j.bodyim.2019.07.002>
- Kelly, M. M., Brault, M. E., & Didie, E. R. (2017). Psychosocial functioning and quality of life in body dysmorphic disorder. *Body dysmorphic disorder: Advances in research and clinical practice* (p. 139-154). New York: Oxford University Press.
- Khemlani-Patel, S., & Neziroglu, F. (2022). *Body dysmorphic disorder*. Hogrefe Publishing GmbH.
- Krebs, G., Rautio, D., Fernández de la Cruz, L., Hartmann, A. S., Jassi, A., Martin, A., ... & Mataix-Cols, D. (2024). Practitioner Review: Assessment and treatment of body dysmorphic disorder in young people. *Journal of Child Psychology and Psychiatry*. <https://doi.org/10.1111/jcpp.13984>
- Krug, I., Selvaraja, P., Fuller-Tyszkiewicz, M., Hughes, E. K., Slater, A., Griffiths, S., ... & Blake, K. (2020). The Effects of Fitspiration Images on Body Attributes, Mood And Eating Behaviors: An Experimental Ecological Momentary Assessment Study in Females. *Body Image*, Vol: 35, 279-287. <https://doi.org/10.1016/j.bodyim.2020.09.011>
- Marques, L., Weingarden, H. M., LeBlanc, N. J., & Wilhelm, S. (2011). Treatment utilization and barriers to treatment engagement among people with body dysmorphic symptoms. *Journal of psychosomatic research*, 70(3), 286-293. <https://doi.org/10.1016/j.jpsychores.2010.10.002>
- McCabe, M. P., & Ricciardelli, L. (2001). Parent, peer, and media influences on body image and strategies to both. *Adolescence*, 36(142).
- Monks, H., Costello, L., Dare, J., & Reid Boyd, E. (2021). "We're continually comparing ourselves to something": Navigating body image, media, and social media ideals at the nexus of appearance, health, and wellness. *Sex Roles*, 84(3), 221-237. <https://doi.org/10.1007/s11199-020-01162-w>
- Murashka, V., Liu, J., & Peng, Y. (2021). Fitspiration on Instagram: Identifying Topic Clusters in User Comments to Posts with Objectification Features. *Health Communication*, Vol: 36(12), 1537-1548. <https://doi.org/10.1080/10410236.2020.1773702>
- Murray, S. B., Nagata, J. M., Griffiths, S., Calzo, J. P., Brown, T. A., Mitchison, D., ... & Mond, J. M. (2017). The enigma of male eating disorders: A critical review and synthesis. *Clinical psychology review*, 57, 1-11. <https://doi.org/10.1016/j.cpr.2017.08.001>
- Nagata, J. M., McGuire, F. H., Lavender, J. M., Brown, T. A., Murray, S. B., Compote, E. J., ... & Lunn, M. R. (2022). Appearance And Performance-Enhancing Drugs And Supplements (APEDS): Lifetime Use And Associations With Eating Disorder And Muscle Dysmorphia Symptoms Among Cisgender Sexual Minority People. *Eating Behaviors*, Vol: 44, 101595. <https://doi.org/10.1016/j.eatbeh.2022.101595>
- Narrow, W. E., First, M. B., Sirovatka, P. J., & Regier, D. A. (Eds.). (2008). Age and gender considerations in psychiatric diagnosis: A research agenda for DSM-V.
- O'Brien, K. (2015). The cultivation of eating disorders through Instagram.
- Outar, L. (2022). *Body Image Beliefs: The Examination of Rational Emotive Behaviour Therapy (REBT) and Assessment of Irrational and Rational Beliefs in Body Image* (Doctoral dissertation, Staffordshire University).
- Pasko, K., & Arigo, D. (2021). The roles of social comparison orientation and regulatory focus in college students' responses to fitspiration posts on social media: Cross-sectional study. *JMIR Mental Health*, 8(9), e26204. <https://doi.org/10.2196/26204>
- Phillips, K. A. (2004). Body dysmorphic disorder: recognizing and treating imagined ugliness. *World Psychiatry*, 3(1), 12.
- Phillips, K. A., Kim, J. M., & Hudson, J. I. (1995). Body image disturbance in body dysmorphic disorder and eating disorders: Obsessions or delusions?. *Psychiatric Clinics of North America*, 18(2), 317-334. [https://doi.org/10.1016/S0193-953X\(18\)30057-1](https://doi.org/10.1016/S0193-953X(18)30057-1)
- Prnjak, K., Pemberton, S., Helms, E., & Phillips, J. G. (2020). Reactions To Ideal Body Shapes. *The Journal of General Psychology*, Vol: 147(4), 361-380. <https://doi.org/10.1080/00221309.2019.1676190>
- Quesnel, D. A., Cook, B., Murray, K., & Zamudio, J. (2018). Inspiration Or Thinspiration: The Association Among Problematic Internet Use, Exercise Dependence, And Eating Disorder Risk. *International Journal of Mental Health and Addiction*, Vol: 16, 1113-1124. <https://doi.org/10.1007/s11469-017-9834-z>
- Raggatt, M., Wright, C. J., Carrotte, E., Jenkinson, R., Mulgrew, K., Prichard, I., & Lim, M. S. (2018). "I Aspire To Look and Feel Healthy Like The Posts Convey": Engagement with Fitness Inspiration on Social Media And Perceptions of Its Influence on Health And Wellbeing. *BMC Public Health*, Vol: 18, 1-11. <https://doi.org/10.1186/s12889-018-5930-7>
- Ramsey, K. (2021). Hot or Not? The Effects of Fitspiration Images on Body Dysmorphic Concerns.
- Scarth, M., Westlye, L. T., Havnes, I. A., & Bjørnebekk, A. (2023). Investigating anabolic-androgenic steroid dependence and muscle dysmorphia with network analysis among male weightlifters. *BMC psychiatry*, 23(1), 342. <https://doi.org/10.1186/s12888-023-04781-1>
- Schreiber, K., & Hausenblas, H. A. (2015). *The truth about exercise addiction: Understanding the dark side of thinspiration*. London: Rowman & Littlefield.
- Segar, M. L., Eccles, J. S., & Richardson, C. R. (2011). Rebranding exercise: closing the gap between values and behavior. *International journal of behavioral nutrition and physical activity*, 8, 1-14. <https://doi.org/10.1186/1479-5868-8-94>
- Segura-García, C., Ammendolia, A., Procopio, L., Papaiani, M. C., Sinopoli, F., Bianco, C., ... & Capranica, L. (2010). Body uneasiness, eating disorders, and muscle dysmorphia in individuals who overexercise. *The Journal of Strength & Conditioning Research*, 24(11), 3098-3104. <https://doi.org/10.1519/JSC.0b013e3181d0a575>
- Simpson, C. C., & Mazzeo, S. E. (2017). Skinny Is Not Enough: A Content Analysis Of Fitspiration On Pinterest. *Health Communication*, Vol: 32(5), 560-567. <https://doi.org/10.1080/10410236.2016.1140273>
- Sreshta, N., Pope, H. G., Hudson, J. I., & Kanayama, G. (2017). *Muscle dysmorphia* (pp. 81-107). New York: Oxford University Press.
- Steeves, M. (2010). *Are we all ugly ducklings when we look in the mirror?: misunderstandings and new interpretations: a discursive analysis of the idealized body within pro-anorexia websites* (Doctoral dissertation, University of Saskatchewan).
- Strong, C. J. (2021). *Body dysmorphic disorder and eating disorders: An investigation of shared etiology and a proposed transdiagnostic treatment model* (Doctoral dissertation, The Chicago School of Professional Psychology).
- Strübel, J., Leger, R., & Guan, X. (2022). Appearance and performance enhancing drug usage and body image across three age cohorts of fitness enthusiast men. *Journal of Men's Health*, 18(2). <https://doi.org/10.31083/j.jomh1802051>
- Sun, M. D., & Rieder, E. A. (2022). Psychosocial issues and body dysmorphic disorder in aesthetics: Review and debate. *Clinics in Dermatology*, 40(1), 4-10. <https://doi.org/10.1016/j.clindermatol.2021.08.008>
- Talbot, C. V., Gavin, J., Van Steen, T., & Morey, Y. (2017). A

- content analysis of thinspiration, fitspiration, and bonespiration imagery on social media. *Journal of eating disorders*, 5, 1-8. <https://doi.org/10.1186/s40337-017-0170-2>
- Thompson, J. K., & Heinberg, L. J. (1999). The media's influence on body image disturbance and eating disorders: We've reviled them, now can we rehabilitate them?. *Journal of social issues*, 55(2), 339-353. <https://doi.org/10.1111/0022-4537.00119>
- Tiggemann, M., Churches, O., Mitchell, L., & Brown, Z. (2018). Tweeting Weight Loss: A Comparison Of# Thinspiration And# Fitspiration Communities On Twitter. *Body Image*, Vol: 25, 133-138. <https://doi.org/10.1016/j.bodyim.2018.03.002>
- Trenton, A. J., & Currier, G. W. (2005). Behavioural Manifestations Of Anabolic Steroid Use. *CNS Drugs*, Vol: 19, 571-595. <https://doi.org/10.2165/00023210-200519070-00002>
- van Amsterdam, J., Opperhuizen, A., & Hartgens, F. (2010). Adverse health effects of anabolic-androgenic steroids. *Regulatory Toxicology and Pharmacology*, 57(1), 117-123. <https://doi.org/10.1016/j.yrtph.2010.02.001>
- Walker, D. C., Anderson, D. A., & Hildebrandt, T. (2009). Body checking behaviors in men. *Body image*, 6(3), 164-170. <https://doi.org/10.1016/j.bodyim.2009.05.001>
- Webb, J. B., Thomas, E. V., Rogers, C. B., Clark, V. N., Hartsell, E. N., & Putz, D. Y. (2019). Fitspo at Every Size? A comparative content analysis off# curvyfit versus# curvyvoga Instagram images. *Fat Studies*, 8(2), 154-172. <https://doi.org/10.1080/21604851.2019.1548860>