ORIGINAL RESEARCH PAPER

Evaluation of a programme of adapted physical activity for ED patients

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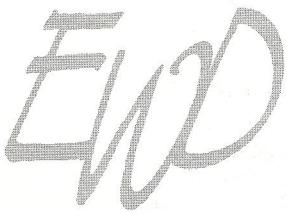

ABSTRACT. *The importance of work focused on body experience in the therapy of Eating Disorders is widely acknowledged. Even so, few researches have been devoted to this aspect. This paper describes the employment of adapted physical activity as part of a residential cure programme for 96 eating disorder patients. The chief aims of this programme relate to individual identity, relations with others, the body, and getting patients to build themselves a correct image of physical activity. The wide variety of working tools includes both individual and group activities: movement exercise, adapted sports, dancing, expressive activities, relaxation. The following are used to evaluate results: individual and group talks, specific observation scales, and video recordings of some meetings. As shown by other authors, the observations indicate that controlled physical activities can be usefully integrated into an eating disorders cure project.*

(Eating Weight Disord. 3, 110-114, 1998).

INTRODUCTION

One of the essential diagnostic criteria for both anorexia nervosa (AN) and bulimia nervosa (BN) is a distorted experience of one's body (1). This experience disorder is treated by means of pharmacotherapy, cognitive behaviour therapy, psychodynamic therapy, family therapy and psychoeducational group therapy (2), and different forms of body-oriented therapies.

Despite the acknowledged importance of work on and with the body in eating disorder (ED) patients, body therapy is the focus of only a few works in the international literature. In 1981, Folkins et al. published a wide review of the use of physical activity in psychiatric disorders. They found no mention of ED, in spite of the focus on modifications of self-concept and body image (3). In the last ten years experiments with body-oriented therapies have been documented by Vandereycken et al. (4). They suggest a psychomotor programme for AN patients focused on four objectives: curbing hyperactivity, rebuilding a realistic self-concept, learning to enjoy one's own body and developing social skills (4). Kruger et al. (5) and Rice et al. (6) report the use of dance-movement therapy intervention for disturbed body image in ED patients. Jasper et al. (7) have described the use of cognitive tools plus non-verbal techniques (e.g. relaxation, guided imagery, massage). Beaumont et al. (8) propose a supervised exercise programme based on stretching, flexibility, posture improvement, weight training, social sports and aerobic style exercises. Laumer (9) describes the therapeutic effects of the Feldenkrais method, "awareness through movement", in ED patients.

For further information about therapeutic measures aimed at improving body experience see the overview by Probst et al. (10).

The following paper reports our investigation of the role of Adapted Physical Activity (APA) as a part of a multidimensional inpatient cure programme in ED. Some implications for treatment are also discussed.

[The term APA is used according to Sherrill as "a crossdisciplinary body of knowledge direct toward identification and solution of psychomotor problems" (11)].

THE CONTEXT

The general scheme of the programme implemented at our structure is multi-dimensional and entails a baseline comprising internal medicine, nutritional, psychiatric, psycopathologic and psychometric assessment, involving several tests (EDI, EAT, BITE, BAQ, SCL90). We use both biological treatments and individual and group psy-

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Adapted physical activity, anorexia nervosa, body experience, bulimia nervosa, eating disorders.

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chological therapies. The APA programme is conducted in groups of ten patients four times a week, each session lasting one hour. Patients join the group soon after hospitalisation, after discussing the aims of the activities and the organising methods with the therapists (hyperactive and competitive thinking is especially discouraged).

A meeting is generally divided into four parts: 1. an introductory stage in which the activities programme is defined and the previous meeting is commented; 2. a psychophysical activation stage; 3. development of the set theme; 4. a final stage for speaking to each other about the experience, and planning the next meeting. Movement situations and which appliances to use are chosen by the therapist by involving the group as a whole. For some types of proposals, the intensity and amount of work are personalised according to the individual situation. During the first stage, AN patients need to restore physical conditions (weight, muscle strength, posture) and the therapist has to curb hyperactivity by defining precise limits, whereas BN patients make use of motivational activity to improve their self-esteem and the therapist often has to force them to movement. In the following stages, the differences between AN and BN patients decrease, so that patients with different types of ED can aim at the same goals.

A wide range of appliances are used, such as games, movement exercises, adapted sports, dancing, expressive and creative activities and relaxation techniques.

THE CLINICAL SAMPLE

The experience described refers to a continuous set of 96 non-selected patients, hospitalised in the period 1991-97: mean age 23.61 years (SD 4.8), mean duration of hospitalisation 56.64 days (SD 39.63), mean length of illness 5.15 years (SD 4.01 range 1 year-19 years, length of illness over 10 years: 14 patients, 14.58%). Psychiatric co-morbidity diagnosed according to DSM IV was found in 69%, and 52% of these cases suffered from Cluster B personality disorder. Eighteen patients dropped out (average duration of hospitalization 4 -70 days): 33.3% returned to treatment with the specialist that had sent them to hospital; 50% suspended all treatment; 16.67% began their first specific outpatient treatment.

TABLE1
Diagnostic sub-types, weight and initial BMI.

Diagnosis	% of sample	Initial weight	Initial BMI
Restrictive AN	32.29%	kg. 36.63 (SD 6.31)	14.26 (SD 1.49)
Binge purge AN	28.12%	kg. 40.68 (SD 3.78)	15.47 (SD 1.54)
Bulimia nervosa	30.21%	kg. 53.56 (SD 8.61)	20.18 (SD 3.04)
ED NOS	9.38%	kg. 66.24 (SD 16.38)	24.89 (SD 6.59)

OBJECTIVES AND TOOLS

Probst et al. (10) distinguish two basic views in body experience treatment: "direct vs indirect approaches". One group of clinicians considers the disturbed body image as a primary aspect of ED therapy requiring specific therapeutic intervention. The second group considers the distorted body image as a secondary symptom caused by a sum of different factors.

We present an experience following this second model. We believe we cannot operate directly on body image disturbance. We work on changing the internal bases of the ED, including the use of APA (as an emotional corrective experience improving self-esteem, difficulty in social relationship, physical condition, ...).

The movement situations are aimed at getting patients to live bodily-perceptive, emotional and social experiences that can influence both the distortions of the mind-body relationship (12-14), and incorrect habits regarding both the body and social relationships. The integrating process of psychomo-

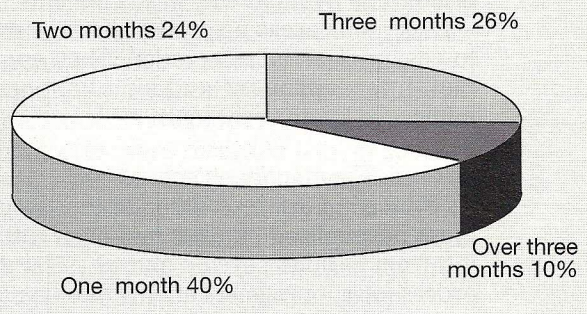

TABLE 2
Duration of hospitalisation.

tor experience (mind-body, body-mind) is also encouraged through individual and group discussions. To create an atmosphere of togetherness, great importance is given to active involvement of patients, who are stimulated at every stage of the meetings. A lot of space is always devoted to defining activities, selecting tools, time schedules and discussions.

Our project is typified by a global approach to movement situations (15): exercises, games and activities are considered irrespective of their specific technical aims, and are used as activation tools. They are a means of helping patients to express their sensations. They are not aimed at motor performance, but at body experience.

Putting patients into groups in which common problems are shared encourages the possibility of experimenting behaviour patterns, knowledge, and affection in a non-threatening environment. Group experiences make it easier for patients to express their emotions, question themselves, cooperate positively with others and react against negative experiences connected to their pathology, in particular the feeling of losing control of one's body.

The areas covered by APA are concerned with four main objectives (16):

1) objectives tied to identity: to explore lesser known areas of one's identity, and roles other than that of "patient suffering from eating disorder";

2) somatic objectives: o improve physical condition and posture;

3) social relations objectives: to improve communication skills, including the use of codes other than speech;

4) educational objectives: to encourage patients to build a healthy image of movement and their body as it moves, and to discourage hyperactivity in AN patients.

These four areas are solely distinguished to ensure clearer presentation. They are, in fact, interdependent and simultaneously influenced by different tools.

a. The identity objective

As evinced in the description of the sample, these hospitalised patients had been suffering from serious psychic and physical disorders for a long time. Patients often have a reassuring picture of their disease in regard to identity. Improvements in symptoms can lead to anxiety linked to the loss of this privileged identity. This is why the therapist stimulates patients during the meetings to renew their exploration of the world, starting from their own body. The body is presented as a play tool, as a means of expressing and representing feelings, and as a vehicle of communication.

The principal activities proposed with regard to the identity objective are pantomime, dancing, and free expression using objects. The following are also highly significant: relaxation, massage, articular manipulation in pairs and small groups, and situations enabling patients to look - using a mirror, shadows, shapes or video recordings.

b. The social relations objective

The group has proved to be a useful motivating tool. Group activity makes it possible to experiment comparisons, which patients describe as the main problem regarding their social behaviour, and accentuates the possibility of cooperation.

As activity proceeds, continuous emphasis is given to the possibility of getting group members to cooperate and exchange experiences.

The following activities are used to tackle socialising problems: group games, team sports (sports with simplified rules and without specific roles), wrestling, sequences of low-impact aerobic gymnastics, problem solving situations and role games. Many patients are somewhat reluctant to take part in these activities when first admitted for treatment - the most frequent comments are: "I don't like it... I can't do it... I used to do individual exercises at home...". But, as time goes by, this negative attitude changes, and patients begin to see the advantages of interacting with others and of the results achieved through a group.

c. The body objective

Badly balanced eating habits, loss of weight and use of compensating methods, such as vomiting and abuse of laxatives, create a significant imbalance in the body composition of ED patients (17). In the AN patients muscular force is considerably reduced, due to diminished body mass. The effects of this deficit can be seen in an incorrect posture and difficulty in walking and in analytical movements. Hyperactivity, too, can play an important role in making AN patients waste away (18), especially until adequate eating habits are resumed. In the BN

patients, you can often detected alternation of hyperactivity period and apathic period.

To oppose these aspects, patients participate in weekly training in a circuit comprising ten different exercises with gym equipment, providing moderate muscular toning - this work is monitored. Periodically, patients also perform exercises with light weights in addition to sessions of posture and breathing gymnastics.

A further important aspect for AN patients is accepting regained bodily weight: when their body begins to transform, they may have deep-seated fears in regard to a change whose outcome of which is uncertain, and their anxieties over losing control and no longer recognising themselves are accentuated. Consequently, physical activity would appear to be an important intermediate ally. It is part of the therapy but, at the same time, it is separate from it, as it evokes individual experiences of recreational and sports activities practised before the illness. Our observations show that the vast majority of patients participate in meetings with an open mind and with interest. They probably leave behind the painful, passive feelings induced by their body changes and hospitalisation, and devote their resources to physical activity.

d. The education objective

Stimulating patients to build a correct image of physical activity (seen not purely as a way of consuming calories) and lowering their hyperactivity threshold, are important objectives of the therapy. The goals are: 1. reaching sufficient self-control; 2. promoting motor activities within a group; 3. introducing habits that will be continued after discharge.

We stimulate physical experiences affording pleasant sensations, in which the body is the chief means of expression, a mark of one's presence in the world, and not an object to be tortured. We encourage a shift from the devitalising reality, typical of ED, to one of revitalisation.

EVALUATION INSTRUMENTS

Results are evaluated with several tools, the following being particularly significant:
a) discussion among participants within a group;
b) individual clinical talks and group psychotherapies;
c) discussions among staff;
d) using the Lofopt observation scale;
e) video recordings of some meetings.

a) Discussions among participants within a group take place at the end of each meeting. Patients are asked to talk about their experiences, and are stimulated to relate their feelings: enjoyment, physical fatigue, emotions and difficulty in relations with themselves and others. This is done in an informal atmosphere, with patients grouped in a circle, seated either on the floor or on gym mats.

b) The clinical talks can be individual or in a group. Elements emerging from the patients' descriptions of their psychomotor experience are used to deal with aspects of their disorder and therapy. Specific tasks are sometimes assigned for a patient to carry out in subsequent activity sessions (e.g. comparison exercises at the mirror, seeking comparisons with anxiety provoking situations concerning the body and movement).

c) Staff discussions are held every week and are used to define the situation of each patient and comment on intervention strategies.

d) Observation of activities is oriented by reference to the Lofopt scale (Louvain Observation Scale for Objectives in Psychomotor Therapy) (19). Lofopt regards different therapeutic objectives, the areas involving the greatest difficulties concern emotional relations and relaxation. In the first case, patients initially prefer relations with therapists and are on the defensive regarding contact with other participants - building such contacts can only be a slow process. As to the ability to relax, in common with the results of other works (20, 21), we note that patients, especially AN patients, find it very difficult to discriminate between tension and relaxation signals and how, in more general terms, they tend to inhibit pleasant bodily experiences. With regard to hyperactivity high scores were recorded only in sporadic cases, even for AN patients, which always related to general therapeutic resistance.

e) Video recordings of meetings, or of specific moments of activity, are used essentially with groups that have reached an advanced stage. Patients can see themselves in video images shown on a large screen. The image they see is one they are often unaware of and often causes surprise and

amazement. Video tapes can also be used as a means of chronicling, to encourage awareness of changes over a long period.

CONCLUSIONS

Our work experience over the years and comparing notes with other specialists lead us to conclude that APA is a useful element within a therapy programme aimed at the treatment of eating disorders. It enables us to study aspects of such disorders that would otherwise be difficult to research. Moreover, patients like this kind of activity, and this is also proved by their attitude, which is less tense and more spontaneous that at other periods of their hospitalisation.

Nevertheless, many elements require further in-depth study, the most significant being the defining of reliable tools for checking results, and the specifying of control techniques for the therapeutic process.

None of the movement situations that may be proposed are therapeutic in themselves. What makes it possible to employ exercises, games and other activities for a therapeutic purpose, is finding a context for these experiences as part of an ED treatment project, and continuously integrating the differing skillsets of operators.

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