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Aggressiveness, anger, and hostility in eating disorders

Paola Miotto[a], Barbara Pollini[a], Antonietta Restaneo[a], Gerardo Favaretto[b], Antonio Preti[c,*]

[a]*Eating Disorders Unit, Department of Mental Health, ULSS 7, Conegliano, TV, Italy*
[b]*Chair, Department of Mental Health, ULSS 9, Treviso, TV, Italy*
[c]*Genneruxi Medical Center, Cagliari, Italy*

Abstract

Objective: Despite evidence of a link between the behavioral and cognitive dimensions of aggressiveness and eating disorders, only few studies have tested this relation empirically.
Methods: A total of 112 female patients with anorexia nervosa (n = 61) or bulimia nervosa (n = 51) and 631 young girls attending 7 high schools in the same health district as the patients (northeast Italy) were invited to fill in a set of self-report instruments including the Eating Attitudes Test, the Bulimic Investigatory Test of Edinburgh, the Body Attitudes Test, and the Buss-Perry Aggression Questionnaire (AQ).
Results: In both healthy controls and patients, scores on the measures of eating disorder symptoms were positively related to the scores on the AQ: the strength of the association did not differ between healthy controls and patients. However, patients diagnosed with eating disorders were not more likely to disclose a propensity to aggression than the healthy controls drawn from the community: patients with anorexia nervosa scored lower than controls on the physical aggression and on the verbal aggression subscales of the AQ ($P < .05$). On the other hand, patients with bulimia nervosa scored higher than controls on the anger subscale of the AQ ($P < .05$) but did not differ from them on the other subscales of the questionnaire.
Conclusions: The results confirm the higher propensity to anger in patients with bulimia nervosa; in patients with anorexia nervosa, difficulties in expressing anger and outward-directed aggressiveness can be a prevailing feature. The younger age of controls and exclusive reliance on self-report measures might have concealed some differences between patients and community subjects.

1. Introduction

Higher levels of aggressiveness, hostility, and anger were observed in patients with eating disorders [1-4]. Anger and hostility might be personality traits that predate the onset of the disorder and correlate with impulse dyscontrol, a feature of bulimic psychopathology [5,6]. In addition, hostile feelings may associate to early, unresolved, severe negative experiences, such as physical and sexual abuse, which occur more often in patients affected by these disorders than in controls [7-10]. On the other hand, the higher propensity to aggression sometimes observed in patients with anorexia and bulimia nervosa could be secondary to symptoms, that is, a consequence of the unremitting cycle of binge and dieting that causes abnormal levels of serotonin [11,12], where serotonin is known to be involved in the control of impulses and aggression [13]. Depression, too, often accompanies the course of eating disorders [14] and can lead to both covert and overt hostility ending in greater propensity to aggression [1,4]. One study carried out on a community sample of twins found that the association between conduct disorder and bulimia nervosa was entirely mediated by the presence of other co-occurring disorders [15]. Hostile feelings could also result from conflicts arising in the patient's family as a consequence of disordered eating behavior combined with the need for autonomy, which these patients perceive in an ambivalent way [1,16].

The study of aggressiveness in patients with eating disorders and, in particular, of whether their pattern of aggressiveness-related instances really differs from subjects without eating disorders, has relevance on both the therapeutic and the prognostic side. People with abnormal eating patterns are likely to cause conflicting reactions in their relatives, and higher levels of emotionality are often reported in the families of patients with eating disorders, a factor that might complicate treatment [17]. Propensity to

* Corresponding author. Tel.: +39 70 480922.
E-mail address: apreti@tin.it (A. Preti).

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aggression also reflects, partially, the levels of aggressiveness perceived by the subject in the environment: patients with anorexia nervosa record a better treatment outcome when the levels of overtly expressed aggressiveness, in the form of harsh verbal criticism or hostility, of their relatives are low [16]. Hostility and aggressiveness may interfere with treatment adherence: people who are likely to report feelings of hostility and aggressiveness have also a stronger tendency to neglect the physician's advice, showing a lower compliance with treatment [18]. High levels of dropout are reported for patients with eating disorders [19,20], and specifically addressing the patients' hostile feelings might improve treatment adherence.

Hostility, anger, and aggressiveness may also play a role in the worst outcomes of these disorders—from self-harming behaviors to suicide [21,22]. In fact, most evidence on higher aggressiveness among patients with eating disorders concerns suicidal and/or self-injury behaviors [4,23-25], under the assumption that self-directed aggression is a marker of lifetime propensity to violent outburst and aggression towards the others, as in other disorders [26]. Besides suicide, the most aggressive subgroup of patients could be exposed to an enhanced risk of deviant behavior—from stealing and kleptomania to sexual promiscuity and substance abuse [5,27,28], both as a result of their dysfunctional aggressiveness and as a way to calm down their inner troubles.

1.1. Problem in the measurement of aggressiveness

A problem in the study of aggressiveness is the lack of a clear and agreed definition of what aggressiveness exactly is [29-31]. The intention to harm someone is seen as a necessary step in aggression; nevertheless, some instances of aggression occur when the ultimate goal of the action is instrumental, that is, it serves some profit-based goals (obtaining an advantage) or some other aims (robbery), while harming the others is secondary to the main objective; in other forms of aggression, instead, the intention to harm someone is primary and is raised by some sort of emotionally driven dyscontrol of impulses [32-34]. This latter form of aggression, also called impulsive, hostile, or affective-driven aggression [32-34], is conceived as maladaptive and is a source of conflict between the subject and his/her immediate social network [16].

Many studies investigating aggressiveness in psychiatric patients did not use validated measures of aggression, or they used an indirect proxy, such as the level of anger that is involved in the expression of aggression but is not a requisite feature in all forms of aggressiveness [29]. In fact, aggressiveness may reveal itself across a wide range of behaviors and attitudes, including the direct displaying of physical and verbal aggression, hostile attitudes towards the others, covert manipulative attempts to devalue the others and exclude them from the group, and so on.

The use of self-report measures can allow to investigate large samples of subjects better than by observational measures, these latter being expensive, time-consuming, and often focused on rare events, which are therefore hardly typical of the subject [29]. Moreover, self-report measures often focus on softer manifestations of aggressiveness, thus allowing greater disclosing of socially disapproved behaviors such as aggression. One of the most used self-report measures of aggressiveness is the Aggression Questionnaire (AQ) developed by Buss and Perry [35]. The AQ is a 29-item, self-report instrument derived from a longer questionnaire, the Buss-Durkee Hostile Inventory [36], and it is one of the most useful instruments to assess aggression, anger, and hostility concurrently [37-39]. The AQ was designed to measure four dispositional subtraits of aggression, with physical and verbal aggression representing the instrumental or motor component of behavior, anger representing the affective or emotional component of behavior, and hostility representing its cognitive component. Hostility is conceived as a negative evaluation of the others' intentions and reasons in the belief that the others are potentially harmful, whereas anger is an emotion signaling awareness of severe and unfair violation of the personal domain: they are both thought to contribute specifically to the displaying of impulsive, affective-driven, dysfunctional aggression [30]. According to Buss and Perry, anger might work as a bridge connecting the cognitive (hostility) and the instrumental (verbal and physical aggression) components of aggression [35].

Aggressiveness also is linked to suicidal behavior. People with a higher level of expressed aggression and hostility have a greater risk of dying by suicide and other violent causes [40]. Among adolescent suicide attempters, higher familial load for suicide attempt is associated with higher ratings of aggression in the probands [41]. In general, suicide attempters score significantly higher for lifetime aggression and impulsivity than nonattempters with the same psychiatric illness [42]. Many studies, indeed, support the notion that other-directed aggression and suicidal acts are closely related and under the influence of abnormal functioning in the serotonergic system [43,44], the same system which is affected by abnormal eating [11,12]. In patients with a history of both suicide risk and impulsive aggression, psychometric measures of aggression were found to have a negative correlation with measures of the serotonergic function: the lower the serotonergic function, the higher is the tendency to aggressive acts and the risk of suicide [45]. Because of these links, self-directed aggression has been conceived as a marker of lifetime propensity to violent outburst and aggression towards the others [26], although self-directed aggressive behaviors are different in nature from those directed towards the others.

1.2. Eating disorders and aggressiveness: the evidence so far

Studies in both clinical and community samples found aggressiveness to be specifically related to suicidal behavior in people with eating disorders [22,46].