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ABSTRACT

Eating disorders within males are relatively uncommon, with estimates suggesting incidence rates of only five percent of the sample. This single-subject, reversal design case study examines the etiological variables of a 22-year-old male bulimic patient. Consultation for treatment was made by the patient's parents. Family assessment made in the home provided for observation of the patterns and dynamics of their interaction. It was apparent that marital and family distress contributed to the disorder. Additional evaluation included psychodiagnostic testing, functional analysis of the binge-purge symptoms, and nutritional assessment. Individual and family therapy were valuable in reducing the frequency and duration of binging and purging, yet a pattern of nocturnal binging remained recalcitrant to change. Assessment of sleeping patterns and daytime substance use revealed a sleep onset and sleep maintenance disturbance. Innovative nutritional treatments were employed, including use of amino acids, vitamins, and herbal supplements. Relaxation training and behavior therapy were also utilized. This combined intervention produced complete remission of symptoms within one month. The family vacation gave opportunity to reverse the intervention when the patient failed to complete his nutritional regimen. The sleeping (ifficulty and night binging returned. Upon reinstitution of treatment, binges and sleep problems returned to base-line. The patient remained symptom-free at one-year follow-up, suggesting the value of the intervention and proper termination/withdrawal. (Author/ABL)



"TO SLEEP, PERCHANCE TO DREAM"

THE ROLE OF SLEEP DISTURBANCE IN THE

MULTIDIMENSIONAL TREATMENT OF A MALE BULIMIC

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EATING DISORDERS PROGRAM

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Eating disorders within males are relatively uncommon, with estimates suggesting incidence rates of only 5% of the sample. This single-subject, reversal design case study examines the etiological variables of a 22-year old male bulimic patient.

Consultation for treatment was made by the patient's parents. Family assessment made in the home provided for observation of the patterns and dynamics of their interaction. It was apparent that marital and family distress contributed to the disorder. Additional evaluation included psychodiagnostic testing, functional analysis of the binge-purge symptoms, and nutritional assessment. A treatment team was developed including a physician, dietician, and psychologist.

Individual and family therapy were valuable in reducing the frequency and duration of binging and purging, yet a pattern of nocturnal binging remained recalcitrant to change. Assessment of sleeping patterns and daytime substance use revealed a sleep onset and sleep maintenance disturbance. Innovative nutriticnal treatments were employed, including use of amino acids, vitamins, and herbal supplements. Relaxation training and behavior therapy were also utilized. This combined intervention produced complete remission of symptoms within one month. The family vacation gave opportunity to reverse the intervention where the patient failed to complete his nutritional regimen. The sleeping difficulty and night binging returned. Upon reinstitution of treatment, binges and sleep problems returned to base-line. The patient remained symptom-free at one-year follow-up, suggesting the value of the intervention and proper termination/withdrawal.



Sleep Disturbance and Treatment of Male Bulimic

Those who work with eating disorders are familiar with how rare instances of bulimia are within males. According to most sources, the incidence rates of male bulimics are less than 5% to 10% of the samples studies (Boskind-Lodahl, 1976; Gray & Ford, 1985; Russell, 1979). More recent randomized epidemiological studies have placed the rates as low as 0.4% (Pyle et al., 1983). Thus, conclusions regarding the nature of this disorder among males remain tentative at best, due to the limited sample size under study.

The case study presented here represents a unique contribution to the field in so far as it offers a review of the multidimensional treatment of a male bulimic, utilizing novel methods of treatment for sleep disturbance, and validating the conclusions drawn through a naturally occuring single-subject reversal design. The patient, whom we shall call Gary M., was a 22-year old white male from a small Midwestern community. He was brought to treatment by his parents who responded to a public service television broadcast interview with the senior author regarding the treatment of eating disorders. The patient lived at home with his parents and younger sister, worked a full-time job in a local manufacturing plant, and spent much of his



free time engaged in exercise. He had dropped out of college after having difficulties during his freshman year, returning home in his 19th year. He had an extremely limited social network, with only two friends to call upon for recreation. When he lost his car following an accident, he was left with only a bicycle for transportation, severing and restricting the extent of social activities to which he could attend. His father was a business executive, facing several financial stresses and eventual bankruptcy, while his mother was employed as an executive secretary in an insurance firm. The patient's sister was completing her senior year in high school when the family consulted this author for an evaluation.

Due to the parent's concern about initiating treatment, fearful of the rejection of the treatment by the identified patient, the initial consultation took place in the family's home. The patient was angered and defensive even under these circumstances, but responded to an informational "intervention" style approach and took responsibility for initiating treatment. This confrontational method focused upon the physical damage produced by his binging and purging, the impact of the symptoms upon the family unit, and the probabilities of recovery without professional care. This format was modeled after the "Intervention"



approach used for confronting alcoholic patients, and in this instance, prompted the identified patient to seek treatment.

He was aware of his parent's concern for his health and noted their frequent arguments centering around food that was missed from the kitchen pantry. He was also aware of ten ions between himself and his sister, viewing her as his parent's favorite and "perfect" child. She had adopted a compliant stance with her parents, and had invested herself largely in her own social sphere, withdrawing from much activity in the family. In an effort to assess other family dynamics which might contribute to the case, several family sessions were held, where information was presented to the family about bulimia and where an assessment of the marical dynamics could be made.

The parents had been married for 23 years at the time of treatment, and in subsequent individual sessions with the dyad, revealed a long-standing history of marital distress. Included in this picture were several extramarital affairs on the part of the father, with a current affair of 2 years duration in progress. Assessments made of this conflictual couple revealed a history of repeated separations and reconciliations, without any real changes in their dynamics. The Leary Interpersonal Checklist and FIRO-B scales were used to assess their relationship dynamics



and revealed a hostile -- dominant style in the husband, and a passive--Jependent and passive--aggressive style within the wife. Marital therapy was initiated with at least marginal improvement noted in their problem-solving, negotiating, and communication skills. They also reported improved satisfaction, although the affair continued to plague their relationship.

The identified patient seemed sensitive to the marital dynamics, reflecting greater pathology (increased instances of binging and purging) during periods of marital distress. In periods of relative calm, his own stress level would diminish, but his lack of a supportize social network left him generally withdrawn, without hobbies, interests, or dating relationships. At the time of his initial contact for treatment, he was administered a battery of psychodiagnostic tests found useful for differential diagnosis and treatment planning by this author. Among the tests administered were: the MMPI, FIRO-B, Leary Interpersonal Checklist, EDI, Beck Depression Inventory, Conte Borderline Scale, Family Environment Scale, and an Eating Diary. These data, along with self-report and reports of his parents confirmed that the patient met the diagnostic criteria for bulimia (DSM-III 307.51), dysthymic disorder (DSM-III 300.40), and mixed substance



abuse (DSM-III 305.9x). His behavior patterns included binging after work, during the day on weekends, and during the night after awakening (usually between midnight and three a.m.). He began treatment with an average of 8.7 binge/purge incidents per week, using self-induced vomiting as his only purgative method. He reported relatively normal eating patterns for breakfast and lunch, with his major binging taking place at home in private. He was consuming large amounts of caffeine during daylight hours, with ingestion of "speed" in the afternoons to keep him awake during work. He reported feeling very sleepy during late afternoon, and was ingesting 2 to 3 tablets of what was determined to be high-dose caffeine alkaloids.

Individual therapy addressed issues of cognitive distortions, perfectionism, low self-esteem, and limited social and personal interests. Family therapy addressed many of the dynamics noted above, with special emphasis upon how these patterns were reflected in the patients symptomology, and with awareness of how the patient's symptoms served to refocus the family's attention away from the underlying dynamics. A combination of these interventions, along with behavioral self-management methods, contributed to improve eating behavior and decreased binge/purge activity.



This functional analytic approach allowed for study of the environmental and intrapersonal influences upon his bulimic behaviors. One area remained particularly recalcitrant to change, however, and was thus the focus of innovative treatment measures. This area was his apparent "night-binging". The patient's reported use of stimulants to stay awake during the day, and his reported difficulty in staying asleep or returning to sleep following nocturnal awakening suggested the importance of reviewing ...is waking and sleeping patterns. Analysis of this segment of his life revealed apparent "self-medication" utilized by the patient in the form of binging and purging to induce a return to sleep during the night, and the use of stimulants to stay awake during the day. One might also suspect that his nutritional deficits, particularly in the areas of amino acids and minerals (due to limited dietary intake and due to depletion induced by vomiting), would be contributing to his sleep disturbance. With this clinical hypothesis in mind, the patient was seen by a treatment team including a physician, dietician, and the senior author. After consultation, and under medical supervision, the patient was diagnosed as having a sleep maintenance disorder, and an innovative nutritional approach was undertaken to treat this problem.



While traditional soporific medications have been effective at inducing sleep onset, they often have limited long-term value due to their addictive properties, and to their interference in REM sleep. And, while sophisticated biofeedback equipment is often effective, it is of limited availability to the general practitioner. Thus, an experimental treatment method was begun to treat the patient's sleep maintenance difficulty. He agreed to terminate his use of caffeinated substances for the duration of the study, without any major withdrawal problems noted. He was allowed to substitute fruit in the afternoon where he was particularly tired. His nutritional "prescription" called for the patient to take 1 to 2 grams of tryptophan each evening an hour before bed-time. He was to note his sleep patterns, and if needed, he could raise the dose to up to 3 grams. An additional supplement of 1 tablet of calcium and magnesium (1000 mg Calcium; 400 mg Magnesium) along with 250 mg B6 could be taken. These items work in a synergestic fashion with the amino acid to increase brain levels of serotonin, a significant neurotransmitter implicated in sleep and depression. The patient quickly found this combination of amino acids and minerals to be helpful and began sleeping throughout the night without any binges. In less than one month, this method, combined with training in progressive relaxation, produced complete remission of his binge/



purge behavior, which had remitted to all but the night binge pattern.

A naturally occurring single-subject reversal took place, when the family went on vacation at the one-month remission point. The patient had failed to take his "medications" with him, and while he attempted to utilize the relaxation methods to induce sleep, he returned to his nocturnal awakening pattern, and quickly returned to his formerly dominant response pattern of binging and purging to return to sleep. Upon his return to treatment, his symptoms of sleep disturbance and nocturnal binging and purging quickly returned to baseline. The interventions were gradually faded, with the patient aware of how to "treat" himself if he had difficulty. Two and one-half months later, treatment was terminated, after nearly three months symptomfree. The patient was seen for six month and one year followups with no relapse. This is most remarkable given the added stresses faced by the patient when his parent's separated and filed for divorce, leaving him to take greater personal and financia: self-responsibility.



While this is a single case study, without sufficient controls, and without double-bind measures, it does suggest a novel approach to diagnosis and treatment. A multi-dimensional intervention method is stressed, which includes individual, family, nutritional, and behavioral treatments. And, the focus upon a functional analysis of behavior adds to the likelihood of determining significant relationships between relatively disparate aspects of the patient's life. The innovative treatment method for the sleep disturbance and its focus upon the sleep disturbance as underlying the remaining binging and purging suggests the importance of thorough assessment and the excitement of less intrusive and more holistic interventions.



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