TOWARDS A NEW APPROACH: EMBODIED LEARNING TO EXPLORE BODY IMAGE

VERSO UN NUOVO APPROCCIO: EMBODIED LEARNING PER ESPLORARE L'IMMAGINE CORPOREA

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ABSTRACT
As body image mirrors one's perception of embodiment, it suggests a link between the onset of disorders - such as Body Dysmorphic Disorder (BDD) - and corporeal experiences. To explore the relationship, an embodied learning intervention is proposed. Children, aged 9 to 11, will participate in various experiences, including activities where the body plays a key role in the learning process. By examining the effects of embodied learning, this work could provide insights to help manage BDD onset.

In quanto specchio della percezione di embodiment, l'immagine corporea suggerisce un rapporto tra l'insorgenza di disturbi – come il Disturbo da Dismorfismo Corporeo (BDD) – ed esperienze corporee. Per esplorare questa relazione, viene proposto un intervento di embodied learning. Bambini, da 9 a 11 anni, parteciperanno in varie esperienze, incluse attività dove il corpo ha un ruolo chiave nell'apprendimento. Esaminando gli effetti, questo lavoro potrebbe fornire dati utili a gestire l'insorgenza di BDD.

KEYWORDS
Body Dysmorphic Disorder, Embodied Learning, Educational Intervention, Children
Disturbo da Dismorfismo Corporeo, Embodied Learning, Intervento Educativo, Bambini

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Introduction

According to Cash and Smolak's definition (Cash & Smolak, 2011) Body image (BI) represents the reflection of one's experience of embodiment. Therefore, the onset of disorders - such as body dysmorphic disorder (BDD) – resulting from a negative BI development, suggests the existence of a relationship with bodily experiences.
By delving into the complexity of embodiment, one can observe the historical development that the body construct has undergone, assuming a pivotal role within phenomenological discourse. Indeed, through their body, individuals can engage with and be influenced by the world, while simultaneously influencing it.
As a result, this engenders a perpetual cycle of interaction that takes into consideration the multidimensional essence of the body, transcending mere corporeality (Digennaro & Iannaccone, 2023a; Husserl, 1990; Merleau-Ponty, 2013). Focusing on these characteristics offers the opportunity to reduce the significant knowledge gap surrounding this psychiatric disorder and its relationship with the phenomenology of embodiment. Particularly, how and if these disorders extend beyond the realm of psychiatry, potentially uncovering contact points and a more intricate correlation with bodily experiences.
Thus, this work could create opportunities for future interventions to prevent misleading beginnings or decelerate/halt the advancement of this ailment.

1. Body image and body image development

Body image refers to an individual's perception, thoughts, and feelings about their physical appearance. This perception can be influenced by various factors, including societal standards of beauty, cultural ideals, family attitudes, peer comparisons, and personal experiences (Jiotsa et al., 2021). During childhood, the development of body image begins as children become increasingly aware of their bodies and how they compare to others. Influences such as parental attitudes, media exposure, and interactions with peers play a significant role in shaping children's perceptions of their bodies (Voelker et al., 2015). Moreover, the transition through adolescence, marked by physical changes and heightened social pressures, further intensifies the importance of body image. Adolescents may experience increased body dissatisfaction due to perceived discrepancies between their own appearance and societal standards (Choukas-Bradley et al., 2022). Body image disturbance is a multifaceted construct with various components: perceptual, cognitive-affective, and behavioural (Hosseini & Padhy, 2022). The perceptual aspect involves either an overestimation of body dimensions, such as body size and fat, or an underestimation of muscularity. The cognitive-affective component encompasses

negative thoughts, attitudes, and emotions towards one's body, including feelings of dissatisfaction, shame, or disgust. The behavioural component includes actions related to the body, such as avoidance behaviours or frequent checking, as well as excessive engagement in activities like extreme exercise or an unhealthy focus on nutrition, and efforts to alter one's appearance (Hamamoto et al., 2022). Consequently, body image disturbance is a defining characteristic of eating disorders (EDs) and body dysmorphic disorder (BDD) and is considered a risk factor for the development and perpetuation of Eds (Henn et al., 2019). Body image development is intricately influenced by interactions with the external environment, extending beyond immediate bodily appearance (Burychka et al., s.d.). Societal standards of beauty within one's culture and feedback from others, whether positive or negative, significantly shape the construction of BI (Henriques et al., 2020). Additionally, comparisons with peers, engagement in self-care, and exposure to beauty stereotypes through social media contribute to our self-perception (Jiotsa et al., 2021). BI begins to form in early childhood, a critical period where children's development significantly influences their self-perception in adolescence, impacting their social interactions, self-esteem, and sense of competence (Williams & Currie, 2000). This early establishment of attitudes toward BI has long-term implications, as children as young as age 3 internalize stereotypes about body size, leading to dissatisfaction and dietary restraint by age 5 (Damiano et al., 2015; Davison & Birch, 2002; Spiel et al., 2012). Puberty exacerbates body dissatisfaction, particularly concerning body shape in pre-adolescents and adolescents (Confalonieri et al., 2008). Research indicates that internalizing appearance ideals increases the risk of developing BI concerns, impacting early childhood development (Nichols et al., 2018). BI development differs between genders, with boys focusing on muscularity, strength, and physical performance, influenced by media representations(Hargreaves & Tiggemann, 2005), while girls are influenced by societal ideals of thinness and beauty (Papageorgiou et al., 2022). Media and peer interactions further shape girls' BI perceptions (Fischetti et al., 2019). Both genders may experience body dissatisfaction and engage in appearance-altering behaviours, albeit influenced by gender-specific societal norms (Jimenez-Morcillo & Clemente-Suárez, 2023). The etiology of body image disturbance remains uncertain. Numerous research studies provide evidence suggesting that dissatisfaction with body image can manifest long before puberty begins and may be evident in children as young as 5 to 7 years old (Tremblay & Limbos, 2009). Research findings indicate that body image distortion is not attributed to sensory impairments but is instead linked to non-sensory related factors, such as motivation, attitude, and cognitive biases. Supporting healthy BI

development involves promoting diverse body acceptance, fostering positive self-esteem, encouraging critical media thinking, and prioritizing balanced physical health and well-being (Hosseini & Padhy, 2022).

2. Body dysmorphic disorder

Body Dysmorphic Disorder (BDD) is a psychiatric disorder characterised by excessive concern regarding perceived flaws or imperfections in one's physical appearance, leading to significant levels of emotional distress and impairment in social, occupational, or other important areas of life. This disorder is often associated with a distorted body image. It can manifest through a variety of repetitive behaviours, such as excessive mirror checking, comparison with others, or resorting to invasive cosmetic procedures (Mufaddel et al., 2013).

The childhood and adolescent years represent a crucial period in the development of body image and, consequently, may be a vulnerable period for the onset of BDD. During these growth stages, young individuals are particularly sensitive to external influences, including media and social media, which can have a significant impact on their perception of their bodies (Sharp et al., 2018). The increasing ubiquity and accessibility of social media have led to heightened exposure to idealised images and unrealistic beauty standards, which can contribute to the development of insecurities regarding physical appearance and the pursuit of unattainable perfection (Aparicio-Martinez et al., 2019).

BDD is an often-severe condition that usually begins during adolescence. BDD appears to be fairly common in youth. As in adults with BDD, symptoms in children and adolescents consist of distressing or impairing preoccupation with non-existent or slight defects in physical appearance as well as repetitive behaviours (e.g. mirror checking or excessive grooming) that are performed in response to appearance concerns (Phillips et al., 2006).

Considerable knowledge has been amassed regarding the descriptive characteristics of Body Dysmorphic Disorder (BDD). The focal points of preoccupation and distress in BDD typically revolve around facial features, notably the nose, facial skin, hair, eyes, eyelids, mouth, lips, jaw, and chin. Nonetheless, the fixation can extend to any part of the body, often encompassing multiple areas. Occasionally, complaints are nonspecific, such as a general feeling of being unattractive or "not right" (Feusner et al., 2007).

In the DSM-5, Body Dysmorphic Disorder (BDD) is categorized within the section for Obsessive-Compulsive and related disorders due to similarities in phenomenology

with obsessive-compulsive disorder (OCD), as well as shared comorbidity and familial history. However, scholars argue that the repetitive and compulsive behaviour seen in OCD is a response to perceived threats rather than its defining characteristic. This observation applies to BDD as well, where behaviours are categorized as "compulsions" despite their diverse nature. The DSM-5 emphasizes repetitive behaviours as a feature of BDD, but the focus is on their form rather than a functional understanding. These behaviours include mirror checking, seeking reassurance, excessive grooming, and avoidance of social situations. While some behaviours resemble compulsions, others, like seeking cosmetic procedures, are challenging to classify as such (Phillips & Kelly, 2021).

Only a limited number of studies have directly examined the prevalence of Body Dysmorphic Disorder (BDD) among young individuals, and most have been conducted in convenience samples of students, potentially lacking representativeness. Body Dysmorphic Disorder (BDD) is an area of research that has received relatively less attention in childhood compared to other age groups. However, considering the early development of body image and potential body image disturbances during childhood, it is crucial to pre-emptively understand all influencing factors (Krebs et al., 2024). The formative years are critical for building a positive and healthy body image, thus early intervention is essential to promote and maintain a positive body image from a young age. This preventive approach could help reduce the risk of developing body image disorders and promote better mental health and well-being in children and adolescents (Guest et al., 2022).

3. Finding the Perfect Timing

Age at onset represents an important clinical feature of all disorders. Indeed, across several psychiatric disorders, early age onset is usually associated with greater symptom severity, and greater lifetime comorbidity (Bjornsson et al., 2013). However, only a few studies focused on this important construct as far as BDD is concerned. According to recent data, BDD generally has its onset during adolescence, with a mean age at disorder onset of 16-17 years, and the most common age at onset of 12-13 years (American Psychiatric Association, 2022). Although reported cases in children and adolescents suggest that the clinical features of the disorder in this age group are generally similar to those in adults, adolescents usually experience higher rates and levels of impairment in school, work, and other aspects of psychosocial functioning (Albertini & Phillips, 1999; Phillips et al., 2006). Moreover, adolescents are more likely to have delusional BDD beliefs, as well as a higher lifetime rate of suicide attempts (Bjornsson et al., 2013;

Phillips et al., 2006). Although it appears that there are no significant gender differences in prevalence, some works have suggested that BDD does not impact equally men and women (Malcolm et al., 2021). As showed in Enander et al. research (Enander et al., 2018), the prevalence of clinically significant BDD symptoms is, in fact, significantly higher in females than in males, whose prevalence increases with age. Examining the clinical characteristics of 172 children and adolescents with BDD, Rautio et al. (Rautio et al., 2022) reported that girls also show significantly more severe BDD symptoms, depression, suicidal thoughts, and self-harm than boys. Additionally, compared to younger participants (14 years old or younger), older participants showed significantly more severe compulsions and were more likely to report a desire for conducting cosmetic procedures.

More research, however, is needed specifically focusing on which one is the critical period to both prevent BDD onset or halt the disorder progression.

Indeed, although adolescence has been targeted as the most likely developmental phase for the occurrence of body dissatisfaction, several works have found that the rapid transition from childhood to adolescence could actually anticipate such dissatisfaction, as well as the onset of body image concerns, drive for thinness, and disordered eating behaviours, especially among females (Digennaro & Iannaccone, 2023b; Hughes et al., 2018). Among the factors which are causing the acceleration of this transition, the rapid and universal growth of social media platforms can be found, resulting into the progressive blurring of the distinction between reality and virtuality (Floridi, 2015).

4. Toward the New Approach

Given the intricate nature of the relationship between BDD and embodiment, there arises the necessity for an innovative approach to unveil its characteristics. Drawing from educational practices that have gained prominence in recent decades, this approach focuses on leveraging body's capacity to interact with the environment and acquire knowledge. Known as embodied learning, this framework emphasizes the active involvement of the body in cognitive processes, shifting away from Descartes' mind-body dualism.

Emphasizing a multimodal and playful approach, embodied learning underscores the importance of bodily engagement in cognitive tasks. It suggest that learning is enhanced when the body, alongside the mind, is actively involved, facilitating comprehension through bodily experiences and interactions with the surroundings (Kosmas et al., 2019). Recent studies, including a review by Aartun et al. (Aartun et al., 2022), have highlighted the efficacy of embodied learning in deepening

understanding of embodiment and elucidating concepts such as gender, health, and body image, as well as aspects of physical literacy (Whitehead, 2019).
Particularly, Halliwell et al. (Halliwell et al., 2018) has evaluated the impact of a brief yoga intervention on both preadolescents' body image and mood; Yoga, indeed, represents an embodying activity that promotes body awareness, body connection, body responsiveness, and appreciation of body functionality. As a result, participants (aged 9 to 11) reported enhancements in body appreciation, body esteem, and positive mood, along with reductions in body surveillance.
Thus, the outlined approach, founded on principles of embodiment, serves as a significant instrument for advancing the holistic and multidimensional development of body via its pupil-centered and inductive methodology.

5. Discussion

As stated above, the onset of psychiatric disorders such as BDD, often occurs during adolescence, a critical period marked by significant physical, emotional, and social changes. Therefore, the age at onset represents a crucial element as it correlates with the severity of symptoms and lifetime comorbidity across various psychiatric conditions (Bjornsson et al., 2013).
Finding the perfect timing to step in, however, is not a simple task considering the significant changes society is going through. For instance, the development and widespread use of information and communication technologies (ICTs) are having a significant impact on individuals' ability to interact and adapt to society.
Indeed, Floridi (Floridi, 2015), in his work "*The Onlife Manifesto*", talks about human beings living in a Hyperconnected Era, resulting into a complex of fear and rejection of the unknown. The progressive blurring of the distinction between reality and virtuality - which is boosting society's dynamism - also affects children as they seem to be active users of social media (McCrae et al., 2017), generally ignoring age limits imposed by most of the platforms; residing in Floridi's "*Onlife*" society, children are constantly immersed in social media and bombarded with rigid beauty standards.
Thus, an early intervention represents the right choice to counter both the rapid transition from childhood to adolescence and the occurrence of body dissatisfaction (Hughes et al., 2018), nurturing the development of a positive BI. Given these circumstances, embodied learning offers a promising framework to explore the relationship between BDD and embodiment.
By emphasizing the active involvement of the body in multimodal and playful activities, this approach could offer participants the opportunity to explore and

understand the intricate and multidimensional nature of body, along with an increased acceptance and awareness of their own bodies.
Moreover, this and future interventions must be carefully crafted to prioritize inclusivity and flexibility, ensuring they are tailored to meet the diverse needs and preferences of participants; this could be achieved through a pupil-centered and inductive approach (Aartun et al., 2022).

Conclusions

In conclusion, this work underscores the importance and potential of embodied learning in fostering both learning outcomes and positive body image development. Particularly, it sheds light on the intersection of mental disorders, traditionally confined to the psychiatric realm, with the embodied experience of the world. This comprehensive approach could offer valuable insights into the complex relationship between BI and embodiment, contributing to a deeper understanding of these phenomena.

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