Identical Twins Simultaneously Concordant for Anorexia Nervosa

Randol C. Simmons, M.D. and Mina D. Kessler, M.D.

Abstract. Identical twin girls, whose monozygosity was determined by blood group analysis, simultaneously developed anorexia nervosa at the age of 11. Treatment consisting of individual, outpatient, insight-oriented psychotherapy for each girl by separate therapists, and work with the parents by a social worker, uncovered significant conflict in the area of identity formation, apparently exacerbated by the twinship. Resolution of the anorexia and significant ego growth in both twins rapidly followed exploration of the twinship dynamics in therapy. Gains made during the relatively brief therapy were well maintained at a 2-year follow-up evaluation.

This paper is a report of the treatment of identical twins simultaneously concordant for anorexia nervosa. It is unique in several ways. First, identical twins simultaneously concordant for anorexia have been reported only four times previously. Second, the twins were both treated solely as outpatients by separate therapists, an approach not previously reported. Finally, a 2-year follow-up indicates that both twins are functioning well, a relatively infrequent result.

Review of the Literature

Twins with anorexia nervosa appear infrequently in the literature. The earliest report appears to have been by Meyer (1961) on a pair
of twins simultaneously concordant for the illness. They improved at the same time, although one twin continued to manifest eating rituals and cognitive impairment suggestive of schizophrenia. Bruch (1969) disclaimed knowledge of any concordant cases and reported two of her own discordant pairs. Both of these had a late onset and occurred coincident with the healthier twin's attempt to separate. In a review paper, Halmi and Broadland (1973) noted that seven twinships discordant for anorexia had been reported and added one of their own. They further stated that concordant incidence is found at the same frequency as discordant. This statement, however, is not supported by the literature, nor by other authors' impressions (Crisp, 1966; Gifford and Pilot, 1970; Nemeth, 1977). Halmi and Broadland described a case of their own in which one twin developed the illness at age 18, eventually dying at age 34. The second twin developed anorexia at age 38. Weiner (1976) reported a case of twin boys discordant for anorexia. Werman and Katz (1975) reported a case of simultaneously concordant twin girls, age 11½. However, due to family resistance, only one twin was treated, as an inpatient. Debow (1975) reported identical female twins who developed anorexia at age 9. Both twins were hospitalized for weight stabilization and in order to "intervene in family dynamics." Family therapy was the mode of treatment. At discharge, while weight had improved, both twins continued to insist on eating identical portions and wearing similar clothes. Nelson et al. (1973) published physiological studies of a pair of 23-year-old male twins simultaneously concordant for anorexia nervosa, with the onset at age 15. No treatment was reported.

Twinning

There are several factors mentioned in the literature, unique to the development of identical twins, which must be considered in their treatment for any psychiatric disorder. A hallmark study on twins by Burlingham (1952) was based on observations of three sets of identical twins reared in the Hampstead Nurseries. She described a social pressure for sameness which results in the twins' own pressure to increase their similarity in order to receive maximal attention. In addition, mothers attempt to maximize their own narcissistic pleasure by increasing the sameness of twins. An especially important influence is the sibling rivalry which results from having a same-aged rival accomplishing the same developmental tasks.
This leads to intense jealousy with accompanying death wishes. The need for denial as a defense against these impulses is manifest by a further insistence by the twins on sameness.

Leonard (1961) studied the problems twins have with identification and ego development. She emphasized the tendency of twins to identify very early with each other, in addition to their identification with mother. This identification between twins is made relatively stronger by the difficulty mothers have bonding with two infants simultaneously. Leonard also emphasized the importance of sibling rivalry in the development of twins.

Winestine (1969), in a paper correlating psychological differentiation with twinship, mentioned four indicators measuring the extent of “twinning.” These indicators are: self-image as being part of a whole, i.e., complete only with the other twin present; the inability to form object relationships with peers or view oneself as a discrete object choice for peers apart from the co-twin; difficulty tolerating separation from the co-twin; and differences in personality and interests evolving as a reaction to the other twin rather than by individual positive identifications. High twinning, as suggested by the indicators, indicates faulty individuation.

Treatment Methods

The treatment of twins for any psychiatric disorder has been approached in many ways. As noted above, Debow (1975) used family therapy with both twins present. Joseph and Tabor (1961) reported the simultaneous analysis of twins by two different analysts who avoided collaboration but reported their material to a third analyst. Several reports dealt with the treatment of only one member of a twinship. A report of simultaneous treatment of fraternal twins by Demarest and Winestine (1955) suggested separate therapists collaborating and implied that attempts (deliberate or otherwise) were made to treat the twins similarly.

The treatment of anorexia nervosa is equally variable. Hospitalization is often employed at some point, usually for weight gain. Behavior modification and/or family therapy are frequently advocated. Reinhart et al. (1972) recommended outpatient management and suggested avoiding concentrating on the symptom of anorexia. Follow-up of his populations (Goetz et al., 1977) revealed no deaths directly attributed to the anorexia, while two thirds of the original population were functioning adequately.
CASE REPORT

Kristin and Karen R., 12-year-old seventh graders who lived with their parents and three older brothers, were referred for psychiatric evaluation by the family pediatrician. Kristin stated that she was not eating enough and that she needed to find out "what's bugging me." Karen stated, "We've been having trouble with eating." Mr. and Mrs. R. were extremely anxious. Mrs. R. was fearful that the girls would die, while Mr. R. was angry and demanding.

The parents had noted the onset of difficulties in the latter half of the previous school year when the girls had been placed in an open classroom for the first time. They had begun to see themselves as overwhelmed by the lack of structure and as having few friends. As the year progressed, they had become increasingly withdrawn. They began fighting with each other and the rest of the family. In the spring they began to complain that they were too heavy, in spite of the fact that both girls were slightly built and not at all overweight. Following a viral illness they began to diet, taking care to eat identical amounts of food. The problem became more acute during the summer when the entire family took a trip in a camper. The girls refused to eat, began to make lists of food, and insisted on taking over the family cooking. Their activity level increased, and they became reluctant to leave the camper or their mother.

By the time of referral to the psychiatry clinic, Kristin's weight had gone from 62 to 52 lbs (at the 10th percentile for height) and Karen's to 48 lbs (less than 5th percentile for height). They refused to separate from each other and would leave their mother only to attend school. They studied compulsively and maintained high grades. The girls were eating only small amounts of food, such as one cookie and one piece of fruit a day. There was no history of bulimia or induced vomiting. As the parents' anxiety had increased, they unsuccessfully tried to bribe or coerce the girls to eat.

Developmental Histories

Although the pregnancy was planned, Mrs. R. stated that she knew something was wrong from the beginning. Onset of labor was spontaneous at 8 months. Delivery was breech without other complications. Kristin was born at 4 lbs, 3 oz; Karen, 5 minutes later, at 4 lbs, 8 oz. The obstetrician told the parents the girls were identical twins. The twins remained in the hospital for 1 month to gain
weight. Mrs. R. stated that she was glad to leave them, that she was depressed and unable to relate to two babies at once. She saw them once a week and never fed or held them. The parents said that they could always tell the girls apart, and initially they used the difference in the girls' weight to do this. Kristin and Karen attained milestones simultaneously and at the appropriate ages. Although they were dressed alike from infancy, Kristin was characterized as a shy, sensitive bookworm, while Karen was seen as an outgoing friendly tomboy.

When Kristin and Karen were 4½, Mr. R. became depressed over a failure at work. He lost 30 lbs in 2 weeks, recovering when he found a new job. The girls were enrolled in first grade at 5½. Until the sixth grade they were seen as “model” children at home and in school. They dressed identically, and shared a room and friends. There was no significant medical history.

**Evaluations**

The family members considered themselves to be very close. They were actively involved with their church and their community.

Mr. R., a businessman who was described as somewhat obsessive, had recently established a private office in his home. Mrs. R. was a full-time homemaker. Both parents were the youngest of large families and sacrificed their personal goals in order to take care of ill parents. Mr. R.’s father suffered from serious depressions for many years characterized at times by severe anorexia. Neither felt that they could leave their parents to marry. When their mothers died in rapid succession, Mr. and Mrs. R. married. Mrs. R. moved in with Mr. R. and his father. Much of her first pregnancy was spent enticing her father-in-law to eat. He died the day that Mrs. R. and the baby came home from the hospital. Mrs. R. subsequently had two more pregnancies without complications. The next pregnancy ended in a spontaneous abortion, after which Mrs. R. felt depressed for a period of time.

The IQ of both girls was reported to be 150. On projective testing, Karen showed evidence of moderate depression and withdrawal, but Kristin did not. Although each girl was tested separately, their responses were remarkably similar. They gave so-called “twin” responses to the Rorschach and TAT.

Kristin appeared as a small-boned, very thin girl. She was dressed in a casual slack outfit, wearing a pin in the shape of a gingerbread man. She sat quietly throughout the interview, but ap-
peared anxious and had extremely rapid run-on speech that was quite adult in content and style. Her affect was not depressed. Kristin expressed fear that she would die and that she would have to go to a hospital to be treated. She denied any problems in her family and said that she loved being a twin and dressing alike. She stated that she thought she was too heavy but that Karen, who she knew looked just like her, looked too thin. When questioned, she evidenced a thorough understanding of pubertal changes and the substance of sex education, although she herself was prepubertal.

Karen was a small, fine-boned, very thin, hollow-cheeked 12-year-old white female. She wore glasses and was dressed in a slack outfit that matched that of her twin. She smiled and came readily to the office. Affect was appropriate, mood appeared mildly depressed and anxious. Speech was fluent and articulate, unusually so for her age. She elaborated well on questions and was quite spontaneous in her speech. She appeared socially and intellectually precocious. Karen stated that she viewed her not eating as a serious problem. She said that she did not feel hungry. She felt that she did not appear skinny when she looked in a mirror, but she thought her sister was too thin. She demonstrated considerable denial regarding family discord, e.g., “My brothers always help me; I love them and they love me.” She spontaneously stated that she was not afraid of her mother or her father. She denied any disagreement with her sister or difficulties in being a twin. Although she had not reached menarche, she was relatively comfortable in discussing the physical changes associated with maturity and seemed well informed.

Blood group phenotypes were obtained on Mr. and Mrs. R., Kristin and Karen. The calculated probability that the twins are not identical was 0.0003; i.e., there was virtual certainty that they were monozygotic twins.

**Course of Treatment**

Kristin and Karen were diagnosed as suffering from anorexia nervosa, and were treated, as the Reinhart protocol suggests, as outpatients. We systematically avoided eating as a focus of therapy. Hospitalization was not required. Since it was clear that separation and individuation of the twins would be an important treatment issue, each girl was treated by a separate child psychiatric resident while the parents saw a social worker.

Individual, 50-minute, insight-oriented sessions with each twin,
and marital sessions with the parents were held weekly for 4 months. Kristin was seen by a female resident, Karen by a male. The girls' sessions were remarkably similar in content and process, although Karen often lagged several weeks behind her sister.

Each therapist explained to her or his patient that eating was the girl's own responsibility, not the parents' or the therapists'. Kristin resumed normal meals after 3 weeks. Karen required several weeks longer and also went through a period of refusing to eat with the family. The girls then began to dress differently and moved to separate bedrooms. They began talking about their rivalry with each other. For the first time they were able to admit that there were some problems in being a twin, specifically, everyone's tendency to compare the two girls. As an illustration, when Karen's school pictures were accidentally discarded, the R.s displayed two pictures of Kristin until they were able to obtain one of Karen. Visitors then commented on the two pictures and tried to find differences between them. In association with this the girls were able to express their anger at not having their own identities.

The therapists made every effort to resist the unspoken pressure from the girls and their family to treat the twins exactly the same. Intensive collaboration was required for the therapists to avoid acting out their own or the twins' competitive strivings.

Throughout therapy Mr. and Mrs. R. were helped by their therapist to let the girls take responsibility for their own eating and to facilitate their differentiation from each other and from the family. At the end of 4 months it was mutually decided to terminate therapy. Both girls were eating normally and proceeding well in differentiating themselves from each other and separating from the family at an age-appropriate level. Kristin and Karen were increasingly able to have separate friends and activities. They were feeling less need to fight and disagree in order to assert their separateness, although they both evidenced some tendency to choose the opposite just to be different.

Follow-Up

Kristin, Karen, and their parents were seen together 2 years following termination. The girls had successfully made the transition to high school, and continued to achieve excellent grades. Both were well liked by peers and teachers. Their clothes and haircuts were different and were matters of individual choice. Breast development had begun, but not menarche. The twins were able to ver-
ralize their feelings and concerns about this readily and seemed comforted by the knowledge that the girls on the maternal side of their family were all late maturing. The family unanimously agreed that it was hard to believe that the girls had "ever been sick."

**DISCUSSION**

Significant features of both girls' illness included weight loss, a disturbed body image, an increased activity level, preoccupation with food and eating, primary amenorrhea, and a pervasive sense of inadequacy and lack of importance as individuals. Karen's mood was mildly depressed, although she displayed no sleep disorder, loss of energy, or suicidal ideation. Consistent defenses were denial, intellectualization, and compulsive studying.

Diagnoses which must be considered include primary depression, anorexia nervosa, and an adjustment reaction. Although there is a strong paternal family history of depression, neither girl meets criteria, as established by Feighner et al. (1972), for a primary affective disorder. Criteria for anorexia nervosa are currently being debated (Rollins and Piazza, 1978). Feighner's requirement of a 25% weight loss is criticized by Rollins as too restrictive, especially for patients who begin dieting at a near-normal weight. Rollins and Piazza recommend adopting two criteria—a 20% body weight loss, and/or a weight loss which places the patient 20% below average weight for height for age. One of our twins, Karen, met the first of these standards; both clearly qualified for a diagnosis on the basis of the second. Rollins and Piazza further recommend two criteria of essential psychopathology: a pervasive sense of inadequacy and a disturbed body image, both of which were present in Kristin and Karen. Each twin had the feeling that she was valued not as an individual, but only as part of the twinship. Alone each was inadequate; adequacy could be gained only through the twinship.

The third diagnosis for consideration is an adjustment reaction, which requires an obvious psychosocial stressor as a precipitant. It is tempting to speculate, but difficult to prove, that the change in school situations precipitated the girls' illness. Perhaps, as Rollins and Piazza suggest, it would be more constructive to view anorexia nervosa as a developmental deviation of adolescence. Depression, changes in eating patterns, and instability of body image are characteristics of normal adolescence which are hypertrophied in the
illness of anorexia nervosa. The conflictual urge to remain dependent upon the family was made more intense by the father’s almost full-time presence in the home as a result of his job change. Concern for weight and eating was a frequent theme in this family and may have influenced the choice of symptoms.

As the treatments of these girls developed, the focus was more on the twinship than on anorexia nervosa. Many of the issues dealt with by Burlingham and Leonard were manifest in this family, including the mother’s initial ambivalence and difficulty in bonding, the social pressures, and the twins’ initial defense of denying differences. Three of Winestine’s four twinning indicators suggested faulty individuation at the onset of treatment. Noteworthy was the considerable improvement in all three as therapy progressed. With the improved individuation, the girls’ sense of adequacy increased. A number of factors facilitated the successful outcome of our cases in a relatively brief period. The entire family was intelligent, psychologically minded, and highly motivated. There were significant conflict-free areas of functioning. Finally, the focus on separation-individuation rather than on the disturbed eating behavior was maintained through intense collaboration between the therapists, who attempted to make maximal use of their own unique aspects to aid the girls’ differentiation.

References


