Managing Eating Disorders in the Natural Environment
Intensive *vs.* Limited Programs

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Running Head: Managing eating disorders in the natural environment

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טיפול כוללני בהפרעות אכילה בקהילה – תוכנית אינטנסיבית בהשוואה למצומצמת

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המאמר מעריך יעילות של טיפול כוללני בהפרעות אכילה בקהילה, המותאם באופן אישי לחולות. היקף הטיפול נע בטווח שבין 2-20 שעות שבועיות והוא מתקיים במרכז הטיפולי באמצעות צוות רב מקצועי או בסביבה הטבעית של החולות באמצעות חונכות קליניות.

שיטות: 60 חולות הסובלות מאנורקסיה נרבוזה ו-63 חולות הסובלות מבולימיה נרבוזה פנו מרצונן לקבלת טיפול. מצבן הסימפטומטי ותוצאות תוכנית ההתערבות נבחנו באמצעות השאלון Anorexic Outcome Scale.

תוצאות: בסיום ההתערבות, 66% מהסובלות מאנורקסיה נרבוזה ו-78% מהסובלות מבולימיה נרבוזה הוגדרו במצב של החלמה מלאה או במצב של כמעט החלמה מלאה.

במעקב לאחר 4 שנים, 68% מהסובלות מאנורקסיה נרבוזה ו-73% מהסובלות מבולימיה נרבוזה הוגדרו במצב של החלמה מלאה או במצב של כמעט החלמה מלאה.

השיפור בתיפקוד החברתי והתעסוקתי היה גדול יותר בקרב החולות שטופלו במסגרת האינטנסיבית בהשוואה לאלו שטופלו במסגרת המצומצמת. כל החולות שסיימו את ההתערבות היו בעלות תעסוקה קבועה.

מסקנות: המודל המוצע נותן מענה לצרכים ההטרוגניים של החולות בהפרעות אכילה ומאפשר להן להישאר בסביבתן הטבעית. מודל זה יכול לשמש אלטרנטיבה לאשפוז באותם מקרים בהם החולות יכולות ומוכנות לשתף פעולה עם המערך הטיפולי ומצבן הרפואי מאפשר קבלת טיפול אמבולטורי.

ABSTRACT

Objective: To evaluate stratified management of care for eating disorders in community services using a personalized program (2-20 hours weekly) delivered in the therapeutic center house by a multidisciplinary team, or in the patients' natural environment by clinical mentors.

Method: Sixty females with anorexia nervosa and 63 with bulimia nervosa attended the program voluntarily. Symptoms and global outcome were assessed using the Anorexic Outcome Scale.

Results: At termination of treatment, 66% of the anorexics and 78% of the bulimics were in fully recovered or good condition. At four-year follow-up, 68% of the treated anorexic patients and 73% of the treated bulimic patients were categorized as fully recovered or in good condition. The improvement in social functioning and occupation status was greater among subjects treated in the extensive, compared with limited, programs. All patients who completed the program had regular occupations.

Conclusions: The proposed treatment model addresses the heterogeneous needs of patients with eating disorders and, at the same time, allows them to stay in the community. It can serve as an alternative to hospitalization whenever patients are able and willing to cooperate with their treatment, and their medical condition allows for ambulatory treatment.

INTRODUCTION

There is a growing awareness of the need to treat patients suffering from mental disorders in the community, rather than in psychiatric wards. In this way, the patients can maintain social and vocational roles, and generalize new skills that are learned in treatment within their home environment (1,2). Moreover, community-based facilities might prevent the adverse effects frequently accompanied by long and repeated hospitalizations. Major advantages of an intensive outpatient program are the flexibility to design and alter individual treatment and the leverage to help patients move back and forth between programs, as needed, creating a beneficial continuity of care. The 2004 evidence-based guidelines from the National Institute for Clinical Excellence (NICE) recommend treating eating disorders with a comprehensive approach. These guidelines state that wherever possible, patients should be managed on an outpatient basis with psychological treatment provided by a service that is competent in giving that treatment and assessing the physical risk of people with eating disorders (3). However, the availability of public intensive services that address the particular needs of patients with eating disorders in community-based programs is low (4,5). The need for cost- and time-efficient applications of ambulatory treatment, combined with uncertainty over outcome for inpatient treatments, increases the importance of developing innovative facilities.

We present here a description of an Israeli, community-based continuum of care with an innovative outreach facility. It provide the intensity often sought in hospitalization, structured eating situations, and active treatment interventions, while allowing the individual to live at home and continue to attend school or work. Such services address the necessity for aftercare programs to manage the patient's general medical and psychiatric problems and to prevent relapse while also addressing the need for social and occupational rehabilitation.

Program principles

- **Personalization and modulation of treatment.** Treatment was personalized and modularized to meet the particular needs of each patient. It is based on a conceptualization of the specific factors that contributed to each individual's pathological eating concerns and habits. Most sessions are during afternoons and evenings to encourage those patients who manage to keep a job or attend school to continue to do so. Treatment is tailored around those activities.
- **Location in the community.** Treatment is located in the community and takes place at the center house, the patient's house or workplace.

- **Different levels of intensity.** Each patient receives twice a week personal psychotherapy or art therapy. Family therapy and nutrition counseling on a weekly basis. In addition, 15-30% of the patients (change over time) have between 6 to 20 hours per week of contact with two or three clinical mentors, depending on their physical status, symptom severity, level of difficulty with eating and social and occupational adjustment. Such intensive interventions create strong relationships with the treatment team and make it possible to confront crises in various ways.
- **Integrative approach.** Treatment integrates narrative, cognitive-behavioral and dynamic approaches**.** Psychosocial interventions are chosen on the basis of a comprehensive evaluation of the individual patient, considering cognitive and psychological development, psychodynamic issues, cognitive style, comorbid psychopathology, patient preferences, and family situation. Thus different pathologies receive different treatment strategies. In order to counter the patient's resistance to change, and the power struggle that often occur when treating eating disorders (6), the narrative language (7) is utilized toward symptoms. During narrative conversations, anorexia and bulimia are externalized, and people are encouraged to identify the ways in which the eating disorder has taken over their lives (e.g., via isolation, physical and emotional disappearance, engagement in self-policing, empty promises and more). The therapists then enlist patients to form a coalition against the illness to regain freedom, engage in change rather than guilt or blame, which are often the dominant feelings among patients with eating disorders (8). Other important components of psychiatric management for patients with eating disorders are also approached (3): therapeutic alliance; coordinate care and collaboration with other clinicians; assessment and monitoring of symptoms and behaviors; cognitive behavior therapy such as stimulus control procedures, strategies aimed at modifying rigid all-or-nothing thinking and perfectionism is also central in this program. Interpersonal psychotherapy as well as systemic family therapy are offered. Parents are invited to participate in psycho-educational support group.
- **Multidisciplinary team.** Treatment is delivered through a multidisciplinary team. During the course of an intensive treatment, clinical mentors are the main source of the anti-anorexic and anti-bulimic “voices”. These are social workers and graduate level psychology students who are trained to connect with clients in an intensive informal manner (6-20 hours a week). Senior clinical psychologists supervise them once a week, individually and in a

group. The mentors address the need for holding and containing environment, as well as presence of a strong and reliable emotional resource, who is frequently available to the patient. They serve as meal companions and soothing figure, representing a healthy self-caring image, which counters maladapted patterns of interaction, cognition and behaviors. Social skills training as well as leisure time activities are encouraged. Further along in the recovery process, patients are encouraged to direct their hunger for relationships away from the mentors to new friendships.

- **Individualized relationships.** Change occurs through unique individualized relationships that create a united coalition against the disease.

This paper describes the natural course of treatment and long-term outcome of 60 females with anorexia and 63 with bulimia. Patients were assigned either to limited programs (conventional multimodality treatment) or intensive treatment program (conventional multimodality with clinical mentors), depending upon their physical status, symptom severity, comorbidity and occupational functioning.

A comparison between the long-term outcome of the two-treatment intensity as well as the two-disorder groups is presented. Main predictors for good global outcome are also described.

METHODS

Subjects

Sixty females, all single, who fulfilled DSM-IV criteria for anorexia nervosa and 63 diagnosed with bulimia nervosa, attended voluntarily the community-based continuum of care. Seventy percent were referrals and 30% were self-applications. All were medically stable and able to pay for treatment. Written informed consent was obtained after the procedures had been fully explained to the patients and their parents. Patients' characteristics are presented in Table 1.

The mean age of the patients with anorexia was 20.1±4.9 and with bulimia patients was 22.35±.3 years. Mean BMI at admission to treatment was 16.5±1.6 for those with anorexia and 22.1±3.0 for those with bulimia. Mean duration of disorder was 5.0±4.5 years for those with anorexia and 6.0±0.6 years for those with bulimia. Forty-one percent of those with anorexia and 35% of those with bulimia had psychiatric comorbidity (mainly personality disorders). Twenty-seven percent of both were unemployed.

Assessment

The patients were interviewed for diagnosis by an experienced researcher before treatment, using both Structured Clinical Interview for DSM IV Axis I and Axis II (9,10) and eating-related pathology, global outcome and life skills factors using the 17-item Outcome Scale devised by Eckert ED *et al* (11). The psychiatrist determined the final diagnosis.

Symptom severity at outcome and global outcome were assessed using the Anorexic Outcome Scale devised by Eckert *et al.* (11). This instrument is based on the Average Outcome Score developed by Morgan & Russell (12) and on the Global Clinical Score of Garfinkel *et al* (13).

In this scale, outcome is scored on global rating of clinical outcome and 17 individual items involving current weight and height, as well as pathology in ten areas: starvation and purging behaviors, laxative use, anxiety level, menses, sexual attitudes and behavior, social adjustment, educational and/or vocational adjustment and psychological adjustment.

Global outcome is defined by four categories: **Fully recovered or full remission** that lasts more than 12 months, Weight within 15% of ideal weight, cyclical menses, and no significant disturbance in eating or weight control behavior or body image disturbance.

Nearly recovered or partial remission of symptoms (symptoms occur infrequently): weight within 15% of ideal weight, cyclical menses, and infrequent presence of eating or weight control behavior or significant body image disturbance.

Intermediate condition or some improvement, although symptoms are still frequent: weight only intermittently within 15% of ideal body weight and/or presence of menstrual disturbances. Presence of significant eating or weight control behavior (i.e. binge-eating, vomiting, laxative abuse or undue dieting) or significant body image disturbance.

Poor condition or no improvement: Binging, purging or laxative use, were not improved.

Process of assessment: All information was obtained via interviewing the subjects.

Relapse and recurrence rates were evaluated according to Kordy et al definitions (14). **Relapse** was defined as return to symptoms satisfying the full syndrome criteria for an episode that occurs during the periods of remission, but before recovery. A **recurrence** is the appearance of a new episode of the disorder and thus, can occur only after recovery.

Procedures

Patients were assigned into limited (1-5 hours/week) *vs.* intensive treatment (6-20 hours/week) depending upon their physical status, symptom severity, comorbidity and occupational functioning. Patients who did not respond to limited treatment or who needed structured eating and had no regular occupation were assigned to intensive treatment.

Limited treatment included psychotherapy and nutrition counseling while intensive treatment included in addition a variety of outreach services delivered by clinical mentors.

Data analysis

Statistical analyses were performed with Statistical Package for the Social Sciences (SAS Institute Inc., 1994). Paired and unpaired *t*-tests and Mann-Whitney U nonparametric test were used to examine the change in symptoms and between-group differences. χ^2 tests were used to examine the differences between groups in the dichotomic parameters. The analyses were performed on an intent-to-treat basis. Logistic regression with stepwise selection procedure was performed in order to study the main predictors for good global outcome (recovered or nearly recovered) at 12 months after admission, and at four-years follow-up.

RESULTS

Stratification to extensive *vs.* limited programs

The description of the studied population at baseline is presented in Table 1. Of those admitted with anorexia nervosa, 63% were offered intensive treatment, whereas 29% of admissions with bulimia nervosa were offered the intensive program. Over all patients, those in intensive treatment received a

mean of 16±5.7 hours of contact with clinical mentor per week and those in limited treatment received a mean of 2.7±0.7 hours of counseling, per week.

Patients assigned to intensive treatment had a higher rate of comorbidity, a longer duration of illness, more previous treatments, and lower scores in social and occupational adjustment than those offered limited treatment.

Sixty-six percent of patients with bulimia, assigned to intensive treatment, were unemployed, while only 9% of those in limited treatment. Among those with anorexia, 37% in intensive treatment were unemployed while only 9% in limited treatment. The rate of laxative abuse was the only symptom that was found to be significantly higher among those assigned to the intensive treatment vs. those assigned to the limited treatment (Table 1).

Disorders natural course

The distribution of the studied population disorder course is presented in Table 2.

Relapse rate and recurrence rate were greater in the extensive programs compared to the limited programs ($p<0.000$). Rate of relapse before recovery in the extensive *vs.* limited programs was 35% and 17% in patients with anorexia nervosa, while 40% and 22% in patients with bulimia nervosa, correspondingly. Recurrence rate was 10% among those with anorexia at four-year follow-up and 5% among those with bulimia.

At treatment termination (mean of 12 months from admission) an intention-to-treat analysis found that 66% of the patients with anorexia and 78% of patients with bulimia were in fully recovered or in nearly recovered condition. Seventeen percent of those with anorexia and 8% of those with bulimia were in intermediate condition, while 17% of those with anorexia and 14% of those with bulimia were in bad condition (Table 2).

At four-year follow-up, 68% of the treated patients with anorexia and 73% of the treated patients with bulimia were categorized as fully recovered or in a good condition (nearly recovered). Fifteen percent of the patients with anorexia and 17% of patients with bulimia were in intermediate condition. Seventeen percent of those who had anorexia and 11% of those with bulimia were in poor condition (Table 2).

Reduction in symptoms. Significant reductions in starvation, binging, purging and using laxatives were found in both patients having anorexia and bulimia ($z=-5.15;p<0.0001$ to $z=-3.04<0.004$), from admission to 12 months after treatment began. Furthermore, in both treatment groups (intensive and limited), a significant improvement in the fear of becoming fat (z=-

4.4;p<0.000 and z=-5.3;p<0.000), as well as body image disturbance was observed (z=-3.78;p<0.000 and z=-3.04; p<0.000). In terms of social functioning and occupation status, patients who were treated intensively showed greater improvement than those in limited treatment (social functioning: Z=-6.1, p<0.0001; occupation Z=-4.6, p<0.0001). All patients who completed the program had regular occupations.

Predictors of success

Binary logistic regression in a stepwise manner was performed to characterize those who benefit from intensive and limited treatment. Success in global outcome in the long term (recovered or nearly recovered four years after treatment) was the dependent variable. In patients with anorexia nervosa, the model entered comorbidity and length of treatment as the variables that had statistically significant contributions to the variance of success. The odds ratio for those who stayed in the program more than six months was OR=25, p=0.01 compared to those who stayed less than three months. The odds ratio for comorbidity was OR=27, p =0.04. In patients with bulimia nervosa, the model chose occupation at admission as the parameter with the highest predictive value for long-term success (recovered or nearly recovered) with an odds ratio of OR=26, p=0.01.

Logistic regression was performed to test the variables associated with success in the extensive *vs.* limited programs. In the extensive program, length of stay in the program of more than six months was associated with greater success (OR=30, p=0.04).

In the limited program, BMI and occupation at admission were the best predictors for success (BMI OR=2, p=0.04; occupation OR= 9.7, p=0.03).

DISCUSSION

In our study, the management of patient care in their natural environment, which tailors treatment intensity to patients' needs, proved to be effective in achieving successful global outcome at long-term follow up. Sixty-six percent of patients with anorexia nervosa and 72% of patients with bulimia nervosa achieved full or almost full recovery. In general, the outcome literature has reported success rates for patients receiving psychosocial treatment or medication to be 50%-70% (15-20). Kramer *et al.* (21) report that at 2.5-year follow-up of anorexia nervosa patients, the proportion of those achieving at least partial remission increased from 20% at program termination to 55% due to spontaneous recovery and the continued effectiveness of the treatment. Eckert *et al.* reported that at 10-year follow-up, the crude mortality rate was 6.6%; only 23.7% were fully recovered, 64% developed binge-eating at some time during their disorders. Forty-one percent were still with bulimia at follow-up. The high frequency and chronic nature of the bulimic symptoms plus the high rate of weight relapse (42% during the first year following hospital treatment) suggest that intensive intervention is needed to help anorexics restore and maintain their weight within a normal range and to decrease abnormal eating and weight control behaviors (11). Gerlinghoff *et al.* reported that 64% of those patients with anorexia nervosa in a day treatment program were diagnosed as normal at termination (22).

With respect to patients with bulimia nervosa, Agras *et al.* reported on the outcome of 182 patients enrolled in a multi-site CBT study (23). Thirty percent of the total sample abstained from binging and purging at treatment completion. Based on a composite global outcome score at six-year follow-up, Fitcher and Quadflieg reported that 59.9% achieved a good outcome, 29.4% an intermediate outcome, 9.6% a poor outcome, and 1.1% (2) persons were deceased. Course and outcome were generally more favorable than in anorexia nervosa (4).

Consequently, treatment outcome in the community-based continuum of care described in this study, is among the highest reported in the literature. Possible explanations might include the higher motivation among population when paying, the correspondence between patient's needs and treatment intensity and also the ability to practice normalization and improve the daily functioning while in treatment. Since it is a selective population a better family resources also might be one of the reasons for good outcome.

The rationale for the use of less hospitalization with eating disorders patients has been widely explored (3,24). Such programs have both financial and clinical advantages over traditional inpatient care, but

most of all allow the patient to maintain social and vocational roles as well as cope with the move from inpatient units to the community, an extremely difficult transition (25).

In order to address the need to maintain and rehabilitate social and occupational functioning, the preferred setting for all patients with eating disorders is a continuum of care, with a wide range of treatment intensity, modified on an individual basis (3). However, the criteria for these modifications are not available. Programs with intensive outreach services might be the answer for the need to address the physical, psychological, and social status of the patients while allowing them to sustain their remaining activities. Such programs might have a low rate of recidivism, which is a major challenge in the field of eating disorder treatment. The proportion of population allocated to limited or intensive treatment, is subjective to periodical changes, depending on the type of population referred to the institute. The population described in this study, was in a severer status than the current population treated in the center. Thus, now a day, only 10-15% of all patients receive intensive treatment, lower proportion than in the past.

In our study, at four-year follow-up recurrence rate was 10% among patients with anorexia and 5% among patients with bulimia. The recurrence rate was higher in patients in the extensive program probably because of the severity of their symptoms and the high co-morbidity of this population. Still, the rates are lower than described in the literature (6,11,21).

The relapse rate in our study is within the range reported by others. Relapse rates between 26% and 50% have been reported for successfully treated patients after six months to six years of follow-up, and some data suggest that slow improvement continues as the period of follow-up extends to 10-15 years (23,26). Treasure & Schmidt (27) suggest that when patients leave the programs prematurely, this may reflect the patients' response to some of the older and rather coercive regimes for anorexia nervosa. A more lenient flexible approach, can lead to better compliance.

In our study, length of stay in the program was one of the predictive variables for success in patients with anorexia nervosa (but not in patients with bulimia nervosa) and in those enrolled to the extensive program.

In contrast to many intensive eating disorders programs that emphasize weight restoration as the main objective or as the main criterion for discharge from the intensive program, the community-based services presented here target to extend control of symptoms as well as on life events, achievements, and social integration.

The studied population characteristics verify the literature reports (25) on high rate impairment regarding social adjustment, in particular difficulties with occupation among eating disorder sufferers. Seventy-five percent of those offered extensive programs did not have a regular occupation. All our patients reported impaired social relationships; few subjects had a stable partner relationship. Wittchen *et al.* (28) emphasized that since adolescents and young adults are in a key phase of their lives in terms of professional careers and interpersonal relationships, they run a great risk of accumulating complicating factors and future chronicity.

More than 90% of the treated patients progressed significantly in social interactions and occupation and presumably improved their quality of life. The improvement was greater among those in the extensive programs, which emphasize social and occupational rehabilitation. These variables were reported previously to be a predictor for outcome in eating disorders (16,18,23,29). A focus on life skills in eating disorders intervention is in accord with the report of Keel *et al.* (26) which indicated that women who continue to meet full criteria for bulimia nervosa after treatment tend to have continuing impaired social functioning and interrelationships. Furthermore, the present results selected occupation as predictive variable for success in patients with bulimia nervosa (but not with anorexia nervosa).

The reported results indicate the need to include the occupation and social adjustment beyond the medical and psychiatric status as determinants in tailoring program plans to patients with eating disorders. Intensive treatment in the context of ongoing outreach mentoring allows for the need to address the physical, psychological, and social status of the patients, while at the same time allowing them to maintain and improve upon their functional roles.

Finally, this study suggests that older patients, with comorbidities and maladaptive occupational and social functioning, are the preferred candidates for community-based, intensive treatment programs. On the other hand, it appears reasonable to use more limited treatment intervention in less serious cases.

The issue of correspondence between problem severity and the intensity of the intervention is one of the study's limitations. After the initial treatment assignment, level of care is changed in a stepped fashion. While such an approach makes it possible to avoid wasting resources, it makes it impossible to gather any information that would provide for a randomly based matching of treatment and patient condition.

Several predictors have been shown to be associated with positive treatment outcome in patients with eating disorders. Psychiatric comorbidity, low weight at intake, unemployment and poor social adjustment (4,14,23,29) were the four pretreatment predicting variables for poor outcome. On the basis of these findings we tailor the treatment plan stratification mainly to severity of symptoms, co-morbidity, social and occupational status. Those that have psychiatric comorbidity, poor social adjustment or unemployment get the more intensive programs. Yet, there are no establishment criteria for matching the client specific needs to the appropriate treatment and program intensity, which exceeds the medical indications. Such criteria could be useful for effective matching program to patients needs pretreatment, rather than changing treatment in a sequence order once the patient has failed to improve or has dropped out (22).

Since the study describes a series of cases and not a controlled randomized research design, the results are limited in terms of generalizability. The analysis of patients with anorexia nervosa restricting type and those with binging-purging type patient as one group is also one of the study limitations.

Moreover, the reported findings possibly reflect a selection bias, and thus, cannot be generalized to different populations because the sample of patients is exclusively from an upper socioeconomic status. Despite its limitation this study extends the information regarding community-based services for intensive treatment and the variables that should be taken in consideration when tailoring program plans for eating disorder patients.

Conclusion

The proposed treatment model addresses the heterogeneous needs of patients with eating disorders and, at the same time, allows them to stay in the community. It can serve as an alternative to hospitalization in those cases where the patient's medical condition allows for treatment outside the hospital. It offers the intensity provided by hospitalizations, while avoiding some of the risks associated with it, enabling patients to stay in the community, practice normalization and sustain or improve their daily functioning.

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Table 1: Baseline demographic and clinical features of the studied population (Mean±SD)

	AN Extensive program (Mean ±SD) **n=38**	**AN Limited program** (Mean ±SD) **n=22**	**Differences between extensive and limited** t/F/Z/ χ^2 ;**P***	**BN Extensive program** (Mean±SD) **n=18**	**BN Limited program** (Mean ±SD) **n=45**	**Differences between extensive and limited** t/F/Z/ χ^2 ;**P***
Demographic Features						
Age (yrs)	20.6 ± 4.1	19.1 ± 6.4	NS	22.1±3.9	22.3 ± 5.9	NS
Duration of Illness (yr.)	5.1 ± 3.4	4.97 ± 6.4	NS	6.0±3.6	5.85 ± 6.3	NS
Unemployed (school, job)	37%	9%	χ^2 =6.2;p<0.01	66.6%	9%	χ^2 =15;p<0.00
Previous Treatments						
Hospitalization (times)	1.33±1.4	0.19±0.4	t=4.4;p<0.000	0.39	0.14	NS
Out-patient (times)	1.41±0.8	0.47±0.7	t=2.2;p<0.03	1.4±0.7	0.62±0.7	t=3.9;p<0.000
Symptoms						
BMI	16.2 ±1.7	16.9 ± 1.4	NS	21.4 ± 1.6	22.5 ± 3.3	NS
Binge eating [1] (n/day)	1.7 ± 2.0	1.5 ± 2.1	NS	4.9 ± 1.4	4.6 ± 1.3	NS
Vomiting [1] (n/day)	2.06 ± 2	2.2 ± 2.6	NS	5.5 ± 0.7	4.9 ± 1.4	NS
Laxative abuse[1]	1.44 ± 2.4	0.25 ± 1	t=2.5;p<0.015	2.11 ± 2.6	0.22 ± 1.0	t=3.8;p<0.000
Comorbidity	55%	14%	Z=2.4;p<0.01	72%	20%	Z=2.6;P<0.01

P for the differences between intensive vs. limited treatment, tested by unpaired *t*-tests, χ^2 tests and Z for Mann-Whitney U nonparametric test.

[1] Symptoms severity was rated as follows: 0 – never 1-once a month or less 2-several times a month 3-every week 4- several times a week 5-every day 6-several times a day

Table 2: Treatment outcome of patients with anorexia nervosa and bulimia nervosa in extensive vs. limited program (Mean±SD)

P for the differences between intensive vs. limited treatment, and Z for Mann-Whitney U nonparametric test.

	AN Extensive program n=38	**AN Limited program n=22**	**Z;P***	**BN Extensive program n=18**	**BN Limited program n=45**	**Z;P***
Course						
Relapsed before recovery	35%	17%		40%	22%	
Completers	55%	83%	Z =-3.41	55%	78%	Z=-3.61
Recurrences	10%	0%	p<0.00	5%	0%	p<000
Global termination (%)						
0 Recovered (n)	18.4%	45%		22.2%	57.8%	
1 Nearly recovered (n)	44.7%	27 %		33.3%	28.9%	Z =-2.9
2 Intermediate (n)	15.8%	18%	NS	11.1%	6.7%	p<0.01
3 Poor condition (n)	23.7 %	10%		33.3%	6.7%	
Global after 4 years						
0 Recovered	34.3%	81.3%	Overall	44.4%	73.8%	Overall
1 Nearly recovered	25.7%	0%	Z=-2.4	0%	7.1%	Z=-3.34
2 Intermediate	17.1%	12.4%	p<0.02	38.9%	9.5%	p<0.01
3 Poor condition	22.9%	6.3%		16.7%	9.5%	