

A STUDY OF MOTHER'S ATTITUDE ABOUT TWIN'S  
INDIVIDUALITY AND TWIN'S SELF ESTEEM

by

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A Thesis

Presented to  
The Oregon Health Sciences University  
School of Nursing  
in partial fulfillment  
of the requirements for the degree of  
Master of Nursing

June 11, 1982

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This study was supported by a United States  
Public Health Service Traineeship from  
Grant Number 2A11 NU 00250-04  
and  
Grant Number 2A11 NU 00250-05

## ACKNOWLEDGEMENTS

I acknowledge with gratitude the guidance, encouragement, unending support and friendship given me by my advisor, Dr. Mary Ann Curry. I would like to thank Cathie Burns and Dr. Sherry Boyd for their support, and critical editorial assistance.

I am grateful to Dr. David Hay and the La Trobe Twin Study for the Twinness Survey. Special thanks are extended to Donald Keith and the Center for the Study of Multiple Gestation for their encouragement, the marvelous ideas of Israel and the Third International Congress on Twin Studies. A very warm thanks to the MOTC in the area for their willingness to participate and the enjoyment I had from meeting them. Thanks to Thom for all his understanding.

A loving thank you to my parents, brother, Grandma, and Kitty of course for all being there when I needed you. And for that immortal "Get to work kid".

Thank you to Janice, my special friend, who throughout these two years made my life so much more jubilant. I know that ours is a friendship that will endure.

And thanks to my crazy friend LOK-LOK alias 331 or Sunny LaBomba, better known as Donna, for being my courtyard buddy. Our happy memories I carry with me always.

And lastly to my adorable Godson, Gavin Smith, who through knowing and loving you and your family made this dream a reality.

*m. l. m.*

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## CHAPTER I

### INTRODUCTION

Self-esteem is a significant component of a child's developing self. A child's development of self-esteem begins very early in life and is influenced by many factors. Parents are probably the most significant factor in the development of a child's self-esteem, although environment, peers, siblings and society also contribute to its development. Approximately two in 80 children are twins (Collier, 1974; Theroux & Tingley, 1978) and one important factor in the development of twin's self-esteem is whether or not they are treated as individuals. This study will focus on the relationship between the self-esteem of school-age twins and their mother's attitudes about them as individuals.

Considering that mothers influence the development of their child's self-esteem, it is important to study if a mother's attitudes about her twin's individuality is related to her child's self-esteem. With continued research and education in the area of twin's self-esteem, mothers may be able to do more to enhance their children's self-esteem by encouraging individuality. This has several implications for nursing. Nurses are involved with teaching parents of new twins in the postpartum unit and Pediatric Nurse Practitioners care for twins and educate parents as their twin

children grow and develop. School nurses counsel teachers and parents about twins. Thus the need to be aware of how to foster positive self-esteem in twins is significant to nursing.

### Review of the Literature

In the review of the literature, four major topics will be discussed. They are: general information about twins; mother's attitudes about twins; the separation-individuation process; and self-esteem theory including mirror theory, model theory, and stability of self-esteem. A summary of these four topics will conclude the review.

#### Twins

Twins occur approximately once in 80 births. This may vary with different races or climates. The highest twinning rate is among Negroes, with an incidence of one in 70 births. The incidence among United States whites is one in 90 and among the Chinese, one in 300 (Collier, 1974; Theroux & Tingley, 1978). There are two types of twins, identical (monozygotic) and fraternal (dizygotic). Monozygotic twins are produced much less frequently, generally between three and four out of every 1,000 births, regardless of other variables. There are many factors which affect the incidence of dizygotic twin births, such as the mother's age, number

of previous children and heredity (Collier, 1974; Theroux & Tingley, 1978).

Attitudes about twins and their similarities are culturally influenced. Twins are not a usual occurrence in families and they attract a lot of attention in most settings. They are a unique phenomena and people are likely to take notice of them. Some of the myth-like beliefs that culture and society places on twins are: they look alike and think alike, they never fight, and they have a closer relationship than any other known to mankind (Leonard, 1961). Another belief is that parents of twins are doubly blessed and should do everything to emphasize and maintain the twin relationship. These cultural attitudes emphasize the positive aspects of having twins but completely omit the frequent problems that arise. The problems with pregnancy, delivery, caring for two small infants, and intensified sibling rivalry are often overlooked.

A comparison study of 63 monozygotic twin pairs and 54 dizygotic twin pairs, ages 13 to 19 years, was done on their perceptions of likeness and attitude toward being a twin by Reznikoff, Domino, Bridges, and Honeyman (1973). On eight of the 10 items on the questionnaire, monozygotic twins showed significantly ( $p < 0.001$ ) greater similarity than the dizygotic same-sex twins. The items of similarity were:

interests, hobbies, sharing a room, enjoying the same foods, getting the same grades, liking the same sports, attending the same school, and being mistaken for each other. The monozygotic twins perceived themselves as more similar to each other than did dizygotic twins.

Leonard (1961) studied a different aspect of likeness in twins. She found that the extent to which the twins resemble each other influences the development of mutual dependency and is not specifically related to zygosity. The more the twins look alike, the more they attract each other. The more they resemble each other, the harder it is for their mothers to relate to each one as an individual. This is especially important because singleton children usually do not encounter this problem. Singleton children do not have someone that resembles them so precisely, thus constant attraction to a sibling is not as common, and their mother probably does not have as difficult a time relating to each as an individual.

Twin's mothers are not the only ones who have difficulty relating to each child as an individual. Other family members, teachers, and friends may also have trouble discerning one from the other. Most importantly, each twin child may also have difficulty feeling like he is a separate individual.

As twins grow older it is important to understand that the one human being who is most constant within the twin's world is his own twin. This close relationship between twins can cause a sense of oneness, or lack of separateness. This especially close association between twins is known as intertwin identification.

Intertwin identification often retards the maturation of both individuals, causing language problems, and interfering with the formation of other object relationships state Joseph and Tabor (1961). Just as the dependency on the mother prevents complete separation of the maternal and self images in the single child, the dependency of one twin on the other often causes their self-images to remain blurred. If no other relationship interferes with twinning reaction, identification intensifies. Although these difficulties appear to be overcome in the course of development, if primary intertwin identification is emphasized neurosis, psychosis, and intertwin dependence may occur (Leonard, 1961).

The actual incidence of intertwin dependence appears rare, however. Paluszny and Abelson (1975) conducted a retrospective study of the number of referrals to a children's psychiatric clinic over a six-year period. They found that only 22 of the 2,015 referrals were twins, which is half the number that would be expected on the basis of the national

incidence of twins. There were three monozygotic and 19 dizygotic children, ages 4 to 13 years. In 12 of the 22 cases, only one member of a twin pair was referred, the remaining 10 children were five twin pairs. The twins were referred for the following reasons: learning problems or developmental delays; behavioral problems (aggressive, impulsive, or hyperactive behavior); neurotic problems and psychosomatic difficulties. Two sets of twins were referred for twin dependency. Although these two cases were the only ones in which the referral was for intertwin problems, it was found during the evaluations that 12 other twin relationships were described as problematic. Two showed excessive rivalry and two pairs showed dependency of one or both twins.

Though the number of referrals of twins to a children's psychiatric clinic was half of what would have been expected, their problems were significant. The twin group showed a higher incidence of learning problems and developmental delays, whereas, a higher incidence of psychoneurotic, psychosomatic, and behavioral problems occurred in the singleton control group. The authors questioned why only half the expected number of twins were referred. They speculated that the extra support provided by the twin relationship may have prevented more serious problems in some twins from becoming evident.

Cohen, Allen, Pollin, Inoff, Werner, and Dibble (1972) studied eight monozygotic twin pairs and two dizygotic twin pairs personality development from birth to 4 years. In their study both parents were in the home and they were white and middle or upper-middle socioeconomic class. This longitudinal study of twins lead to the generalization that the better endowed newborn, usually the first born, develops into the more secure, trusting, and developmentally advanced child during the first year of life and the more assertive, actively coping and competent toddler.

Koch (1966) studied the characteristics of monozygotic and dizygotic twins. She found that dizygotic twins have some unique problems. In her sample, the dizygotic same-sex males were more competitive and aggressive than either monozygotic twins or a controlled sample of non-twins. The dizygotic different-sex twins showed concern and conflict over disapproval. Koch postulated that dizygotic twins are exposed to the same comparisons as monozygotic twins but have less support from the twinship. Perhaps, the fraternal twin pair is more vulnerable to external pressures.

Many factors influence twins, the first and probably strongest of these is their mother. How a mother perceives her twins, how she feels about them will influence her interaction with them. Thus mother's attitudes are a very



important aspect of a twin child's growth and development. In the next section, the review of the literature regarding mother's attitudes about twins will be reviewed.

#### Mother's Attitude About Twins

A mother, before she has given birth to twins, will already have had a certain attitude toward twins as a result of her own life experiences. She may have friends that are twins or had a fantasy of having a twin herself. These factors will influence her thoughts and determine her behavior towards her own twins (Burlingham, 1946).

Parents can have both feelings of great pride and delight and feelings of despair and dissatisfaction about having twins. Even if at first they were dismayed, the interest and curiosity that twins create affects all mothers of twins and they usually begin to feel proud and happy about their twins (Leonard, 1961).

This feeling of pride may be one of the reasons why mothers have a tendency to either increase the similarity of the twins or look for differences in the twins. For example, mothers may choose to increase similarities and dress them alike, give them like-sounding names and have their hair styled the same. This is done with non-identical as well as identical twins as long as they are babies and toddlers. Later, as the non-identical twins look less alike

and develop individual personalities, the mothers generally will respond to this change and treat them more as individuals. Identical twins are generally kept alike much longer. On the other hand, mothers who look for differences may start immediately after birth, to search for any dissimilarity in looks, behavior, and character (Burlingham, 1946).

Allen, Greenspan, and Pollin (1976) observed, that if parents felt the individuality of each twin was important, a parent was likely to be especially sensitive to differences in twins and form a distinctive and special relationship with each child. When individuality was not important to the parents, this tendency was not as evident. Schienfeld (1976) and Sater (1979) also found that when twin children are thought of and treated as a unit, it can hinder the development of their individuality. Much earlier, Burlingham (1952) was aware of the need for parents to be alert to the individual differences in their twins and to respond appropriately to each one as he displays his own unique behavior.

Paluszny and Gibson (1974) studied the mother's role in enhancing either mutual dependence or independence in dizygotic twins. Ten pairs of same-sex and different sex twin, aged 3 to 5 years comprised their sample. The

children were observed in a nursery school setting in an effort to determine what factors influenced the twinning relationships. They found that five pairs showed some form of mutual dependency, four pairs were same-sex, while only one pair was different-sex. These twin pairs preferred each others company to all other people. In considering the factors that promoted this mutual dependency, the mother-child relationship was crucial. In all cases where mutual dependency was evident, the children had obvious difficulties in separating from their mothers.

In two cases, only one twin showed a dependency, with the second twin acting very independently. In both of these instances the twins were premature and the dependent twin was handicapped. In both situations the mothers fostered the dependency of the handicapped twin by encouraging the independent twin to take care of his sibling.

In three twin pairs, there was minimal or no dependency noted. One pair was different-sex twins and the other two were same-sex twins. The twins readily played with their peers and had little difficulty separating from their mother. It appeared that the mothers' attitudes toward the twins was a crucial factor in the twinning relationship.

As indicated in the two studies just cited, the mother can convey to her twins her expectations of them and her attitudes about them as individuals. It is also important

to note that the way in which the mother behaves toward the twins may also affect the rest of the family and friends in the way they promote or thwart the individuality of the twins. Obviously, a mother's behavior and attitude can have a profound effect on whether twins perceive themselves as a set or as two separate beings (Sater, 1979).

A mother's attitude about twins will probably be different than her attitude about single children. There could also be differences in the separation-individuation process between single and twin children. For a child to attain a sense of self, he must first go through a process of separation and individuation. Some research regarding the separation-individuation of twins is available, but it is not complete nor clearly understood. In the next section, the literature regarding separation-individuation will be reviewed.

### Separation-Individuation

Terry (1975) states that every child goes through a separation-individuation phase in their growth and development. This is a complex process for a single child and is complicated in many ways for same-sex twins. The singleton child's separation-individuation process as described by Mahler (1972), will be discussed in order to understand some of the problems faced by same-sex twins.

Through the first month of life the infant does not see himself as separate from his mother, i.e., he cannot differentiate between actions of his mother which meet his needs such as her comforting him and actions of his own which bring him relief such as sucking. After the first month the infant becomes vaguely aware of his mother as a need-satisfying object. He behaves as though he and his mother were "an omnipotent system--a dual unity with in one common boundary" (Mahler, 1972, p. 110). In order for the child to proceed smoothly into the phase of separation and individuation, this symbiotic phase needs to be strong and adequate. Mahler viewed the separation-individuation phase as the interconnecting of two developmental processes rather than a single process.

Differentiation, the first subphase of separation-individuation, occurs about the age of 4 to 5 months. In this period the infant first begins to move away from his mother while still remaining close by.

The differentiation phase proceeds and overlaps with the beginning of the second subphase, the practicing period. During this phase, the 7 to 16 month old child ventures away from his mother by crawling, climbing, and walking to investigate the world at some distance from her.

Rapproachment, the third phase of separation-individuation, is from about 15 months to 22 months. He has become more confident and skilled in his ability to walk and increasingly aware of his physical separateness, thus experiencing more separation anxiety when his mother is not immediately available. As his individuation continues, his increasing awareness of his separateness causes him to try to devise ways to prevent separation from his mother. There is no turning back at this point as he gradually realizes that his parents are separate individuals.

A fourth subphase occurs during the third year called "the child on the way to object constancy" (Mahler, 1972). The child develops a mental image of his mother so she becomes available to him in thought. If the separation-individuation process goes smoothly, the child should emerge with a stable image of the self.

Scheinfeld (1967) states that at birth, each twin is confronted with a situation in which there is another individual of exactly the same age who is always present and making demands, along with himself, on one mother. Twins rarely, if ever, experience the luxury that a single born child has of being the sole recipient of mother's attention. This is significant as the symbiotic phase needs to be strong and adequate for the separation process to proceed

smoothly, and with twins the mother is simultaneously involved in two symbiotic relationships.

Leonard (1961) hypothesized that " the extent to which one twin is aware of the existence of the other in the first weeks of infancy, there must be a sense of oneness, or rather a lack of perception of separateness (p. 307)." Yet twins react to their mother as singly born children do, each one gradually becoming aware of her existence, and responding to her with pleasure. As singleton children develop an early emotional attachment to the mother, a twin develops two early attachments simultaneously, one to his mother and one to his twin (Burlingham, 1961), which according to Mahler (1972) occurs at the same time.

Burlingham (1961) found that initially, each twin responds to his mother individually but gradually, when each one becomes aware that the other exists, they become conscious of the pleasure they give their mother as a unit. These inter-relationships become more complicated as the separation-individuation process progresses in twins. Even if a mother encourages her infants to become more independent, it is not always certain that this outcome will occur. Her actions may influence her twins to become separate from her but also motivate them to seek the companionship of each other. "They may not struggle toward individuation, but replace mother by each other" (Ortmeyer, 1968-70, p. 138).

Also occurring is the mother's attachment to the twins. Gromada (1981) reports, mothers of twins often attach to "the unit" the twins, first. Rarely does anyone speak of the mother's own need to develop an intimate relationship with each infant. If she does not develop strong feelings of attachment with each of her babies, how can she ever get to know and, therefore, treat each twin as an individual. A child soon realizes whether or not he is loved and held in esteem as a unique person or as half of a whole. All of these factors can contribute to a slow start in the developing mother-infant relationship.

A twin will have a much more difficult time than a singleton in individuating himself from his mother, as he not only has the problem of individuating from his mother but also from the other twin. This need to individuate himself from the mother and the other twin will occur at the same stage of development and so presents each twin with a dual task (Demarest & Winestine, 1955). Some authors hypothesize that parents can influence and encourage this individuation process in their twins.

Allen, Greenspan and Pollin (1976) studied eight identical twin pairs and two fraternal twin pairs and their families. The authors investigated the effects and the importance of parents' perceptions on their children's



evolving personality structures. They found if individuality was important to a parent, the parent was likely to be especially sensitive to differences in twins and to form a distinctive and different relationship with each child. When individuality was not important, the tendency for separate and distinctive relationships was not as strong. The types of twins that have the greatest difficulty establishing separate identities are monozygotic twins and dizygotic same-sex twins (Theroux & Tingley, 1978). Ortmeyer (1968-70) and Paluszny and Beit-Hallahmi (1974) found it was even more intricate and complex for monozygotic twins as they had more problems in separating from their twin. This may be due in part to the phenomenon of twinning reaction.

The frequent development of a close association between twins has been described as twinning reaction, twinning interaction, intertwin identification, we-self, or complementarity (Burlingham, 1952; Leonard, 1961; Lidz, Schafer, Fleck, Cornelison, & Terry, 1961; Ortmeyer, 1968-70). Joseph and Tabor (1961) defined twinning reaction as mutual interidentification and part fusion of the self-representation and the object-representation of the other member of the pair. They found that this situation leads to a "diffuseness of ego boundaries between the two people" (p. 277).

As twins are developing their sense of self as separate individuals, the process is complicated by identification and imitation with their twin. Intertwin identification can develop early and persist if no other relationship interferes with it. Burlingham (1952) observed identical twins in this constant process of identification with each other. She suggested it was the similarity of emotional experiences which kept identical twins "identical" in spite of acquired differences.

Joseph and Tabor (1961) summarized the separation-individuation process in twins very well,

This drive toward the "twinning reaction" is opposed in the course of maturational growth by a drive toward separation and individuation. It is the interplay between the "twinning reaction" and the striving for the individuation that form the matrix for the behavior of twins and for understanding the nature of twinship (p. 297).

Since separation-individuation of twins is different than single children, there could also be differences in the development of their self-esteem. This investigator could not find any research regarding self-esteem theory and twins. Currently only self-esteem theories regarding individual children is available. In the next section, the literature regarding self-esteem theory will be reviewed.

### Self-Esteem Theory

Before the turn of the century, William James, an early American psychologist, formulated his theory of self-esteem development. James (1892) observed that how a person feels about himself depends on what he believes himself to be and do. He suggested that our feelings of self-worth and self-esteem grow in part from our perceptions of where we see ourselves in relation to persons whose skills, abilities, and aptitudes are similar to our own. We evaluate ourselves according to how others think we are and how others respond to us. Thus, the way a child perceives how significant others respond to him influences the way he feels about himself. Two predominant theories of self-esteem which are derived from this study of the self which were further developed by Bandura (1964), Cooley (1909) and Mead (1934) are mirroring and modeling. Mirror theory will be discussed first.

### Mirror Theory

The mirror or reflective theory stresses the evaluative responses of others, the feedback others give to a child regarding his appearance to them. Pioneers in the field of the study of self, such as Cooley (1909), James (1891), Jersild (1952) and Mead (1934) theorized that the process of self-esteem development was a product of the reflected appraisals of others, especially significant others.

Jersild (1952) was concerned with the development of children's self-esteem. He believed that the self develops as a person meets with life's experiences, and is influenced by his relationships with other people, especially significant other people. The development of self-esteem is influenced by the child's growing powers of perception and, in time, by his ability to imagine, formulate concepts, and to appreciate values and commitments. A child's perception of how others respond to him obviously affects his development of self-esteem.

Not all individuals are equally important to the development of a person's self-esteem. The credibility and importance of evaluative reactions of others for the person varies to the extent that these individuals constitute significant others in the person's social world (Sullivan, 1955). A child is highly dependent on the evaluations of his parents and other family members, since the family is usually the first primary group to which an individual belongs. Thus, parents play an important role in the development of their child's self-esteem.

Allen, Greenspan, and Pollin (1976) used mirroring theory in their study. They studied eight families with monozygotic twins over a one year time period to see the effect of parental perceptions on early development in twins.

Their observations showed that the parent's perception of the difference of each twin delineated the role expectation for each twin. They would subtly encourage conformity of that role and slowly each child's behavior would develop in the way the parents saw him. For example, if they saw the child as strong and outgoing, the child's behavior was more adventuresome and active, as the child reflected his parent's perceptions of him. This evaluative concept of mirror theory is quite different from the modeling theory of self-esteem described next.

#### Modeling Theory

Another self-esteem theory proposes that modeling or imitation influences the development of self-esteem (Bandura & Kupers, 1964). According to this theory, a child identifies with a parent and through the process of modeling will acquire self-attributes through the perception and incorporation of the parent's attributes. In other words, the child's self-esteem will model after his parent's self-esteem.

Using this theoretical framework, Bandura and Kupers (1964) studied 80 girls and 80 boys ages 7 to 9 years. Bandura and Kupers postulated that a child's self-evaluation may be dependent upon the degree to which he matches the behavior of the model he has chosen for comparison.

Thus, if the model is a parent he will probably imitate the parent's behavior. To test this, children participated in a task with an adult or peer model. It was predicted and demonstrated that adults were a more powerful modeling stimuli than peers.

According to modeling theory parents remain the major influences on the child's self-esteem for quite some time. Later in middle childhood peer, sibling, and cultural factors become influencing factors in the development of self-esteem.

Thus, two of the most popular, and to some extent competing, explanations of the development of self-esteem identified thus far are reflection or mirror theory and the imitation or model theory. The mirror theory proposes that the parental evaluation of the child is undoubtedly related to the child's self-esteem while the modeling theory proposes that the parent's self-esteem is related to the child's self-esteem.

Gecas, Calonico, and Thomas (1974) questioned which theory, mirroring or modeling, was more influential in the development of a child's self-esteem. They studied 219 intact, nuclear families with one college age and one high school age child. Each family member completed questionnaires to measure self-evaluation and evaluation of other

family members in four areas, general evaluation, worth, power, and activity.

The questionnaires included a semantic differential composed of 10 adjective pairs, each set on a five-point Likert-type scale. Each family member rated himself and each of the other family members on the semantic differential. This then produced the measures of self-esteem of each family member.

For every comparison of self-evaluation and evaluation of other family members, the mirror theory had stronger correlations. The differences in the size of the correlations between mirroring and modeling were statistically significant ( $p < 0.05$ ) for six of the 24 comparisons. They found that the younger children tended to model their parent's behaviors more than the older children. This was consistent with the rather common observation that children begin to identify less with parents as they get older and as their scope of relations expand. It was expected that older children would mirror their parents less than younger children. This was not the tendency noted, as the correlations indicated that parental influence was stronger for older children.

The authors believed that most of the variance in self-esteem was unaccounted for by the familial factors

they had considered in this study. They concluded that the data favored the "looking glass" conceptions of self-esteem formation.

Using the mirror theory, Coopersmith (1967) studied the self-esteem of 1,748 fifth and sixth grade boys and girls and their parents and teachers appraisals of them. The families studied were from fairly diverse socioeconomic backgrounds but the large majority were middle class. All the families were intact, however, part of the sample had a separation or divorce previous to this time.

The purpose for the study was to test the assumption that self-esteem is significantly associated with personal satisfaction and effective functioning. The likelihood that family experiences will be an important source of self-esteem in this age group is likely because these children are still highly dependent upon their parents and are very likely to employ the family context and its values to judge their own worth. The children's scores on Coopersmith's Self-Esteem Inventory ranged from 40-100, with a mean of 71 and a standard deviation (S.D.) of 13.5. The mean score for males was 70; with a S.D. of 14 while females mean score was 72; with a S.D. of 13. The distribution was skewed in the direction of high self-esteem.



Coopersmith found that self-esteem is higher among first born and only children than it is among children who occupy other positions in the family. The family size and socioeconomic status were unrelated to the child's self-esteem. An interesting finding was that children from families marked by divorce or separation had lower in self-esteem scores.

In the interviews with mothers of the subjects, questions were asked about the child's mental health. The questions related to problem areas and difficult period in childrearing, description of any emotional problems and the child's ability to get along with others, as well as description of the child's mental health. From the interviews, it was found that 60 of the low self-esteem group manifested frequent or serious problems. This is four times greater than the percentage of the high self-esteem group and almost twice the percentage of the medium self-esteem group. These findings indicate a significant, positive relationship between self-esteem and mother's appraisal of the child's mental health in this sample (Coopersmith, 1967).

One limitation of Coopersmith's study might be using only the child's subjective evaluation of his self-esteem. This overlooks a vital component, his behavior (Coopersmith, 1959). If self and observer evaluations are done,

a more complete assessment of self-esteem could be made. Also, this is a fairly homogeneous sample and these conclusions cannot be generalized to other populations.

#### Stability of Self-Esteem

Self-esteem is considered to be relatively stable by middle childhood. Engel's (1959) longitudinal study of 172 eighth and tenth grade students investigated the stability of adolescent's self-concept over a period of time. A Q-sort was used to test 100 self-concept items. The subject placed the item in one of 11 categories ranging from "most like me" to "least like me". The test-retest reliability was 0.68 over a 10 day period. Engel found that the self-concept of adolescents were relatively stable over this period of time. This implies that the stability, internal organization, and crystallization of the self-concept is achieved earlier in development. The long-term stability of self-concept of these same adolescents was defined by relatively high correlations between self-concept Q-sorts in 1954 and 1956. The overall mean correlation over the two years was 0.53 for all subjects. Corrected for attenuation, the overall mean correlation was 0.78.

Subjects whose self-concepts were positive in 1954 were significantly ( $p < 0.05$ ) more stable over the two-year period than subjects who had negative self-concepts in 1954. Over this two-year period almost 50 percent of the subjects maintained a positive self-concept, with 20 percent shifting either toward positive or negative self-concept (Engel, 1959). This data supports Coopersmith's premise that an individual's concept of himself achieves a rather high degree of organization during early childhood.

Coopersmith's (1967) definition of self-esteem which uses mirror theory, has been selected for this study.

According to Coopersmith, self-esteem refers to:

The evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy. In short, self-esteem is a personal judgement of worthiness that is expressed in the attitude the individual holds toward himself (p. 4-5).

Positive or high self-esteem is satisfaction with the self's abilities, actions and achievement. The self is compared favorably with others in these respects; others are perceived as being friendly and respectful to the self and the person feels worthy. Conversely, negative or low self-esteem is self-derogation and dissatisfaction with various aspects of the self. The person has feelings of

unworthiness, guilt, self-criticism, and self-aggression (Coopersmith, 1967; Sears, 1970).

### Summary

The review of the literature has covered the following areas: general information about twins; mother's attitudes about twin's; separation-individuation process; and the self-esteem theory. Notably absent in the literature are studies relating to self-esteem development in twin children. However, there is evidence that a mother's attitude about twin's individuality will probably have an effect on the development of the twin's self-esteem. These gaps in the literature will be addressed in the following conceptual framework.

### Conceptual Framework

Twins occur in approximately one in 80 births. Although the incidence of dizygotic twins is far greater than monozygotic, they both have similar problems in growth and development and the development of their self-esteem. Dizygotic twins usually look more like siblings yet people have a difficult time relating to both monozygotic and dizygotic twins as individuals. If the twins do not feel as though they are separate individuals but part of a unit, this can

lead to a diffuse sense of self and blurred self-image which may negatively effect their self-esteem.

Mothers have an important impact on twin children's development as a unique person. Some mothers may have a difficult time relating to her twin children as separate individuals. Mothers who respond to their twin children as individuals will help them attain their own separate identities.

Mothers are a major influence in self-esteem development during childhood. According to the mirror theory of self-esteem, it is a significant other, usually mothers, who influences children the most. Thus, if a mother's evaluation of her child shows that individuality is important, the child will feel like a special and separate being. A child who feels like his mother views him as a special individual should have a healthy self-esteem.

Thus, it would appear that mother's attitudes about twin's individuality may be one important factor in the development of twin children's self-esteem.

### Statement of the Problem

The development and achievement of a favorable attitude toward one's self is vitally important, as a healthy self-esteem is associated with personal satisfaction and effective functioning. It is possible that twins may have a more difficult time developing a favorable self-esteem because they must share their mother's affection and attention. Further, they are also the same age, and may be the same sex and therefore comparisons may be made between them. Thus, differentiating them as individuals may be difficult. This may delay the process of separation-individuation and as a result intertwine identification may occur. If this occurs, psychosocial problems may develop.

Mother's influence the development of their twin children's self-esteem. A mother who can identify each of her twin children as separate individuals and encourages their individuality may help the development of their self-esteem. On the contrary, a mother who does not identify each of her twin children as individuals may be hindering the development of the self-esteem of each child.

Using this reasoning, the following research question was formulated:

Do twins of mothers who have a favorable attitude toward their individuality have a healthier self-esteem than twins of mothers who do not have a favorable attitude toward their individuality?

## CHAPTER II

### METHODS

The aim of this study was to determine if there is a relationship between twin's self-esteem and their mother's attitude about their individuality. This study was conducted in the Portland-Vancouver metropolitan area. The sample consisted of 23 school-age twin pairs, 12 monozygotic and 11 dizygotic same-sex pairs.

The twin subjects were selected from the four Mothers of Twins Clubs (MOTC) in the area. Dizygotic different-sex twins were not used as the investigator hypothesized that mothers of male-female twins would have less problems identifying them as individuals as they were different sexes. Leonard (1961) and Burlingham (1952) support this by pointing out that it is easier for the mother to relate to twins as individuals when distinct differences exist than to those who are very much alike. One obvious difference that would help in relating to twins as individuals would be if they were different sexes.

#### Sample

The four Mothers of Twins Clubs provided the majority of the twin subjects in the sample. This was done by obtaining the list of twins on the present Northwest MOTC



Research Roster. A total of 26 pairs were found on this roster that met the criteria for inclusion in the study.

The following criteria were used in the selection of all subjects:

- 1) The subjects were fourth, fifth, or sixth grade, male and female children.
- 2) The subjects were healthy and were free of any chronic illness, visible physical disfigurement, or gross functional disability.
- 3) The twin pair subjects were in the same grade at school.

Twenty-six mothers were contacted by telephone and 23 agreed to participate in the study. The three mothers who chose not to participate were either busy or out of town for the duration of the study.

#### Measurement of Variables

The independent variable, mother's attitudes toward twin's individuality was measured by the La Trobe Twin Study of Development, "How I see having twins in the family", Twinness Survey (1980). The dependent variable, twin children's self-esteem was measured by Coopersmith's Self-Esteem Inventory (1967). Additional data was obtained from the mothers on a Demographic Data Sheet.

### Independent Variable

The La Trobe Twin Study of Development, Twinness Survey (see Appendix C) was designed to measure mother's attitudes toward their twin's individuality. This 10 item scale was constructed as part of the larger La Trobe Survey (June, 1980) regarding the family's view about having twins in the family. The 10 items are answered on a five-point, bi-polar scale that approximates a mother's view of twin members individuality. There are two opposing statements for each item, the subject circles the number closest to how she usually feels.

Three items were added to the Twinness Survey (1980) by the investigator. She felt that they also measured Mother's Attitudes about individuality. The three items added to the original survey were:

- |     |   |           |   |
|-----|---|-----------|---|
| 11. | I think twins should be compared to each other.               | 1 2 3 4 5 | I think twins should not be compared to each other.         |
| 12. | I believe the twins have very different assets and abilities. | 1 2 3 4 5 | I believe the twins have very similar assets and abilities. |
| 13. | I spend most of my time with the twins together.              | 1 2 3 4 5 | I spend most of my time with each twin separately.          |

These items were scored both separately and with the other items. The three items appeared after the 10 original statements on a separate page so as not to affect how subjects

answered the first items.

These three items were based on the literature related to parent's attitudes about comparing twins with one another, parent's evaluation of their twin's assets and abilities, and parent's choice to spend time with twins alone or together (Allen et al., 1976; Collier, 1974; Koch, 1966; Scheinfeld, 1967; Theroux & Tingley, 1978).

In scoring the Twinness Survey, the mother's attitudes toward individuality were scored by summing the ratings assigned to each of the 13 items. A low score on seven of the items indicated that the mother's attitude about twin's individuality was not positive. These items were numbers 1, 2, 5, 6, 8, 11, and 13. The other six items: 3, 4, 7, 9, 10, and 12, were reversed, with a low number indicating a strong attitude about each twin's individuality. These latter six items numbers were reversed when adding up scores as a high score would always mean that a mother's attitude about individuality was stronger. The potential range of scores is between 13 to 65. A low score on the Twinness Survey implies that a mother's attitude toward twin's individuality is not strong, while a high score reflects an attitude that individuality is important.

The La Trobe Twin Study of Development has not reported any established reliability or validity regarding the Twinness Survey. The tool was chosen for this particular study

despite the absence of reported reliability and validity because it is the only instrument available in the literature which was developed for the purpose of assessing a mother's attitude toward her twin's individuality. A telephone conversation on November 17, 1980 with Pauline O'Brien at La Trobe University, Australia, developer of the Twinness Survey revealed that content of the scale is from several sources: 1) questionnaire by R. Wilson; 2) questions from mothers of twins in Australia; and 3) an extensive, 10 year review of the literature (O'Brien, 1980).

To improve construct and content validity of the tool, it was presented to a panel of experts in Pediatrics. These experts included Pediatric Nurse Practitioners, Pediatric Nursing Instructors and the Executive Director of the Center for Study of Multiple Gestation. Both the original 10 items and the three designed by the investigator were evaluated by this panel for construct and content validity. The panel found all 13 items of the scale were clearly stated, easily understood, and measured attitudes about twin's individuality.

Although validity has not been established by the authors of this tool, it is evident after reviewing the research on the attitudes of mothers about twin's individuality that the tool contains attitudes that are consistent with the attitudes described by various researchers. These

attitudes have been described as: twins alikeness (Collier, 1974; Terry, 1975; Tingley & Theroux, 1978); calling them "the twins" (Leonard, 1961; Tingley & Theroux, 1978); dressing them differently (Collier, 1974; Koch, 1966; Scheinfeld, 1967; Terry, 1975; Tingley & Theroux, 1978); asking them out separately (Scheinfeld, 1967; Tingley & Theroux, 1978); treating them as individuals (Allen et al., 1976; Ortmeyer, 1968-70; Tingley & Theroux, 1978); giving one twin a privilege without giving it to the other (Collier, 1974); giving different presents for their birthday (Tingley & Theroux, 1978); comparing them to each other (Allen et al., 1976; Collier, 1974; Koch, 1966; Scheinfeld, 1967); distinguishing twins as having very different abilities (Allen et al., 1976; Collier, 1974; Scheinfeld, 1967; Tingley & Theroux, 1978); and spending time with each twin (Collier, 1974; Scheinfeld, 1967; Tingley & Theroux, 1978).

#### Dependent Variable

The dependent variable was the child's self-esteem. This was measured by Coopersmith's Self-Esteem Inventory (1967) (see Appendix D). Coopersmith's Self-Esteem Inventory measures self-esteem from the child's own perspective of his self-esteem. Thus, the child evaluated himself. Most of the items in this inventory were based upon selected items from Rogers and Dymond Scale (1967).

Rogers and Dymond's Scale was developed to measure adult self-perception. The tool used a Q-sort of 74 statements printed on cards. The subject placed each card in one of 11 separate piles arranged along a continuum from "least like me" to "most like me". Half of the 74 items were indicators of good adjustment and should be placed on the "like me" side, while the other 37 items represented poor adjustment and belonged on the "unlike me" side. The score for the hypothetically well-adjusted person is 74, which is the optimal score anyone could attain. To reach this score, 37 items indicating good adjustment must be placed on the "like me" side and all 37 items representing poor adjustment placed on the "unlike me" side.

Coopersmith (1959) developed his Self-Esteem Inventory (SEI) for children in a similar manner. Beginning with items from the Rogers and Dymond Q-sort just described, all the statements were reworded for use with children, 8 to 10 years old. Coopersmith then added and eliminated items according to expert's judgement. The final inventory consisted of 50 items concerned with the subject's self-attitudes. The 50 items in the final scale were agreed upon by five psychologists as indicating either high or low self-esteem. Repetitious and ambiguous items were eliminated.

The 50 items were tested for comprehensibility with a group of 30 children.

On the Self-Esteem Inventory, the child indicated his response to each item as either "like me" or "unlike me". In the response column, "like me" or "unlike me", the subjects made a mark indicating how he usually felt about himself. Eighteen of the items marked "like me" and 32 marked "unlike me" indicated the optimal level of self-esteem. See Appendix D for the correct responses. Each correct response was worth two points. The number of correct responses for each individual was summed. The summative score could range from zero to 100, with individuals scoring higher having a more positive self-esteem.

The final form of the Self-Esteem Inventory was administered to two fifth and sixth grade classes of boys and girls. The scores ranged from 40 to 100; with a mean of 82.3 and a S.D. of 11.6. The mean score of the 44 boys was 81.3 with a S.D. of 12.2; the mean score of the 43 girls was 83.3 with a S.D. of 16.7. The difference between the mean scores for boys and girls was not significant. The distribution of scores was skewed in the direction of high self-esteem. Five weeks later, the Inventory was readministered to 30 of the fifth grade children and a test-retest reliability of 0.88 was obtained.

The Self-Esteem Inventory was subsequently administered to a total of 1,748 children attending a public school. These children were more diverse in ability, interest, and social background than the initial sample. The mean for the males was 70.1 with a S.D. of 13.4, which was not significantly different from that of the girls mean of 72.2 with a S.D. of 12.8. Again, the distribution of scores was skewed in the direction of high self-esteem. Test-retest reliability after a three-year interval with a sample of 56 children from this population was 0.70.

Several reliabilities have been reported. Taylor and Reitz (1968) found a 0.90 split-half reliability for the instrument, while Fullerton (1972) reported a split-half reliability of 0.87. A test-retest reliability by Fullerton (1972) reported 0.64 over a 12-month interval.

Convergent validity was established by Taylor and Reitz (1968) with a correlation of 0.45 between the California Personality Inventory self-acceptance scale and Cooper-smith's Self-Esteem Inventory. Taylor and Reitz (1968) also found a discriminate validity correlation of 0.75 with the Edwards scale and 0.44 with the Marlowe-Crowne Social desirability scale.



### Demographic Data

After the tests were administered, all mothers were interviewed to obtain Demographic Data (see Appendix E). Information obtained regarding the number of children in the family, age, and educational level of mother, marital status, membership in Mothers of Twins Clubs, zygosity of the twin and history of chronic illness. Socioeconomic status was estimated by Hollingshead's (1957) Two-Factor Index of Social Position, which combines education and occupation.

### Design

This study used a correlational design to explore the relationship between a mother's attitudes toward her twin's individuality and their self-esteem. The mother's attitude toward twin's individuality was measured by the La Trobe Twin Study of Development, Twinness Survey (1980) and the children's self-esteem was measured by Coopersmith's Self-Esteem Inventory (1967).

### Procedure

The investigator contacted the Northwest Mothers of Twins Clubs research chairperson and obtained a list of names of school-age children from the four MOTC's in the

Portland-Vancouver metropolitan area. The MOTC mothers were contacted by telephone and an explanation of the purpose of the study given. They were told that the study was concerned with school-age twin children's self-esteem and mother's attitudes towards twin's individuality. Mothers were told the length of time required for the study would be 30 to 40 minutes. Mothers were requested to talk with their children and obtain the child's consent for participation. If the children were not home or unavailable at that time, a time was arranged for the investigator to call back, so the mothers could discuss the study with their children.

After the subjects agreed to participate, arrangements were made for data collection at a date and time best for the mothers and their children. If there was more than one week between the initial phone call and the appointment, a reminder phone call was made the night before the visit. At the time of the initial phone call, the investigator gave the mothers her phone number and they were instructed to call if they had any questions prior to the visit.

In the home, the purpose of this study was briefly explained again and the consent forms discussed. The consent forms (see Appendices A & B) were explained thoroughly to each mother and twin child, and then signed. Instructions

were given to the mothers and the twin children separately. They were asked not to communicate or share answers during the testing period. There was no time limit set for answering the questions. The investigator talked with the children first as their inventory was longer than the mother's survey.

The children were told that there are no right or wrong answers and that no one would know that this was his/her paper because there would be no names on the paper, only code numbers. The investigator kept a master list of names and code numbers which was destroyed after all the data was collected.

The children were asked to complete the Self-Esteem Inventory by checking the response that described how they usually felt about each statement, either "like me" or "unlike me". They were asked to answer all items. If the meanings of any particular word or phrase was not known to the subject, or if the subject had a question concerning any of the items, he/she was instructed to ask the investigator who provided a definition from Webster's School and Office Dictionary. Several fourth grade children asked for the word "opinion" to be defined.

The investigator then talked to the mothers. The mothers completed the Twinness Survey by circling the number

that corresponded to how she usually felt about that statement. The mothers were also assured that there was no right or wrong answers and that whatever she felt about each statement was correct. The data was coded to assure anonymity as previously described. The mothers were interviewed after they completed the La Trobe Survey.

The last two questions of the interview were:

- 1) How important is maintaining individuality of each of your twins? and
- 2) How much do you encourage this?

These questions were given to the mothers on separate 4 x 6 cards with the numbers corresponding to the possible answers printed on the cards. An example is:

How important is maintaining individuality of each of your twins?

1    2    3    4    5

Very Important

Not Important

The mothers chose the number that best described their feelings about their twins.

These last two questions of the interview dealt with the mother's attitude about twin's individuality and were compared to the Twinness Survey. It was felt by the investigator that another instrument to measure mother's attitude

about twin's individuality would increase the value of that variable. This allowed the investigator to compare these two questions and the Twinness Survey and see if any correlation existed. When analyzed by Spearman's rho, it was found to have no significant correlation ( $\underline{r} = -0.25$ ;  $\underline{p} < 0.12$ ).

#### Analysis of Data

Non-parametric statistics, Chi Square and Spearman's rho were used for analysis because of the nominal and ordinal nature of the data. They are considered some of the most powerful statistical tests in the category (Polit & Hungler, 1978). Chi Square was used to test the research question that a mother whose attitude about her twin's individuality is positive will have twins with healthy self-esteem. This was done by combining the twin's self-esteem scores and averaging them, producing one self-esteem score. Also, using the Chi Square, each twin's self-esteem score was analyzed separately with his mother and then each twin compared to the other to ascertain if there were differences between them.

Most of the demographic data obtained was used to describe the sample. Chi Square statistics were used to determine if there was a significant difference in the

self-esteem scores between twins by age group, zygosity, sex, mother's educational level, mother's age and mother's involvement in the Mothers of Twins Clubs and length of time as a Mothers of Twins Club member.

Spearman's rho was used to correlate mother's attitude about twin's individuality and length of time in Mothers of Twins Club and involvement in the Club. Spearman's rho was also used to correlate the La Trobe Twinness Survey and the investigator's additional items.

## CHAPTER III

### RESULTS AND DISCUSSION

This study was designed to describe mothers of twins attitudes about twin's individuality and same-sex school-age twin's self-esteem. In this chapter the sample and the two major variables, self-esteem and mothers' attitudes about individuality, will be discussed. First, the findings related to each variable will be presented. Then, the research question which links the variables will be addressed. The findings related to the extraneous variables and incidental data conclude the chapter.

#### Sample

The sample was comprised of 23 pairs of twins and their mothers. It was a sample of convenience in that it included mothers of twins in the Mothers of Twins Clubs in the Portland-Vancouver area who fit the criteria for subject selection. The age range of the mothers was 32-46 years with a mean age of 38 years. The majority of mothers (83%) were between 32 and 40 years old.

Table 1 identifies the twin pairs by grade and age. They were 8 to 13 years old and in the fourth, fifth, or sixth grade in school. There was a moderately even distribution of the children by age and grade.

Of the 23 pairs of twins, there were 11 female and 12

Table 1  
 Frequency Distribution of Twin Pairs  
 by Grade and Age

Age (in years)	4th grade	5th grade	6th grade
8	N=1 (4%)		
9	N=4 (17%)		
10	N=4 (17%)	N=2 (9%)	
11		N=4 (17%)	N=1 (4%)
12			N=6 (26%)
13			N=1 (4%)
Total	N=9	N=6	N=8



male pairs. None of the twins in the study had a chronic illness or physical or mental disability.

Zygoty had been determined by blood test or placental examination for most of the twins. Thirty-nine percent (N=9) were monozygotic and 48 percent (N=11) were dizygotic same-sex twins. The zygoty of the remaining three was unknown, but thought to be monozygotic. This was because friends and teachers mistook them for one another and physical characteristics were the same (Joseph & Tabor, 1961).

The total number of children living in each home ranged from two to six. Only one family had just the two twin children. Eight families had three children, eight families had four children, five families had five children and one family had six children. Two families had two sets of twins. One family had monozygotic girls in the sixth grade and dizygotic boys in the fourth grade, while the other family had dizygotic boys in the fourth grade and dizygotic girls in the fifth grade.

Three of the twins' mothers were single parents, while 20 were married. Except for one Latin American mother, all mothers were Caucasian. Twenty fathers in the study were Caucasian, and there was no data available on three.

Thirty-four percent of the twins' mothers had finished

high school, 43 percent completed one or two years of college or business school, and the last 22 percent finished three or four years of college. The mean number of years of education was 13.

The fathers' educational background data were similar to the mothers. The mean number of years of education was 13.5. Only four percent had not finished high school, while eight percent had obtained their Masters Degree. Thirty-four percent completed twelfth grade, 29 percent one or two years of college or business school and eight percent finished three or four years of college. There was no data available on the educational background of 13 percent of the fathers.

The families' socioeconomic status was obtained by the use of Hollingshead Two-Factor Index. This index, shown on Table 2, scored education level and occupation and then designated class level, with Class I being the highest socioeconomic level and Class IV being the lowest. The largest percentage of families were in Class III (48%) and Class II (35%). Only 13 percent were in Class IV, and four percent in Class I. Thus, the majority of the families in this study were in the middle class.

All of the mothers belonged to the Mothers of Twins Club. Though the length of time in the club varied from

Table 2

Family Socioeconomic Status by  
Hollingshead Two-Factor Index

---

Class	I	II	III	IV
	N=1 (4%)	N=8 (35%)	N=11 (48%)	N=3 (13%)

---

1 year to 13 years, 87 percent (N=20) had been a member for more than five years whereas only 13 percent (N=3) had been members for one year or less. The large majority (N=19) of the mothers felt they had been moderately or very involved with the Mothers of Twins Club while only four felt they had been less involved. The three who were members the shortest length of time were also the least involved. These mothers felt it did not meet their needs or serve much purpose. It appeared to them to be more social than educational in focus.

In summary, the sample mothers were middle class, Caucasian, married, high school graduates and Mothers of Twins Club members. The children were healthy, fourth, fifth, or sixth grade, monozygotic or dizygotic same-sex Caucasian twins.

#### Findings Related to Mother's Attitudes About Twin's Individuality

The findings related to the first variable, mother's attitudes about twins individuality will now be discussed. The range of scores obtained on the Twinness Survey was 37-58, the potential range being 13-65. The mean score was 46 with a S.D. of 6. Figure 1 shows the frequency of scores on the mother's attitudes about twin's individuality.

Positive and negative attitudes about individuality

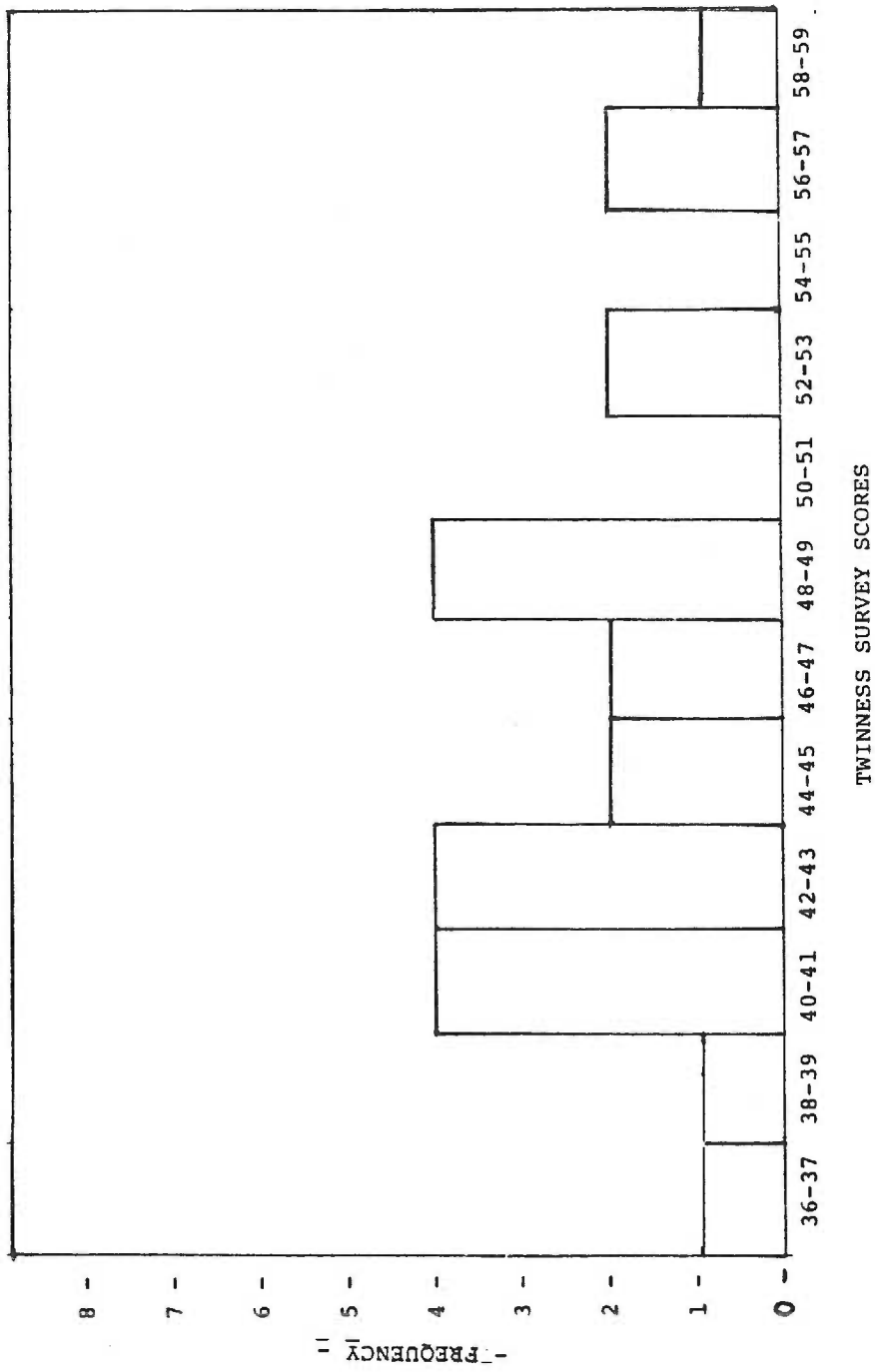


Figure 1. Histogram of Mother's Attitudes About Twin's Individuality (N=23).

were set above and below the mean, 46, respectively. This dividing point was chosen by the investigator for this study so that the data could be used for comparative purposes. The La Trobe Twin Study has not reported a range of scores or normative values on this tool.

The investigator decided assignment of positive and negative values to the scores was necessary so the data could be used for comparative purposes. The low and high scores, below and above the mean, are relevant to this sample only. The investigator is also aware that all the scores are within two standard deviations of the mean so that the range is rather limited. Thus a limitation of this study would be that the investigator arbitrarily decided that a score below 46 was negative and above 46 was positive, when indeed there was just one point difference. Possibly with a larger sample size there may have also been a larger range.

There are no studies to compare these results to, but the scores show a tendency for mothers to have a more positive attitude about twins as individuals than negative. One possible explanation of this tendency might be that all the mothers were members of the Mothers of Twins Club. The club may educate these mothers regarding the importance of twins' individuality.

As stated previously there is no established reliability or validity of the Twinness Survey. Cronbach's alpha was used to measure internal consistency of the Survey. An alpha of .58 was obtained on the 13 questions and an alpha of .47 for the original 10 questions. The investigator's three questions ranged in correlation from .02 to .64 indicating they were probably measuring attitudes about individuality.

Validity of the scale items was tested using Spearman's rho. A correlation of .94 ( $p < .001$ ) was obtained between the original 10 items and the 13 total items. A correlation of .69 ( $p < .001$ ) was obtained between the investigator's three items and the 13 total items.

#### Findings Related to Twin's Self-Esteem

##### Individual Twin's Self-Esteem Scores

The findings related to the second variable, twin's self-esteem will now be discussed. Figure 2 shows a histogram of the twin's self-esteem scores. The range was 48-96, with a potential range of 0-100. The mean was 76, with a S.D. of 12. Higher scores indicate higher self-esteem.

The range of scores for this sample was not particularly large but it did show a tendency toward positive self-esteem. This is consistent with the research by Coopersmith

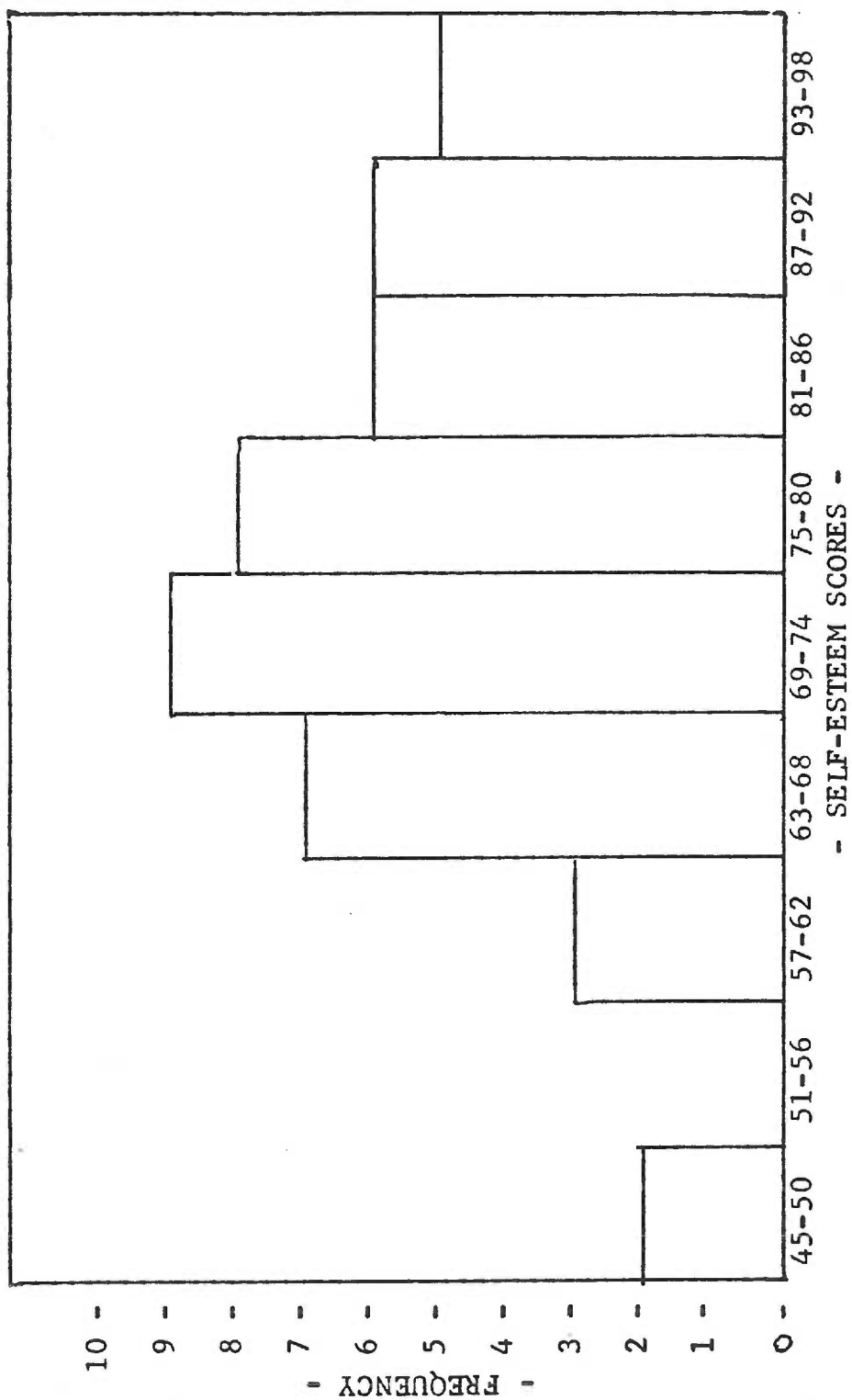


Figure 2. Histogram of Each Twin's Self-Esteem Score (N=46).



which found self-esteem to also be in the direction of high self-esteem. One might speculate as to why twin children's self-esteem in this study tended to be positive. Perhaps the mothers of these twins felt that their twin children were special and unique. If this was her attitude, the mirror theory of self-esteem development would conceptualize that these children felt special and unique. These feelings of worthiness, then, were reflected in a positive self-esteem.

Not only were the individual twins' self-esteem scores fairly similar to each others, but each twin pair's scores were also similar . Figure 3 shows the comparison of similarities of self-esteem within each twin pair. As can be seen, Twin pair A had scores of 70 and 64, and Twin pair B both had a score of 58. This demonstrates that most of the pairs had similar self-esteem scores. In all but six pairs the two scores were either both above the mean or below the mean. Except for these six pairs there was little difference between the self-esteem scores in this sample. The similarities between twin pairs self-esteem scores did approach significance ( $\chi^2 = 15.7, df 9, p < .07$ ).

#### Twin's Mean Self-Esteem

Figure 4 shows a histogram of the twin pairs mean self-

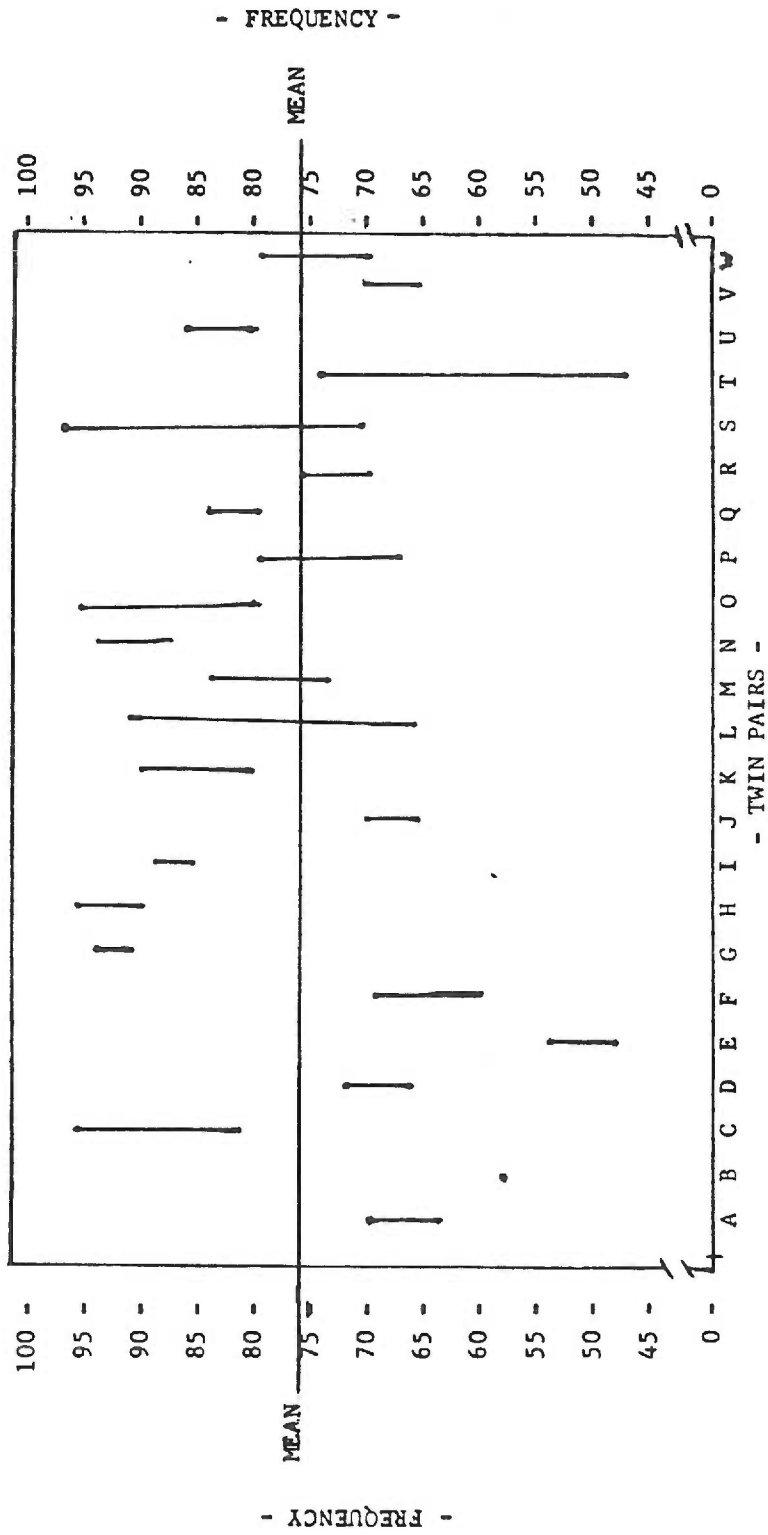


Figure 3. Comparison of Similarities of Self-Esteem Within Each Twin Pair (N=23).

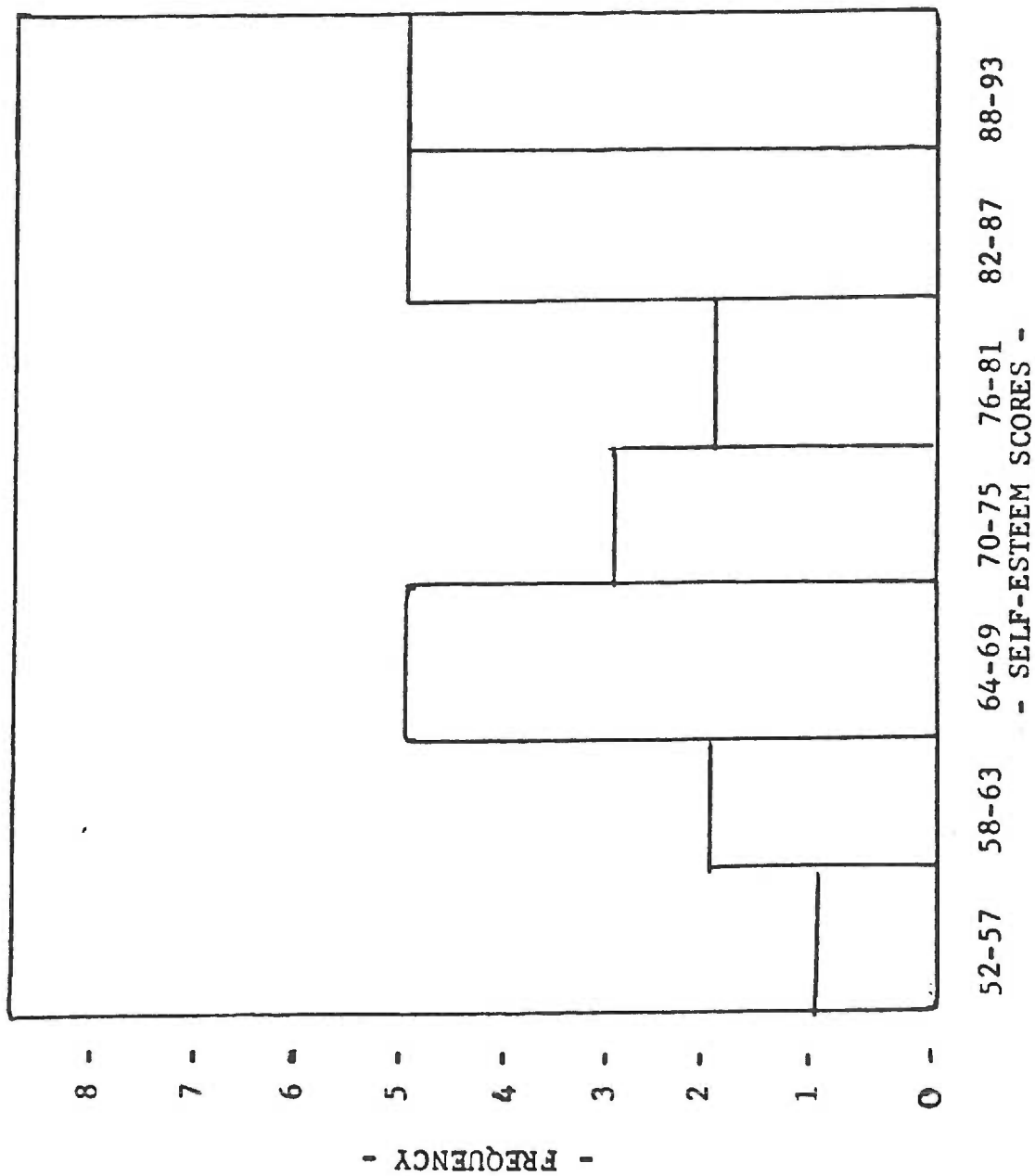


Figure 4. Histogram of Mean Self-Esteem Scores of Twin Pairs (N 23)

esteem scores. The range was 52-93 with a mean of 76 and a S.D. of 12. This range is similar to the individual self-esteem scores. When comparing the two histograms, Figures 2 and 4, they show that there was little difference between mean and individual self-esteem scores.

It was necessary to average the twin pairs self-esteem scores in order to compare the twin's self-esteem with the mother's attitude about individuality. By combining the self-esteem scores, there is some regression toward the mean. However, the greatest regression occurs for the six pairs of twins who had one score above the mean and one score below. One limitation of using the mean self-esteem score is to lose, by regression, the differences of the six pairs who had discrepant self-esteems.

To compare scores, positive self-esteem was set above the mean and negative self-esteem below the mean. This can be seen on Table 3. As Coopersmith's Self-Esteem Inventory does not have a specific range for positive or negative self-esteem scores, the investigator chose the mean for the cut-off point. There are two reasons for choosing the mean to display the self-esteem findings. First, Polit and Hungler (1978) state that the mean is the most stable of the measures of central tendency. Because of its stability, the mean is the most reliable estimate of the

Table 3

Mean Self-Esteem Score of Twin Pairs  
on Coopersmith's Self-Esteem Inventory

Negative Self-Esteem		Positive Self-Esteem	
51-63	64-76	76-88	89-100
N=4 (18%)	N=7 (30%)	N=7 (30%)	N=5 (22%)

central tendency of a population. Secondly, when comparing the mean and median in this study, the mean and median were always within two points of each other.

In this study, the mean self-esteem score of 76 and a S.D. of 12 were similar to Coopersmith's study. Coopersmith (1967) had a mean self-esteem score of 70 with a S.D. of 13 for males, and a mean of 72 with a S.D. of 12 for females. Other studies have found a slightly lower mean self-esteem score. Donaldson (1974), Reed (1972), and Trowbridge (1972) studied fourth, fifth, and sixth grade, mostly middle and lower class children's self-esteem. They found the mean self-esteem scores of these child to be 58-70 (see Appendix F).

Now that the two major variables, self-esteem and mother's attitude about twin's individuality have been discussed separately, they will be addressed together in terms of the research question.

#### Findings Related to the Research Question

##### Relationship Between Mother's Attitudes About Twin's Individuality and Twin's Self-Esteem

This study focused on the following research question: Do twins of mothers who have a favorable attitude toward their individuality have a healthier self-esteem than do twins of mothers who do not have a favorable attitude toward

their individuality? Figure 5 shows there was no significant relationship found between mother's attitudes about twin's individuality and twin's self-esteem ( $\chi^2 = 9.1$ ,  $df = 9$ ,  $p < 0.42$ ). As seen from Figure 5, there were mothers who scored high on the attitude scale and their twin's self-esteem score was low. So even if the mother's attitude about her twin's individuality was positive, her twins may have had negative self-esteem.

The investigator found no literature that specifically considered twin's self-esteem and mother's attitudes about twin's individuality. Since the findings were not significant, maybe other variables also influence a child's self-esteem. Other possible explanations might be the small sample size and the low reliability of the mother's attitude scale.

The literature on mirror theory of self-esteem development (Cooley, 1909; Gecas, et.al., 1974; James, 1892; Jersild, 1952; and Mead, 1934) suggests that it is the reflected appraisal of others that influences the child's self-esteem development. Thus, if the mother thought of the child as bright, cheerful, loveable, and important and his perception of his mother's attitude about him was also the same, this would help create a healthy self-esteem. It would seem these other variables also influence self-esteem

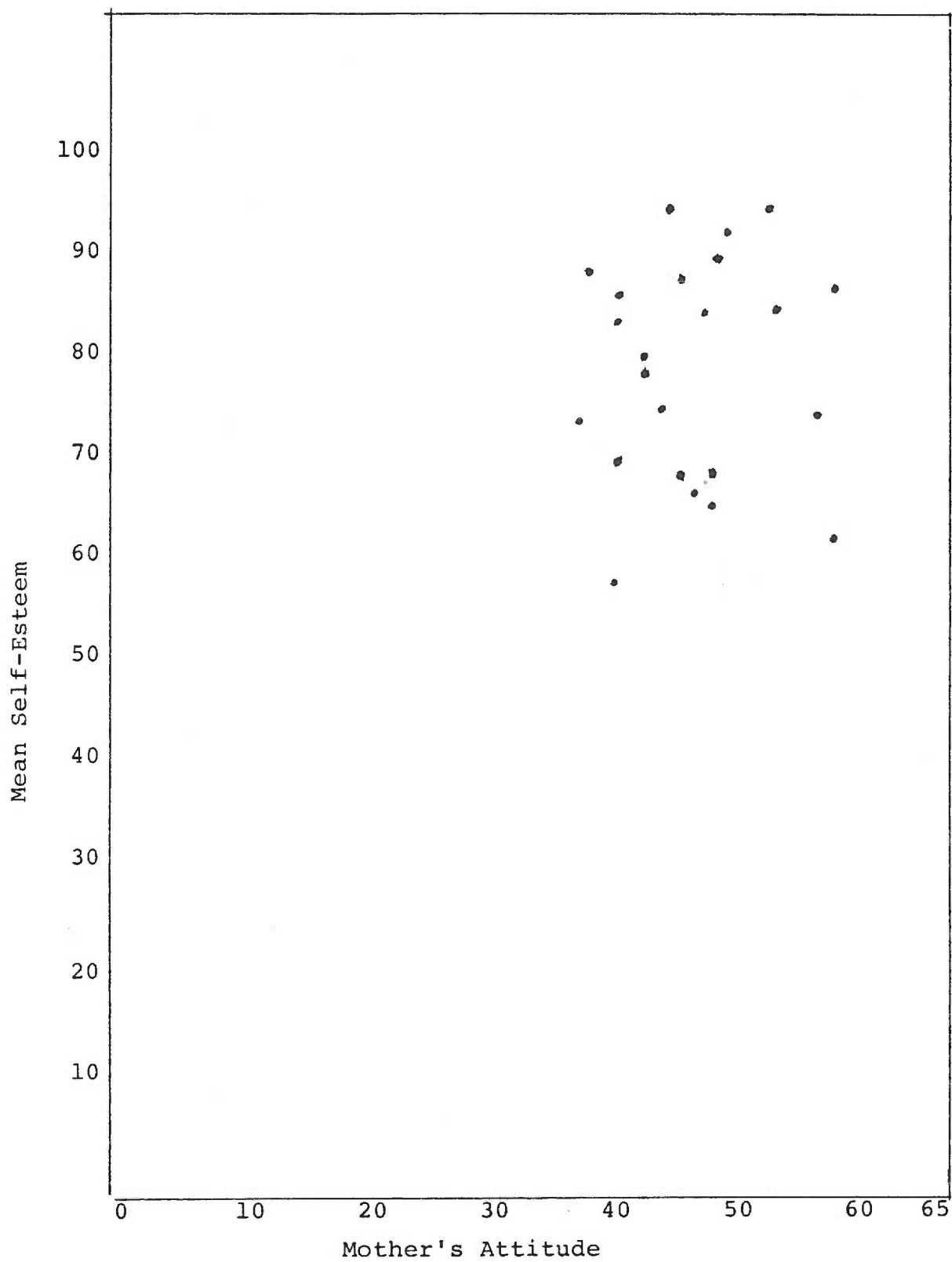


Figure 5. Scatter Plot of Mother's Attitude about Twin's Individuality and Twin's Mean Self-Esteem (N=23,  $\chi^2=9.1$ , df 9,  $p < 0.42$ ).



development and maybe individuality was not the crucial variable.

On the other hand the model theory (Bandura & Kupers, 1964) assumes that it is the mother's self-esteem the children model after. Thus, if the mothers had a positive self-esteem, the twins would too. This would need to be looked at in a future study.

It is difficult to try and explain the results of this finding. The twin children basically had healthy self-esteem. Whether or not the mother professed to have value in individuality, or not, the twins' self-esteem tended to be high. Perhaps, the mother's attitude about individuality was more operational than was measured on the instrument. Conceivably it could be a combination of other variables, such as peer relationships, present academic standing or relationship with siblings and parents. Evidently, self-esteem is not the sole variable to be studied in regard to the importance of individuality and twin's future well-being.

Though no conclusions can be drawn from the finding, many new and potentially fruitful ideas have been presented. Now that the major findings of this study have been addressed the extraneous variables will be discussed.

### EXTRANEIOUS VARIABLES

Many variables can influence self-esteem development. The investigator felt that birth order, zygosity, and sex of the twins might be revelant. It was also thought that birth order and zygosity might affect the mother's attitude about individuality.

#### Relationship Between Birth Order and Twin's Self-Esteem

There was very little variance between first-born and second-born twin pairs self-esteem. Nine of the first-born and second-born twin pairs had positive self-esteem scores while eight pairs had negative self-esteem scores. The remaining six pairs had one twin in the pair with a positive score and the other with a negative one. Figure 3 shows the discrepant pairs. These findings approached significance by Chi Square correlation ( $\chi^2 = 15.7, df 9, p < .07$ ). Thus, it would appear that except for six pairs of twins, the first and second-born twin pairs' self-esteems are similar. The mean self-esteem of the first-born twins was 78 while the mean of second-born twins was 74. This also is a very small difference. Again, this supports using the mean of the two twins to examine the research question, as significant regression only occurred in six pairs.

Of the six pairs with discrepant self-esteem scores,

five first-born twins had positive self-esteem and one had negative self-esteem. Conversely, only one second-born twin had a positive self-esteem and five had negative scores. Thus in comparing these six first and second-born twin's self-esteem, it was noted that first-born twins in these six pairs had a higher self-esteem score than did second-born.

The investigator observed while collecting the data that the first-born twins were usually more outgoing and self-assured than the second-born. It was noted by the investigator that the first-born twin had an easier time making decisions, volunteered information more readily to the investigator, talked more while the investigator was present and was more directive of the other twin. To speculate, the second-born twin may have been more anoxic from being delivered second and, from that effect, may have lowered self-esteem. Cohen, et. al. (1972) supports this with his findings that the better endowed newborn twin which is usually the first-born, is more likely to develop into the more secure, trusting and developmentally advanced child who is more assertive and competent.

#### Relationship Between Zygosity and Twin's Self-Esteem

There were no significant differences between mono-

zygotic and dizygotic twin mean self-esteem scores and, as can be seen in Table 4, there was no difference in the positive and negative self-esteem scores and zygosity. This is not what was expected. The investigator had anticipated that monozygotic twins would have lower self-esteem scores because their mothers would have a more difficult time relating to each of them as individuals. Thus, the monozygotic twins would feel like they were not separate, unique children. Leonard (1961) supports the idea that monozygotic twins' mothers have a more difficult time relating to each as an individual because they are so much alike. However in this sample positive and negative self-esteem was evenly distributed between monozygotic and dizygotic twin, even though the mothers valued individuality.

Using the mirror theory it might be assumed that mothers of dizygotic twins would respond to their twins more easily as individuals than mothers of monozygotic twins because of the more easily recognizable differences. Since this sample did not show a difference between monozygotic and dizygotic twin's self-esteem scores, perhaps the mothers all had positive evaluations. There may have been other positive reflections giving them a sense of individuality. Another possible explanation might be regression toward the mean. Because each set of twins self-esteem scores were

Table 4  
Positive and Negative Self-Esteem Scores  
and Twin's Zygosity

	Monozygotic Pairs N = 12	Dizygotic Pairs N = 11
Positive SE	6 (26%)	7 (30%)
Negative SE	6 (26%)	4 (18%)

$\chi^2 = 2.8$  df 6  $p < 0.82$

averaged, there was not much variation between sets of twins. Examining this more closely, Table 5 displays each twin's self-esteem score with zygosity.

If the individual score is examined, there is more variation between self-esteem and zygosity. Table 5 shows that more monozygotic twins have positive self-esteem than do dizygotic twins. The table also reveals that dizygotic twins have almost twice as many negative self-esteem scores than positive while monozygotic twins have one-third more positive self-esteem than negative self-esteem. Again this was not expected. It is difficult to explain why the monozygotic twins' self-esteem was higher. Possibly the positive reflection of yourself as your companion creates a feeling of security and well-being. Perhaps the monozygotic twin's abilities, likes and dislikes etc. are so similar there is little competition between them and more of a close supporting relationship (Reznikoff, et.al., 1973).

Again the mirror theory may give a possible explanation of why monozygotic twins appear to have a better self-esteem. Not only is the mother a significant influence on a twin's self-esteem, but so is his twin. Identical twins mirror each other in physical characteristics and have

Table 5  
Each Twin's Positive and Negative  
Self-Esteem by Zygosity

	Monozygotic	Dizygotic
Positive SE	14 (30%)	8 (18%)
Negative SE	10 (22%)	14 (30%)

a very close emotional relationship. Thus, monozygotic twins have a positive reflection of themselves in their twin, a potentially great source of positive feedback. Dizygotic twins do not have this reflection of themselves and may not have as close a relationship as monozygotic twins. Koch (1961) supports the findings that dizygotic twins have unique problems. She postulated that dizygotic twins are exposed to the same comparisons as monozygotic twins but have less support from the twinship. Perhaps, the fraternal twin pair is more vulnerable to external pressure.

There was not a significant relationship found between first and second-born twins self-esteem scores and zygosity. This would be expected since there was no correlation between the mean self-esteem scores and zygosity.

#### Relationship Between Sex of Twins and Self-Esteem

There was no significant correlation found between the mean self-esteem score and sex. Literature supports this as there was very little difference between male and female mean self-esteem scores in the Coopersmith study (Coopersmith, 1967). Although it will be recalled that in Coopersmith's sample the female mean self-esteem score was slightly higher.



When correlating first-born self-esteem score and sex of twin, there was a tendency for a positive correlation ( $X^2 = 6.1$ ,  $df\ 3$ ,  $p < 0.01$ ). There was no significant correlation between second-born self-esteem scores and sex. The correlation between first-born's self-esteem score and sex is probably an interaction between the fact that first-born twin's self-esteem was more likely to be higher than the second-born and the fact that females self-esteem was slightly higher than males. Though the correlation is not very high between sex and self-esteem the investigator felt it was supported by the impression that more of the female twins appeared to be self-confident, and were more communicative than male twins.

Relationship Between Mother's Attitude About Twin's Individuality and First and Second- Born Twin's Self-Esteem

This study found there was no correlation between the mother's attitude about twin's individuality and first or second-born twin's self-esteem score ( $X^2 = 9.3$ ,  $df\ 9$ ,  $p < 0.46$ ). There has been no previous literature to support or refute this result. This finding agrees with the findings of the major research question, that mean self-esteem and mother's attitudes about twin's individuality are not significantly correlated.

It appears that the mother's attitude about twin's

individuality does not influence the twin's self-esteem. As previously discussed, the mother's self-esteem or her relationship with the children may be a more influential factor in determining or developing a child's self-esteem.

#### Relationship Between Mother's Attitude About Twin's Individuality and the Twin's Zygosity

There was an even split of monozygotic and dizygotic twins in this sample. Zygosity of the twin was found to have basically no correlation to the mother's attitude about twin's individuality. These findings do not concur with findings in the literature which indicate there may be a relationship between mother's attitude about twin's individuality and their zygosity. Terry (1975) states that mothers of monozygotic twins may have more difficulty in seeing each of their twins as an individual because they are so alike, while mothers of dizygotic twins will not have such difficulty because they are different, more like brothers or sisters.

It is interesting to note, though it was not significant, there were more monozygotic twins whose mothers had a negative attitude about individuality. Possibly with a larger sample size a significant difference would appear.

Relationship Between Mother's Attitude About Twin's Individuality, Twin's Zygosity and the Twin's Self-Esteem

When the variable self-esteem was controlled, there was no significant correlation between mother's attitude about twin's individuality and zygosity. Thus self-esteem did not vary as a result of mother's attitude or zygosity of the twins. These were not the expected findings as it was hypothesized that monozygotic twins would have lower self-esteem scores because their mothers would have a more difficult time relating to them as individuals. The absence of such a correlation may be due to the mean self-esteem scores being within a narrow range. Using the mean score and having regression toward the mean, the monozygotic and dizygotic twins had an even distribution of positive and negative self-esteem scores, or the mothers had a fairly positive evaluation of their twins independent of the zygosity.

Relationship Between Mother's Attitude and How Important and How Much She Encourages Individuality

The investigator included two questions regarding individuality to see if they correlated with the mother's attitude scale. When interviewed about the first question, "How important is maintaining individuality?", all the mothers felt it was important. Seventy-eight percent (N = 18) felt it was "very important", 22 percent (N = 5) felt it

was "pretty important", and none of the mothers felt it was "just important", "sort of important" or "not important".

When asked the second question, "How much do you encourage individuality?", most of the mothers (52%) felt that they always tried to encourage individuality in their twins, while 18 percent felt they often encouraged individuality and 30 percent sometimes encouraged it. None of the mothers felt they "occasionally" or "very seldom" encouraged individuality. Yet when each question was compared with the mother's attitude about twin's individuality on the Twinness Survey, there was no significant relationship ( $r = 0.25$ ,  $p < 0.12$ ). It was evident that even though mothers appeared to value individuality, either: 1) the instrument did not reliably measure the mother's attitude; or 2) mothers were not actively encouraging individuality.

#### Incidental Data

Other data were collected on socioeconomic status, twin's grade in school, number of children in the family, marital status of parents, parent's education, and Mothers of Twins Club membership. This was related to the two major variables, self-esteem and mother's attitudes about twin's individuality. These variables were measured to see if they

influenced either self-esteem or the mother's attitude since Coopersmith's study (1967) found that many different variables such as marital status, birth order, and warmth and affection of parents did affect a child's self-esteem.

#### Relationship Between Mother's Attitude About Twin's Individuality and Socioeconomic Status

The families' socioeconomic status was not correlated with the mother's attitude about twin's individuality ( $r = 0.02$ ,  $p < 0.45$ ). This was probably due to the fact that the sample was too small and homogeneous to show any differences between socioeconomic statuses.

#### Relationship Between Self-Esteem and Grade in School

There was no significant correlation between the twins' self-esteem and their grade in school ( $\chi^2 = 7.5$ ,  $df 9$ ,  $p < 0.57$ ). This is consistent with literature that states that self-esteem is stable in this age and grade child (Engel, 1959).

The sample, being as homogeneous as it was, showed no relationship between grade in school and twin's self-esteem. This revealed that grade level was not a variant that influences self-esteem. This also indicates Coopersmith's instrument is stable for this age population.

Relationship Between Mean Self-Esteem Scores and Number of Children in the Family, Marital Status of Parents and Parent's Education

Several other variables were considered when determining what may affect the twins' self-esteem. The number of children at home in the family, marital status, and parent's education were not found to have significant correlation with the twin's mean self-esteem score. This is what was expected with the homogeneous sample in this study. Trowbridge (1974) reported that children of low and middle socioeconomic status have similar self-esteem scores, which this study is in agreement with. These extraneous variables measured were not significant, thus there was not a known variable creating a difference.

Relationship Between Mother's Attitude About Twin's Individuality and the Length of Time as a Member of the Mothers of Twins Club

Mothers included in this study had all been members of the Mothers of Twins Club for at least 1 year and as long as 13 years. The length of time as a member of the Mothers of Twins Club did significantly correlate with the mother's attitude about twin's individuality (Spearman's rho,  $p=0.007$ ). The longer a mother had been a member, the more likely she was to value individuality according to her mother's attitude score. Perhaps the mothers who had been in the MOTC longer

had more information about raising twins than did the mothers who had been in the club a short time. The Club is known for encouraging the importance of individuality of twins.

Interestingly, the length of time in the MOTC correlated with the mother's attitude about individuality but the involvement in the Club did not. However, involvement was measured by asking the mothers how involved they were in the Club: "very", "moderately", or "seldom involved". The three mothers who were the least involved with the Club had a low score on the mother's attitude scale. The three mothers who had belonged the shortest time and were the least involved all stated that the MOTC was not what they thought it would be. They felt it was much more social than they expected and did not provide the information and help they desired.

In summary, the major findings showed twin's self-esteem was positive and the mother's attitudes about twin's individuality was high. Yet, the major research question results were not significant, as mothers who had a high score on the attitude scale did not necessarily have twins with positive self-esteem. There was a slight difference in self-esteem by zygosity. Monozygotic twins had a slightly more positive self-esteem than did dizygotic twins.

## CHAPTER IV

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The summary, conclusions, and implications for nursing practice associated with this study are presented in this chapter. Recommendations for future research conclude the chapter.

#### Summary

This study focuses on school-age twin children's self-esteem because, the development of a positive, healthy, self-esteem is vitally important to their future functioning. It was conceptualized that mothers' attitudes about twins' individuality may relate to their twin children's development of self-esteem. One way this may occur is through the separation, individuation process when the twin child attains his identity. In addition, his mother's perceptions of him as a worthwhile individual, will also affect the development of self-esteem.

The purpose of this study was to examine if a mother's attitudes about her twin's individuality was related to his self-esteem. A convenience sample of 23 twin pairs and their mothers comprised the study population. The mother's attitude about twin's individuality was measured by the La Trobe Twinness Survey (1980). The twin's self-esteem was



measured by Coopersmith's Self-Esteem Inventory (1967). In addition, data were collected regarding the family's socioeconomic status, parents' age and educational background, number of children at home, sex, age, grade in school of the twins, and membership and involvement in the Mothers of Twins Clubs.

There was no significant correlation between the mother's attitude about twin's individuality and the twin's mean self-esteem score. It was noted that there was a similarity between the individual self-esteem scores and the mean self-esteem scores. Further examination of the data revealed that monozygotic and dizygotic twin had similar self-esteem scores, as did first and second-born twins. An interesting finding was that monozygotic and first-born twins had slightly higher self-esteem scores. There was no difference between sex, grade in school, number of children at home, and the twin's self-esteem score. Mothers who had been in the MOTC longer were more likely to score higher on the individuality attitude scale, while educational level, marital status, socioeconomic status did not relate to mother's attitude about individuality or the twin's self-esteem.

### Conclusions

The following conclusions can be drawn from the findings of this study:

1. The mother's attitudes about twin's individuality was not related to the twin children's self-esteem.
2. There was no significant difference between individual self-esteem scores within the twin pairs, although there was a tendency for the first-born twins to have a slightly higher self-esteem score.
3. The zygosity of the twins were not related to their self-esteem scores, although the monozygotic twins had slightly higher scores.
4. The mothers who had been in the Mother of Twins Club longer had a more positive attitude about twin's individuality.

### Implications for Nursing Practice

In addition to the general information regarding twins, the study provides several specific implication for nursing practice. Although not significant, mother's attitude regarding individuality correlates with twin's self-esteem, thus encouraging individuality is probably important. The obstetrical and nursery nurse can model this for parents of

twins. School health nurses and Pediatric Nurse Practitioners can teach the importance of twin's individuality and model it, too. Theoretically, nurses and teachers are in a good position to encourage each twin in his own area of expertise and always making the effort to call each by their name will add to their feelings of uniqueness. The nurse-teacher team together can help manage potential problems and try to meet the children's and parent's needs.

Secondly, there were differences noted between monozygotic and dizygotic twins. The monozygotic twins had slightly better self-esteem scores than did dizygotic twins. Although dizygotic twin may look different, they still have someone their own age and size doing most everything they do. Because they look different, people may not try as hard to differentiate between them and may even seek out the similarities, believing there should be some since the children are "twins". Thus, they may be treated more as a "pair" than monozygotic twins. One way to help dizygotic twins is to let parents, teachers, and friends know that they have their own special problems and needs as a twin. It is important then, to educate nurses, teachers and families about the differences and similarities of monozygotic and dizygotic twins.

Thirdly, Pediatric Nurse Practitioners who are more

involved with well-child care can do a great deal to help mothers of twins. The PNP can help these families encourage individuality and enhance self-esteem in ways already suggested. The PNP can also assess how mothers interact with their twin children and intervene or support present attitudes and actions.

Lastly, all health professional can encourage mothers to become members of the Mothers of Twins Club. One of the Club's philosophies is that individuality of twins is important, as was reported by the findings in this study.

#### Limitations

The results of this study are not generalizable because the sample size was very small and homogeneous. Another limitation is the fact that the tool used to measure the mother's attitude about twin's individuality, the La Trobe Study Twinness Survey (1980), does not have established validity and reliability. The investigator found a Cronbach's alpha coefficient of 0.47 for the original ten items and a 0.58 for all thirteen items, which is not very high. Thus, the significance of the findings revealed by this tool may be questionable.

Due to the limited scope of this study, the investigator chose to interview and use questionnaires on only one occasion.

Visiting the home more than once to assess the mother-twin and twin-twin interaction may have provided information which may have altered or clarified the results.

Finally, the twin's self-esteem was determined by self-evaluations only. The child's behavior, an important factor in assessing self-esteem, was not included in this study. Thus, a more complete assessment of self-esteem might have given other results than were obtained.

#### Recommendations for Future Study

The findings of the present study suggest a number of recommendations for further research. First, the study should be repeated with Coopersmith's Self-Esteem Inventory and Behavior Rating Form (1967). This would allow for a more complete assessment of the twin children's self-esteem.

Second, a study utilizing a larger sample might produce a different distribution of scores on each of the two major variables, self-esteem and mother's attitude about individuality. This may then allow for more accurate testing and may permit further significant relationships to be seen.

Third, a study using other variables that influence self-esteem such as affection and working mothers (Coopersmith,

1967) might clarify the issue.

Fourth, a study to test the model theory of self-esteem development might show that the mother's self-esteem and her twin's self-esteem are correlated. Thus, the twins' self-esteem would be related to their mother's self-esteem.

Fifth, a study examining specific differences between monozygotic and dizygotic twins' self-esteem might provide significant findings. Possibly the monozygotic twins could have higher self-esteem.

Lastly, tool development is important for the La Trobe Twinness Survey (1980) as the reliability and validity were not very high. Necessary modifications and pilot-testing should be done and reliability and validity established.

In final summary, although there was no significant correlation between the mother's attitude about individuality and twin's self-esteem, there was a relationship. It is possible with future research in nursing, to gain more knowledge about mother's feelings about twins and how these children cope with their unique lives as twins.

## REFERENCES

- Allen, M.G., Greenspan, L.I., & Pollin, W. The effect of parental perceptions on early development in twins. Psychiatry, 1976, 39, 65-71.
- Andrews, F., Klem, L., Davidson, T., O'Malley, P., & Rodgers, W. A guide for selecting statistical techniques for analyzing social science data. Ann Arbor: The University of Michigan, Institute for Social Research, 1978.
- Bandura, A. & Kupers, C. Transmission of patterns of self-reinforcement through modeling. Journal of Abnormal and Social Psychology, 1964, 69, 1-9.
- Burlingham, D. Twins. Psychoanalytic Study of Children, 1946, 2, 61-73.
- Burlingham, D. Twins. London: Image Publishing Co. Ltd., 1952.
- Cohen, D., Allen, M., Pollin, W., Inoff, G., Werner, M., & Dibble, E. Personality development in twins. Journal of the American Academy of Child Psychiatry, 1972, 11, 624-644.
- Collier, H. The psychology of twins. Phoenix, Arizona: Books, 1974.
- Cooley, C. Human nature and the social order. New York: Scribner, 1909.
- Coopersmith, S. A method for determining types of self-esteem. Journal of Abnormal and Social Psychology, 1959, 59, 87-94.
- Coopersmith, S. The antecedents of self-esteem. San Francisco: Freeman, 1967.
- Coopersmith, S. Norms for the Coopersmith Self-Esteem Inventory. (Mimeographed) Lafayette, California: Self-Esteem Institute, 1974.
- Davids, A. Self-concept and mother concept in black and white preschool children. Child Psychiatry and Human Development, 1973, 4(1), 30-43.

- Demarest, E. & Winestine, M. The initial phase of con-comittant treatment of twins. The Psychoanalytic Study of the Child, 1955, 10, 336-352.
- Donaldson, T. Norms for the Coopersmith Self-Esteem Inventory. (Mimeographed) Lafayette, California: Self-Esteem Institute, 1974.
- Engel, M. The stability of the self-concept in adolescence. Journal of Abnormal and Social Psychology, 1959, 58, 211-215.
- Fullerton, W. Self-disclosure, self-esteem, and risk taking: A study of their convergent and discriminate validity in elementary school children. Dissertation Abstracts International, 1973, 33, 5014.
- Gecas, V., Calonico, J.M., & Thomas, D.L. The development of self-concept in the child: the mirror theory versus model theory. Journal of Social Psychology, 1974, 2(1), 67-76.
- Gromada, K. Maternal-Infants attachment: the first step toward individualizing twins. The American Journal of Maternal Child Nursing, March/April 1981, 6, 129-134.
- Hamachek, D. Encounters with self. New York: Holt, Rinehart, & Winston, 1978.
- Havinghurst, R.J., Robinson, M.Z. & Dorr, M. The development of the ideal self in childhood and adolescence. Journal of Educational Research, 1946, 40, 241-257.
- Hay, D. & O'Brien, P. La Trobe twin study of development. Unpublished. Department of Genetics and Human Variation, La Trobe University, Bundoora, Victoria, Australia, June 1980.
- Hay, D. & O'Brien, P. Personal communication, November 19, 1980.
- Hollingshead, A.B. Two-factor index of social position. (Mimeographed) Hew Haven, Connecticut: Yale University, 1957.
- James, W. Psychology. New York: Harper and Brothers, 1961, (1st ed. 1892, Holt)
- Jersild, A. In search of self. New York: Teachers College Press, Columbia University, 1952.



- Joseph, E. & Tabor, J. The simultaneous analysis of a pair of identical twins and the twinning reaction. The Psychoanalytic Study of the Child, 1961, 16, 275-299.
- Koch, H.L. Twins and twin relations. Chicago: University of Chicago Press, 1966.
- Leonard, M.R. Problems in identification and ego development in twins. Psychoanalytic Study of the Child, 1961, 16, 300-320.
- Lidz, T., Schafer, S., Fleck, S., Cornelison, A., & Terry, D. Ego differentiation and schizophrenic symptom formation in identical twins. Journal of the American Psychoanalytic Association, 1962, 10, 74-90.
- Lowney, F. Construct validity in self-concept measures. Journal of the Association for the Study of Perception, 1975, 10(2), 15-19.
- Mead, G. Mind, self, and society. Chicago: University Press, 1934.
- Medinnus, G.R. & Curtis, F.J. The relation between maternal self-acceptance and child self-acceptance. Journal of Consulting Psychology, 1963, 27(6), 542-544.
- Mittler, P. The study of twins. Harmondsworth, Middlesex, England: Penguin Books, 1971.
- Ortmeyer, D.H. The we-self of identical twins. Contemporary Psychoanalysis, 1968-70, 5-6, 125-142.
- Paluszny, M. & Abelson, G. Twins in a child psychiatry clinic. American Journal of Psychiatry, 1975, 132, 434-436.
- Paluszny, M. & Beit-Hallahmi, B. An assessment of monozygotic twin relationships by the semantic differential. Archives of General Psychiatry, 1974, 31(1), 110-112.
- Paluszny, M. & Gibson, R. Twin interaction in a normal nursery school. American Journal of Psychiatry. March 1974, 131(3), 293-296.
- Perkins, H.V. Factors influencing change in children's self-concepts. Child Development. 1958, 29, 221-230.
- Polit, S. & Hungler, B. Nursing research: principle and methods. New York: J.B. Lippincott Co., 1978.

- Reed, C. Norms for the Coopersmith Self-Esteem Inventory. (Mimeographed) Lafayette, California: Self-Esteem Institute, 1974.
- Reznikoff, M., Domino, G., Bridges, C., & Honeyman, P. Perceptions of likeness and attitudes toward being a twin: a comparison of identical and fraternal twin pairs. Perceptual and Motor Skills, 1973, 37(1), 103-106.
- Rogers, C. & Dymond, R. Psychotherapy and personality change. Chicago: Chicago University Press, 1954.
- Sater, J. Appraising and promoting a sense of self in twins. The American Journal of Maternal Child Nursing, July/August 1979, 4, 218-221.
- Scheinfeld, A. Twins and supertwins. New York: Lippincott, 1967.
- Sears, R.R. Relation of early socialization to self-concepts and gender in middle childhood. Child Development, 1970, 42, 267-289.
- Sullivan, H. The interpersonal theory of psychiatry. New York: Morton, 1955
- Tate, M. & Clelland, R. Nonparametric and shortcut statistics. Danville, Illinois: Interstate Printers and Pub., 1957.
- Taylor, J. & Reitz, W. The three faces of self-esteem. Department of Psychology, the University of Western Ontario, Research Bulletin #80, April 1968.
- Terry, G.E. The separation-individuation process in same-sex twins: a review of the literature. Maternal-Child Nursing Journal, Summer 1975, 4(2), 121-128.
- Theroux, R. & Tingley, J. The care of twin children. Chicago: The Center for Study of Multiple Gestation, 1978.
- Tocco, T.S. & Bridges, C.M. The relationship between the self-concepts of mothers and their children. Child Study Journal, 1973, 3(4), 161-179.
- Trowbridge, H. & Trowbridge, L. Self-concept and socio-economic status. Child Study Journal, 1972, 2(3), 123-129.

Wylie, R. The self concept. Lincoln, Nebraska: University of Nebraska Press, 1961.

Zazzo, R. Genesis and peculiarities of the personality of twins. Twin Research: Psychology and Methodology. New York: Alan R. Liss, Inc., 1978

APPENDIX A

Informed Consent-- Parent



UNIVERSITY OF OREGON  
HEALTH SCIENCES CENTER

INFORMED CONSENT  
Form A - Parent

I, \_\_\_\_\_, herewith  
(First Name) (M.I.) (Last Name)  
agree to serve as a subject in the investigation named, "A Study of Mother's Attitude About Twin's Individuality and Twin's Self-Esteem", conducted by Michelle Minor, R.N., B.S.N., under the supervision of Mary Ann Curry, R.N., D.N.Sc.

The aim of this study is to explore mother's feelings about twin children's individuality and if those feelings influence a child's self-esteem (feelings about himself). The procedure expected of me during this investigation are to complete the written questionnaires requiring about 30 minutes. The procedure my child is expected to complete is a questionnaire requiring about 20 minutes. I understand that the only risk to me may be the inconvenience caused by scheduling the procedures requested. Although we will not benefit directly from this investigation, our participation in this study will help nurses learn more about how mothers and children can develop a strong and positive feeling of self-esteem about themselves.

The information obtained by the investigator will be kept confidential. My name will not appear on the records and anonymity will be insured by the use of code numbers. Michelle Minor, R.N., has offered to answer any questions that I might have about my participation in this study. I understand I am free to refuse to participate or to withdraw from participation in the study at any time without affecting my relationship with or treatment at the Oregon Health Sciences University.

I understand that it is not the policy of the Department of Health and Human Services or any other agency funding the research project in which I am participating, to compensate or provide medical treatment for human subjects in the event the research results in physical injury. The Oregon Health Sciences University, as an agency of the state, is covered by the State Liability Fund. If I suffer any injury from the research project, compensation would be available to me only if I establish that the injury occurred through the fault of the University, its officers, or employees. If I have further questions, I will call Dr. Michael Baird, M.D. at (503) 225-8014.



GRADUATE STUDIES DEPARTMENT  
SCHOOL OF NURSING

Area Code 503 225-7838

3181 S.W. Sam Jackson Park Road

Portland, Oregon 97201

UNIVERSITY OF OREGON  
HEALTH SCIENCES CENTER

I have read the foregoing and agree to participate in  
this study.

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Subject's Signature)

\_\_\_\_\_  
(Witness's Signature)

APPENDIX B

Informed Consent--Child



GRADUATE STUDIES DEPARTMENT  
SCHOOL OF NURSING

Area Code 503 225-7838

3181 S.W. Sam Jackson Park Road

Portland, Oregon 97201

UNIVERSITY OF OREGON  
HEALTH SCIENCES CENTER

INFORMED CONSENT  
Form B - Child

I, \_\_\_\_\_, agree  
(First Name) (Last Name)

to serve as a subject in a study about children and how they feel about themselves. This study will be done by Michelle Minor, a Registered Nurse. I will be given a form with sentences on it and asked to mark the boxes. The boxes are labeled "Like Me" and "Unlike Me" and I will mark how I feel about myself for each sentence. This will take about 15 or 20 minutes to do. There is no right or wrong answer. I will not have to put my name on anything. In this way, other people will not know my private feelings about myself. I will not be getting any thing for being in this study, but what I do will help nurses work better with children and know how children feel about themselves.

I understand I don't have to join in this study and I can say "no" at any time. Michelle Minor has offered to answer any questions that I might have. I have read everything above and agree to be in this study.

\_\_\_\_\_  
(Date )

\_\_\_\_\_  
(Child's Signature)

\_\_\_\_\_  
(Parent's Signature)

\_\_\_\_\_  
(Witness's Signature)



APPENDIX C

La Trobe Twin Study Twinness Survey

## La Trobe Study

## How I see having twins in the family

INSTRUCTIONS: Below are two lists of statements which could be made about having twins in the family. There are 2 statements for each item, one is opposite to the other. In between are numbers. You are required to circle the number closest to how you feel at this moment.

Here is an example:

I would like to have another set of twins	1 2 3 4 5	5	I would not like to have another set of twins
---	-----------	---	---

This person is very sure she would not like to have another set of twins.

If she was-  
 fairly sure she would not like another set of twins she would circle 4  
 undecided about it she would circle 3  
 fairly sure she would like another set she would circle 2  
 very sure she would like another set she would circle 1

## TWINNESS

- |   |           |   |  |
|---|-----------|---|--|
| 1. The twin are as alike as two peas in a pod                 | 1 2 3 4 5 | 5 | The twins are of ordinary family likeness          |
| 2. I refer to the two as "twins"                              | 1 2 3 4 5 | 5 | I do not refer to the two as "twins"               |
| 3. I prefer that the children are dressed differently         | 1 2 3 4 5 | 5 | I prefer the children to be dressed similarly      |
| 4. I prefer the children to receive individual birthday cards | 1 2 3 4 5 | 5 | I prefer the children to receive one "twin" card   |
| 5. I prefer that the twins sleep in the same room             | 1 2 3 4 5 | 5 | I prefer that the twins sleep in different rooms   |
| 6. I encourage people to ask the twins out together           | 1 2 3 4 5 | 5 | I encourage people to ask the twins out separately |
| 7. I believe in treating the children as individuals          | 1 2 3 4 5 | 5 | I believe in treating the children as twins        |

- |   |                |   |
|---|----------------|---|
| 8. I believe the twin to be more the same than brothers and sisters are | 1 2 3 4 5      | I believe the twins to be just as different as brothers and sisters are |
| 9. I give one a privilege without giving it to the other                | 1 2 3 4 5<br>. | I never give one a privilege without giving it to the other             |
| 10. I give the twins different presents for their birthday              | 1 2 3 4 5      | I give the twins identical presents for their birthday                  |

- |     |   |           |  |
|-----|---|-----------|--|
| 11. | I think twins should be compared to each other              | 1 2 3 4 5 | I think twins should not be compared to each other           |
| 12. | I believe the twins have very similiar assets and abilities | 1 2 3 4 5 | I believe the twins have very different assets and abilities |
| 13. | I spend most of my time with the twins together             | 1 2 3 4 5 | I spend most of my time with each twin separately            |

Items #11 - 13 are supplementary items by the author.

APPENDIX D

Coopersmith's Self-Esteem Inventory

A Method for Determining Types of Self-Esteem  
Stanley Coopersmith  
Wesleyan University

SELF-ESTEEM INVENTORY

Please mark each statement in the following way:  
If the statement describes how you usually feel, put a ( )  
in the column "LIKE ME".  
If the statement does not describe how you usually feel, put  
a check ( ) in the column "UNLIKE ME".  
There are no right or wrong answers.

	LIKE ME	UNLIKE ME
Example: I'm a hard worker. _____		
1. I spend alot of time day-dreaming. _____		
2. I'm pretty sure of myself. _____		
3. I often wish I were someone else. _____		
4. I'm easy to like. _____		
5. My parents and I have a lot of fun together. _____		
6. I find it very hard to talk in front of the class. _____		
7. I wish I were younger. _____		
8. There are lots of things about myself I'd change if I could. _____		
9. I can make up my mind without too much trouble. _____		
10. I'm a lot of fun to be with. _____		
11. I get upset easily at home. _____		
12. I'm proud of my schoolwork. _____		
13. Someone always has to tell me what to do. _____		
14. It takes me a long time to get used to anything new _____		

## SELF-ESTEEM INVENTORY

-2-

	LIKE ME	UNLIKE ME
15. I'm often sorry for the things I do. _____		
16. I'm popular with kids my own age. _____		
17. I'm doing the best work that I can. _____		
18. My parents usually consider my feelings. _____		
19. I give in very easily. _____		
20. I'm pretty happy. _____		
21. I can usually take care of myself. _____		
22. I would rather play with children younger than me. _____		
23. My parents expect too much of me. _____		
24. I like to be called on in class. _____		
25. I understand myself. _____		
26. It's pretty tough to be me. _____		
27. Things are all mixed up in my life. _____		
28. Kids usually follow my ideas. _____		
29. No one pays much attention to me at home. _____		
30. I'm not doing as well in school as I'd like to. _____		
31. I can make up my mind and stick to it. _____		
32. I really don't like being a boy - girl. _____		
33. I have a low opinion of myself. _____		
34. I don't like to be with other people. _____		
35. There are many times when I'd like to leave home. _____		

## SELF-ESTEEM INVENTORY

-3-

	LIKE ME	UNLIKE ME
36. I often feel upset in school. _____		
37. I often feel ashamed of myself. _____		
38. I'm not as nice looking as most people. _____		
39. If I have something to say, I usually say it. _____		
40. Kids pick on me often. _____		
41. My parents understand me. _____		
42. My teacher makes me feel I'm not good enough. _____		
43. I don't care what happens to me. _____		
44. I'm a failure. _____		
45. I get upset easily when I'm scolded. _____		
46. Most people are better liked than I am. _____		
47. I usually feel as if my parents are pushing me _____		
48. I often get discouraged in school. _____		
49. Things usually don't bother me. _____		
50. I can't be depended on. _____		



A Method for Determining Types of Self-Esteem  
Stanley Coopersmith  
Wesleyan University

SELF-ESTEEM INVENTORY

Please mark each statement in the following way:  
If the statement describes how you usually feel, put a ( )  
in the column "LIKE ME".  
If the statement does not describe how you usually feel, put  
a check ( ) in the column "UNLIKE ME".  
There are no right or wrong answers.

	LIKE ME	UNLIKE ME
Example: I'm a hard worker. _____	✓	
1. I spend alot of time day-dreaming. _____		✓
2. I'm pretty sure of myself. _____	✓	
3. I often wish I were someone else. _____		✓
4. I'm easy to like. _____	✓	
5. My parents and I have a lot of fun together. _____	✓	
6. I find it very hard to talk in front of the class. _____		✓
7. I wish I were younger. _____		✓
8. There are lots of things about myself I'd change if I could. _____		✓
9. I can make up my mind without too much trouble. _____	✓	
10. I'm a lot of fun to be with. _____	✓	
11. I get upset easily at home. _____		✓
12. I'm proud of my schoolwork. _____	✓	
13. Someone always has to tell me what to do. _____		✓
14. It takes me a long time to get used to anything new _____		✓

## SELF-ESTEEM INVENTORY

-2-

	LIKE ME	UNLIKE ME
15. I'm often sorry for the things I do. _____	✓	
16. I'm popular with kids my own age. _____	✓	
17. I'm doing the best work that I can. _____	✓	
18. My parents usually consider my feelings. _____		✓
19. I give in very easily. _____		✓
20. I'm pretty happy. _____	✓	
21. I can usually take care of myself. _____	✓	
22. I would rather play with children younger than me. _____		✓
23. My parents expect too much of me. _____		✓
24. I like to be called on in class. _____	✓	
25. I understand myself. _____	✓	
26. It's pretty tough to be me. _____		✓
27. Things are all mixed up in my life. _____		✓
28. Kids usually follow my ideas. _____	✓	
29. No one pays much attention to me at home. _____		✓
30. I'm not doing as well in school as I'd like to. _____		✓
31. I can make up my mind and stick to it. _____	✓	
32. I really don't like being a boy - girl. _____		✓
33. I have a low opinion of myself. _____		✓
34. I don't like to be with other people. _____		✓
35. There are many times when I'd like to leave home. _____		✓

## SELF-ESTEEM INVENTORY

-3-

	LIKE ME	UNLIKE ME
36. I often feel upset in school. _____		✓
37. I often feel ashamed of myself. _____		✓
38. I'm not as nice looking as most people _____		✓
39. If I have something to say, I usually say it. _____	✓	
40. Kids pick on me often. _____		✓
41. My parents understand me. _____	✓	
42. My teacher makes me feel I'm not good enough. _____		✓
43. I don't care what happens to me. _____		✓
44. I'm a failure. _____		✓
45. I get upset easily when I'm scolded. _____		✓
46. Most people are better liked than I am. _____		✓
47. I usually feel as if my parents are pushing me _____		✓
48. I often get discouraged in school. _____		✓
49. Things usually don't bother me. _____	✓	
50. I can't be depended on. _____		✓

APPENDIX E

Demographic Data

## Interview for Demographic Data

8 Occupation \_\_\_\_\_  
 \_\_\_\_\_

9 Marital Status \_\_\_\_\_ Single Parent \_\_\_\_\_ Married  
 (1) (2)

10 Mother's Ethnicity \_\_\_\_\_ White \_\_\_\_\_ Black \_\_\_\_\_ Asian \_\_\_\_\_ Other  
 (1) (2) (3) (4)

11 Father's Ethnicity \_\_\_\_\_ White \_\_\_\_\_ Black \_\_\_\_\_ Asian \_\_\_\_\_ Other  
 (1) (2) (3) (4)

12 13 Mother's Age \_\_\_\_\_

14 15 Father's Age \_\_\_\_\_

16 17 Last Grade Mother completed: 7 8 9 10 11 12 13 14 15 16 17 18 19 20

18 19 Last Grade Father completed: 7 9 9 10 11 12 13 14 15 16 17 18 18 20

20 21 No. of children living in the home \_\_\_\_\_ Ages \_\_\_\_\_

22 Child \_\_\_\_\_ MZ \_\_\_\_\_ DZ \_\_\_\_\_ Unknown Zygoty  
 (1) (2) (3)

23 Age at last birthday \_\_\_\_\_ Eight yrs. \_\_\_\_\_ Nine yrs. \_\_\_\_\_ Ten yrs.  
 (1) (2) (3)

\_\_\_\_\_ Eleven yrs. \_\_\_\_\_ Twelve yrs. \_\_\_\_\_ Thirteen yrs.  
 (4) (5) (6)

24 Sex \_\_\_\_\_ M \_\_\_\_\_ F  
 (1) (2)

25 Grade in school \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6  
 (1) (2) (3)

26 Any chronic illness \_\_\_\_\_ yes \_\_\_\_\_ no  
 (1) (2)



APPENDIX F

Current Norms for the Self-Esteem Inventory

## Current norms for the Self-Esteem Inventory (1967)

## Mean SEI scores by grade (Donaldson, 1974)

Statistic	4th	5th	6th
Mean	60.2	60.2	64.0
S.D.	13.8	14.2	15.1
N	72	89	158

Public school children primarily middle and lower upper class, considerable number of minority children.

## Mean SEI score by grade (Reed, 1972)

Statistic	5th
Mean	58.1
S.D.	14.9
N	57

Small towns of Montana, largely white, middle class.

## Mean SEI scores by class, grade, sex race (Trowbridge et.al., 1972)

Variable	N	Mean SEI
<u>SES</u>		
Low	1662	74.1
Middle	2127	68.4
<u>Age-Grade level</u>		
4th	896	70.2
5th	982	70.4
6th	635	68.8
<u>Sex</u>		
Males	1947	70.8
Females	1842	71.9
<u>Density of Population</u>		
Rural-small	1534	72.5
Urban-suburban	2255	69.8
<u>Race</u>		
Black	681	73.6
Other	3108	69.9



**ABSTRACT**

## AN ABSTRACT OF THE THESIS OF

Michelle L. Minor

For the MASTER OF NURSING

Date of Receiving this Degree: June 11, 1982

Title: A STUDY OF MOTHER'S ATTITUDE ABOUT TWIN'S INDIVIDUALITY  
AND TWIN'S SELF-ESTEEM

Approved:

---

Mary Ann Curry, R.N., D.N.Sc., Thesis Advisor

The purpose of this descriptive correlational study was to investigate the relationship between mothers's attitudes about twin's individuality and twin's self-esteem. The study focused on school-age twin children and their mothers.

The selection criteria for this investigation yielded a sample of 23 subjects, 11 dizygotic and 12 monozygotic twin pairs, from the Northwest Mothers of Twins Club roster. The setting was the Portland-Vancouver area in the subjects home. Data was collected through the administration of the La Trobe Twinness Survey (1980) to the mothers and Cooper-smith's Self-Esteem Inventory (1967) to the children. Demographic data was obtained through an interview. The data was analyzed with Spearman's rho and Chi Square.

The findings of the study indicated that mother's attitudes about twin's individuality did not correlate with the twin's self-esteem. However, it is noteworthy that monozygotic twins had lightly higher self-esteem than dizygotic twins. No statistically significant relationship were found between mother's attitude about twin's individuality and twin's birth order, zygoty, or sex, and none between twin's self-esteem, birth order, zygoty, or sex.

Limitations of this study were addressed. Implications for the field of nursing were suggested and recommendations for further research were made.