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Research Article

Analysis of Alimentary Behavior and Self-perception in a Cross-section of 21 Adolescents Diagnosed as Suffering from Anorexia Nervosa

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Abstract

Introduction: Data from research conducted over the past twenty years agree on the relationship between eating and emotional disorders. This work aims to offer a contribution to the understanding of some of the psychological factors involved in the onset of eating disorders, with particular emphasis on "anorexia nervosa" in adolescents through the introduction of the Pisa Survey for Eating Disorder [1], a tool capable of probing the behavioral and perceptive aspects related to body image, and collect information on eating habits, which can be more or less dysfunctional.

Methods: The results obtained by 21 female adolescents who were diagnosed as suffering from anorexia nervosa were examined. The age of the sample is in a range between 14.1 and 23.1 years. The participants completed the PSED.

Conclusion: The data collected through the self-evaluation questionnaire made it possible to highlight and discriminate between behavioral components in interpersonal relationships (affectionate, sexual, and social), in eating habits (dieting, bingeing and laxative use), in physical activities (type and frequency) and also delineate the characteristics of self-awareness (relationship with one's own body, enjoyment levels) in adolescents with serious alimentary disturbances.

The results, albeit preliminary, confirm what is present in the literature on the relationship between eating and emotional disorders. In fact, it was found that mood swings may depend on the ability to control one's body weight and keep it within desired limits. The tendency to engage in obsessive behaviors focused on weight control through diet, physical activity, compensatory behaviors was also confirmed. The fundamental role played by interpersonal relationships within this category of patients is also well described.

Finally, this preliminary study highlights the discriminatory capacity of the PSED which proves to be a simple, economical and useful self-assessment tool.

Keywords: Eating Disorders; Anorexia Nervosa; Psychological Assessment; Emotional and Affective Disorders

Introduction

Anorexia nervosa, already reported by Richard Morton in 1689 as a disease attributable to "nervous consumption", made its appearance on the clinical scene in 1873 through William Whitney Gull, an eminent physician working at Guy's Hospital in London. He wrote an article entirely devoted to the disorder, defining it as "apepsia hysterica" or "anorexia nervosa", thereby abandoning the hypothesis that it is caused by a neurological dysfunction in favor of the mind as being the source of the trouble [2,3].

In the area of cognitive and behavioral psychology, eating disorders are characterized by a vague and ill-defined awareness of the self and the absolute need to receive the approbation and recognition on the part of those who are held to be important and by the equally intense fear that such approbation and recognition will not be forthcoming [4-8].

The main characteristic from which the development of abnormal alimentary behavior originates is a distorted perception of the body [4,9-12].

A timely identification of some of the more salient traits that can be traced back to this configuration can enable the targeting, on an ever greater scale, from the standpoint of early diagnoses, whether epidemiological, preventive or therapeutic and rehabilitative, of the procedures to be applied [4,5,8,11,13-15].

This paper proposes to offer a contribution to the understanding of some of the psychological factors involved in the insurgence of alimentary syndromes, with particular emphasis on "anorexia nervosa" in adolescence via the introduction of a new diagnostic tool, the Pisa Survey for Eating Disorder [1], a tool able to probing the behavioral and perceptual aspects relating to body image, as well as collecting information about eating habits, which can be more or less dysfunctional (see appendix 1).

Materials and method

The cross-section examined is made up of 21 female adolescents whose age averages out to 17.8 (±2.2) with a range from 14.1 to 23.1 and who were diagnosed as suffering from anorexia nervosa (DMS-5)[1]. The average BMI rating was found to be below the second percentile, with body weights and heights between 35 kg to 47 kg and 163 cm to 172 cm.

While conducting a series of psycho-diagnostic tests, PSED questionnaires were handed out serving to inquire into the behavioral aspects and levels of self-awareness inherent in syndromes of the type under consideration.

This questionnaire is made up of 41 items, namely:

- Statements to be confirmed or denied (yes/no);
- Questions with two or more choices;
- Attribution ratings regarding specific values such as frequency, enjoyment and intensity levels relegated to the following 4 areas:
    - Interpersonal relationships (emotional relationship, sexual relationship, social contacts);
    - Body image (relationship with one's body, level of satisfaction, sectoral and global perception of it);
    - Dietary behavior (diet, binge eating, vomiting and use of laxatives);
    - Physical activity (type and frequency of activities carried out).

Results

The item by item results showed that with regard to.

Interpersonal relationships

Samples proved to be homogeneous as regards the civil and professional status, inasmuch as all the examinees are unmarried and live with their families together with their parents and are students in a secondary senior high school or university.

68% reports a stable emotional relationship, while only 50% were prepared to say that the relationship was positive, ranging from very good to fair and, of these, only 33% stated that they were having sexual relations on a more or less regular basis. On the other hand, those who were not having or had never had such relations, attributed the cause to, quote: "a feeling of annoyance", "it wasn't the right person", "absence of desire".

As for social contacts, 78% said that they had solid friendships, 47% of which were defined as being "very close".

[1] "Restriction in calorie intake in relation to needs, leading to significantly low body weight in the context of age, gender, development trajectory and physical health. Although underweight, great fear of gaining weight or becoming obese. Alteration of the way the individual experiences the weight or shape of his body, excessive influence of weight or body shape on self-esteem levels or persistent lack of recognition of the severity of the current underweight condition".

The people looked upon as being confidants were, in the order of their importance: the "bosom friend", the mother, the father, the boyfriend.

Body image

The pertinent aesthetic judgements in this regard showed decidedly negative overtones. In fact, while 44% declared themselves to be at least satisfied, for the remaining 58% "ugly" or "downright awful" were the most common attributes. This is then confirmed by subsequent items concerning the level of enjoyment when referring to certain body parts, where the level of satisfaction drops to 28% giving way to 72% showing disgruntlement or outright disgust for most areas of the body with the exception of parts of the face and the breasts. (With regard to the latter, it is worthwhile pointing out that they were practically non-existent). As for self-awareness only 26% felt that they should put on weight while the remaining 72% wanted to slim down even more.

Eating habits

The entire group was found to have had weight problems, 72% in the period between 13 and 18 years, 16% after 18 and only 11% between 6 and 12 years of age.

62% stated that they had followed a diet (39% before they were 14 and for the most part unsuccessfully) for the purpose of not only becoming slimmer (55%), but also more attractive (17%) or to look like someone else (5.5%), while only 11% did so on the advice of their doctor. At this time 50% are still dieting. The most acceptable methods are considered to be a reduction of the daily intake of calories in the form of carbohydrates and fats with a concomitant reduction of helpings, while the use of medicines or other substances to deaden the appetite is only sporadic.

Looking into the spectrum of abnormal alimentary behavior, we find that 33% state that they eat a large amount of food outside the main meals and 55% eat hand to mouth. Sixty-one percent are inclined to binge after which 44% are subject to vomiting. Sixteen and a half percent regularly take laxatives, while another 16.5% use them only after a binge. These binges, which may vary from between 5 minutes to more than an hour or so, occur in 71% of the cases, when the subjects are alone. Eighty-one percent of such episodes take place in the home (mainly in the kitchen) and 19% elsewhere (most of all while on the street or in a bus or train) and are rife throughout the entire group in an interval extending from the early hours of the afternoon to the evening with a high point in the late afternoon. Among the drinks preferred are milk, coffee, water and tonics, while food centers around pasta, fruit, cheese and yogurt, with cookies, cakes, ice-cream, chocolate, Nutella, etc. as dessert. As for the more cognitive symptoms experienced prior to bingeing, the subjects said that they felt anxious, depressed, nervous, angry and confused within a range varying between "somewhat" and "very" and describe themselves as being "not at all" calm, content and at their ease. Once the eating spree was over, anxiety, depression, nervous irritability, confusion and anger increased both from the standpoint of the frequency of choice and evaluation intensity, accompanied by feelings of solitude, disgust and hopelessness.

Episodes of vomiting experienced by half of the subjects, occurred after both normal meals and binges and are highlighted by the time that elapsed between ingestion and expulsion. In fact, if vomiting takes place indifferently from between 5 minutes to more than an hour, after a binge it is provoked, for the most part either mechanically or by drinking some sort of beverage, within the first 15 minutes. After such episodes, the feelings experienced, ranging between "very" and "intensely", are represented by adjectives such as disillusioned, calm, empty, confused, alone, guilty, frustrated and infantile, but also, calm, content, at ease and liberated. On the other hand, "not at all" is qualified by nervous, anxious, hostile and full.

The use of laxatives is found in 62% of the subjects who, before they are taken, feel depressed, hopeless, frustrated, hostile, disgusted, full of guilt at a scale of intensity ranging from "a little" to "intensely". Even after use, there is a prevailing sense of guilt and then delusion together with the sensation of "not being at all" nervous, thus confirming the conciliatory effects of the ritual.

Physical activity

The preferred activity of this type is dancing together with gymnastics followed by swimming, jogging and bicycling.

The frequency is from 2 to 3 times a week, with the exception of dancing which takes place on a daily basis and jogging which may be done several times during the day.

Physical activity is described as being paroxysmic as a means of "consuming energy" after a meal and, under the circumstances, serves to avoid other types of behavior.

Discussion

This paper, is meant to form a part of more extensive studies whose purpose is to better understand the psychological mechanisms involved in eating disorders. It has brought into play the Pisa Survey for Eating Disorder (PSED) which is able to highlight and discriminate between behavioral components in interpersonal relationships (affectionate, sexual, and social), in eating habits (dieting, bingeing and laxative use), in physical activities (type and frequency) and also delineate the characteristics of self-awareness (relationship with one's own body, enjoyment levels) in adolescents with serious alimentary disturbances. The data originating from research done over the past twenty years having to do with the relationship between alimentary and emotional disturbances have been largely confirmed with some specificity [4,14,16-19].

Several studies, where different psycho-diagnostic means were called into play, have shown that in both Anorexia Nervosa and Bulimia Nervosa, the itemized points specifically concern a state of depression and also anxiety compulsive symptoms and "ruminating" thoughts.

It has been noted that obsessive behavior centers on weight checks, diet, sport and frenetic physical activity, and the recourse to slimming concoctions, laxatives, diuretics and vomiting [20-23]. As a matter of fact, alimentary disturbances were already described by Rothenberg in [24] as a the result of three factors: social influences, difficulties in meeting the demands of growing up and a propensity to act obsessively and compulsively, adding that "anorexia and bulimia have become the predominant forms of obsessive and compulsive disorders".

Changes in mood may depend upon the ability to keep body weight within the desired limits, or may become manifest in correspondence with vomiting provoked after an eating binge. The momentary relinquishment of control in eating seems to reduce the despondency produced by adverse stimulants, without excluding the return of despondency more intensely than ever once the attack is over [11,21].

In the face of “situations involving judgement", the overriding and unavoidable thought concerns the physical aspect. Everything is seen in terms of a dichotomy: the increase and decrease of bodyweight, with an inevitable under-evaluation or negation of aesthetic and emotional aspects to the detriment of the possibility and ability to activate and maintain adequate attachments or, more generally, gratifying social interactions, which will prove to be devoid of any emotional content [4,11,14].

As will be seen from this study, sexual relations, when they are not avoided, also represent the danger of involvement. In the face of a possible delusion, it may very well be that the relationship with the opposite sex occurs within well-established and controllable limits, often in the presence of regressive attitudes and infantile behavior [4,14,16].

Conclusion

This preliminary study demonstrates that the PSED tool proves to be a simple, inexpensive and useful self-assessment tool even in areas that are not strictly clinical such as epidemiology thanks to its discriminatory capacity associated with the ease with which it can be administered (even at home patient).

It is therefore particularly useful when it is necessary to investigate those areas of functioning that are compromised with the structuring of an eating disorder. In fact, these data, although preliminary and deriving from a small sample, have allowed us to confirm what is present in the literature about the level of complexity of a disorder like this: in fact, the level of social functioning has been brought to light as well as the influence that this has on the perception of one's body and the consequences of body dissatisfaction on the adoption of bad eating behaviors.

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