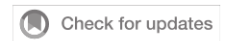


Are There Common Pathways for Eating Disorders and Female Sexual Dysfunction?



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Key Words: Eating Disorders; Female Sexual Dysfunction; Childhood Trauma; Body Image

INTRODUCTION

Sexuality and sexual dysfunctions are too often considered taboos in the clinical management of eating disorders.¹ Many physicians still avoid speaking about sex with their patients because of shame or for the general belief that sexuality and sexual dysfunctions should be considered as secondary with respect to the other severe complications of eating disorders, including medical (eg, hydroelectrolytic impairment or cardiocirculatory accidents) and psychological ones (eg, risk of comorbid depression or suicide).¹ However, empirical evidence suggests that assessing the sexual health of patients with eating disorders can be useful from different perspectives, assuming a clinical meaning beyond the concept of comorbidity.² Indeed, the evaluation of sexual functioning might provide information regarding psychopathological features, the recovery process and the etiopathogenetic and developmental trajectory of these disorders.

SEXUALITY AS A COMPASS IN THE HETEROGENEITY OF EATING DISORDERS

It is well-known that, besides diagnostic categories, eating disorders are heterogeneous entities, with patients sharing the same DSM-5 diagnosis showing very different combinations of psychopathological characteristics and personality traits.³ Among these, a leading role is played by the over-control trait, which is related to perfectionism, asceticism and obsessive-compulsive symptomatology, and impulsivity, which is often the consequence of emotion dysregulation.³ Different behavioural profiles, such as restricting vs bingeing/purging, have been associated with these different traits, suggesting the prevalence of the area of control vs impulsivity, respectively.⁴ However, the inadequacy of this behavioural characterization is testified by the high prevalence of diagnostic cross-over between diagnoses, with different eating patterns alternating over the course of these diseases.⁵ The

integration of the investigation of sexuality in the clinical assessment of patients with eating disorders might allow overcoming this difficulty in the characterization of their different psychopathological profiles. Indeed, the link between sexual dysfunctions, especially low sexual drive, and obsessive-compulsive traits or the need to remain in control is widely recognized.⁶ Moreover, several areas of perfectionism, including sexual perfectionism, are associated with negative aspects of sexuality.⁷ On the other side, it should be considered that sexual problems in patients with eating disorders should not be viewed only in terms of “dys” or “hypo” function but also taking into account the issue of risky sexual behaviours and hypersexuality. Several studies in this field showed a relationship between these sexual attitudes, emotion dysregulation and impulsivity.^{2,8} Therefore, assessing these sexual behaviours might shed light on the presence of high levels of emotion dysregulation or impulsivity.

WHERE SEXUAL DISTURBANCES AND EATING DISORDERS COME FROM: UNDERSTANDING THE ETIOPATHOGENESIS OF BOTH CONDITIONS

Assessing sexuality allows clinicians to obtain useful information regarding the developmental trajectory of the eating disorder. First of all, an accurate evaluation of sexuality might reveal that some patients report dissociative experiences during sexual activity or sexual stimulation, as well as the phenomenon of spectating, consisting of the act of observing oneself as a third person when involved in sexual activities. The existing literature has widely demonstrated the relationship between these phenomena and a history of sexual abuse.⁹ Therefore, an accurate assessment of these features might provide hints regarding the traumatic etiopathogenesis of the eating disorder.² Furthermore, risky sexual behaviours, including promiscuity or hypersexual behaviours, might suggest the presence of previous traumatic sexual experiences connected with the onset of the eating disorder.^{8,10} Childhood trauma has been also associated with anxious attachment style,¹¹ which is characterized by an excessive need for approval by the other and a deep fear of interpersonal rejection. Patients with a history of childhood traumatic experiences or with anxious attachment have been reported to engage in risky sexual behaviours as a strategy to regulate negative emotions and to obtain

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interpersonal closeness.^{8,10} Therefore, assessing sexuality might represent a valid strategy to plan adequate treatment interventions. Indeed, patients with childhood traumatic experiences and attachment insecurity often show a worse response to standard treatments,^{5,12} requiring clinicians to focus their psychological intervention not just on eating disorder psychopathology, but also (and especially) on emotion regulation strategies and dysfunctional interpersonal issues. Finally, being aware of potentially risky sexual behaviours is crucial to prevent the phenomenon of revictimization: the results of a perfectly conducted psychotherapy focused on the interruption of pathological eating behaviours might be annihilated if the patient undergoes a renewed experience of abuse at some point in life.

Figure 1 shows a graphic representation of the common pathways that connect the areas of emotion dysregulation/impulsivity and perfectionism/over-control both with eating disorder-specific psychopathology and with different types of sexual impairment (hypersexuality and sexual dysfunctions, respectively). Moreover, Figure 1 underlines the fundamental role of a history of childhood trauma in determining the “dysregulated” phenotype of both eating disorders and sexual behaviours.

SEXUALITY PROVIDES INFORMATION ON THE SEVERITY AND PROGNOSIS OF EATING DISORDERS

Clinical experience and empirical evidence seem to demonstrate that the evaluation of sexuality is also fundamental to obtain a more precise characterization of the severity and

prognosis of eating disorders.^{2,13} Indeed, a more severe compromise of sexual health, both in terms of sexual dysfunctions and risky sexual behaviours, may represent the clue of a more severe eating disorder.^{1,2} Considering the strong association between all the domains of sexual functioning with eating disorder-specific psychopathology, especially body uneasiness, scholars have developed a model of maintenance focused on body image disturbance as a common feature between eating disorder-specific and sexual-related symptoms.² A person with severe body image distortion might show severe dietary restraint, often associated with anorgasmia or low sexual desire.^{2,14} A psychological intervention focused on body image disturbance might improve both pathological eating behaviours and sexual dysfunction.¹³ Moreover, considering the pivotal role of interpersonal features in determining healthy sexuality, a dysfunctional pattern of sexual behaviours may represent the epiphenomenon of a severely damaged capacity to create intimate bonds with the other.² Accordingly, previous studies demonstrated that a worse sexual functioning at baseline is associated with a worse long-term prognosis of the eating disorder.¹³

Furthermore, the evaluation of sexuality may provide important information regarding another core aspect of eating disorder psychopathology: the impairment of reward mechanisms. Both sexual and eating behaviours are associated with the stimulation of dopaminergic circuits.^{15,16} In particular, starvation/bingeing-purging behaviours were conceptualized as reward-driven by recent literature, and an alteration of dopaminergic circuits was demonstrated to be involved in the maintenance of these non-homeostatic conducts in patients with eating disorders.¹⁶ As a

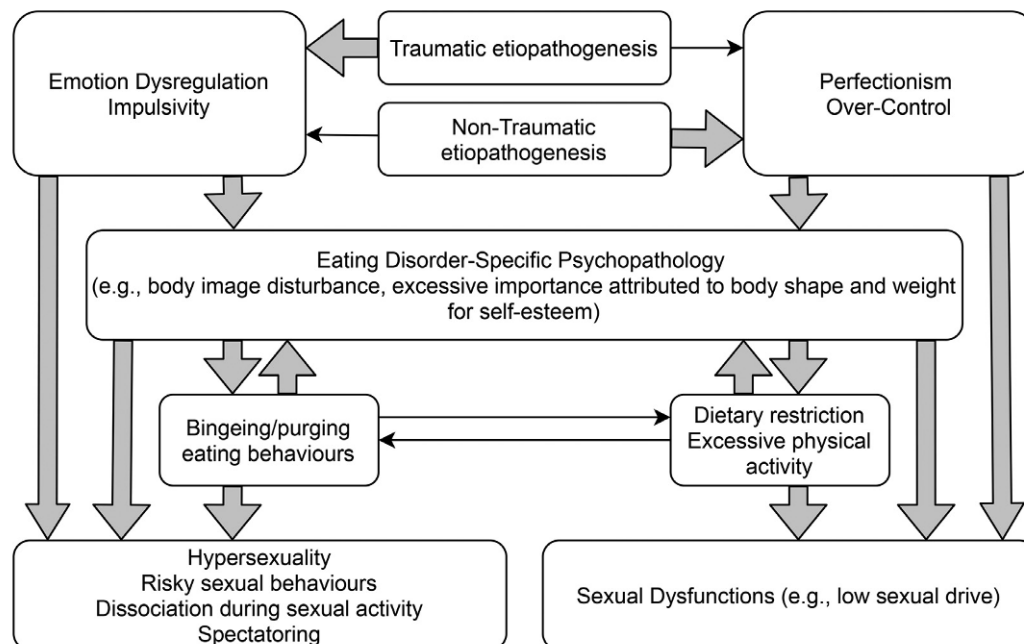


Figure 1. Graphic representation of the common pathways between eating disorder-specific psychopathology, pathological eating behaviours and sexual impairment. The left side of the figure illustrates the role of childhood traumatic experiences in the determination of emotion dysregulation, bingeing/purging eating behaviours, hypersexuality and dissociation during sexual intercourse. The right side of the figure highlights the relationship between perfectionism/over-control, restrictive eating behaviours and sexual dysfunctions.

consequence of the impairment of dopaminergic systems, pathological eating behaviours (eg, dietary restraint, excessive physical activity) and food-related cues become the only salient stimuli for these patients, with usually rewarding goals losing their salience.¹⁶ Therefore, the severity of the compromise of sexuality might provide a hint of the extent of the damage of reward systems in patients with eating disorders.

Finally, sexual dysfunctions are associated with a great level of distress, contributing to mental pain, depressive symptoms and relational isolation in these patients, all features that are notoriously associated with the maintenance of the eating disorder itself.¹⁷ Thus, the investigation of sexuality allows a more profound evaluation of the overall compromise of functioning of these patients, which is of primary importance to provide adequate therapeutic strategies.

HEALTHY SEXUALITY AS A MARKER OF RECOVERY IN PATIENTS WITH EATING DISORDERS

The diagnostic criteria proposed by DSM-5 for the definition of recovery from an eating disorder do not include the assessment of sexual health.¹⁸ However, clinical observations and preliminary studies suggest that the evaluation of sexual functioning may provide precious information to understand whether a specific patient recovered from the eating disorder or not.^{2,13} According to the most advanced models of maintenance of eating disorders, the disappearance of pathological eating behaviours represents just the first step in the healing process, and only individuals who are both cognitively and behaviourally recovered should be considered less likely to report relapses in the short term.¹⁹ Several studies demonstrated that body image disturbances may be fundamental to distinguish between partially and fully recovered individuals, and that a healthier relationship with one's own body may be the final hurdle in the recovery process.¹⁹ Considering the deep association between body uneasiness and sexual dysfunctions, the recovery of healthy sexuality might represent a marker of the restoration of a healthier relationship with one's body image.^{2,13} Moreover, healthy sexual functioning implies the recovery of a renewed capacity to create intimate bonds and to experience one's own body without being frightened by strong emotions and by the other's judgement on body shape and weight. Finally, the recovery of healthy sexuality might suggest that a physiological hormonal pattern is restored, which is associated not only with a healthy body weight but also with a balanced body composition.¹⁴

THE OTHER SIDE OF THE COIN: EATING DISORDER PSYCHOPATHOLOGY IN PATIENTS WITH SEXUAL DYSFUNCTIONS

A growing body of literature demonstrated the importance of assessing sexuality in patients with eating disorders. On the other

side, recent observations confirmed that evaluating eating disorder psychopathology and pathological eating behaviours is also important in the clinics for female sexual dysfunctions.²⁰ Recent findings showed that sexual dysfunctions, including genital pain, are deeply associated with an impaired relationship with one's own body (eg, body uneasiness, body image distortion) as well as with disordered eating (eg, restrictive eating, bulimic behaviours), not just in patients with eating disorders, as previously mentioned, but also in the general population.²¹ Therefore, it is of primary importance to evaluate the area of eating disorder symptoms when a patient reports sexual distress, considering that these symptoms may require a specialist assessment to provide the most appropriate therapeutic strategy. If sexual distress is maintained by eating disorder-related symptoms, the recovery of healthy sexuality necessarily requires work to address these features: not doing so would lead to an unsatisfactory sexual outcome. Moreover, it is widely recognized that while overt eating disorders are not so frequent conditions, with an overall prevalence of about 5% in women,²² subthreshold eating disorders are far more represented.²³ These "covert" eating disorders are associated with distress and suffering and are at high risk to evolve into overt eating disorders. The precocious identification of these subthreshold disturbances, as it may happen in a clinic for sexual dysfunctions, would allow to provide a timely treatment, with a consequent improvement of the long-term prognosis of the eating disorder.

CONCLUSIONS

In conclusion, it is increasingly evident that there are common pathways for female sexual dysfunctions and eating disorder psychopathology. In particular, an impaired relationship with one's own body, interpersonal difficulties and the compromise of reward systems represent the common stem of these different conditions. Therefore, it is of primary importance in the clinical setting not to neglect the evaluation of sexuality in patients with eating disorders: this would allow a better characterization of the psychopathological characteristics, etiopathogenesis, severity and prognosis of the eating disorder. Moreover, the recovery of healthy sexuality represents an important marker to define remission from the eating disorder. On the other side, the assessment of eating disorder psychopathology in patients who seek help for sexual dysfunctions would allow not only to improve the patient's sexual outcome, but also to identify subthreshold eating disorders early, possibly preventing the evolution into an overt eating disorder and improving the long-term prognosis.

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REFERENCES

- Castellini G, Lelli L, Ricca V, et al. Sexuality in eating disorders patients: etiological factors, sexual dysfunction and identity issues. A systematic review. *Horm Mol Biol Clin Investig* 2016;25:71–90.
- Castellini G, Rossi E, Ricca V. The relationship between eating disorder psychopathology and sexuality: etiological factors and implications for treatment. *Curr Opin Psychiatry* 2020;33:554–561.
- Soidla K, Akkermann K. Perfectionism and impulsivity based risk profiles in eating disorders. *Int J Eat Disord* 2020;53:1108–1119.
- Waxman SE. A systematic review of impulsivity in eating disorders. *Eur Eat Disord Rev* 2009;17:408–425.
- Castellini G, Lelli L, Cassioli E, et al. Different outcomes, psychopathological features, and comorbidities in patients with eating disorders reporting childhood abuse: a 3-year follow-up study. *Eur Eat Disord Rev* 2018;26:217–229.
- Koolwal A, Agarwal S, Manohar S, et al. Obsessive–compulsive disorder and sexuality: a narrative review. *J Psychosexual Heal* 2020;2:37–43.
- Stoeber J, Harvey LN, Almeida I, et al. Multidimensional sexual perfectionism. *Arch Sex Behav* 2013;42:1593–1604.
- Castellini G, D’Anna G, Rossi E, et al. Dysregulated sexuality in women with eating disorders: the role of childhood traumatic experiences. *J Sex Marital Ther* 2020;46:793–806.
- Bird ER, Seehuus M, Clifton J, et al. Dissociation during sex and sexual arousal in women with and without a history of childhood sexual abuse. *Arch Sex Behav* 2014;43:953–964.
- Kim HM, Miller LC. Are insecure attachment styles related to risky sexual behavior? A meta-analysis. *Heal Psychol* 2020;39:46–57.
- Erozkan A. the link between types of attachment and childhood trauma. *Univers J Educ Res* 2016;4:1071–1079.
- Tasca GA. Attachment and eating disorders: a research update. *Curr Opin Psychol* 2019;25:59–64.
- Castellini G, Lelli L, Corsi E, et al. Role of sexuality in the outcome of anorexia nervosa and bulimia nervosa: a 3-year follow-up study. *Psychother Psychosom* 2017;86:376–378.
- Castellini G, Lelli L, Cassioli E, et al. Relationships between eating disorder psychopathology, sexual hormones and sexual behaviours. *Mol Cell Endocrinol* 2019;497:110429.
- Schultz W. Neuronal reward and decision signals: from theories to data. *Physiol Rev* 2015;95:853.
- Monteleone AM, Castellini G, Volpe U, et al. Neuroendocrinology and brain imaging of reward in eating disorders: a possible key to the treatment of anorexia nervosa and bulimia nervosa. *Prog Neuro-Psychopharmacology Biol Psychiatry* 2018;80:132–142.
- Fairburn CG. Eating disorders: the transdiagnostic view and the cognitive behavioral theory. Cognitive behavior therapy and eating disorders. New York: Guildford Press; 2008.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. Fifth edition Arlington, VA: American Psychiatric Association; 2013.
- Bardone-Cone AM, Alvarez A, Gorlick J, et al. Longitudinal follow-up of a comprehensive operationalization of eating disorder recovery: concurrent and predictive validity. *Int J Eat Disord* 2019;52:1052–1057.
- Maseroli E, Scavello I, Campone B, et al. Psychosexual correlates of unwanted sexual experiences in women consulting for female sexual dysfunction according to their timing across the life span. *J Sex Med* 2018;15:1739–1751.
- Dunkley CR, Gorzalka BB, Brotto LA. Associations between sexual function and disordered eating among undergraduate women: an emphasis on sexual pain and distress. *J Sex Marital Ther* 2020;46:18–34.
- Galmiche M, Déchelotte P, Lambert G, et al. Prevalence of eating disorders over the 2000–2018 period: a systematic literature review. *Am J Clin Nutr* 2019;109.
- Qian J, Wu Y, Liu F, et al. An update on the prevalence of eating disorders in the general population: a systematic review and meta-analysis. *Eat Weight Disord - Stud Anorexia, Bulim Obes* 2021, 2021;1:1–14.