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LONG-TERM OUTCOME OF CHILDREN AND ADOLESCENTS WITH ANOREXIA NERVOSA: STUDY OF COMORBIDITY

L. SACCOMANI,* M. SAVOINI,*
M. CIRRINCIONE,* F. VERCELLINO* and G. RAVERA†

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Abstract—Eighty-seven children and adolescents with anorexia nervosa, admitted to the Gaslini Department of Child Neurology and Psychiatry between 1976 and 1990, were followed up after a mean of 9.6 years. Outcome measures included the Morgan–Russell Outcome Schedule as modified by Jeammet. Outcome was good in 43 (53%) cases, intermediate in 27 (34%) cases, and negative in 11 (14%) cases. No deaths occurred. Based on the Jeammet assessment schedule, the most significant items predicting outcome were insight; sexual, familial, and social relationships; and mental state. Gender of patients and early disease onset did not seem to be predictive measures. Poor outcome was associated with a severe initial clinical picture and length of in-patient treatment. In regard to comorbidity, mood and personality disorders seemed to be negative prognostic indicators, whereas anxiety disorders did not show prognostic value. © 1998 Elsevier Science Inc.

Keywords: Anorexia nervosa; Adolescent; Children; Comorbidity; Follow-up; Prognostic factors.

INTRODUCTION

Few studies [1, 2] about the outcome of children and adolescents with anorexia nervosa have been reported in the psychiatric literature and little attention has been paid to the problem of comorbidity in this group.

To date the most accepted outcome measures of anorexia nervosa are those designed by Morgan and Russell [3]. The assessment of mental state and comorbidity has been performed mainly on adult subjects: studies show a prevalence of mood disorders, obsessive–compulsive disorder, and personality disorders [4–6]. Recent research [4, 5, 7] has reported obsessive–compulsive disorder or avoidance personality disorder in "restricting" anorexia, borderline personality disorder, or histrionic personality disorder in bulimia or "binge-eating" anorexia. Several reports show a link between eating disorders and mood disorders, particularly major depressive disorder and bipolar disorder [4, 6, 8]. These investigators stressed that there is a reasonable incidence of mood disorders in the families of patients with eating disorders, and underline the efficacy of antidepressive drugs in eating disorders.

* Department of Child Neurology and Psychiatry, University of Genoa, Gaslini Institute, Genoa, Italy.
† Biometrics and Medical Statistic Institute, University of Genoa, Genoa, Italy.
Address correspondence to: Dr. Ludovica Saccomani, Neuropsichiatria Infantile, Istituto Gaslini, Largo Gaslini 5, 16147 Genoa, Italy. Tel: 39-10-5636430; Fax: 39-10-381303.

Following previous research [9] the present study aims to assess outcome and comorbidity in child and adolescent anorexia nervosa.

METHOD

A survey of the clinical records of all patients admitted to the Department of Child Neurology and Psychiatry between 1976 and 1990 was carried out to identify cases of anorexia nervosa in children and adolescents. At the time of admission, Feighner's, DSM-III, and DSM-III-R criteria [10–12] were used for anorexia nervosa. Associated psychiatric disorders were labeled according to ICD-9, DSM-III, and DSM-III-R criteria [11–13]. Somatic parameters were evaluated on the basis of body mass index, height, and physical maturity. Our treatment team adopted a psychodynamic and/or cognitive therapeutic approach to the patients and their families, including behavioral strategies during hospitalization and dietetic advice. Pharmacological treatment with antidepressive drugs (Clomipramine, Trazodone, Paroxetine) was also done in cases with mood disorder. At follow-up after a diagnostic revision, the investigators reclassified all diagnoses using DSM-IV [14].

The study population consisted of 87 subjects (76 females, 11 males). The follow-up method was based on a questionnaire designed by the investigators and on the Middlesex Hospital Questionnaire [15]. Both questionnaires were sent by mail. Information obtained from these questionnaires was used to determine a score on the Jeammet scale [16]. Eighty patients were contacted by phone and 5 by a personalized letter. Two patients were not found.

Our questionnaire concentrates on clinical features central to anorexia nervosa, information about social adjustment, familial and sexual relations, the patient's mental state, and psychiatric disorders during the previous 6 months. The Middlesex Hospital Questionnaire (MHQ) was also used. It includes six scales: anxiety, phobia, obsessiveness, somatization, depression, and hysteria.

Both questionnaires were completed by all the subjects. In 28 cases, a face-to-face semistructured interview was possible; 39 were subsequently recontacted and agreed to be interviewed by telephone, and for 2 patients further information was obtained from their psychotherapists. For the remaining 12 cases, information was available only from the two questionnaires received by mail. Corroborative data were gleaned from semi-structured interviews with parents or boyfriends, either face to face or by telephone.

The follow-up assessment was based on ten items drawn from Jeammet [16], who modified the Morgan–Russell Outcome Schedule [3]. The ten items included: eating behavior, weight, menstruation, body image, occupations (study, job), social contacts, family relationships, sexual relations, insight, and mental state. Each item provided positive (1 and 2) or negative scores (3 and 4), ranging from satisfactory (1) to very unsatisfactory (4). The outcome was considered good (G) when at least eight items score 1 or 2, intermediate (I) when four to seven items scored 1 or 2, and poor (P) when three items or fewer score 1 or 2.

RESULTS

Two patients were not found and four subjects refused to participate (7% dropout). The remaining 81 (72 females, 9 males) formed the study sample. The mean age at onset of symptoms was 14.5 years (range 9–21). Mean weight loss was 28.3± 6.3% and mean BMI was 13.9±1.8 kg/m^2; amenorrhea occurred in all females. At follow-up, the mean age was 24.2 years (range 15–36). Mean BMI was 18.9±2.8. Menses reappeared in 87% of females. Amenorrhea lasted less than 1 year in 24%, 1–3 years in 49% and more than 3 years in 27% (including subjects still amenorrheic). The mean follow-up period was 9.16 years (range 4–19).

Reliable information, provided by patients, relatives, and/or psychotherapists was obtained for 69 subjects. In 12 cases, data were sufficient to determine the general outcome (somatic conditions, familial and social adjustment, psychiatric disorders), but were insufficient to define some parameters such as body image, insight, and sexual relations.

The results from the assessment of the 10 items in our sample are summarized in Table 1. The results concerning the outcome of anorexia nervosa were "good" (G) in 43 cases (53%), "intermediate" (I) in 27 cases (33%), and "poor" (P) in 11 (14%),