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AGGRESSION AND PERCEIVED SOCIAL SUPPORT IN URBAN MALE ADOLESCENT SUICIDE ATTEMPTERS

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AGGRESSION AND PERCEIVED SOCIAL SUPPORT IN URBAN MALE ADOLESCENT SUICIDE ATTEMPTERS

BY

ERNESTO L. PERDOMO

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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ABSTRACT

AGGRESSION AND PERCEIVED SOCIAL SUPPORT IN URBAN MALE ADOLESCENT SUICIDE ATTEMPTERS

BY

ERNESTO L. PERDOMO

ADVISER: PROFESSOR VERA PASTER

This study explores and compares the presence, influence and the direction of aggression and the influence of perceived social support on the suicidal behavior of urban male adolescent suicide attempters. An extensive review of the literature from psychodynamic and sociological perspectives is presented.

Twenty five psychiatrically hospitalized urban male adolescent suicide attempters and twenty five non-psychiatrically diagnosed "normal" urban male adolescents were matched for race and were administered two tests to assess agression and the direction of aggression and three tests to assess perceived social support. The resulting scores were submitted to a correlation and t-test analysis to test the hypotheses. In addition, clinical data from the psychiatric evaluation of the suicidal subjects were used to illustrate the findings.

The study supports the hypotheses that male urban

adolescents who are suicidal are more aggressive and perceive themselves as having less social support than non-suicidals. The findings indicate that there is a clearer relationship between aggression and suicidal behavior than between perceived social support and suicidal behavior, and that there is a significant inverse relationship between aggression and perceived social support.

Furthermore, the findings are ambiguous on the hypothesis that male urban adolescents who are suicidal direct their aggression inward to a greater degree than do non-suicidals. The study indicates that the suicidal subjects experience more self-criticism and more delusional guilt than do the non-suicidal subjects. In that sense they are more intropunitive. The suicidal subjects, however, are not more prone to turn their aggression against themselves than are the non-suicidals. The study suggests that the propensity to turn aggression against oneself is not a stable trait and that aggression is generally exteriorized.

The writer speculates that the turning of aggression against self occurs as a recourse when more direct expression of aggression is blocked. Implications for clinical applications and future research are discussed.

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In the last 20 years adolescent suicide has become a major problem in the United States. The gravity of the situation is indicated by the fact that in 1980 the American Academy of Pediatrics established a special committee to study the problem. Official statistics on the subject are believed to be inaccurate (McIntire, 1980) but it is generally agreed that in industrialized countries suicide is one of the principal causes of death among adults, and one of the first causes of death among adolescents (Seiden, 1966; Haim, 1976; Caine, 1978).

The 1984 Advance Report of Final Mortality Statistics lists suicide as the 10th ranked cause of death at the rate of 12 per 100,000 population. It lists suicide as the 3rd ranked cause of death to persons between ages 15 to 24, ranking only after accidents and homicides with a rate of 12.9 per 100,000 population. Suicide is listed as one of the 3 causes of death that increased between 1980 and 1981 along with chronic pulmonary diseases and septicemia while all other causes of death decreased. In 1981, 5,161 people from ages 15 to 24 committed suicide in

the United States, a figure which accounted for 11.5% of all deaths for that age bracket (U.S. Vital Statistics Report, 1984).

The literature and the statistics seem to indicate that youth suicide is one of the few causes of death on the increase, to the degree of epidemic proportion (Jacobizner, 1965; Seiden, 1969; Toolan, 1975; Haim, 1976). In the years between 1960 and 1985 in the 15 to 24 year age group suicide has risen from 5.1 per 100,000 to 12.9 per 100,000 population, while it has remained relatively stable in all other age brackets (Morbidity and Mortality Weekly Repport, 1983). Frederick (1978) observed that suicide in the 15 to 19 age group had increased 192% in the years from 1960 to 1975. The World Health Organization in its 1979 report listed 23.3 per 100,000 population as the suicide rate for 15 to 24 age bracket, almost 100% greater than the suicide rate among the total population.

Adolescent suicidal behavior and motives appear to be the same as the motives, circumstances and behaviors found in all other age segments. Adolescence, in fact, is not the highest suicide risk period in the life span (Haim, 1976; Vital Statistics of the U. S. Mortality, 1979-1980) but it is with adolescence that the rate of suicide increases sharply from 0 and 0.4 per 100,000

population between ages 0 to 14 years of age to 12.9 per 100,000 population between 15 to 24 years of age. Suicides in the latter age group represented 17.79% of all suicides in the U.S. in 1982 (Vital Statistics of the U.S. Mortality, 1982). That year alone, a total of 5,025 people between 15 to 24 years of age committed suicide. This was the second largest age group surpassed only by 6,316 suicides in the 25-34 age group. In fact, the increase in the rate of suicide for adolescents was greater than the increase in the rate among the rest of the population during the later half of this century (Frederick, 1978; Holinger, 1978), up to 300% comparing U.S. 1950 with 1975 rates (Howard et al., 1984).

According to The Morbidity and Mortality Weekly Report (1985) the overall suicide rate changed little between 1970 and 1980 but the rates for older persons decreased while the rates for younger persons increased. The median age of persons who committed suicide shifted from 47.2 years of age in 1970 to 39.9 years of age by 1980. More than one third (34.3%) of males who committed suicide were under age 30. The most striking change occurred in the 15 to 24 age group with a 50% increase in the suicide rate followed by a 30% increase in the suicide rate for the 25 to 34 age group. Most of the increase is due to the increase in the suicide rate of

white males.

The 1980 pattern of suicide for males by age, has changed so that the curve is relatively flat for all age groups before age 65; while the pattern of suicide for females by age is unchanged, with the lowest suicide rates in the youngest and oldest age ranges and the highest rate in mid-life range. However, as with the males from 1950 to 1980, rates for younger women increased, and rates for older women decreased. The net result of these changes is that in absolute numbers, most suicides occur among young people (Morbidity and Mortality Weekly Report, 1985). Moreover, even for the Hispanic and Black Minorities in the U.S. that were believed to be protected against suicide by their social status and the strengh of the social support system in their respective sub-cultures (Henry and Short, 1954; Banks, 1970) the suicide rate has dramatically increased.

The statistics and literature on suicidal behavior among Hispanics in The United States is lacking. The few studies available suggests, however, that there is a high percentage of suicidal behavior among Hispanics that seems to exceed the Hispanic participation in the total population. For example, Edgar C. Trauman (1961), in a study on suicide attempts of Puerto Rican Immigrants living in New York City, found that the ratio of Puerto

Rican suicide attempt admissions exceeded the ratio of Puerto Ricans in the total population, and Jan Green (1977), in an analysis of suicide statistics of Los Angeles County, found that suicides with Spanish surnames (mostly Mexican Americans) were significantly younger than suicides in the white population. Green found that 35% of the suicides with Spanish surnames were under 29 years of age compared to 20% in the white population.

Several other studies indicate that the suicide rates for Mexican Americans are lower than for the American White population, but are accelerating quite rapidily approaching the national rate. For example, Loya (1976) assessed the rate of suicide in Denver for three time periods: 1960-1964, 1965-1969, and 1970-1975 and reported an increase in suicide from 7 to 12.9 per 100,000 over the three periods studied. Similarly, Hatcher and Hatcher (1975) found a seven fold increase in male chicano suicides in El Paso from 1963-1965 to 1970-1972. Both studies also suggest that the incidence of suicide is particularly high among Mexican American Males in their 20's.

For the Black Population the statistics and studies on suicidal behavior are more available and more comprehensive. The statistics on black male suicides indicate an increase of 194.5% in the 20 to 24 year age

group and an increase of 247.5% in the 25-29 year age group between 1947 to 1977 (Davis, 1982). In 1980, there was a suicide rate of 10.3 per 100,000 population among black males (Vital Mortality Statistics Report, 1980). The statistical data indicates, however, that suicide rates for blacks remains below those of the general population, a fact that will be examined later.

Furthermore, it is in adolescence that suicide becomes a significant cause of death jumping from 0.4 per 100,000 population between ages 5 through 14 to 12.9 per 100,000 population between ages 15 to 24 (U.S. Vital Statistics Report, 1984). If we consider the possibility that many deaths by accident or violence in young people could be disguised suicides (Seiden, 1969; Haim,1976) it would increase, considerably, the rate of adolescent suicides and indicate that the official statistics on suicide are just the tip of the iceberg. It is widely believed that the true rate is anywhere from 7 to 50 times greater than that which is reported by standard suicide certification procedures (Mishara, 1975; Neuringer, 1975). In fact, Hendin (1969) found that many violent deaths among blacks, and particularly among young blacks, are suicides, while Mishara (1975) asserts that if only 10% of automobile related deaths among teenagers were classified as suicide, the rate of adolescent suicide would double.

Even more alarming is the general acknowledgement in the literature that the rate of suicide attempts surpasses by far the rate of completed suicides. Together, suicide and suicidal attempts present a major problem of epidemic proportions. Attempted suicides out-number committed suicides in adolescence by a ration varying from 7:1 (Dublin, 1963) to 100.1 (Jacobizner, 1965). The National Center for Health Statistics (1980) reported that one of every four children and adolescents hospitalized in a psychiatric unit is hospitalized because of a suicide attempt.

In an interesting study of 293 students at three different colleges, Mishara, Baker and Mishara (1976) discovered that 64% of their sample admitted to having had suicidal thoughts and 15 percent reported that they had made suicide attempts. If these findings are generalized, then 15,000 suicide attempts are made for every 100,000 college students by age 20, approximately 1,500 attempts for each completed suicide. In a previous study Mishara (1975) calculated that at least 65,000 adolescents in the United States attempt suicide each year.

Even though the data on suicide attempts is more controversial than that on completed suicides the magnitude of the problem is such that researchers and government agencies have been emphasizing the need for

even more investigation in order to assess suicidal patients more effectively and to devise intervention strategies that will reduce the suicide rate in our communities (Centers for Disease Control, 1985). Because of the increase in the suicide rate among young persons over the last decade, the U. S. Department of Health and Human Services has established a specific health objective focusing on the problem of suicide among young persons. The federal objective states: "By 1990, the rate of suicide among people 15 to 24 should be below 11 per 100,000". (U.S. Public Health Service, 1980).

In general, the problem of suicide has been extensively researched during the last 20 years. Seiden (1969), Lester (1972), and Wekstein (1979) have undertaken comprehensive reviews of the literature on both attempted and completed suicides and they found a vast number of studies with virtually all aspects of suicidal variables including; seasonal, demographic, physiological concomitants, diagnostic and constitutional variables, interpersonal and intrapsychic factors and even astrological correlates. The volume and amount of research elicited by the phenomenon of suicide points to the elusiveness and complexity of the suicidal behavior.

The major researches and theoretical formulations about adolescent suicide may be divided into two major

orientations. On the one hand there are studies which emphasize individual psychodynamic determinants based on Freud's formulation as described in "Mourning and Melancholia" (Freud, 1917). Freud believed that suicide resulted from libidinal impulses directed against an introjected lost object and expressed through aggression turned toward self. On the other hand, other studies emphasize socio-cultural factors. These follow Durkheim's (1899) study of suicide, which places more emphasis upon the interrelational social forces. Durkheim viewed suicide as varying inversely with the degree of the individual's integration within the social group.

Other approaches focus on biological aspects (Petzel and Cline, 1978; Hankoff, 1979; Rainer, 1984), affective states (Toolan, 1981; Goldring and Fieve, 1984) or on the behavioral aspects of the suicidal individual (Rotheram and Trautman, 1984). The enormous variety of emphases demonstrate the difficulties in grasping any central determining issue for the adolescent's suicide. The general consensus is that the act of suicide is a multiply determined complex act.

This study developed from the increasing importance of this problem as well as from the writer's clinical experience with a growing number of adolescent suicide attempters at the Department of Psychiatry of the

Elizabeth General Medical Center in New Jersey.

The particular focus of the study has been influenced by the writer's training in sociology as well as in clinical psychology, his Hispanic background and his social activism in a poor and working class urban community. The study is an attempt to synthesize and investigate the importance of psychological as well as social factors in the suicidal behavior of urban adolescents.

This study focused on two variables that are significant for urban adolescents: aggression and social support. The influence and direction of aggression in interaction with perceived social support as determinants of suicidal behavior will be the specific area of inquiry. The study has the advantage of quantifying and comparing some of the main issues of the two major theoretical perspectives which seems not to have been studied as such. This study should elucidate the problem of adolescent suicide, especially among urban and minority youths.

I-. THE REVIEW OF THE LITERATURE.

The Psychoanalytic Explanation of Suicide and the Role of Aggression.

The Psychoanalytic literature on suicide is rich and complex. A brief summary of the psychoanalytic view of suicide may over simplify but is necessary.

Freud himself never wrote specifically about suicide. His observations and theories on the subject are scattered through his works. The importance of the subject, however, influenced many of his writings (Litman, 1967). According to Litman, in 1910, during the discussions of the Vienna Psychoanalytic Society on Suicide (Friedman, 1970), Freud pointed out the difficulties of reconciling the fundamental conflict between the life instinct and the elements of self-destruction in suicide. It was not until he developed the notion of narcissistic identification with the lost object in "Mourning and Melancholia" (1917), and the notion of a death instinct in "Beyond the Pleasure

Principle" (1920-1922) that, with the help of the structural model of the mind in "The Ego and the Id" (1923), he was able to reconcile this conflict. "Mourning and Melancholia" and "Beyond the Pleasure Principle" are the two main sources of the Psychoanalytic theory of suicide.

According to Freud, mourning is the regular reaction to the loss of a loved person or the the loss of some abstraction such as country, liberty etc. Mourning is characterized by the loss of interest in the outside world and the turning away from any activity that is not connected with thoughts of the lost object. Melancholia, on the other hand, adds a new and decisive element to the work of mourning. With melancholia there is a diminution of self-regard together with a heightened self criticism. Freud believed that in the melancholic's self-reproaches the ego is substituted for the love object against whom the reproaches had originally been directed. That is to say, instead of being displaced onto another object, the libido is withdrawn into the ego and employed in establishing an identification of the ego with the abandoned object. Thus, the ego receives the blows intended for the object. In this way an object loss becomes an ego loss and the ego is mistreated. Freud calls this process "narcissistic identification with the

object loss". Hence, the melancholic's tendency to decrease self regard and to increase self criticism is in fact addressed to the incorporated object. This incorporation of the loss object makes it possible to recover the loved object on a fantasy plane and then to punish it for its abandonment through self-reproaches and the resulting auto-aggressive behavior.

But with the introduction of "Mourning and Melancholia" the problem posed by suicide continues in terms of how is it possible for the aggression turned inward by the melancholic to over-come the extraordinary drive of the life instinct to self destruct the ego? The full answer came with the introduction of an instinctual drive toward death and its integration within the structural division of the mind in Id, Ego and Super-Ego.

In "Beyond the Pleasure Principle", Freud postulated the existence of two basic instincts, the life instinct or Eros and the death instinct or Thanatos. In general the death instinct is in part rendered harmless by being fused with erotic components. In part, it is diverted toward the external world in the form of aggression and, in part, it continues its internal self-destructive work. When the superego is established, considerable amounts of the death instinct are fixated in the interior of the superego and operate there against self:

> "The Super-ego arises, as we know, from an identification with the father taken as a model. Every such identification is in the nature of a desexualization or even of a sublimation. It now seems as though when a transformation of this kind takes place, an instinctual defusion occurs at the same time. After sublimation the erotic component no longer has the power to bend the whole of the destructiveness that was combined with it, and this is released in the form of an inclination to aggression and destruction. This defusion would be the source of the general character of harshness and cruelty exhibited by the ideal -its dictatorial 'thou shalt'." (Freud, 1923. pp. 44-45).

The Super-ego then becomes the punishing agency able to discharge all the destructive force of the death instinct against the Ego.

By putting together the notions of the narcissistic identification with the object, the death instinct and the Super-Ego, Freud shows that the melancholic's tendency to self destruction is, in fact, the product of the conflict between an ego altered by the identification with a loss object toward which it harbors ambivalent feelings of love and hate, and the punitive part of the super-ego leading to the discharge of the aggressive self-destructive forces:

"The Ego gives itself up because it feels hated and persecuted by the super-ego. To the ego, therefore, living means the same as being loved, being loved by the Super-Ego." (Freud, 1923. pp. 48).

In other words, for Freud, the suicidal person has identified a part of self with a lost love object against which the person harbors a feeling of hate and a wish for revenge for having been abandoned by the loved object. In so doing, the suicidal person redirects against self the reproaches against the lost object. In the process all the harsh, punitive and aggressive elements of the super-ego are turned against the self. This produces an ego which feels hated and abandoned, thus a diminution of self-regard, heightened self-criticism and guilt, resulting finally in the self aggressive behavior of the suicidal act.

Based on Freud's theory, Litman (1967) sorted out some of the essential elements of the psychoanalytic view of suicide. These elements include: 1) The loss of a loved object with which one has a particular ambivalent relation. 2) An identification with that lost object. 3) An unbound aggressive instinct. 4) A wish for revenge and retribution. 5) A strong harsh Super-Ego. 6) An increase of self-criticism, guilt and finally a diminution of self-esteem leading to self hate and 7) a turning of aggressive feelings against self.

Most of the Psychoanalytic oriented studies on suicide use these elements as the theoretical foundation of their research. Particularly the relationship between

aggression, identification with the lost object and suicidal behavior have been incorporated in most psychoanalytic explanations of adolescent suicide attempts (Seiden, 1969).

Real or imagined parental loss has been hypothesized as a major cause of suicide attempts among adolescents (Barter, Swaback & Todd, 1968; Dorpart, Jackson & Ripley, 1965; Glaser, 1965; Hankoff, 1975; Leese, 1969; Lester & Beck, 1976; Margolin & Teicher, 1968). For Example, Reitman (1942) found that a full 60% of his suicide sample had lost one parent to death before age 15. Moss and Hamilton (1957) found that in 95% of a group of 50 hospitalized suicidal patients ages 19-67 there had been death or loss of a significant other and in 75% of this group a familial death had occurred prior to the patient's adolescence. Likewise, Stein, Levey and Glasberg (1974) found that significantly more suicide attempters among both black and white populations, had a history of childhood and antecedent losses than did their non suicidal controls. Stanley and Barter, (1971) in a study using a control group found a significant difference in the relative age at which the suicidal group experienced the loss prior to the age 12, compared to the control group in which the loss occured after the onset of adolescence.

These studies seem to point out that early loses have more profound negative effect. They emphasize the significant importance of the disruptions in the primordial relationship between offspring and parents. These disruptions may precipitate feelings of loss of love, rejection and deprivation during a period in the life cycle where the process of identification is taking place. Zilboorg (1937), for instance, believed that only those individuals who appear to have identified themselves with a dead person and in whom the process of identification took place during childhood or adolescence were the truly suicidal individual. Gould (1965) thinks that the core factor in the formation of a suicidal personality in adolescence was the felt loss of love. After the onset of adolescence the process of identification is almost consolidated (Erikson, 1956, 1978) and loses are no longer as disruptive as in previous periods of the life cycle.

All types of suicidal behavior, whether threats, attempts or completed suicide, have been customarily explained as displacement of frustrated aggression which becomes self-directed. Menninger (1966), for example, based on Freud's hypothesis of the death instinct, pointed out the importance of the neutralization of aggressive and libidinal implulses. Menninger's theory attested that

partial neutralization of self-destructive impulses leads to partial or chronic self-destruction (e.g., alcoholism and drug addiction). For Menninger, suicide is the result of self-destructive impulses too far preceding or exceeding the "neutralizing constructive impulses". He sees suicide as a kind of displaced murder and he outlines three different components for all suicidal behavior: First, there is the wish to kill, roughly equivalent to intensity of conscious hate. There is also the wish to be killed, equivalent to conscious feelings of guilt. These two wishes to kill and to be killed both entail motives of aggression and violence. The third component is the wish to die, corresponding to conscious feelings of hopelessness, which involves submission and a sense of giving up.

As early as 1937, Bender and Schilder (1937) explained suicidal behavior in children in terms of "aggression directed against oneself". According to them, child and adolescent suicide attempters typically come from extremely aggressive families. They identify with the aggressive parents, becoming themselves aggressive. This aggressiveness, prevented from expression against others, is often directed against self:

> "The child reacts to an unbearable situation with an attempt to escape. Mostly these unbearable

> situations consist of deprivation of love or at least based upon such an assumption. The deprivation provokes aggressive tendencies which are primarily directed against those who deny love. Under the influence of feeling of guilt, these aggressive tendencies are turned against oneself. The aggressive tendencies may be increased by constitutional factors and identification with an aggressive parent or other aggressive family members...." (Bender and Schilder, 1937, p. 234).

Following Bender and Schilder's theory, the role of hostility from significant others has been studied. Sabbath (1969) proposed the expandable child concept, which presumed a parental wish, conscious or unconscious, that is interpreted by the child as a desire to be rid of him. Rosenbaum and Richman (1970) found more extreme hostility and less support in families of suicidal patients than non suicidal patients.

Zilboorg (1937) arrived at the same conclusion as did Bender and Schilder. Furthermore, in his review of the literature, Seiden (1969) found that the most common characteristic associated with suicidal motivation were agression, spite and revenge. Other researchers found aggressive characteristics prevalent among latency age children, pre-adolescents, adolescents and young adults:

(Iga, 1971; Orgel, 1974; Lourie, 1967; Marks and Heller, 1977; Korella, 1972; Finch and Pozanski, 1971; Cantor, 1972).

For example, Lourie (1967) thought suicides or attempts at suicide were the result of developmental lags in which, following the fusion of libidinal and aggressive drives, the lack of neutralization, dilution or inhibition of the aggression is a missing step. Orgel (1974) sees suicidal people as failing to effect the maintenance of stable aggressive feelings toward significant others because they feel they cannot handle their aggression. She believes that a regressive identification with the idealized but abandoning object takes place. The self destructive individual fuses with the "victim" of the aggression, thus turning the aggression upon the self. Finch and Pozanski (1971) placed significant emphasis in the role of aggression to explain the motivation to attempt or to complete the act of suicide. They consider that the expression of hostility is tempered or exacerbated by such factors as family tolerance and cultural attitudes. They observed that throughout their life span these adolescents had long term emotional difficulties with the expression of aggressive feelings, caused by threats of reprisal from family members for such expressions. Ineffective social and psychological problem

solving skills are common in these suicidal adolescents and according to Finch and Pozanski's study, these adolescents as a group have angry and vengeful personality styles with a desire to punish those who they perceive as interfering in their lives. Homicidal and suicidal threats are common in this group.

In fact, Shaffer (1974) and Pfeffer(1985) found a significantly high correlation between assaultive and suicidal behavior among young adolescents who committed suicide. Crumley (1981) found that in 22 psychiatrically hospitalized adolescents who attempted suicide the attempt was linked to a long standing style of angry, impulsive decision-making and occured at a time when intense anger was directed at themselves.

Aggression has been seen as such an important variable in suicidal behaviors that the link between aggression and suicide has even been researched from a biochemical perspective. Brown, Ebert et ali., (1982) found that human aggression and suicide were associated with lower levels of CSF 5 - hydroxyindoleacetic acid (5-HIAA), a serotonin metabolite. In this study the authors examined the life history of aggression and history of suicidal behavior in 12 subjects with borderline personality disorders without major affective disorder. They found that the histories of aggressive

behavior and of suicide attempts were significantly associated with each other, and each in turn was significantly associated with lower 5-HIAA levels. They concluded that altered serotonin metabolism may be a highly significant contributing factor to these behaviors in whatever diagnostic group they occur.

While the presence of aggression in the suicidal individual is widely recognized in the literature, the problem of the direction that this aggression takes is quite controversial. Most of the studies already cited seem clearly to support the idea of displacement of aggression inward, especially those of Bender and Schilder (1937), Orgel (1974), Finch and Pozanski (1971). Even one of the most quoted studies on adolescent suicide (Toolan, 1975) offers the following sequence to illustrate how the young suicidal's aggression is triggered and then turns inward: 1) there is a depressive reaction to the loss of a love object, 2) this is followed by the hate of the love object for its betrayal and desertion, 3) but the subject cannot tolerate the notion of a bad parent or a "bad lost love object", so he or she turns anger inward, 4) then the subject starts to behave evilly in order to reinforce his or her self image as an evil person. This leads frequently to truancy, promiscuity and other acting out behaviors prior to suicide, 5) as the young individual

becomes older and more mature he or she learns that parents are not so innocent after all, 6) and as a result of all this the individual becomes hostile. 7) He or she then feels guilty about his or her hostility. 8) The individual continues to identify with parents and introjects aspects of them into self. As a result hostility and guilt become more directed toward self, 9) and finally, he or she resorts to suicidal behavior.

Other studies, however, contradict the notion of displacement of aggression: Cantor (1976) found that the youthful female suicide attempters she tested tended to externalize aggression rather than turn it inward. Levenson and Neuringer (1970) did not find any significant differences in the dimension of intropunitiveness among groups of 13 suicide attempters and 13 non-suicide attempters who were psychiatrically diagnosed and 13 normal adolescents.

It is in fact difficult to interpret the problem of the direction of aggression as it relates to suicidal behavior. Erwing Stengel (1970) theorized that aggression could be used to discriminate attempted from completed suicide. He argued that those who attempted suicide were more likely to direct their aggression toward others, whereas those completing suicide would more likely direct their aggression at themselves.

In spite of the controversy about the displacement of aggression, the fact remains that in the psychoanalytic and psychodynamic literature the presence of aggression is seen as a powerful variable influencing the suicidal individual. Whether the term suicide was interpreted, from its germanic roots, as self-murder (Menninger, 1966) or connoted as an act of self destruction or life threatening behavior, there has been a strong relationship between suicide and aggression. Since Freud (1917), suicide and suicide attempts have been interpreted as acts of aggression displaced from the object/person toward whom it was originally intended and re-directed against the self (Orgel, 1974; Seiden, 1969; Bender and Schilder, 1936; etc.). The relationship between aggression and suicidal behavior has been incorporated in most psychoanalytic and psychodynamic explanations of adolescent suicide and suicide attempts.

All these formulations, derived from Freud's position and backed up by observations and interpretations of clinical data and quantitative findings, have promising explanatory potential. We have not found, however, studies that corroborate the presence of aggression by a quantitative methodical approach that isolates and measures aggression and its presence in a group of suicidal individuals as compared to a group of

non-suicidal individuals.

The Socio-Cultural Explanation of Suicide and the Role of Social Support.

Socio-Cultural theories regard environmental forces as the predominant determinant of suicide. The most influencial socio-cultural theory was developed by Emile Durkheim (1899) who stated, that as a general rule the suicide potential of a given society or group varied inversely to the degree of cohesion existing within that social group.

According to Durkheim, suicides could be classified as four types, reflecting the individual's relationship and attachment to his or her social context. These types are: 1) Anomic, where a poorly strucutured normless society provides few ties for an individual. An anomic type of suicide may be the result of changing life's circumstances, or of the loss of one's role in society. 2) Egoistic; wherein an individual was unwilling to accept the doctrine of his or her society. An egoistic type of suicide occurs in individuals whose attachment to society is tenous and weak. An egoistic suicidal type of individual is one who is isolated, relatively unaffected

by social structures, unattached to social groups and occupied primarily with his or her own needs. 3) There is also the altruistic type of suicide, where an individual's identification with the traditions and mores of his or her social group predominate self-survival considerations. Japanese Kamikazes, cult group suicides such as the one in Jonesville, Guayana, the suicidal protest of Buddhist monks in Vietnam, as well as the suicidal terrorist bombings in Lebanon are examples of altruistic suicides. 4)Finally there is what Durkheim called fatalistic suicide, which is the suicide resulting from excessive regulation by society. A fatalistic suicide is a suicide committed by a person who lives under severe authority. Durkheim used this category to refer to suicide among slaves but he believed that this category had no contemporary importance. An example of this type of suicide is the suicide among the Caribeans Indians at the begining of the Spanish's slavery. Recently, W. Breed (1970) used this category to characterize suicide by blacks in The United States but his classification does not seem to find any support in the literature.

According to Durkheim, suicide occurs less when people consider themselves part of a "controlling social group", but suicide increases when social restraints are eased during periods of widespread stress, making the

individual more insecure.

Following Durkheim, Henry and Short (1954) advanced the general proposition that suicide varies inversely with the external restraints provided by the structures, relationships or groups to which the individual belongs. Two types of external restraints; vertical restraints and horizontal restraints were noted by Henry and Short. Vertical restraints, derive from one's subordinate position in the class system or status hierarchy. Horizontal restraints, derive from involvement in social relationships with others. These authors have examined statistics on suicide rates of various sub-groups, e.g., urban vs. rural dwellers, whites vs. blacks, males vs. females, and they found that without exception the higher "status" position yields the higher suicide rate. They hypothesize an external restraint variable and state that the suicide rate decreases as the individual becomes more involved in an external restraint system, i.e., as the social and organizational ties binding one to one's role become more clearly delimited and controlling. Conversely, the individual who has few people to answer to and whose role is more loosely structured will tend to pose a higher suicide risk. Briefly, in terms of these ideas, they stated that suicide and status are positively related (Status Integration Theory), but suicide and

strength of relational systems are negatively related.

The external restraint hypothesis has been used to prompt investigations and explanations for suicidal behavior. Lester (1970) for instance, pursued the external restraint hypothesis and postulated that in low external restraint conditions, i.e., low or loose social and organizational ties, the individual can only look to himself for generated frustrations and cannot blame pressures from the environment as the source of difficulties. He noted the increased suicide rate after removal of stress, e.g., after a war, after the winter, after a divorce. He concluded that when stress is less easily attributable to outside influences, suicide rates are higher.

It is the idea of the importance of the relational system in the suicidal behavior of children and adolescents that has been more emphasized. Jan-Tausch (1963) studied New Jersey school children and reported that in every case of suicide the child had no close friends to confide in. Reese (1967) also investigated school age suicides and found chronic social isolation to be the single most striking feature of this group. He reported that these youngters have such a marked lack of involvement with other students or teachers that they were described as terribly shy, virtually friendless

individuals, alienated from all except for the most minimal interactions. Knott (1973) reviewed the literature and found social and psychological isolation as a major characteristic that predisposed college students to attempt or succeed in taking their lives. He noted that impoverished interpersonal relationships were frequently associated with suicidal behavior. Seiden (1966) regards social isolation as a predominant sign for college suicides. Loneliness has been described as playing a prominant role in precipitating suicidal behavior for older age groups (Ropschitz and Ovenstone, 1968), and according to Jacobs (1971) social difficulties for suicidal adolescents appear to be long standing.

Several studies have included control groups in the effort to characterize social relationships of suicidal adolescents. Peck and Schrut (1971) found that suicidal adolescents spent considerable spare time in solitary activities before high school. They also found that non suicidal students dated more frequently in high school and college than suicidal and that those students who committed suicide were more isolated. Barter et al. (1968), in a follow up study of adolescents attempting suicide after hospital discharge, reports that those adolescents not making posthospital attempts more often had an active social life than those continuing such

attempts. They noted that even though the nuclear family might remain disorganized, when the adolescent had an active social life the prognosis was favorable.

The organization of the family and the interactions within it have been a major area of study in the context of adolescent suicides. Many studies suggest that suicidal youths experience greater family disorganization than non suicidal adolescents and that continued suicidal behavior may be associated with an inability to achieve adequate family relationships (Teicher and Jacobs, 1967; Roberts and Hooper, 1969; Rosenbaum and Richman, 1970; Shaffer, 1974; Toolan, 1975; Abraham, 1977). For instance, Toolan (1975) analyzed the records of 84 suicide attempters under age 18 from Bellevue Hospital in New York City. He found that fathers were conspicuously absent and that less than one third of his sample lived with both parents. Marital and parent-child conflicts, especially chronic conflicts, have been reported within families of suicidal individuals. In fact, children and adolescents attempting suicide tend to view their family conflicts as extreme and longstanding (Sabbath, 1969, 1971; Teicher, 1970; Cantor, 1976).

The family history of the adolescent attempter has been characterized as having been inconsistent and chaotic during various phases of his or her development (Berman

and Sandler, 1980; Pfeffer, 1970; Jacobs and Teicher, 1967). The conflict filled home environment of adolescents who attempt suicide includes frequent quarreling leading to emotional disorganization (Haider, 1968), strife, distrust and resentment of parents (Jacobs, 1971), as well as decreasing communication (Schrut, 1968). A climate of family discord and unhappiness, including major communication problems also has been reported by parents of adolescents who successfully completed suicide (Bagley and Greer, 1972; Sanborn et ali., 1973). This picture seems to be the same not withstanding racial differences. Hendin (1969) described the family background of young adult blacks attempting suicide in terms of chronic dislike of family, aggression and abuse within the family, lack of understanding and rejection by parents.

An interesting urban study that cuts across racial lines was done by Tuckman and Cannon (1962). These authors analyzed 100 suicide attempters under age 18 who had come to the attention of the Philadelphia Police Department during 1958-1959. They found 47% of the cases came from homes broken by separation, divorce or death and fourteen per cent of the sample mentioned fear of being unloved as main cause for hurting themselves.

Other indices of family stress and disorganization

have been reported to be associated with adolescent suicidal behavior. These include incidence of multiple primary caretakers (Dizmang et alii., 1974); an inability to live at home (Barter et ali., 1968), frequent residential changes (Jacobs, 1971; Schrut, 1968; Teicher, 1970) and problem making enviromental changes, for example, sibling leaving home, foster home placement, parent remarrying and death in the family (Teicher, 1970).

There seems to be a consensus in the literature about the importance of parent-adolescent interpersonal relationship in the suicidal behavior of young people. For Stengel (1970) for instance, the lack of a secure relationship to a parent figure in childhood may have lasting consequences in a person's ability to establish relations with other people. He believes that these children typically find themselves socially isolated in adult life. He argues that social isolation is one of the most important factors in the causation of suicidal acts.

Jacobs and Teicher (1967) analyzed the process of parent-adolescent interactions in adolescent suicidal attempters and found three phases the adolescents passed through prior to an attempt. The first of these phases was described in terms of the history of family disequilibrium. This environment served as the groundwork which conditioned the child to feel insecure and to

experience considerable anxiety in dealing with parents. According to Jacobs and Teicher, this first stage is a long period in childhood during which the youngster experiences progressive isolation from meaningful social relationships.

The second phase was considered one where escalation of interpersonal stress occurred between parent and adolescent. Throughout childhood, when these individuals became progressively more hostile and antisocial, parental disciplinary actions appeared useful for physically curbing their seriously aggressive behavior. During adolescence, these disciplinary actions resulted in severe reactions like physical aggression, rebellion, withdrawal, or physical separation from the problem. During this second stage there is an escalation of problems and a deterioration of communications between the parents or parental figures and the child.

The third and final phase, according to Jacobs and Teicher is a final attempt to experience a meaningful interpersonal relationship in "a love affair". Here the adolescent hopes to experience the love and interdependence lost, or never satisfactorily achieved in family life. The intensity and emphasis placed on this relationship results in alienation of friends and family, as well as in withdrawal from other forms of social and

scholastic activities. When this relationship ends the adolescent finds himself or herself further alienated from social and family life. These circumstances serve to exacerbate a low self-concept and state of anxiety. Perceiving no alternative solution the adolescent choses suicide as a way out of what is experienced as an intolerable life situation.

It is interesting that the majority of the studies on adolescent suicide, regardless of their theoretical orientation in fact describe many factors regarding the relational system of the suicidal individual (Haim, 1970; Jacobs, 1971; Toolan, 1975; etc.). Nevertheless, our treatment and prevention tools to help suicidal individuals rely mainly on the psychodynamics of the individual rather than on the individual as part of a social system network. More recently however, there has been an increasing recognition of the importance of relational systems and their use in treatment strategies (Gottlieb, 1983, 1985). These efforts are directed toward the mobilization of social support in the community for the patient.

The Adolescence Stage and Suicidal Behavior.

The high rate of suicide and the significant increase of suicides among adolescents were discussed in the Introduction. It is important now to discuss the significance of these statistics in relation to adolescence as a stage in the lify cycle. The literature suggests that the high rate of suicide among adolescents, as well as the sharp increases of suicide in this group, reflect the fact that adolescence is a relatively more stressful period in the life span of people in our time and culture (Anna Freud, 1958, 1969; E. Erikson, 1978). Adolescence involves an enormous upheaval that not only represents a stage of rapid physical, physiological and sexual change but it is also a phase during which the search for identity, for a meaningful philosophy of life and for direction in personal and social growth can collide with the relative unstructured and loosely social/organizational ties binding the individual to the modern urban industrialized societies (Henry and Short, 1954; Lester, 1970; Knott, 1973; E.Erikson,1978; etc.).

Adolescence is a peculiar age, as it is said in French, "c'est l'age compris entre l'enfance et l'etat adulte". It is a period of life between biological and

social maturity where intrapsychic factors as well as sociological determinants make the individual particularly vulnerable to suicidogenic crisis. Many suicidal behaviors in adult life may have their beginning in adolescence suicidogenic crisis. Adolescence and young adulthood combined (age 14 to 34) represent over 40% of all suicides committed in the United States (Vital Statistics of the U.S. Mortality, 1982). These statistics reinforces the belief that adolescence is "a prototype of a developmental disturbance". (Anna Freud, 1969; Blos, 1979).

Psychodynamic approaches have all pointed to the resurfacing of sexual and aggressive impulses during adolescence (Blos, 1962, 1979; Anna Freud, 1958, 1969). They emphasize the importance of the ego's ability during this stage to modulate this emergence of aggressive and sexual urges. Some researches have suggested that teenage sexual urges are catalysts for attempts:

> "The genital awareness and the continuing confrontation with the Oedipal struggle at adolescence led to a revival of unbearable memories of old frustrations; and through loss or rejection at the hands of the parents, to interference with the realization of the self as male or female." (Schneer, Kay & Brozovsky, 1961, p.514)

In the psychoanalytic and psychodynamic literature we have seen that suicidal behavior is seen as a way of

dealing with libidinal and hostile impulses aimed at the parents. Adolescents are particularly vulnerable in this regard since there is a resurgence of Oedipal conflicts during this period. These overwhelm the ego with anxiety, leading to decompensation and loss of ego controls under stress (Anna Freud, 1958; Blos, 1962, 1979; Schechter, 1957). Anthony (1975) claimed that the emergence of the superego in adolescence is an important variable connecting depression and adolescent suicide. He believes that as the children become teenagers, their suicidal attempts may be viewed as hostility redirected toward the parent introjects, since the superego is formed via identification with an introjection of the parent.

Adolescence is also a stage that emphasizes and brings together more than ever the interrelations existing between intrapsychic factors and social determinants. Erik Erikson (1978) sees adolescence as a "psychosocial moratorium" in which the major task in ego development is the synthesis of childhood identifications in the context of a new social existence outside familial boundaries. For Erikson, adolescence is the phase where the individual re-evaluates and works through earlier frustrations in order to develop a sense of ego identity. This sense of ego identity is dependant on early familial experiences. It develops out of a gradual integration of all

identifications. Failure to achieve this sense of identity results in identity confusion and a sense of worthlessness: "There is no feeling of being alive without a sense of ego identity." (Erikson, 1978, p.95)

The importance of individual psychic and social determinants during adolescence is also emphasized by Henry Stack Sullivan (1953). Sullivan viewed human development as a function of the reciprocal interplay of individual and enviromental/social forces upon each other. He perceived the role of adolescence as a stage where the individual develops mature interpersonal relations with peers. He believed that the inability to achieve this task by late adolescence was rooted in early parent-child distortions of interpersonal relations and was viewed as the culminating defeat of an inadequately developed personality.

Object relation theorists synthesized the importance of individual psychic and social forces that play a role in the developmental process. They point out the importance of the availability of social relations and love objects other than parents during the crucial period of adolescence (Blos, 1962; Jacobson, 1971). Schaul (1983), reviewing the literature on adolescence in object relation theories, argues that according to object relation theory a new love object (in the sense of a new

human relation other than family) provides a powerful progressive pull that facilitates the internal separation from parents. This love object also helps to balance the threat of a total narcissistic regression during this stage. Furthermore, new love objects provide figures the adolescent can identify with to aid in the re-structuring of psychic structures and internal object representations. In this context, if the availability of social relations are not existent or if the adolescent fails to stablish a relation to new love objects then he or she goes into a total narcissistic regression, and will maintain an unstable self-image and an ongoing depressive state. Here again, as in the other developmental theories cited, the resolution of the adolescence crisis depends on the adolescent's past history and the interplay of the individual psychic and social forces during the period of adolescence.

The importance of adolescence as a critical developmental phase in the life span is not only emphasized by all these physiological, psychic and social changes that adolescents go through but also by the fact that adolescence is the stage of a major cognitive change. It is during adolescence that the child passes from concrete thought to "hypothetico-deductive abstract thought"; the adolescent acquires the power of logical

reasoning, together with a body of laws and principles, and becomes capable of formal thought and generalization (Inhelder and Piaget, 1958). This major change affects the totality of the individual's psychological experience. It provides a new way to think about the world, to build ideals in adapting to society, to formulate a life plan and to develop a philosophy of life and motivations for changes.

According to Haim (1976) it is this new capacity for generalization and abstraction that is the source of the adolescent's philosophical reflection on life and death and is responsible for the sharp increase of suicide rates in this period of the life span. For others (Blos, 1979; Schaul, 1983) it is the problems, difficulties and failures that the adolescent encounters in traversing this progression to formal thought that leads to the severe thinking difficulties and behavioral problems that are inherent in all suicidal acts.

Simply stated, adolescence is the stage par excellence where there is a coalescence between physiological, psychic, cognitive and social forces that may explain the particular individual's vulnerability to suicidogenic crisis. The issues may well reemerge to produce other suicidogenic crises throughout life.

The Urban Environment, The Suicidal Adolescent and The Minorities.

Finally, we believe that it is important to relate our study to the influence of the urban environment in the suicidogenic crisis of adolescents and particularly to the alarming increasing rate of suicide among the racial minority youths in urban populations.

We have seen that one of the major theoretical perspectives in the study of suicide stress the importance of the relational systems. The relational system has been more affected by the growth of cities. Already in 1925, the great sociologist Robert E. Park in "Suggestions for the investigation of human behavior in the urban environment," (Park and Burgess, 1970) called researchers' attention to the increase in social and physical mobility that accompany the growth of cities. Park suggested that this increased mobility had caused a break down of local attachments and a weakening of the restraints and inhibitions of the primary group. He suggested that the investigator interpret human behavior in the urban environment from the point of view of social and physical mobility.

We believe that Park's theory on the City helps to explain the steady increase in the suicidal rate and particularly the epidemic proportion of adolescent suicides. As Park and Burgess (1970) put it:

> "In a great city, where the population is unstable, where parents and children are employed out of the house and often in distant parts of the city, where thousands of people live side by side for years without so much as a bowing acquaintance, these intimate relationships of the primary group are weakened and the moral order which rested upon them is gradually dissolved." (p.24)

For the urban adolescent, at a time when the relational system takes an enormous importance in the life of the individual, (Blos, 1962, 1979; Sullivan, 1953; Jacobson, 1971), primary social relations are scarce and weak. This influence of the urban environment, of the social and physical mobility that are characteristic of the City, can be clearly perceived in the alarming increase in the suicidal behavior of minority groups, particularly hispanic and black people, during the last 25 years, as was reported in the Introduction.

The data reported in the Introduction suggests that the industrialized urban environment has a great influence on the suicidogenic crisis of hispanics, particularly among the young. Edgar C. Trautman (1961) argued that for the Puerto Rican Immigrants the interruption and

subsequent disturbance of the individual's social and cultural stability as well as the weakening or disintegration of family ties caused personality conflicts and emotional illness that led to the high rate of suicidal behavior among the Puerto Rican population he observed in New York City.

According to Davis (1982) the highest increases in the suicide rate among black people has been in the largest metropolitan areas. These suicide rate increases surprised many investigators, especially because during the nineteen forties and the nineteen fifties it was generally believed that black persons were a very low suicide risk group. This belief was based mostly on the vertical restraint theory, (or Status Integration Theory) from research done by Henry and Short (1954). These authors contended that blacks were least likely to commit suicide due to their low status in society.

In general the belief that suicide was rare among the lowest social classes and particularly among black persons persisted into the sixties. In 1969, Herbert Hendin, a psychoanalyst, pointed out in his book, Black Suicide, that in the United States the highest suicide rate is found among the lowest classes (Hendin, 1969, p.133). He also found that since 1920 suicides among young black men in New York City surpassed those of young white men.

Hendin found that black suicide attempters have strong feelings of rage and worthlessness resulting from the discrimination and rejection inflicted by the larger society. But one of the problems with Hendin's study is that he included violent deaths as suicidal equivalents.

More recent studies emphasize the statistical data and note that suicide rates for black people are still below those of the general population. These studies in general continue to emphasize the external restraint or status integration theory and, in spite of Hendy's observations, they argue that the horizontal restraints provided by the social support systems within Black Communities have contributed greatly to the relatively low suicide rate among black persons. At the same time they suggest that the weakening of social relations systems in the black community that have occurred in the last two decades (or what can be called the weakening of the horizontal restraint system in the black community), as well as improved social status (or a change in the vertical restraint system among black people), are strongly related to the increase of suicide among young black people (Banks, 1970; Seiden, 1972; Davis, 1978, 1982).

II-. JUSTIFICATION, RATIONAL AND HYPOTHESES OF THE PRESENT STUDY.

The present study.

The present study is concerned with gaining understanding of the suicidal adolescent. It derives from theories emphasizing the role of aggression and social support in the suicidal process. It attempts to explore and compare the presence, influence and the direction of aggression in suicidal and non suicidal urban adolescents as well as the presence and influence of perceived social support in these groups. Furthermore, the study is also an attempt to synthesize some of the main issues of two major theoretical perspectives on suicide.

The choice of aggression and social support follows from the importance of these two variables in the literature on suicide. Aggression, since Freud, has been widely recognized as one of the most important variables influencing suicidal behavior (Bender and Schilder, 1937; Laurie, 1967; Iga, 1971; Toolan, 1975; Marks and Heller, 1977 etc.). The importance of social support and social relationship as a determinant of suicidal behavior is also widely recognized (Durkheim, 1899; Henry and Short, 1954;

Reese, 1967; Peck and Schrut, 1971; Cantor, 1976; Berman and Sandler, 1980; Smith and Hackarhorn, 1982; etc.). These studies presented theoretical, clinical and statistical analysis of one or another aspect of the importance of aggression and/or social support in the suicidal process, but none of these studies actually compared aggression with social support in suicidal and non suicidal individuals. Nor is such a study reported in the most extensive and specialized library on suicidiology available, located at The Suicide Information and Education Center in Calgary, Alberta, Canada.

The present study differs from previous studies in that it brings together two different perspectives that are central to most of the literature on suicide. Furthermore, it uses objective measures of different aspects of aggression and social support in an attempt to quantify and compare these two variables.

We believe that this study will not only add to the already extensive literature on adolescent suicide but will also contribute to a fuller understanding of the role of aggression and social support in suicidal behavior in adolescents. Such understanding should help prevention and treatment of what is now a major public health problem.

Hypotheses.

Based on the foregoing, this study will test the following hypotheses:

Hypothesis 1: Male urban adolescents who are suicidal are more aggressive than non suicidals.

This hypothesis is based on the psychoanalytic view that an unbound aggressive instinct is an essential element of suicide (Freud, 1917, 1920, 1923; Litman, 1967; Seiden, 1969; Menninger, 1966; Laurie, 1967; Orgel 1974; etc,). Based on this theory, the male suicidal adolescent has more difficulty dealing with his aggression, therefore should score higher on scales measuring level of aggressiveness than do non suicidal adolescents.

Hypothesis 2: Male urban adolescents who are suicidal direct their aggression inward to a greater degree than do non suicidals.

This follows the psychoanalytic idea of a turning of aggressive feelings against self as an element of suicidal behavior (Freud, 1917; Bender and Schilder, 1937; Litman, 1967; Toolan, 1975; etc.). We expect that our suicidal group will have a significantly greater tendency

to turn their aggression against themselves.

Hypothesis 3: Male urban adolescents who are suicidal perceive themselves as having less social support than do non suicidals.

This third hypothesis follows from the socio/cultural perspective that emphasizes the importance of the social relational system in suicidal behaviors (Durkheim, 1899; Henry and Short, 1954; Reese, 1967; Peck and Schrut, 1971; Toolan, 1975; Smith and Hackathorn, 1982; etc.). If the theory is correct suicidal adolescents will perceive themselves as having less social support than do non suicidals.

Hypothesis 4: There is a higher degree of correlation between perceived lack of social support and suicidal behavior than between aggression and suicidal behavior in urban male adolescent suicide attempters.

This last hypothesis is based on clinical observations. It also follows from the object relation theory view that the unavailability of social relations and love objects other than parents are important elements of the process leading to suicidal behavior among adolescents (Blos, 1962, 1979; Jacobson, 1971; Schaul, 1983).

III-. METHODOLOGY.

The purpose of this study is to explore and compare the presence, influence and the direction of aggression and the influence of perceived social support on the suicidal behavior of urban male adolescents.

Study Design.

This study uses "the static group comparison" (Campbell and Stanley, 1963). The static group comparison method compares a group which has experience "X", in this case a suicide attempt, with another group "Y" which has not. The underlying premise is that subjects who have experienced a suicide attempt will respond differently to questions concerning suicidal behavior than will subjects who have not experienced it.

Sampling.

The subjects of this study consist of two groups, an experimental and a control group, of male urban adolescents aged 13 to 19. The experimental group consists of 25 inpatient male adolescent suicide attempters who had attempted suicide within a period of

two weeks prior to their perticipation in the study. The control group consists of 25 "normal" male adolescents who are not psychiatrically diagnosed and have no suicidal history.

All of the suicidal subjects were in-patients at the Elizabeth General Medical Center, a large hospital in urban New Jersey that has one of the most comprehensive psychiatric departments in the State. The Children and Adolescent In-patient Unit of the Department of Psychiatry at the Elizabeth General Medical Center serves the cities of Elizabeth, Newark and Jersey City as well as other large urban communities in Union, Essex and Hudson Counties. The Hospital, and most specificaly The Adolescent-Child In Patient Unit, serves a population that is mostly composed of working class and urban poor people.

Permission for carrying out the research and testing of the subjects was obtained from the Research and Ethic's Committee of the Department of Psychiatry. Since the hospital is a teaching hospital the parental or legal guardian permission to participate in research is routinely included in the admission process of the hospital, and is valid for all studies and treatment carried out in the hospital. Specific permission for this study was given by all participants.

The subjects were requested to participate in this

study after they had been in the in-patient unit for at least 48 hours, to assure a certain degree of stabilization of the patient allowing the administration of a test battery. Their participation was strictly voluntary and they were assured complete confidentiality. They were required to sign a participation consent form.

The subjects for the control group come from the local public Junior and Senior High Schools. They represent the same kind of population served by the Hospital because the city of Elizabeth is mostly a working class urban area with a large Black and Hispanic population. The students were offered a $10.00 participation award for their cooperation. Parental consent was requested. This control group was strictly matched to the experimental group on the basis of race to control for racial differences between groups.

Protection of Human Subjects.

The issue of protection of human subjects in a research study is particularly important for studying suicidal behavior among minors. We have already stated that parental consent and voluntary participation was requested. In addition a brief post test interview was conducted to asses any possible negative impact of the testing material on the subjects. Furthermore, if any

adolescent was found to be at risk during the post test interview or as a result of the test findings, appropriate follow up action and individual referral was available through the Department of Psychiatry. Privacy and confidentiality of tests and records have been strictly observed.

Operational Definitions.

Suicidal Attempt: One of the major problems associated with studies on suicide is the difficulties in categorizing nuances of suicidal behavior. Controversies remain active over whether or not threats, gestures and attempts are on a continuum with completed suicides, or are discrete and psychologically different acts, (Neuringer, 1962; Hankoff, 1975; Victoroff, 1983). It is not our intention to settle this controversy in a study like this, but, in order to take into account this problem, we have focused our definition of suicidal attempt on the subject's stated intention to terminate his life in combination with an estimate of the lethal potential of the act. Therefore, we have defined "suicidal attempt" as a self-injurious act of lethal potential that was perpetrated by a subject, who states that his intention was to terminate his life.

Lethal potential of the suicidal act. In this study

means that the self injurious act in which the suicidal subject was engaged either resulted in a medical intervention such as pumping the subject's stomach in the case of those patients who attempted suicide with an over-dose of pills, a surgical intervention, as in the case of those patients who attempted suicide by self-inflicted wounds, and any other intensive emergency treatment, or that the suicidal behavior itself had to be interrupted to prevent the subject's death, as in the case of those patients who tried to hang themselves or tried to jump from a building.

Adolescent: In this study, the term adolescent refers to individuals 13 to 19 years of age.

Urban male adolescent suicide attempter: refers to male adolescents who live in a major urban center in New Jersey and who have been admitted to the Children Adolescent Psychiatric In-patient Unit at the Elizaberth General Medical Center for suicide attempt.

Normal male non suicidal urban adolescent: refers in this study to male adolescents who live in a major urban center in New Jersey and who have never been psychiatrically diagnosed and have no history of suicide attempts.

Perceived Social Support: There are some disagreements in the literature as to what the construct

"social support" entails (Wood, 1984; Sarason et ali, 1983; Cohen, 1985; Procidano and Heller, 1983). In general, however, perceived social support refers to the perception of the existance or availability of people who can be relied upon, who are perceived as caring, valuing and loving. For this study we will use the scores on the three instruments used to measure social support and perceptions of social support as evidence of perceived social support.

Aggression: The term aggression here refers to the individual's tendency to react with anger and hostility to their own frustrations and misfortunes either by blaming themselves (intropunitiveness or intraggression) or by blaming others (extrapunitiveness or extraggression) or both. In this study we used the scores of two different instruments used to measure aggression and direction of aggression as evidence of aggression and aggressive tendency.

Description of Research Instrumentations.

A battery of 5 different tests was administered to measure aggression, direction of aggression and perceived social support. The test battery consisted of the Rosenzweig Picture Frustration Study (Rosensweig, 1978) and two experimental scales from the Minnesota Multiphasic

Personality Inventory; the Hostility Index and the Direction of Hostility Index (Foulds, 1965; Dahlstrom et al., 1975), alone with three scales that measure social support; The Social Support Questionnaire (Sarason et al., 1983), The Interpersonal Support Evaluation List (Cohen and Hobeman, 1983) and the Perceived Social Support from Friends and Family (Procidano and Heller, 1983). These tests have been chosen because they have been widely recognized in the literature as very effective and appropriate methods to measure aggression and social support (Wood, 1984; Graham, 1978; Dahlstrom et al., 1975).

The Rosenzweig Picture Frustration Study. (P-F). Adolescent Form: We have chosen this test because of its psychoanalytic background, its ability to measure different aspects of aggression and its validity and reliability. Furthermore, the P-F Study has been used extensively for research on aggression in different countries.

The Rosenzweig Picture Frustration Study was developed by Saul Rosezweig in 1945 and it has been kept up to date with recent norms (Rosenzweig, 1978). The test is a semi-projective standardized technique that uses cartoon drawings of social situations to determine the direction and type of aggressive reactions to frustrating

situations (Rosenzweig and Rosenzweig, 1976; Rosenzweig, 1978). Direction of aggression includes extraggression (EA) that is defined as turning aggression against others; intraggression (IA) which is turning aggression against oneself, and imaggression (MA) which is defined as turning aggression off or neutralizing aggression. In Addition, a Composite Aggression Scale was derived from the sum of the Extraggressive and Intraggressive Scale to measure total Aggression.

The test reliability includes an inter-scorer reliability of .84 to .99. Test-retest reliability gives a correlation that varies from .56 to .71 (Rosenzweig, 1978) which is considered a fair degree of test reliability. The validity of the test consists primarily of construct and criterion related validity and it also has proven pragmatic validity (Rosenzweig and Adelman, 1977). The instrument has been well researched and all evidence supports the validity of the P-F Study (Rosenzweig and Adelman, 1977; Rosenzweig, 1978b; Foulds and Caine, 1965). Rosenzweig and Sarason (1942) found multiple correlation coefficients above .75 for each of the three components (Extraggression, Intraggression and Imaggression) with the correlation of hypnotizability. They found also correlations between Extraggression and repression of -0.73. The test was also used in relation

to aggression and suicidal attempts by Levenson and Neuringer (1970) to measure the direction of aggression in a sample of 13 suicidal attempters, 7 males and 6 females.

The Rosenzweig has well developed norms and scoring patterns and rules but since it is a semi-projective test that may involve an element of judgement, two different raters were used to score this test. The researcher was one of the raters. The second rater was a Seton Hall Psychology Student who was doing an externeship at the Department of Psychiatry. This student was trained by the researcher and later rated both groups independently from the researcher. The inter-rater reliability correlation coefficeints obtained were 0.9896, 0.9022, 0.9738. and 0.9688 for the Extraggression, Intraggression, Imaggression and Aggression scales, respectively. The average score was used as the true score for the statistical computation.

The Hostility Index and The Direction of Hostility Index are two experimental scales directly constructed from the Minnesota Multiphasic Personality Inventory (Dalhstrom, 1975). These scales were developed by Foulds and Caine in 1959 to measure general aggressivity or hostility and the direction of aggression. The test consists of five sub-scales made up from the MMPI. Three of these sub-scales are concerned with aspects of

extrapunitiveness. These are: Acting Out Hostility (AH), Criticism of Others (CO), and Projected or Delusional Hostility (DH). The remaining two are concerned with aspects of intropunitiveness. These are: Self-Criticism (SC), and Guilt or Delusional Guilt (DG). A composite Intrapunitive scale was derived from the sum of these two last sub-scales (SC and DG) to serve as an index of Intropunitivenness or Aggression turn inward.

The total sum of each score of these five sub-scales gives a total score for The Hostility Index. The addition of the three sub-scales concerned with extrapunitiveness minus the two subscales concerned with intropunitiveness following this formula (2SC=DG)-(DH+CO+AH) gives a score for The Direction of Aggression Index. Here a positive number means that aggression is directed inward (Intropunitiveness) and a negative number means that the aggression is directed outward (extrapunitiveness).

The test has a test-retest reliability over 5 weeks of .91 which is considered to be highly positive and its validity is based on construct and criterion validity (Fould and Caine, 1965). The test was found to descriminate between normals, neurotics, and paranoid states including paranoid schizophrenia. The descriminant function was significant at the 1% level of significance. Furthermore, each of the five scales were found to

contribute considerably to differentiate between groups. Within group correlation between scales has been found to be all positive (Foulds and Caine, 1960). The test has also been used in studies measuring aggression in assaultive psychiatric patients by an independent researcher with positive results (Blackburn, 1968).

The Social Support Questionnaire (SSQ) is a measure of social support that yields scores for perceived number of social support (SSQ-N) and for satisfaction with the social support that is available (SSQ-S). This test was developed by Irwing G. Sarason and others (Sarason et al, 1983) at the University of Washington. It consists of 27 items. Each one asks a question to which a two part answer is requested. The items ask on whom they can rely in given sets of circumstances and to indicate how satisfied they are with these social supports.

Coefficient alpha for SSQ-N is .97 and for SSQ-S is .94. Test-retest reliability over four weeks interval is .90 for SSQ-N and .83 for SSQ-S. The test is supported by data that provides evidence for construct and concurrent validity and it has been found to be negatively related to several scales measuring affect (Sarason, Levine, Basham et Sarason, 1983)

The Interpersonal Support Evaluation List (ISEL) is a measure of perceived availability of social support

developed by Sheldon Cohen and Henry M. Hoberman at the University of Oregon (Cohen and Hoberman, 1983). It consists of forty true/false statements. It yields scores in four subscales: a) Tangible Support, to measure perceived availability of meterial aid; b) Appraisal, to measure the perceived availability of someone to talk to about one's problem; c) Self-Esteem, to measure the perceived availability of a positive comparison when comparing one's self with others; 4) and the Belonging sub-scale to measure the perceived availability of people one can do things with. The test also yields a general score of perceived availability of social support.

The internal reliabilities for the subscales range from .60 to .92 and total scales range from .77 to .90. The test is based on construct and concurrent validity. Validity testing has indicated that the ISEL is moderately correlated with measure of supportive behavior and inversely related to a measure of social anxiety. The total score and the subscales have been negatively correlated with depression (Cohen, 1986).

The Perceived Social Support from Friends (PSS-Fr) and The perceived Social Support from Family (PSS-Fa) are measures of perceived social support from family (PSS-Fa) and from friends (PSS-Fr). It was developed by Mary E. Procidano and Kenneth Heller (1983). The test consists of

2 separate scales of 20 yes/no/don't know statements and it yields one score for each scale. The test retest reliability over one month interval is high. Coefficient alpha for the PSS-Fa is .88 and for the PSS-Fr is .90. Research data provides evidence for construct and concurrent validity. Both measures were found to be negatively related to a measure of symptomatology. Procidano and Heller also found a fair degree of convergence between their test and observed behavior.

IV-. F I N D I N G S .

This chapter will detail results derived from the statistical analysis of the findings. In order to make this presentation as orderly as possible, some clinical data of the suicidal subjects will be reported first alone with some demographic descriptions of the subjects in terms of age, race and family status (intact or broken family). The demographic variables will be reviewed for significant relationship with the different variables in the study. This will be followed by the results on the measures of aggression and on the measures of perceived social sopport. The chapter will conclude with a summary of the findings.

The primary statistical method used was The Pearson Product Moment Correlation. The correlation is called a point biserial correlation when one of the variables was dichotomously scored (eg. suicidal vs. non suicidal group membership). A t-test of the significance of this correlation was done. The results will often be presented in both approaches (i.e., correlations, means and t values). For the demographic parameter of race, which had 3 levels (whites, blacks and hispanics) a one way ANOVA was used to test for differences among these racial groups in each of the measures used in the study.

The Pearson Correlation, t-test and ANOVA were used in contrast to non parameter tests because of the greater interpretability of correlations and means and because the parameters used in this study tended to have distributions not markedly different from the normal distribution.

All p values presented are based on two tailed alpha level, with alpha less than .05 being considered statistically significant. In addition, graphical methods, such as frequency distributions are used as appropiate. The clinical records data are used only to supplement and illustrate the findings. Tests intercorrelation tables are presented in the appendix.

As previously stated, two different instruments were used to measure aggression and the direction of aggression; and three instruments were used to measure perceived social support. These instruments were described in chapter 3. They yielded a total of 22 variables. There are twelve variables for aggression. These are: The Hostility Index (measures the subject's total aggressivity) with its 5 sub-scales (Acting Out Hostility, Delusional Hostility, Criticism of Others, Delusional Guilt, and Self Criticism); The Direction of Hostility Index (measures the subject's propensity to be inner or outer directed in hostility orientation); The Intropunitive Scale (measures the subject's aggression

turned inward) and the four scales from The Rosenzweig Picture Frustration Test (Extrapunitive or aggression turned out-ward, Intropunitive or aggression turned inward, Imaggression or neutralized aggression and the Composite Total Aggression Scale or the subject's total aggression score).

There are ten variables for perceived social support. These are: The Total Evaluation List Score or Total ISEL (measures total perceived availability of social support) with its four sub-scales (Appraisal, Belonging, Tangible Support, and Self-Esteem), The Total Perceived Social Support from Friends (PSS,Fr) and from Family (PSS,Fa) with the Composite Total Percieved Social Support Score from Friends and Family (Total PSS). Finally, The Social Support Questionnaire Number Scale or SSQ,N (measures the perceived number of social support available) and The Social Support Questionnaire Satisfaction Scale or SSQ,S (measures satisfaction with the Perceived Social Support).

There are also three demographic variables considered in the study. These are: age, race and family status.

Demographic Variables and Clinical Data

The experimental and control groups were strictly matched on the basis of race to control for racial differences between groups (see Table 1). The family

TABLE 1

Sample Description:

Frequency Distribution for Suicidal and non Suicidal Subjects on Race

Race	Suicidal Subjects (n = 25) N	Non Suicidal Subjects (n = 25) N
Blacks	7 (28%)	7 (28%)
Whites	9 (36%)	9 (36%)
Hispanics	9 (36%)	9 (36%)

status of both groups were not controlled but they yielded the same number of intact and broken families for both groups (see Table 2). It is important also to point out that the family data for the suicidal subjects was taken from the patient's medical records which have a great variability in terms of quality and content.

The control and experimental groups, the hostility measures and the perceived social support measures were examined for differences based on age, race or family status variables. No significant differences ($p < 0.01$) were found between the control and experimental groups for age or family status (see Tables 2 and 3), and no significant differences ($p < 0.01$) were found for age and family status with any of the scales used in the study (see Tables 26 and 27 in the Appendix). There was no difference between the three racial groups (at $p < 0.05$ level) using a one way ANOVA on any of the hostility measures, and no difference ($p < 0.05$) between the three racial groups was seen on any of the perceived social support measures using a one way ANOVA.

Tables 4, 5 and 6 give some clinical data of each suicidal subject regarding the method used in their suicidal attempt as well as some clinical background. The clinical background includes history of family conflicts,

TABLE 2

Sample Description:
Pearson Correlation Analysis between Age and Family Status on the one hand and suicidal status on the other.

N=50	
Variable	r
Age	0.07*
Family Status	0.0

*Not significant at p less than 0.05 level.
Family Status = Broken and Intact Family
Suicidal Status = Suicidal (experimental group) vs. non Suicidal (control group) adolescents.

TABLE 3

Sample Description:

Means, Standard Deviation and T-test for suicidal and non suicidal subjects on age.

Variable	n=25 Suicidal $\bar{X}$	SD	n=25 Non Suicidal $\bar{X}$	SD	t-value	p*
Age	16.08	1.47	16.3	1.91	-0.50	0.62

*two tailed probability.

TABLE 4

Sample Description:

Frequency Distribution for Suicidal Subjects on Diagnosis.

N=25	
Primary Diagnosis	n
Depression	22 (88%)
Schizophrenia	2 (8%)
Adjustment Disorder	1 (45)
Secondary Diagnosis	**n**
Mixed Substance Abuse	7 (28%)
Impulse Control	2 (8%)
Conduct Disorder, Undersocialized Aggressive Type.	3 (12%)
Anti Social Personality Disorder	2 (8%)
Parent Child Problem	1 (4%)
Adjustment Disorder with depressed mood	16 (64%)

TABLE 5

Sample Description:

Frequency Distribution for Suicidal Subjects on Methods used for attempting suicide.

N=25	
Method	n
Over-dose	2 (4%)
Hanging	5 (20%)
Over-dose and hanging	3 (6%)
Over-dose and alcohol	2 (8%)
Over-dose and laceration of wrist	1 (2%)
Laceration of wrist	4 (8%)
Stabbed self	1 (2%)
Attempted to jump from a building	4 (8%)
Poisoning	2 (4%)
Set self on fire	1 (2%)

TABLE 6

Sample Description:

Frequency Distribution for Suicidal Subjects on History of Significant Problems Reported in the Psychiatric Evaluation.

Significant Problem*	N
Family Problems	22 (88%)
School Problems	15 (60%)
History of Aggressive Behavior	18 (70%)
History of Delinquency	9 (3)

*The gravity or intensity of these problems are unknown but the suicidal subjects or their significant other considered these problems important enough to report them during the psychiatric evaluation.

history of school problems, history of delinquency and of aggressive behavior.

The severity or intensity of these conflicts and behaviors are unknown but the problems were considered significant enough to be reported in the psychiatric evaluation. This data should be used only as illustration and to give a general idea of the population because the quality of the clinical reports were inconsistant from one report to the other. The clinical data will be discussed in the last chapter to illustrate the discussion of the hypotheses and some case presentations will reported in the appendix. However, it is interesting to point out here that 22 of the suicidal subjects or 88% of the experimental sample claimed to have family problems; 15 subjects or 60% claimed to have a history of school problems and 18 subjects or 70% have a history aggressive behavior (see Table 6).

Measures of Aggression Derived From The M.M.P.I.

The Hostility Index is an experimental scale from the M.M.P.I. that measures general aggressivity or hostility. The suicidal male urban adolescents scored at a significantly higher index of Hostility ($p < 0.001$) than did the non suicidal controls. The means for these two

groups were 36.24 and 20.44, respectively. T-test was significant ($p < 0.001$) with a t-value of 12.88 (see table 7). The measure of the size of the relationship (the point biserial correlation) was extremely high, r=0.88, (see Table 8). Furthermore, it was observed that with one exception, the distribution of the suicidal subjects and those in the control group did not overlap (see graph 1).

The Hostility Index highly correlated with most of the scales and subscales ($p < 0.01$) used in the study, yielding correlation coefficients ranging from 0.35 to 0.87, with most correlation coefficients in the 0.50 range or more (see Table 18 in the Appendix). Furthermore, the high positive significant relation found between The Hostility Index and the other measures of aggression used in this study indicate the concurrent validity of the measures. The Hostility Index didnot correlate significanlty with The Social Support Questionaire Satisfaction Scale (SSQ-Sat.) and with The Rosenzweig Intraggression Scale (r = 0.12 and 0.14, respectively. See Table 18 in the Appendix).

The high significant negative correlations found between The Hostility Index and all the measures of perceived social support indicate that those adolescents who have higher aggression perceive themselves as having less social support; and that suicidal adolescents

TABLE 7

Means, Standard Deviations, and T-Tests for Aggression Scores Derived from the M.M.P.I. of the Suicidal and non Suicidal Adolescents.

Variable	n=25 Suicidal Group		n=25 Non Suicidal Group		t-Value
	$\bar{X}$	SD	$\bar{X}$	SD	
Hostility Index	36.24	3.5	20.03	5.03	12.88*
Direction of Hostility Index ***	-9.00	4.04	-5.36	4.22	-3.11**
Composite Intropunitive Scale	16.84	3.50	9.40	4.03	6.97*

*p less than 0.01; 2 tailed probability.
**P less than 0.001; 2 tailed probability.
***In the Direction of Hostility Index a negative number means that the aggression is directed outward and a positive number means that the aggression is directed inward.

GRAPH #1

FREQUENCY DISTRIBUTION GRAPH

FOR THE HOSTILITY INDEX

INDEXHOS = AH+DH+CO+DG+SC

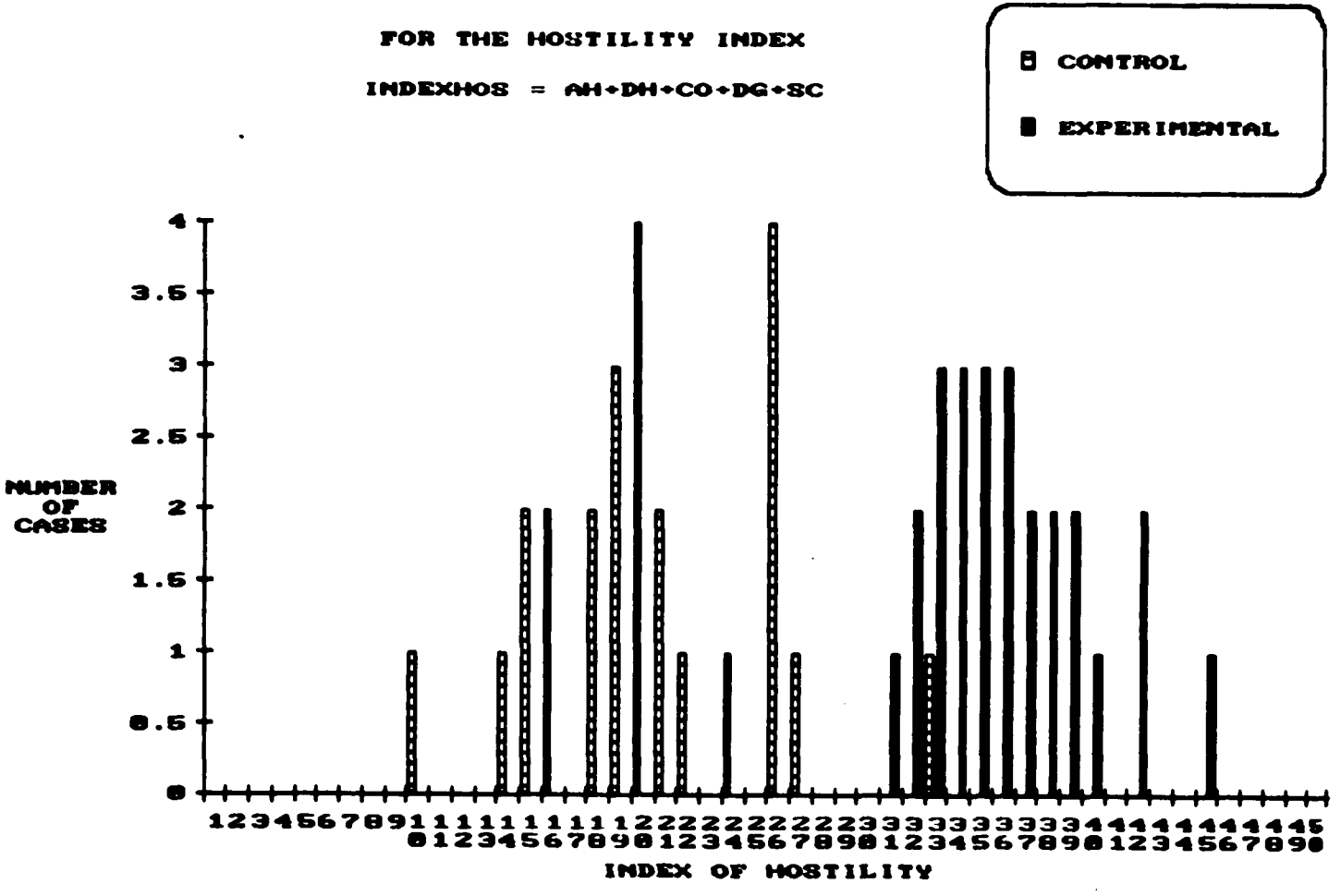


TABLE 8

Pearson Correlation Analysis between Measures of Aggression Derived from the M.M.P.I. and Suicidal Status*.

N=50	
Variable	r
The Hostility Index	0.88**
The Direction of Hostility Index	0.41***
The Composite Intropunitive Scale	0.71**

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
** p less than 0.001
*** p less than 0.01

perceived themselves as having less social support. In fact, the findings indicate that the M.M.P.I., Hostility Index, does discriminate between the control and the experimental groups not only in aggression but also in their levels of perceived social support (see Table 18 in the Appendix).

The Hostility Index Score is the sum of five different subscales that measure aggression. Three of these sub-scales (Acting Out Hostility, Criticism of Other and Delusional Guilt) are concerned with aspects of extrapunitiveness. The other two are concerned with aspects of intropunitiveness or Introaggression (Self-Criticism and Delusional Guilt). A significant difference ($p < 0.001$) was seen on every subscale of The Hostility Index. The suicidal patients have higher scores than do the student controls. That is to say that the suicidal subjects had more acting out hostility, more delusional hostility, more delusional guilt and they were more critical of others and of themselves than were the non suicidal subjects. These results are presented on Table 9.

It was observed that the non suicidal students were significantly more variable ($p < 0.01$) in their criticism of others (variance = 4.74) than were the suicidal

TABLE 9

Pearson Correlation Analysis between the Hostility Index Sub-Scales and Suicidal Status*.

N=50	
Variable	r
Acting Out Hostility	0.77**
Delusional Hostility	0.78**
Criticism of Others	0.72**
Delusional Guilt	0.66**
Self-Criticism	0.66**

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
** p less than 0.001

patients (variance = 1.25). This heteroscadacity had little impact on the t-test, comparing the means. The t-test was adjusted by the Satterthwaite correction to the degree of freedom and the two groups had equal sample sizes. The point biserial correlations were 0.77, 0.78. 0.72, 0.66 and 0.66 for the Acting Out Hostility (AH), Delusional Hostility (DH), Criticism of Others (CO), Delusional Guilt (DG), and Self-Criticism (SC) Scales, respectively. (See Table 9).

All these hostility subscales were significantly ($p < 0.01$) positively correlated to each other and to all the scales which measure aggression, with exception of the Rosenzweig Intropunitive Scale. In addition, the two subscales associated with intropunitiveness or Introaggression in The Hostility Index (Delusional Guilt and Self-Criticism) were also found not to be significantly correlated with the Direction of Hostility Index (see table 21). The subscales were also significantly ($p < 0.01$) negatively correlated with most of the scales that measure perceived social support with the exception of the Social Support Questionnaire Satisfaction Scale (see Table 21).

In summary these findings indicate that the suicidal group is more aggressive than the non suicidal group; that

there is no relationship between the subject's propensity to be inner directed in hostility orientation (intraggressive or intropunitive) and the amount of aggression he has; and, finally, that the more aggressive the subject the more socially isolated he may perceive himself to be.

The Direction of Hostility Index is an experimental scale from the M.M.P.I. that measure the subject's propensity to be intraggressive (intropunitive) or extraggressive (extrapunitive). This index is derived from the five subscales that form The Hostility Index, and is equal to twice the score on the Self-Criticism Sub-scale plus the score on the Delusional Guilt subscale minus the scores on the Acting Out Hostility, Criticism of Others and Delusional Hostility subscales. A negative score expresses the subject's propensity to be extraggressive. A positive score expresses the subject's propensity to be intraggressive.

The control group had significantly higher ($p < 0.01$) scores on The Direction of Hostility Index than did the suicidal group. The means for the suicidal and control groups were -9.00 and -5.36, respectively (See Table 7). In both groups the scores tended to be significantly negative ($p < 0.001$). In the suicidal group there were no subjects with positive scores and one with a score of zero

(4%). The minimum score among the suicidal patients was -16, seen in two patients; the next lowest score was -15. In the control non suicidal group there were 3 positive scores (12%) and one score of zero (4%). The minimum score was -15, seen in one subject; the next lowest score in the control group was -10 (see graph 2).

In sum, most adolescents in this study had a propensity to be extraggressive or extrapunitive in hostility orientation (they turn their aggression outward). The control group were observed to be extrapunitive as well, but to a lesser degree than the suicidal group.

The Direction of Hostility Index was significantly ($p < 0.01$) negatively correlated with the three sub-scales of the Hostility Index associated with extraggression (Acting Out Hostility, Delusional Hostility and Criticism of Others). This indicates that the more aggressive, or the higher the score a subject has in these sub-scales, the more extrapunitive (extraggressive) is the subject (see Table 19 in the Appendix).

But The Direction of Hostility Index was not significantly correlated with the two sub-scales associated with intraggression in The Hostility Index (Delusional Guilt and Self-Criticism). This sugests that there is not a significant relationship between the

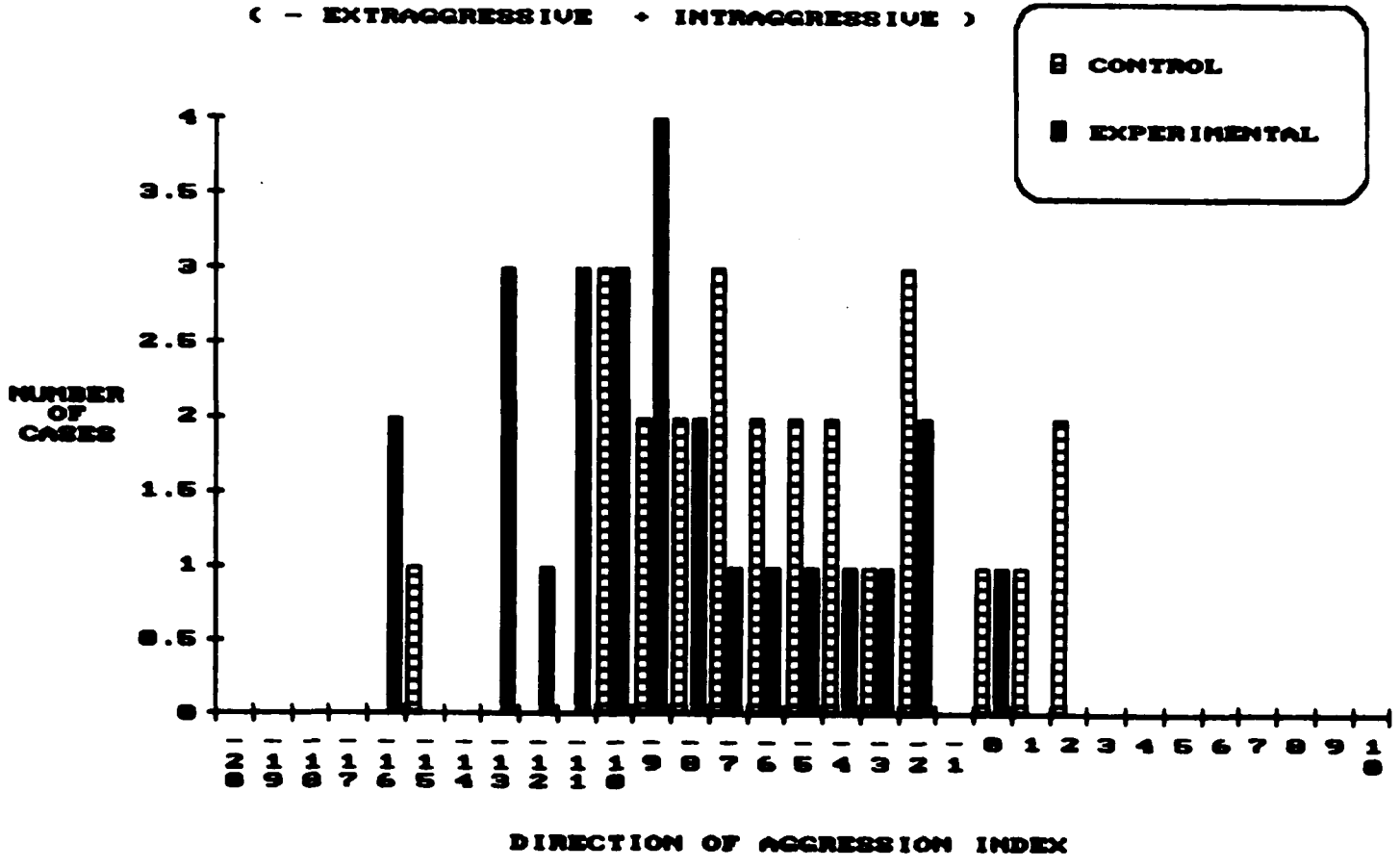
GRAPH #2

FREQUENCY DISTRIBUTION GRAPH

FOR THE DIRECTION OF HOSTILITY INDEX

INDEXHOS = AH+DH+CO+DG+SC

(- EXTRAGGRESSIVE + INTRAGGRESSIVE)



subject's propensity to be intraggressive (to turn his aggression inward) and the amount of delusional guilt and self-criticism that the subject experiences (see Table 19 in the Appendix).

These findings are similar to the findings on the Rosenzweig Picture Frustration Study. As it will be repported later, The Rosenzweig also indicated that the more aggessive a subject, the more extraggressive or extrapunitive that subject is. The composite Aggression Scale of the Rosenzweig has a very high significant ($p < 0.001$) correlation with the Rosenzweig Extrapunitive Scale ($r=0.84$). But there is no significant relationship between aggression and intraggression (see Table 22 in the Appendix).

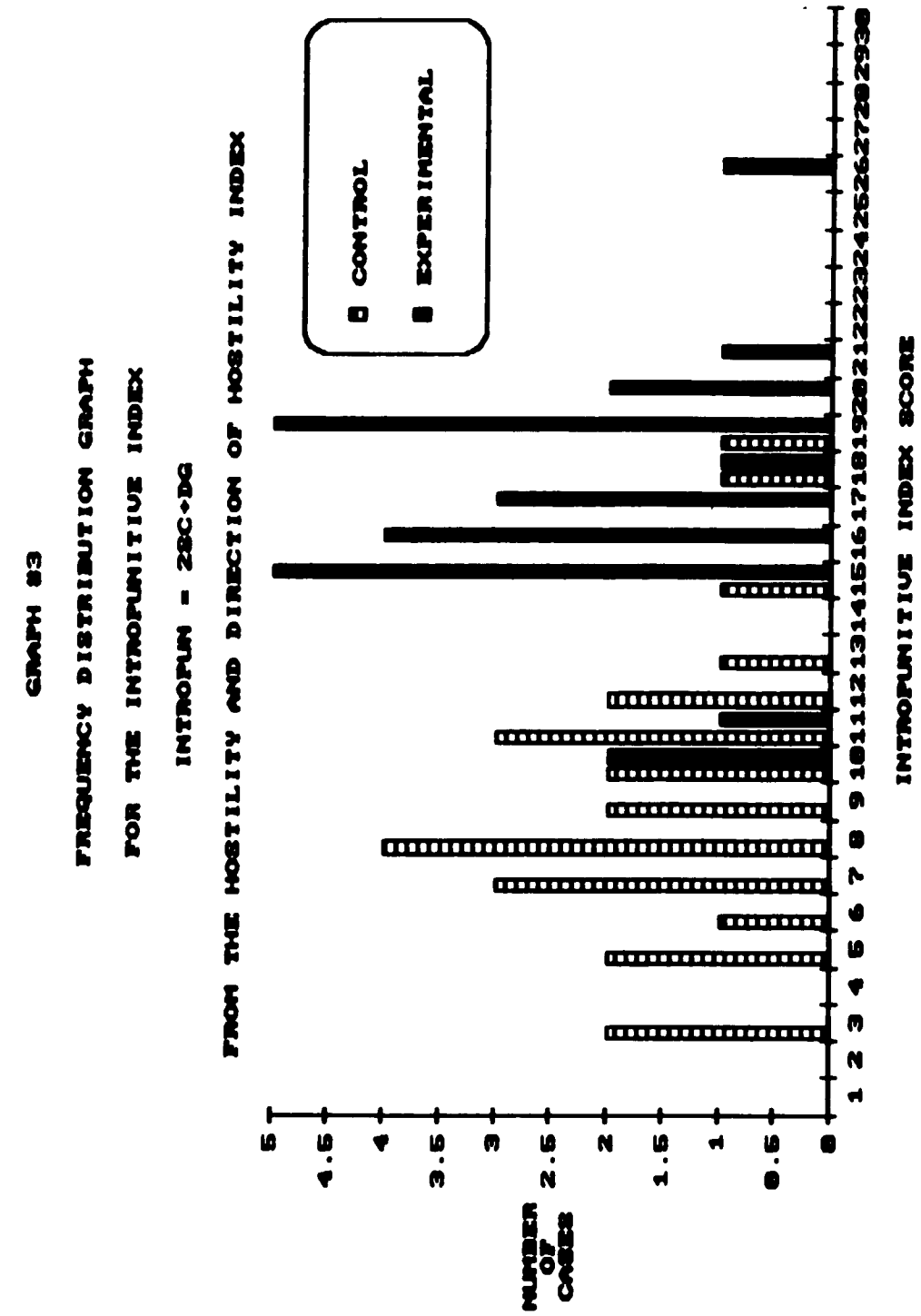
The Intropunitive Scale was derived by the writer from the sum of the two sub-scales (Self-Criticism and Delusional Guilt) of The Hostility Index that are associated with intropunitiveness or intraggression. The scale measures the amount of intrapunitive aggression (Intraggression). The Intropunitive Scale was significantly ($p < 0.001$) higher in the suicidal group. The means were 16.84 and 9.40 for the suicidal and control groups, respectively (see table 7). Fifty six percent of the control group subjects had scores less than the score

of 10 which was the lowest score for those in the suicidal group (see graph 3).

The results here indicate that the suicidal group has more intropunitive aggression as measured by self criticism and delusional guilt. It is important to point out that this intropunitive scale is not significantly related to the Rosenzweig Intragression or Intropunitive scale ($r=-0.03$). This is due to the fact that both scales are measuring intragression or intropunitiveness from two different perspectives.

The composite Intropunitive Scale also was significantly ($p<0.01$) negatively correlated to most of the scales that measure perceived social support with the exception of the Perceived Social Support from Friends (PSS,Fr.) and the Social Support Questionnaire Satisfaction Scale, SSQ,Sat. These results are reported on Table 20. The indication here is that the more intropunitive or intraggressive a subject, the more socially isolated that subject perceives himself. The finding is consistant with the previous finding that the more aggressive the adolescent, the more socially isolated he may perceive himself.

Measures of Aggression Derived from The Rosenzweig Picture Frustration Test .


GRAPH #3
FREQUENCY DISTRIBUTION GRAPH
FOR THE INTROPUNITIVE INDEX
INTROPUN - ZSC+DG
FROM THE HOSTILITY AND DIRECTION OF HOSTILITY INDEX
CONTROL
EXPERIMENTAL
NUMBER OF CASES
INTROPUNITIVE INDEX SCORE

The Rosenzweig Extraggression Scale (EA) measures the subject's propensity to turn aggression against others. This scale had significant mean differences ($p < 0.001$). The suicidal patients had higher scores on extragression (EA). The means for the Extragression variable are 55.50 and 42.82 for the suicidal and control groups, respectively (see table 11). The point biserial correlation was 0.45 reported in Table 10.

This scale was found to be significantly ($p < 0.01$) correlated to all the measures of aggression used in the study. There was a significant negative correlation with the Rosenzweig Intraggressive Scale. The EA Scale was also found to be significantly ($p < 0.01$) negatively correlated to the following scales that measure perceived social support: Social Support Questionnaire Number Scale (SSQ-N), Total Perceived Social Support from Friends and Family (PSS,Total), Total Interpersonal Support Evaluation List (ISEL) and the Self-Esteem sub-scale of the ISEL Test (see Table 22 in the Appendix). The results in this scale support all the previous reported findings.

The Rosenzweig Imaggression Scale (MA) measures the subject's propensity to neutralize or inhibit aggression. The scale significantly differentiated the control subjects who had higher scores on Imaggression at the $p < 0.01$ level. The means for the MA variable are 20.12 and

TABLE 10

Pearson Correlation Analysis between Measures of Aggression Derived from the Rosenzweig Picture Frustration Test and Suicidal Status*.

N=50	
Variable	r
Extrapunitive Scale	0.45**
Intropunitive Scale	0.06
Imaggression Scale	0.50***
The Composite Total Aggression Scale	0.50***

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
**p less than 0.01
***p less than 0.001

TABLE 11

Means, Standard Deviations and T-Tests for Aggression Scores Derived from the Rosenzweig Picture Frustration Test of the Suicidal and non Suicidal Adolescents.

Variable	n=25 Suicidal Group $\bar{X}$	SD	n=25 Non Suicidal Group $\bar{X}$	SD	t-Value
Extra-punitive	55.50	12.98	42.82	13.06	3.44*
Intro-punitive	24.26	7.66	25.42	8.23	-0.43
Imag-gression	20.12	11.50	31.94	9.19	-4.01**
Total Aggression	79.96	11.38	68.24	9.42	3.97**

*significant at p less than 0.01 level; 2 tailed probability
**Significant at p less than 0.001 level; 2 tailed probability

31.94 for the suicidal and control group respectively (see table 11). The point biserial correlation was 0.50 reported in Table 10. The scale was negatively correlated ($p < 0.01$) with all the other measures of aggression, with the exception of The Direction of Hostility Index and the Rosenzweig Intraggression (IA) Scale. In addition, it had significant ($p < 0.01$) positive correlation with the Total Interpersonal Evaluation List Scale (Total ISEL), with the Self-Esteem subscale of the ISEL Test, as well as with the Total Perceived Social Support Scale from Friends and Family (Total PSS) and The Social Support Questionnaire Number Scale (See Table 22 in the Appendix).

The Results on the MA Scale indicate that the non suicidal subjects have a greater ability to neutralize or inhibit aggression than do the suicidal group.

The Rosenzweig Intraggression Scale (IA) measures the subject's propensity to turn aggression inward. No difference between groups were found on the intragression (IA) Scale at $p < 0.05$ level ($r=0.06$; see Table 10). The means on the IA scale were 24.46 and 25.42 for the suicidal and non suicidal groups respectively (see Table 11). This scale was significantly ($p < 0.001$) negatively correlated with the Extraggression scores for the whole sample ($r=-0.56$) It was not significantly related to

other measures of aggression or of perceived social support (see Table 22 in the Appendix).

Thus the results in this scale confirms the expected. The more a subject reacts to a frustrating situation by directing his aggression outward the less likely he is to direct his aggression inward. At the same time, however, it indicates that the porpensity toward intraggression does not differentiate the suicidal adolescent.

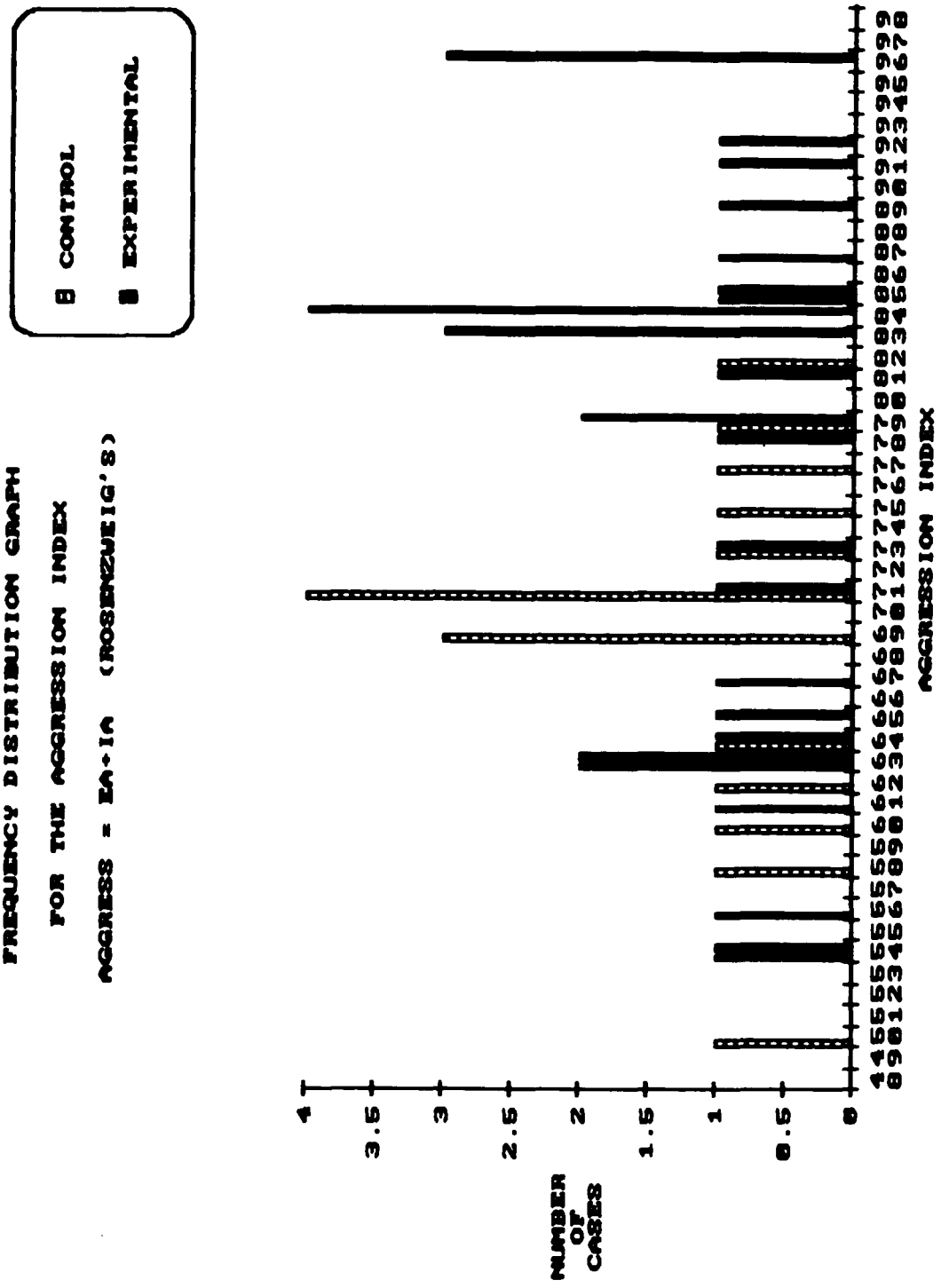
The Composite Aggression (AGG) Scale was composed by the writer to yield a total picture of the aggression of the subject ragardless of direction. It was derived from the sum of the Rosenzweig Extraggression and Intraggression Scales. The suicidal patients had significantly ($p < 0.001$) higher scores on the aggression composite scale than the control group. The means were 79.96 and 68.24 for the suicidal and no suicidal groups respectively (see Table 11). The point biserial correlation was 0.50 reported in Table 10. Seventy two percent of the control group had scores of 70 or less on this scale while only 24% of the suicidal group had such scores (see graph 4). The Aggression Scale was also found to be significantly correlated ($p < 0.01$) with all the scales that measure aggression with the exception of the Rosenzweig Intraggression scale and The Direction of Hostility Index (see Table 22 in the Appendix).

GRAPH #4

FREQUENCY DISTRIBUTION GRAPH

FOR THE AGGRESSION INDEX

AGGRESS = EA+IA (ROSENZWEIG'S)



The statistical analysis indicates that there is a strong relationship between aggression, on the one hand, and extragression (turning aggression outward) and imaggression (neutralising or inhibiting aggression) on the other hand. The Hostility Index yielded correlations of 0.63 and -0.66 ($p < 0.001$) for Extraggression and Imaggression, respectively. While the composite Rosenzweig Aggression Scale yielded correlations of 0.84 and -0.99 ($p < 0.001$) with the Extraggressive and Immagressive scales. The correlation between The Index of Hostility and the Rosenzweig Aggression Composite was 0.67 ($p < 0.001$) these intercorrelations are reorted in Table 22 in the Appendix.. This indicate a high degree of positive correlation and concurrent validity between these two different instruments used to measure aggression.

However, the data indicates that there is no significant relation between the amount of aggression and aggression turned inward or intraggression (see Table 22 in the Appendix). Both The Hostility Index and the composite Rosenzweig Aggression Scale were not significantly correlated with the Rosenzweig Intraggressive scale ($r=-0.13$ and -0.016, respectively). What the data is actually saying is that the more aggressive the adolescent, the more likely he is to direct

his aggression outward in face of a frustrating situation. However, he may or may not turn his aggression inward.

The composite Rosenzweig Aggression Scale had significant ($p < 0.01$) negative correlation with The Self-Esteem Sub-scale of the Interpersonal Support Evaluation List (ISEL); with the Total ISEL Scale, with The Perceived Social Support from Friends Scale (PSS,Fr.), with the composite Total Perceived Social Support From Friends and Family (Total-PSS), and with the Social Support Questionaire Number Scale (SSQ.N). These results are reported in Table 22 in the Appendix.

Measures of Perceived Social Support .

The Perceived Social Support from Friends (PSS,Fr) and from Family (PSS,Fa) Scales are measures of perceived social support from friends and from family. A composite Total Perceived Social Support from friends and from family (Total PSS) was developed by the writer to yield a total picture of the subject's perceived social support. The Total PSS was derived from the sum of the PSS,Fr and PSS,Fa scores.

The control group had significantly ($p < 0.001$) higher score on the composite Total Perceived Social Support Scale. The means for the suicidal and control groups were

20.44 and 29.60, respectively (see Table 13). Fifty two percent of the suicidal patients had scores of 20 or less while only 8% of the control group had such scores (see graph 4). The point biserial correlation was 0.57 (see Table 12).

Both the Perceived Social Support from Friends (PSS,Fr) and The Perceived Social Support from Family (PSS,Fa) scales were significantly higher in the control student group ($p<0.01$). But the suicidal group had significantly higher variance ($p< 0.01$) on the PSS,Fr. Scale. The variences were 28.75 for the suicidal group and 15.08 for the student group (see table 13).

The point biserial correlation for the PSS,Fr. and PSS,Fa. are 0.38 and 0.53 respectively (see Table 12). These scales were significantly ($p<0.05$) correlated between themselves and they were both found to be positively correlated ($p<0.001$) with all the other measures of perceived social support, and negatively correlated ($p<0.01$) with some measures of aggression (see Table 23 in the Appendix).

The results suggest that the control group perceives themselves as having more social support from friends and family than do the suicidal subjects. There is considerable diversity in the perception of social support from friends among the suicidal subjects, while their

TABLE 12

Pearson Correlation Analysis between The Perceived Social Support from Friends and Family Scales and Suicidal Status*

N=50

Variable	r
Perceived Social Support from Friends	0.38**
Perceived Social Support from Family	0.53***
The Composite Total Perceived Social Support	0.57***

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
** Significant at $p < 0.01$ level
*** Significant at $p < 0.001$ level

TABLE 13

Means, Standard Deviations and T-Tests for Perceived Social Support Scores Derived from the Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa) Test of the Suicidal and non Suicidal Adolescents

Variable	n=25 Suicidal Group		n=25 Non Suicidal Group		t-Value
	$\bar{X}$	SD	$\bar{X}$	SD	
PSS,Fr	11.60	5.36	15.08	2.81	-2.87*
PSS,Fa	8.84	5.15	14.52	4.16	-4.29**
Total PSS	20.44	7.73	29.60	5.49	-4.83**

*Significant at $p < 0.01$ level; 2 tailed probability
** Significant at $p < 0.001$ level; 2 tailed probability

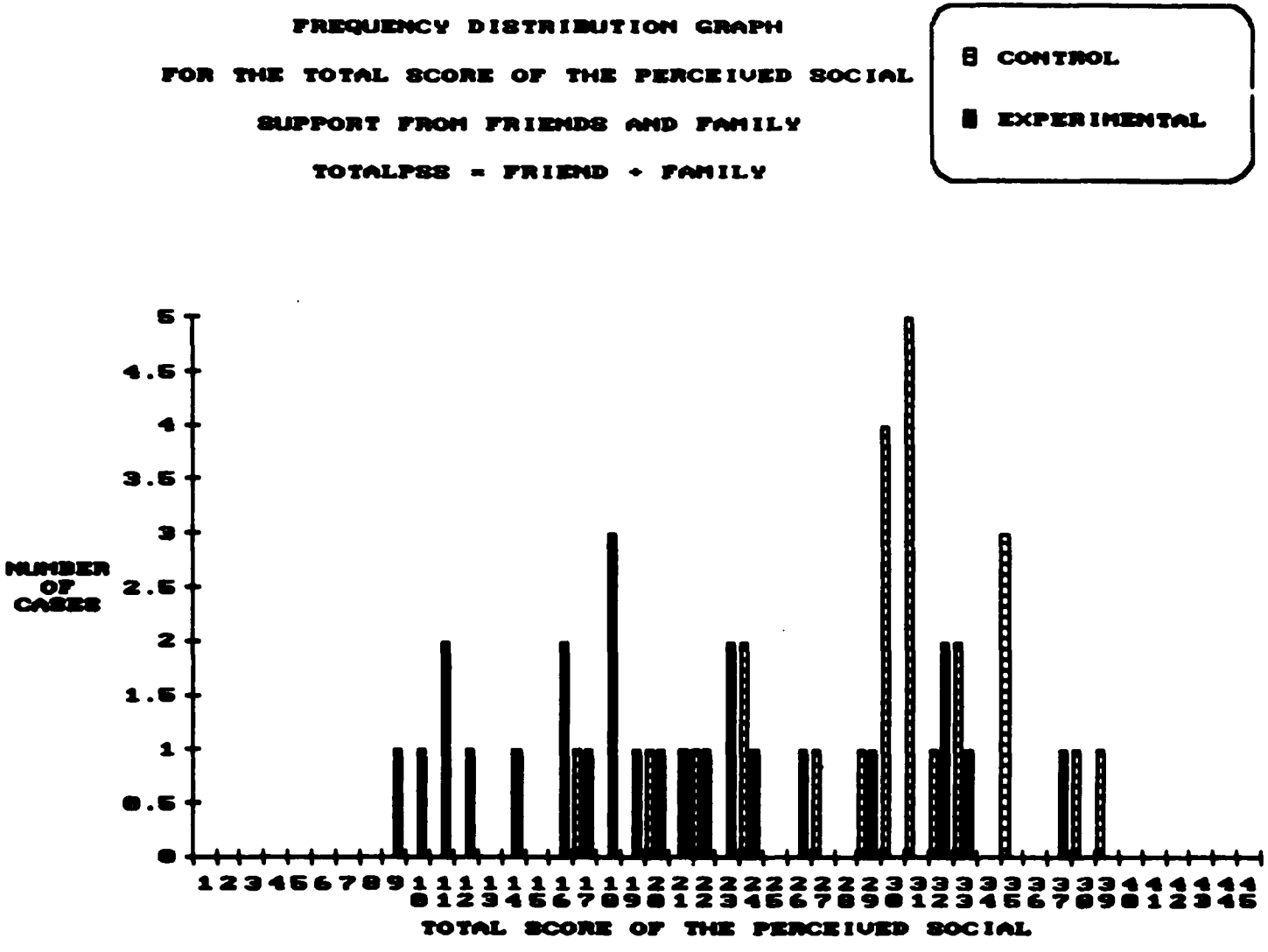
GRAPH 85

FREQUENCY DISTRIBUTION GRAPH

FOR THE TOTAL SCORE OF THE PERCEIVED SOCIAL

SUPPORT FROM FRIENDS AND FAMILY

TOTALPSS = FRIEND + FAMILY



perception of social support from family is more consistent. The findings support the concurrent validity of these three scales with other tests that measure perceived social support.

The Interpersonal Support Evaluation List (ISEL) Test is a measure of perceived availability of Social Support. It yields scores in four subscales; Tangible Support (availability of material aid); Appraisal (availability of someone to talk to about one's problem); Self Esteem (availability of a positive comparison when comparing one's self with others); and Belonging (availability of people one can do things with). The test also yields a total score (Total ISEL) that measures the general perceived availability of social support. This Total ISEL score is derived from the sum of the sub-scales.

The composite Total ISEL score was significantly ($p < 0.001$) higher in the control group. The means for the suicidal and control groups are 24.32 and 33.08, respectively (see table 15). The point biserial correlation is 0.60 reported in Table 14. Eighty four percent of the suicidal patients scored 30 or less in this scale, while only 16% or 4 subjects of the control group had these scores (see graph 6).

TABLE 14

Pearson Correlation Coefficient Analysis between The Interpersonal Support Evaluation List (ISEL) and Suicidal Status*

N=50	
Variable	r
Total ISEL	0.61**
ISEL(Appraisal)	0.52**
ISEL(Belonging)	0.48**
ISEL(Tangible Support)	0.44**
ISEL(Self-Esteem)	0.60**

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
**Significant at $p < 0.001$ level.

TABLE 15

Means, Standard Deviations, and T-Tests for Perceived Social Support Scores Derived from The Interpersonal Support Evaluation List (ISEL) of the Suicidal and non Suicidal Adolescents

Variable	n=25 Suicidal Group		n=25 Non Suicidal Group		t-Value
	$\bar{X}$	SD	$\bar{X}$	SD	
Total ISEL	24.32	6.71	33.08	4.89	-5.27*
ISEL Appraisal	5.24	1.94	7.48	1.81	-4.22*
ISEL Belonging	6.48	2.29	8.52	1.39	-3.80*
ISEL Tangible Support	7.00	2.29	8.80	1.39	-3.40**
ISEL Self-Esteem	5.60	1.98	8.28	1.62	-5.24*

*p less than 0.001; 2 tailed probability.
** p less than 0.01; 2 tailed probability.

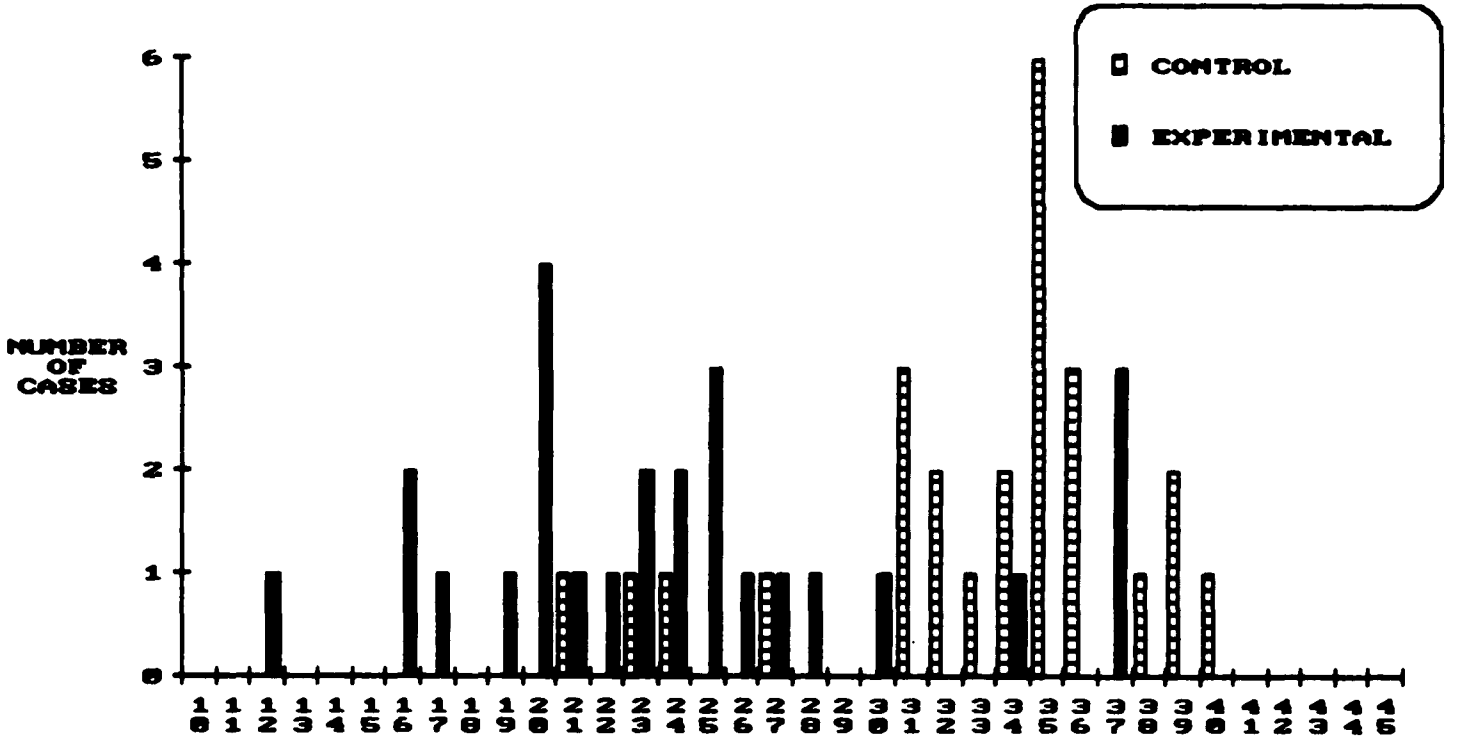
GRAPH #6

FREQUENCY DISTRIBUTION GRAPH

FOR THE SUM SCORE OF THE INTERPERSONAL

SUPPORT EVALUATION LIST

SUMISEL = TANGENTIAL+BELONGING+SELF_ESTEEM+APPRAISAL



The Total ISEL Scale correlated positively ($p<0.001$) with all measures of perceived social support and negatively with measures of aggression ($p<0.01$; see table 24 in the Appendix). These results indicate again than non suicidal subjects are more likely to perceive themselves as having more social support than the suicidal patients.

The control group also had significantly ($p<0.01$) higher scores in each of the ISEL subscales (Appraisal, Belonging, Tangible Support and Self-Esteem) than did the suicidal group. The mean scores and other statistics are presented in Table 15. The suicidal group had greater variability than the control group on the Tangible Support parameter (variance = 5.25 and 1.75 for the suicidal and control group, respectively). This last result indicates that on the ISEL as well as the PSS from Friends scales the suicidal adolescents have considerable diversity in their perception of the amount of tangible support available to them.

The point of biserial correlation for the Appraisal, Belonging, Tangible Support and Self-Esteem sub-scales are .52, .48, .44 and .60, respectively (see Table 14). The subscales had significantly high correlations among themselves ($P<0.001$) and with measures of perceived

social support and aggression (see Table 24 in the Appendix). The results on these sub-scales confirmed previous findings.

The Social Support Questionnaire (SSQ) is a measure of perceived social support that yields scores for perceived number of social support (SSQ,N) and for satisfaction with the social support that is available (SSQ,S). The control group had significantly higher ($p < 0.001$) scores on the SSQ,N. The means for the suicidal and control groups were 1.96 and 3.55, respectively (see Table 17). The point biserial correlation was 0.50 reported in Table 16. This scale had significant ($p < 0.001$) positive correlation with all of the measures of perceived social support used in the study and it was also negatively correlated ($p < 0.01$) with the measures of aggression, with exception of the Rosenzweig Intraggression Scale and The Direction of Hostility Scale (see Table 25 in the Appendix).

The results confirm and validate the previous reported findings that the control, non suicidal group perceive themselves as having more social support than does the suicidal group and that the more aggressive a subject the more likely he is to perceive himself as socially isolated. Furthermore, the more the adolescent propensity to direct his aggression outward the more

TABLE 16

Pearson Correlation Analysis between the Social Support Questionaire (SSQ) and Suicidal Status*

N=50	
Variable	r
SSQ (Number Scale)	0.50**
SSQ (Satisfaction Scale)	0.0145***

*Suicidal Status = suicidal (experimental group) versus non suicidal (control group) adolescents.
**significant at $p<0.01$ level
**non significant at $p<0.05$ level

TABLE 17

Means, Standard Deviations and T-Tests for Perceived Social Support Scores Derived from The Social Support Questionaire (SSQ) of the Suicidal and non Suicidal Adolescents.

Variable	n=25 Suicidal Group		n=25 Non Suicidal Group		t-Value
	$\overline{X}$	SD	$\overline{X}$	SD	
SSQ Number	1.96	1.12	3.55	1.67	-3.96*
SSQ Satisfaction	5.04	0.94	5.02	0.67	0.10**

*p less than 0.001; 2 tailed probability
** p more than 0.05; 2 tailed probability

likely he is to perceive himself as socially isolated. At the same time his propensity to direct his aggression against himself is not linked to his perceptions of the social support available to him.

There was no significant diffference between the control and suicidal groups on the SSQ Satisfaction Scale. The means for the suicidal and control groups were 5.04 and 5.02, respectively (see Talbe 17). The point biserial correlation was 0.01, reported in Table 16. The data indicates that this scale does not differentiate the suicidal adolescent.

Summary of Findings .

In sum, the results derived from the statistical analysis of the data collected indicate:

1) The suicidal patients are significantly ($p < 0.001$) more aggressive than the non suicidal control group on the scales and subscales derived from the Minnesota Multiphasic Personality Inventory to measure aggression and on all the Rosenzweig's scales with the exception of the Intraggression Scale.

2) The Hostility Index, derived from the M.M.P.I. discriminates between the control and the experimental

group not only in terms of the aggression variable but also in terms of the perceived social support variable.

3) Most urban male adolescents in the study have a propensity to direct their aggression outward or to exteriorize their aggression (extrapunitive or extraggressive). The suicidal group, however, were more extrapunitive or extraggressive than the non suicidal group on the two different scales measuring the direction of aggression that were used in the study (The Direction of Hostility Index and the Rosenzweig Extraggression Scale).

4)The suicidal group was found to have more delusional guilt, self-criticism and poor self-esteem which are variables associated with intropunitiveness or intraggression than the control group. But there was no significant difference found between the two groups in their propensity to direct their hostility inward when confronted with a frustrating situation according to the Rosenzweig Intraggressive Scale.

5) The non suicidal subjects were more likely to neutralize or to inhibit their aggression than the suicidal group according to the Rosenzwieg Imaggression Scale.

6) The control group perceive themselves as having more social support than the suicidal group in every scale and

subscale used to measure perceived social support.

7) There is a significant ($p < 0.01$) negative correlation between aggression and perceived social support. The results suggest that those urban male adolescents who have higher scores on aggression tend to perceive themselves as having less social support than those with lower aggression scores.

8) The two main variables studied, aggression and perceived social support, are significantly correlated at either $p. < 0.001$ or at $p. < 0.01$ level.

9) The Social Support Questionnaire Satisfaction Scale did nothing to differentiate between the control and the experimental group.

The hypotheses of the study were variably upheld:

The first hypothesis: "Male urban adolescents who are suicidal are more aggressive than non suicidal". This hypothesis was supported.

The second Hypothesis: "Male urban adolescents who are suicidal direct their aggression inward to a greater degree than do non suicidals". This hypothesis was only partially upheld.

The third hypothesis: "Male urban adolescents who are suicidal perceive themselves as having less social support than do non suicidals". This hypothesis was supported.

The fourth hypothesis: "There is a higher degree of

correlation between lack of social support and suicidal behavior than between aggression and suicidal behavior in urban male adolescent suicidal attempters". This hypothesis was not upheld.

V-. DISCUSSION.

Hypothesis I: "Male urban adolescents who are suicidal are more aggressive than non suicidals".

The findings from the statistical analysis of the data strongly and overwhelmingly support the hypothesis that male urban adolescents who are suicidal are more aggressive than those who are not. The suicidal group scored higher on every scale used to measure aggression. There was a significant ($p < 0.001$) extremely high correlation ($r=0.88$) between the amount of aggression as measured by the Hostility Index, and whether or not a boy were suicidal (see Table 7 and 8).

The suicidal boys scored at the high end of the scales that measure aggression. The scores in The Hostility Index were dramatically different for the two groups. Only one non suicidal subject scored above 30 but all the suicidal subjects scored 31 or higher (see graph 1). The Hostility Index differentiated 96% of the non suicidal subjects from the suicidal group. The Composite Rosenzweig Total Aggression Scale also highly differentiated ($p < 0.001$) the suicidal and non suicidal groups ($r=0.50$; see Table 10). Thus we may conclude that in our sample of adolescents, the suicidal group differs significantly in terms of aggression from the non suicidal

group.

This study found strong support for the view generally held in the literature that aggression is an important and essential characteristic of the suicidal person (Freud, 1917, 1922, 1923; Bender and Schilder, 1937; Menninger, 1966; Lourie, 1967; Seiden, 1969; Fink and Pozanski, 1971; Iga, 1971; Cantor, 1972; Orgel, 1974; Toolan, 1975; Marks and Heller, 1977; Crumley, 1981; Brown, 1982; Pfeffer, 1985; etc.).

According to Blos (1962, 1979) there is a resurfacing of sexual and aggressive impulses during adolescence. The current study seems to indicate that these urban male adolescent suicide attempters have a tremendous difficulty modulating the emergence of their aggressive urges. Their aggressive instinct is unbound (Freud, 1922) and unneutralized (Menninger, 1966). Furthermore, the clinical evidence also points to unbound aggressive drives since 70 per cent of the suicide attempters have a history of aggressive behavior that is serious enough to be reported by significant others or by the patients themselves as a problem in their lives (see Table 6 and case presentations).

This lends weight to Lourie's (1967) contention that this difficulty results from a missing step in the fusion of the aggressive drives of these adolescents.

Neutralization, dilution and inhibition of aggression failed to develop, ultimately resulting in them turning their aggression against themselves in face of a frustration situation, or as Crumley (1981) observed, at a time of intense anger.

Hypothesis II: "Male urban adolescents who are suicidal direct their aggression inward to a greater degreee than do non suicidals".

The data is more ambigous on the suicidal subject's propensity to be inner directed in hostility orientation. The hypothesis that male urban adolescents who are suicidal direct their aggression inward to a greater degree than do non suicidals was supported by only one of the two scales used to measure aggression turned inward. Intropunitiveness was found to be significantly higher ($p < 0.001$) for the suicidal group when measured on the composite Intropunitive Scale derived from two sub-scales of the Hostility Index (Self-criticism and Delusional Guilt). The point biserial correlation for the Intropunitive Scale was 0.71 which is significant at the $p < 0.001$ level (see Table 8). No significant differences ($p < 0.05$) were seen between the suicidal and control groups on the Rosenzweig Intropunitive Scale (see tables 10 and 11).

This difference between the Composite Intropunitive Scale derived from The Hostility Index and the Rosenzweig

Intropunitive Scale is due to the fact that each tests is measuring two different aspects of aggression turned inward. The Composite Intropunitive Scale measures the amount of aggression in terms of delussional guilt and self-criticism. These two variables are generally associated with aggression turned inward in the literature and with suicidal behavior (Freud, 1917; Fould and Caine, 1960, 1965; Toolan, 1975). The Rosenzweig Intropunitive Scale measure the subject's propensity to turn aggression against self when he or she faces a frustrating situation.

Therefore, the findings indicate that the suicidal subjects are not more prone to turn their aggression against themselves than are the non suicidal students when confronted with a frustrating situation. In fact, the suicidal subjects tend to be more aggressive and to turn more their aggression toward others than are the non suicidal subjects. In this sense the hypothesis is not upheld. But the data upheld the traditional view (Freud, 1917) that guilt and self-criticism are related to suicidal behavior. Furthermore, our study seems to shed some light on the relationship between aggression turned inward and suicidal behavior.

Our results on the Rosenzweig Intropunitive Scale are very similar to Levenson and Neuringer's (1970) findings. Both studies found no significant correlation between

intropunitiveness as measured by the Rosenzweig and suicidal behavior. But the data in this study is not limited to an analysis of the Rosenzweig Intropunitive Scale as was Levenson and Neuringer's. In fact, our results seem to support and to shed additional light on Levenson and Neuringer's speculation that the relationship between intropunitiveness and suicidal behavior is complex.

The data suggests that the intropunitive expression of aggression is not a stable characteristic of the suicidal adolescent and at the same time the findings seems to point toward the possibility that the intropunitive expression of aggression may occur as a recourse when more direct expression of aggression is blocked. The findings clearly indicate that the suicidal subjects studied experienced a tremendous amount of aggression (they were higher on each scale that measured aggression than were the non suicidals). Moreover, this aggression was mostly directed against others (see Table 7, 10, 11 and graph 2) and it did not seem to result in a propensity to turn aggression against self. The turning of aggression against self as measured by the Rosensweig is not significantly related to the subjects' aggressive characteristics or to their ability to neutralize their aggression (there were no significant intercorrelation

between the Rosenzweig Intropunitive Scale on the one hand and the Rosenzenweig Imaggression Scale or the other scales measuring the amount of aggression on the other hand as shown on Table 22 in the Appendix).

The point is that aggression is an essential element of suicidal behavior and that aggression is generally directed outward (both groups directed their aggression against others, one more than the other). Furthermore, the turning of aggression against self is not dependent on the subjects' ability to control aggression or on the subjects' general aggressive characteristic. It is possible, therefore, to speculate that the turning of aggression against self could be influenced by environmental forces rather than by personal characteristics or personal predispositions.

The literature supports this view that the intropunitive expression of aggression occurs not as a stable trait but as a recourse when more direct expression of aggression is blocked. The psychodynamic oriented literature does not separate intropunitiveness or aggression turned inward from aggression in general. For Freud (1922, 1923) intropunitiveness is just one manifestation of the aggressive instinct. In fact Litman (1967) points out that Freud believed that an unbound aggressive instinct is an essential element of suicidal

behavior and this view is generally held in the literature (Menninger, 1966; Lourie, 1967; Seiden, 1969; Brown, 1982; Pfeffer, 1985). In addition, many authors have pointed out the importance of external circumstances that block the expression of aggression in the suicidal behavior of people. Finck and Pozanski (1971) observed that suicidal adolescents had difficulties with the expression of aggressive feelings against others because such expressions were forbidden by their families. Orgel (1974) had similar views. Freud (1917) believed that an ambivalent love-hate relationship with a loved lost object was an essential element that led to turning aggression against oneself. Menninger (1966) believed that it was a wish to kill, with feelings of intense guilt, that lead to suicidal behavior. For Bender and Schilder (1937) it is an unbearable deprivation of love that leads to suicide and for Beck (1975) it is a sense of hopelessness.

Whatever the elements that prevent the expression of aggression, it appears that the relationship between suicidal behavior and aggression turned inward is not one based on a stable personal trait of turning against oneself. Rather, it is based on complex situations and personal circumstances that prevent a very aggressive personality to express directly his or her aggression against the outside world.

Hypothesis III: "Male urban adolescents who are suicidal perceive themselves as having less social support than do non suicidals".

The findings support the hypothesis that male urban adolescents who are suicidal perceive themselves as having less social support than do non suicidals. The non suicidal subjects had higher scores on every scale used to measure perceived social support (see Tables 12 to 17). The results support the view that the social ralational system plays an important role in the suicidal behavior of people (Durkheim, 1899; Henry and Short, 1954; Peck and Schrut, 1971; Toolan, 1975; Smith and Hackathorn, 1982; etc.).

The findings also emphasize the importance of perceived social support from family. There is a high correlation ($r=0.53$, $p<0.001$) between perceived social support from family and suicidal behavior (see Table 12). This particular finding corroborates from a different context the view that family disorganization, resulting in insufficient nurturance and support by the family, is a major factor in the suicidal behavior of adolescents (Teicher and Jacobs, 1967; Roberts and Hooper, 1969; Rosenbaum and Richman, 1970; Shaffer, 1974; Toolan, 1975; Abraham, 1977; etc.).

Hypothesis IV: "There is a higher degree of correlation

between perceived lack of social support and suicidal behavior than between aggression and suicidal behavior in urban male adolescent suicidal attempters".

The fourth hypothesis states that there is a higher correlation between perceived lack of social support and suicidal behavior than there is between aggression and suicidal behavior at least among urban adolescent suicidal attempters. This hypothesis was confirmed on the direction opposite to that predicted. The findings indicate that there is a higher degree of correlation between aggression and suicidal behavior than there is between perceived social support and suicidal behavior. In fact, aggression, as measured by The Minnesota Multiphasic Personality Inventory is the variable that relates most clearly to suicidal behavior (see Graph 1).

The size of the correlation between The Hostility Index and the suicidal subjects is extremely high, $r=0.88$, $p<0.001$, as compared to the size of the correlation between the perceived social support and suicidal behavior (which range between $r=0.60$ to 0.38). The Hostility Index distinguished 96% of the non suicidal subjects from the suicidal group. No other variable come close to such differentiation (see graphs).

In addition, the findings indicate that there is a significant ($p<0.001$) negative relationship between aggression and perceived social support (see

Intercorrelations Tables 18 to 25 in the Appendix). The Hostility Index (Table 18) has a correlation of -0.63, -0.59 and -0.55 with the Total Interpersonal Support Evaluation List Scale (Total ISEL), The Total Perceived Social Support from Friends and Family (Total PSS) and The Social Support Questionnaire Number Scale (SSQ,N), respectively. The Composite Rosensweig Aggression Scale (see Table 22) has a significant ($p<0.01$) negative correlation of -0.38, -0.39, -0.51 with the Total ISEL, the Total PSS, and the SSQ,N., respectively. These findings support the view that there is an interrrelation between social and psychodynamic factors (Sullivan, 1953,; Blos, 1962; Jacobson, 1971; Erikson, 1978).

Conclusion.

The study supports both, the psychodynamic perspective that, since Freud (1917, 1920, 1923), has emphasized the role of aggression in suicide; and the socio-cultural perspective that, since Durkheim (1899), has emphasized the importance of the relational system. At the same time the results suggest a clearer relationship between aggression and suicidal behavior than between perceived lack of social support and suicidal behavior.

The findings seem to indicate that the urban male adolescent suicide attempter has failed to achieve fusion of positive and aggressive drives leaving unbound aggression (Freud, 1922). One may speculate about the reason for this. Some authors like Brown, Ebert et al., (1982) suggest that these adolescents have a biological pre-disposition to aggression, but the bulk of the literature on the subject emphasizes the importance of psychodynamic and environmental forces (Freud, 1917; Menninger, 1966; Toolan, 1975; Blos, 1962; Haim, 1976; etc.).

By bringing together the psychodynamic and the socio-cultural perspective we also found a significant interaction between aggression and perceived social support. There is an inverse relationship between the two. The more aggressive our subjects were the more likely they perceived less social support, the less they perceived themselves as socially supported the more likely they were to score high on measures of aggression. This bring us back to the influence of the urban industrialized environment in the suicidogenic crisis of adolescents.

In the industrial city, thousands of people live side by side for years without so much as a bowing acquaintance. Furthermore, in the context of an industrialized city the intimate relationships of the

primary group are weakened and primary social relations are scarce and weak (Park and Burgess, 1970). This affects particularly the adolecent because adolescence is a stage of life where there is a tremendous need for a relational system (Sullivan, 1953; Blos, 1962, 1979; Jacobson, 1971, etc.). If the adolescent's holding environment is unable to strenghthen his relational system and to help him deal with his own resurfaced sexual and aggressive impulses, he is prone to become more aggressive and socially isolated and to resolve in suicide. Therefore, it is not surprising that there is a higher rate of suicide in industrialized urban societies and that adolescent suicide is increasing even among minority groups who were once thought to be protected against the dilemmas leading to suicide.

Minority groups, particularly hispanics and blacks that today form a substantial number of the American city populations, were thought to be protected against suicide because of their exclusion from the rest of the society and because of the strength of the traditional social support systems within their own communities. But, the increased social and physical mobility of the industrialized urban societies have broken down those traditional social support systems and have increased the participation of the minority groups in the rest of the

society (Trautman, 1969, Davis, 1982, Hendin, 1969; Banks, 1970). This has made the minority groups more vulnerable to the dilemmas leading to suicide. Our study seems to support this view.

The findings indicate that, at least in our sample of urban male adolescents, there are no significant difference in perceived social support and aggression between whites, blacks and hispanics. This suggests that these groups of youngters from a metropolitan area of New Jersey are similar in their perceived social support and in their aggressivity even though their problems differ.

In sum, our research supports the hypotheses that male urban adolescents who are suicidal are more aggressive and perceive themselves as having less social support than non-suicidals. The findings indicate that there is a clearer relationship between aggression and suicidal behavior than between perceived social support and suicidal behavior. The findings are ambiguous on the hypothesis that male urban adolescents who are suicidal direct their aggression inward to a greater degree than non-suicidals. The study suggests that the suicidal subjects experience more self-criticism and more delusional guilt than do the non-suicidal subjects and that in that sense they are more intropunitive. The suicidal subjects, however, are not more prone to turn

their aggression against themselves than are the non-suicidal subjects.

In addition, the findings indicate that there is a significant inverse relationship between aggression and perceived social support but that there is no significant difference in perceived social support and aggression among whites, blacks and hispanics in the sample studied.

Limitations of the Study.

This study has several limitations and inherent difficulties which limit the generalization of the findings:

First, many subjects of the suicidal group had primary diagnosis of depression (see Table 4). Their responses may reflect this depressive state. The study did not compare depressed non-suicidal adolescents with depressed suicidal adolescents. Furthermore, the study did not compare other psychiatrically diagnosed but non-suicidal adolescents with the suicidal group. Both additional controls would have contributed to the clarity of the findings.

A second important concern deals with the effect of the hospitalization of the suicidal adolescents on their responses. Again, the study would have been enhanced by

the addition or substitution of non-hospitalized suicidal youth. There are obvious difficulties in locating such subjects.

Another difficulty is the geographic restriction of the sample used in the study. All the subjects in the sample used were from one particular geographic area in East-Central New Jersey. These adolescents represent that population, but, obviously, they do not necessarily represent all urban male adolescents.

Despite these difficulties, however, confidence in these findings may be enhanced by their basic consistency with previous findings reported in the literature using similar or different subjects and different measures. Levenson and Neuringer's (1970) compared non-suicidal adolescents with different psychiatric diagnoses to suicidal adolescents and to non-suicidal normal adolescents. Their study, like ours, did not find any significant differences in the dimension of intropunitiveness among groups. Shaffer (1974) and Pfeffer (1985) found histories of aggressive behavior among suicidal adolescents. Uber (1982) found that suicide attempting males expressed more hostility toward parents than did the non-suicide attempting males and her study also reported that suicidal adolescents tended to express more ambivalence over their status as accepted

family members than non-suicidals. Teicher and Jacobs (1967), Toolan (1975) and Cantor (1976) found that suicidal adolescents from different urban geographic areas expressed high degrees of societal conflicts and social isolation.

Implications for Treatment and Further Research.

The results support several implications for treatment: First, there is the crucial importance of aggression and the difficulties that the suicidal patient seems to have in controling, inhibiting and neutralizing aggression. This implies that treatment of these adolescents must deal with effective ways to channel or neutralize aggression. These adolescents need to learn appropiate ways to handle their aggression, particularly in situations where they feel unable to express their rage against other people.

Second, the findings indicate that the treatment of suicidal adolescents must deal with the adolescents' relational system in general, and his family relational system in particular. Here the importance of encouraging open expression of feelings and concerns within the family becomes crucial. This point was emphasized not only by the tests results but also by the fact that common to the

clinical data of almost all the suicidal subjects was the perception of family conflicts and of strained family relationships (see Table 6 and see case presentations).

On the whole, the study seems to have aided in interpreting the complex relationship between aggression turned inward and suicidal behavior, and it supports the importance and the interrelation of aggression and perceived social support among these suicidal male urban adolescents. But more research is needed to generalize these findings. The history of aggressive behavior and the nature of relational systems across generations and within the life of the suicidal individual should be documented. Additional follow up studies of suicidal adolescents that focus on the ways they deal with aggression and how they perceive their relational system could provide valuable information especially for repeat suicide attempters. It seems that the development of specific techniques for dealing with refocus of aggression and with increasing the perception of the actual social support in the relational system of the patients could be instrumental in divising effective short term treatment for this particular population.

APPENDIX A

CASE PRESENTATIONS.

CASE PRESENTATIONS.

The following cases are a vignette of different urban male adolescent suicide attempters that participated in this study. These cases were chosen because they illustrate well some of the findings and some of the issues discussed in the litterature review. In addition, their record were more complete and they represented in general the suicidal group that participated in the study. The name of the patients as well as some personal characteristics have been changed or omitted to protect their privacy and confidentiality.

Pedro: a Central American Boy.

Pedro is a 17 year hispanic male from Central America. His parents divorced shortly after he was born. They have a boy two years older than Pedro. The mother immigrated to The United States after the divorce and she left Pedro and his brother under the care of her father and stepmother (Pedro's natural maternal grand-mother died long before he was born). At the time Pedro was only 8 months old. The mother returned to Central America when Pedro was four years old and she stayed with her children

for six months, leaving them again with her parents but thereafter she returned to see her children for two weeks every year.

Pedro's father was an alcoholic and committed suicide by drinking poison when Pedro was ten years old. Pedro's mother remarried in The United States when Pedro was six years old and she has two boys (ages 10 and 6) from this second marriage. The youngest boy has serious neurological problems and he is mentally retarded.

Pedro was brought up by his grandparents until he was 14 years of age. It is reported that Pedro's grandparent were terribly strict and they used to punish him physically a great deal of time. Pedro's older brother also used to fight with him and to beat him up frequently. In addition, during the whole separation, the mother used to send a remittance on a monthly basis for the care of her two sons but her step mother never told the boys about it, instead she told them that their mother did not care for them.

Both children were reunited with their mother when Pedro was 14 years old. He has been living with his mother, his step father and his 3 brothers. The step father works in a factory while his mother take care of the house and specially of her 6 years old mentally retarded child.

Pedro was first brought for treatment 9 month after he arrived in the U.S. because he was always fighting with his brothers, he was always angry and irritable. It was reported at the time that every time Pedro was punished he threw a temper tantrum, started to shake, became enureptic and destructive.

Psychological tests administered at the time indicated that Pedro has an I.Q. Score of 100 on the Wechsler which falls within the average range of intelligence but there were indications of neurological immaturity. He scored at the developmental level of an 8 year old boy according to the Koppitz Developmental Scale for the Bender Gestalt Test. The Psychological Test Report suggested that Pedro was a very sensitive boy who had the ability to grasp reality but who felt lonely, unwanted and frustrated. Furthermore, Pedro was seen as a severely depressed and angry boy who saw the world as a place where he was constantly punished and he did not see himself as part of his family.

The Psychological Test Report concluded with the recommendations that Pedro needed individual and family psychotherapy coupled with after school recreational activities to provide support, increase Pedro's sense of belonging to his family, help him with his anger and frustrations as well as to increase his socialization and

to change his depressive mood. In addition, the report also recommended placement in a resource room to help Pedro receive more individualized attention in the school. These recommendations were not followed and repeated attempts to contact Pedro's family were unsuccessful until one year later.

One year later, Pedro was brought again for treatment. This time he was referred by the school. By them, Pedro was in 9th grade, he was 15 years old and had started to master the English language but he had serious academic problems. He was not making it in 9th grade. He had poor peer relationship and had begun to be a behavioral problem in the school. Pedro was reported as having poor impulse control, low frustration tolerance and poor concentration. His mother said that he continued to get upset easily. He used to attack his brothers and to throw things around. He also was aggressive toward his mother and stepfather and he said he hated his stepfather. Pedro was then diagnosed as Adjustment Disorder with Mixed Emotional Features by a child psychiatrist who recomended individual psychotherapy and further testing. Once again Pedro did not undertake treatment.

Approximately 10 months later, after his mother confronted him about his school failures and removed his T. V. privileges, Pedro retreated to his room screaming

and set fire to himself with lighter fluid. He was found by his mother with his clothes on fire and rushed to the hospital. Pedro received third degree burns on about 12% of his abdomen and chest. He was hospitalized for 25 days on the Pediatric Medical Unit before he was transfered to the Psychiatric Unit.

Pedro first denied any suicidal intent but later said he wanted to die and set himself on fire because everyone was always punishing him. He was diagnosed as a Recurrent Major Depression with Mixed Personality Disorder Traits this time, and he was referred to the Intensive Therapeutic Day School run by the Department of Psychiatry in collaboration with the Board of Education.

Martin: a Black Adolescent Karate Expert.

Martin is a well built, muscular looking black male who appears older than his stated age of 16. He lives with his adoptive parents and his two natural sibblings, a brother and a sister. He is the middle child. Martin said that his natural mother physically abused him and his sibblings and that she left them when he was 2 years old at which time he was placed with his present adoptive parents. Martin never met his natural father.

At age 10, Martin started Karate instruction and he

claimed he is now a black belt. During early adolescence, he joined a local adolescent gang and since then he has benn involved in many fights and he has been arrested twice for fighting. Martin claimed that last year he was jumped by 3 men and that he broke one person's leg, another person's arm and blinded the third. He said that once he gets into fights he loses control.

Approximately 7 month before his suicide attempt, Martin was hospitalized after being stabbed in the abdomen and chest during a fight. He was in critical condition with damage to both his stomach and pancreas. The day he attempted suicide, he had another fight. According to his adoptive mother, he beat two boys. One still unconsciuos and the other one still in need of eye surgery. When the police arrived, Martin took a knife and tried to stab himself in the stomach but was stopped by the police who brought him to the hospital. In the Hospital he said that he wanted to die because people are constantly provoking him and that he has many problems with his family. He was admitted to the Psychiatric Child Adolescent Unit with the diagnosis of Major Depression with Suicidal Attempt and Impulse Control Disorder.

Patrick: a White Adolescent Male with a Substance Abuse Problem.

Patrick is a 15 years old caucasian male. He is the youngest of two brothers. His brother is 18 years old. Patrick's father died of natural causes when Patrick was only 6 years old. His mother remarried two years later but separated last year and she is now divorced. Patrick claimed he had a happy childhood and denied having any problems with his step father. The mother and step-father are both factory workers.

Patrick said that his problems started about a year ago when his mother and his step-father got divorced. At that time his mother started getting very cranky, jittery and blew up at every thing. Gradually things got worse according to Patrick who said: "My mother is never at home. She hardly spent one hour a day at home. She now has another boy friend with whom she now sleeps. She goes out to bars and drinks late at night". In addition, Patrick also started to have problems and fights with his older brother, because the brother was getting preferential treatment from the mother. Patrick claimed that these problems led him to use various drugs during the past year, including cocaine, marijuanna, mescaline

and qualudes.

The day Patrick was hospitalized he had what he called the worst fight he ever had with his mother. He said he wanted to move out of the house and to go to live with an older male friend but his mother denied him permission to do so, thus initiating an argument during which time, according to Patrick, the mother stated: "Why can't you be like your brother? He never gives me hard time. I wish you were dead. I want you to get out of my life. I hate you". Then, following these words, Patrick took a knife and stabbed himself in the arm and wrist 20 times. The mother succeded in taking the knife away from him and called the Police. Patrick was rushed to the Hospital where he was uncooperative, agitated and hostile. He stated that he wanted to die and did not want to be treated. He was then committed to the Psychiatric Child Adolescent In-patient Unit with a diagnosis of Adjustment Disorder with Mixed Disturbance of Emotion and Conduct and with a secondary diagnosis of Mixed Substance Abuse.

John: a "Normal" White Adolescent Male.

Jonh is a 16 years old Caucasian adolescent male who lives with his parents and his 13 year old brother. His

parents work in a local factory. John was admitted to the Child Adolescent Psychiatric In-Patient Unit after trying to jump from the top of a 15 story building.

Jonh said that what precipitated his suicide attempt was finding out that day that his girlfriend was sleeping with a friend of his. He said he wanted to make his ex-girl friend feel as bad as he felt by killing himself. John's brother said that John bacame very angry when he learned about his girl friend's affair and that he started to hit the walls with his fists and then went to the top of the building to jump and kill himself.

During his stay in the unit, John became upset once with another patient and he started punching the wall. The next day, he expressed the feeling that he knew he needed to control his anger. John has no previous psychiatric history. He is doing well in the school and he claimed no family problems. He was diagnosed Adjustment Disorder with Depressed Mood.

Christian: a Depressed Black Adolescent Male.

Christian is a 15 year old, tall, well built black male who appears older than his stated age. He was admitted to the Hospital after he ingested a bottle of

paint thinner in an attempt to poison himself. This was Christian's third suicide attempt. He has a history of depression and suicide attempts and a previous diagnosis of Atypical Affective Disorder and Anti-Social Behavior from another Hospital. When he was admitted, he stated that he didnot care whether he lived or died. Christian denied any drug or alcohol abuse.

Christian lives with his father and one older sister. His mother is living outside of Christian's house for unknown reasons and he refused to talk about her. However, he stated that he has interpersonal problems with his father and that he is unable to communicate with him.

During his stay in the unit, Christian remained isolative, withdrawn and depressed. His suicidal ideations increased and when he was informed he was going to be transfered to a State Psychiatric Facility, he became angry, hostile and verbaly abusive toward the staff and said he was very upset that people keep treating him like a baby.

Francisco: a Cuban Mourner.

Francisco is a 13 year old Cuban-American boy who attempted to hang himself with a rope from the stair's

banister but became scared and decided instead to poison himself with a bottle of pills and a bottle of mercurochrome. He left a suicide note to his father telling him that he was a good father but he did not know how to become a good daddy. He also gave instructions in the letter to care for his cat.

Francisco lives alone with his father. His mother died two years ago of natural causes and since then he has been alone with his father. Francisco complained that he is left alone in the house for long periods of time while his father works and that he has not been getting the love, care and attention from his father since his mother died. Francisco also described his father as being a very demanding and strict father who over-reacts when he does not get his way and often yells and punishes him.

The father described Francisco's mother as over-protective and somewhat "dumb" and "not intellectual". It was reported that Francisco's father appeared more concerned with material things rather than with affection and that he was a good provider for Francisco. In addition, it was also reported that the father had recently started to date to which Francisco took offense and which he found generally upsetting.

Francisco had no previous psychiatric histroy and no known school problems. He was diagnosed as Adjustment

Disorder with Depressed Mood and Child-Parent Problem.

APPENDIX B

INTERCORRELATION ANALYSIS' TABLES

TABLE 18

Intercorrelation Analysis between The Hostility Index Scores of the Two Groups (Suicidal and non Suicidal Subjects) and other Measures of Aggression and Perceived Social Support.

N=50	
Variable	r
The Interpersonal Support Evaluation List (ISEL)	
ISEL(Appraisal)	-0.5814**
ISEL(Belonging)	-0.5119**
ISEL(Tangible Support)	-0.4229**
ISEL(Self-Esteem)	-0.6121**
TOTAL ISEL SCALE.	-0.6305**
Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)	
PSS,Fr.	-0.4167*
PSS,Fa.	-0.5334*
TOTAL PSS.	-0.5958**
Social Support Questionnaire (SSQ)	
SSQ,NUMBER.	-0.5501**
SSQ,SATISFACTION.	-0.1234
Aggression Measures Derived from the M.M.P.I.	
The Direction of Hostioity Index	-0.3520*
The Composite Intropunitive Scale	0.8672**
AH. (Acting Out Hostility)	0.8383**
DL. (Delusional Hostility)	0.8293**
CO. (Criticism of Others)	0.8311**
DG. (Delusional Guilt)	0.7683**
SC. (Self-Criticism)	0.8210**
The Rosenzweig Picture Frustration Test	
EA. (Extrapunitive)	0.6275**
IA. (Intropunitive)	-0.1369
MA. (Imaggression)	-0.6631**
The Composite Aggression Scale	0.6674**

*p less than 0.01
**p less than 0.001

TABLE 19

Intercorrelation Analysis between The Direction of Hostility Index of the two Groups (Suicidal and non Suicidal subjects) and other measures of Aggression and Perceived Social Support.

N=50	
The Interpersonal Support Evaluation List (ISEL)	
ISEL(Appraisal)	0.2120
ISEL(Belonging)	0.1520
ISEL(Tangible Support)	0.1392
ISEL(Self-Esteem)	0.1550
TOTAL ISEL SCALE.	0.1946
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)	
PSS,FR.	0.2282
PSS,FA.	0.0627
TOTAL PSS.	0.1717
The Social Support Questionnaire (SSQ)	
SSQ,NUMBER.	0.3211*
SSQ,SATISFACTION.	0.1654
Aggression Measures Derived from the M.M.P.I.	
AH. (Acting Out Hostility)	-0.5354***
DL. (Delusional Hostility)	-0.4130**
CO. (Criticism of Others)	-0.5151***
DG. (Delusional Guilt)	0.0492
SC. (Self-Criticism)	0.1833
Dir.Host. (Dir. Host. Index)	1.0000
Introp. (Intropunitiveness)	0.1581
Host. Index (Hostility Index)	-0.3520***
The Rosenzweig Picture Frustration Test	
EA. (Extraggression)	-0.3545**
IA. (Intraggression)	0.1911
MA. (Imaggression)	0.3100*
Total Aggression Score	-0.3018*

*p. less than 0.05
**p. less than 0.01
***p. less than 0.001

Table 20

Intercorrelation Analysis between The Composite Intropunitive Scale of the two Groups (Suicidal and non Suicidal Subjects) and other measures of Aggression and Perceived Social Support.

N=50	
The Interpersonal Support Evaluation List (ISEL)	
ISEL(Appraisal)	-0.5036***
ISEL(Belonging)	-0.4607***
ISEL(Tangible Support)	-0.3742**
ISEL(Self-Esteem)	-0.5006***
TOTAL ISEL SCALE.	-0.5628***
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)	
PSS,FR.	-0.3106*
PSS,FA.	-0.5115***
TOTAL PSS.	-0.5316***
The Social Support Questionnaire (SSQ)	
SSQ,NUMBER.	-0.4081**
SSQ,SATISFACTION.	-0.0470
Aggression Measures Derived from the M.M.P.I.	
AH. (Acting Out Hostility)	0.6040***
DL. (Delusional Hostility)	0.6551***
CO. (Criticism of Others)	0.6043***
DG. (Delusional Guilt)	0.8071***
SC. (Self-Criticism)	0.9758***
Dir.Host. (Dir. Host. Index)	0.1581
Introp. (Intropunitiveness)	1.0000
Host. Index (Hostility Index)	0.8672***
The Rosenzweig Picture Frustration Test	
EA. (Extraggression)	0.4659***
IA. (Intraggression)	-0.0338
MA. (Imaggression)	-0.5315***
AG. (Aggression)	0.5404***

*p. less than 0.05
**p. less than 0.01
***p. less than 0.001

Table 21

Intercorrelation Analysis between the subscales of the Hostility Index of the two Groups (Suicidal and non Suicidal Subjects) and other Measures of Aggression and Perceived Social Support.

N=50

	AH.	DH.	CO.	DG.	SC.
The Interpersonal Support Evaluation List (ISEL)					
ISEL(Appraisal)	-0.5259**	-0.4073*	-0.5197**	-0.4107*	-0.4898**
ISEL(Belonging)	-0.4386**	-0.4865**	-0.3448*	-0.3843*	-0.4450**
ISEL(T.Support)	-0.3706*	-0.4476**	-0.2447	-0.3036	-0.3646*
ISEL(Self-Est)	-0.4606**	-0.5310**	-0.5002**	-0.5150**	-0.5236**
TOTAL ISEL	-0.5312**	-0.5533**	-0.4782**	-0.4788**	-0.5401**
The Perceived Social Support from Friends (PSS.Fr) and Family (PSS,Fa)					
PSS(FRIEND)	-0.3303*	-0.4456**	-0.3303*	-0.3075	-0.2897
PSS(FAMILY)	-0.5055**	-0.4093*	-0.3089	-0.5202**	-0.4734**
TOTAL PSS	-0.5279**	-0.5282*	-0.3954*	-0.5249**	-0.4833**
The Social Support Questionnaire (SSQ)					
SSQ(NUMBER)	-0.5377**	-0.4259*	-0.4835**	-0.3961*	-0.3735*
SSQ(SATISF.)	-0.2520	-0.0037	-0.1256	-0.0944	-0.0582
The Rosenzweig Picture Frustration Test					
EA. (EXTRAGG.)	0.5396**	0.4924**	0.6068**	0.5115**	0.4045**
IA.(INTRAGG.)	-0.1884	-0.0735	-0.1456	-0.1492	-0.0121
MA.(IMAGG.)	-0.5171**	-0.5531**	-0.6374**	-0.5135**	-0.4873**
AGGRESSION	0.5272**	0.5463**	0.6366**	0.5192**	0.4967**
Aggression Measures Derived from the M.M.P.I.					
HOSTILY INDEX	0.8383**	0.8293**	0.8311**	0.7683**	0.8210**
DIRECTION HOST.	-0.5334**	-0.4130*	-0.5155**	0.0492	0.1833
INTROPUNIT.	0.6040**	0.6551**	0.6043**	0.8071**	0.9758**
AH(Acting-out H)	1.0000	0.5946**	0.6294**	0.5142**	0.5799**
DH(Delus. Host.)	0.5946**	1.0000	0.6026**	0.5939**	0.6152**
CO(Crit. Others)	0.6294**	0.6026**	1.0000	0.5423**	0.5695**
DG(Delus. Guilt)	0.5142**	0.5939**	0.5423**	1.0000	0.6586**
SC(Self-Crit.)	0.5795**	0.6152**	0.5695**	0.6586**	1.0000

*p. less than 0.01
*p. less than 0.001

TABLE 22

Intercorrelation Analysis between The Rosensweig Picture Frustration Test Scores of the Two Groups (Suicidal and Non Suicidal Subjects) and other Measures of Aggression and Perceived Social Support.

N=50

	Extrapunitive EA.	Intropunitive IA.	Imaggression MA.	Total Aggression
The Interpersonal Support Evaluation List (ISEL)				
ISEL(Appraisal)	-0.3209	0.1163	0.2976	-0.3170
ISEL(Belonging)	-0.2726	0.0411	0.2980	-0.3021
ISEL(T.Support)	-0.2060	0.0404	0.2252	-0.2221
ISEL(Self-Est.)	-0.4259**	0.1158	0.4333**	-0.4379**
TOTAL ISEL	-0.3644*	0.0936	0.3726*	-0.3793*
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)				
PSS,Fr	-0.2727	-0.0790	0.3879*	-0.3817*
PSS,Fa	-0.3017	0.1433	0.2509	-0.2697
TOTAL PSS Score	-0.3580*	0.0517	0.3891*	-0.3982*
The Social Support Questionnaire				
SSQ(NUMBER)	-0.4401**	0.0325	0.5033**	-0.5101**
SSQ(SATISFACTION)	-0.1473	0.2497	0.0099	-0.0127
Aggression Measures Derived from The M.M.P.I.				
HOSTILITY INDEX	0.6275**	-0.1369	-0.6631**	0.6674**
DIRECTION HOST.	-0.3545*	-0.1911	0.3100	-0.3017
INTROPUN.IT.	0.4659**	-0.0338	-0.5315**	0.5404**
AH(Acting-out H)	0.5396**	-0.1884	-0.5171**	0.5272**
DH(Delus. Host.)	0.4924**	-0.0735	-0.5531**	0.5643**
CO(Crit. Others)	0.6068**	-0.1456	-0.6374**	0.6366**
DG(Delus. Guilt)	0.5115**	-0.1492	-0.5135**	0.5192**
SC(Self-Crit.)	0.4045*	0.0121	-0.4873**	0.4967**
The Rosenzweig Picture Frustration Test				
EA.(Extragg.)	1.0000	-0.5612**	-0.8339**	0.8368**
IA.(Intragg.)	-0.5612**	1.0000	0.0146	-0.0165
MA.(Imagg.)	-0.8339**	0.0146	1.0000	-0.9976**
AGGRESSION	0.8368**	-0.0165	-0.9976**	1.0000

*p less than 0.01
**p less than 0.001

TABLE 23

Intercorrelation Analysis between The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa) of the Two Groups (Suicidal and Non Suicidal Subjects) and Other Measures of Aggression and Perceived Social Support.

N=50

	PSS,Fr	PSS,Fa	PSS TOTAL
The Interpersonal Support Evaluation List (ISEL) Test			
ISEL(Appraisal)	0.4459**	0.5837**	0.6462**
ISEL(Belonging)	0.7679**	0.5057**	0.7763**
ISEL(T.Support)	0.5795**	0.6417**	0.7610**
ISEL(Self-Esteem)	0.6859**	0.6475**	0.8253**
TOTAL ISEL	0.7321**	0.7020**	0.8883**
The Perceived Social Support from Family and Friends Test			
PSS(FRIEND)	1.0000	0.2935	0.7649**
PSS(FAMILY)	0.2935	1.0000	0.8402**
TOTAL PSS	0.7649**	0.8402**	1.0000
The Social Support Questionnaire Test			
SSQ(NUMBER)	0.4930**	0.5920**	0.6785**
SSQ(SATISF.)	0.3900*	0.3283*	0.4424**
Aggression Measures Derived from The M.M.P.I.			
HOSTILITY INDEX	-0.4167*	-0.5334**	-0.5958**
DIRECTION HOST.	0.2282	0.0627	0.1717
INTROPUNITIVE	0.3166	-0.5225**	-0.5316**
AH(Acting-out Host.)	-0.3303*	-0.5055**	-0.5279**
DH(Delusional Host.)	-0.4450**	-0.4093*	-0.5282**
CO(Criticism-Others)	-0.3303*	-0.3089	0.3954*
DG(Delusional Guilt)	-0.3075	-0.5202**	-0.5249**
SC(Self-Criticism)	-0.2897	0.4734**	-0.4833**
The Rosenzweig Picture Frustration Test			
EA.(Extrapunitive)	-0.2727	-0.3017	-0.3580*
IA.(Intropunitive)	-0.0790	0.1433	0.0517
MA.(Imaggression)	0.3879*	0.2509	0.3891*
Total Agression	-0.3817*	0.2509	0.3891*

*p less than 0.01
**p less than 0.001

TABLE 24

Intercorrelation Analysis between the Interpersonal Support Evaluation List (ISEL) Test of the Two Groups (Suicidal and Non Suicidal Subjects) and Other Measures and Aggression and Perceived Social Support.

N=50

ISEL	APPRAISAL	BELONGING	T.SUPPORT	SELF-ESTEEM	TOTAL
The Interpersonal Support Evaluation List Test					
ISEL(Appraisal)	1.0000	0.5483**	0.4952**	0.6362**	0.7936**
ISEL(Belonging)	0.5483**	1.0000	0.6910**	0.6861**	0.8621**
ISEL(T.Support)	0.4952**	0.6910**	1.0000	0.6819**	0.8418**
ISEL(Self-Est.)	0.6362**	0.6861**	0.6819**	1.0000	0.8902**
TOTAL ISEL Score	0.7936**	0.8621**	0.8418**	0.8902**	1.0000
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)					
PSS,Fr	0.4459**	0.7679**	0.5795**	0.6859**	0.7321**
PSS,Fa	0.5837**	0.5057**	0.6417**	0.6475**	0.7020**
TOTAL PSS Score	0.6462**	0.7763**	0.7610**	0.8253**	0.8883**
The Social Support Questionnaire Test					
SSQ(NUMBER)	0.5696**	0.5580**	0.5721**	0.6272**	0.6873**
SSQ(SATISFACTION)	0.3465*	0.5275**	0.4692**	0.3310*	0.4919**
Aggression Measures Derived from The M.M.P.I.					
HOSTILITY INDEX	-0.5814**	-0.5119**	-0.4229*	-0.6121**	-0.6305**
DIRECTION HOST.	0.2120	0.1520	0.1342	0.1550	0.1947
INTROPUNITIVE	-0.5036**	-0.4607**	-0.3742*	-0.566088	-0.5628**
AH(Acting-out H)	-0.5229**	-0.4386**	-0.3706*	-0.4606**	-0.5212**
DH(Delus. Host.)	-0.4073*	-0.4865**	-0.4476**	-0.5310**	-0.5533**
CO(Crit. Others)	-0.5197**	-0.3438*	-0.2447	-0.5002**	-0.4782**
DG(Delus.Guilt)	-0.4107*	-0.3843*	-0.3036	-0.5150**	-0.4788**
SC(Self-Crit.)	-0.4898**	-0.4450**	-0.3646*	-0.5239**	-0.5901**
The Rosenzweig Picture Frustration Test					
EA(EXTRAPUNITIVE)	-0.3209	-0.2726	-0.2060	-0.4259**	-0.3644*
IA(INTROPUNITIVE)	0.1163	0.0411	0.0404	0.1158	0.0936
MA(IMAGGRESSION)	0.2976	0.2980	0.2252	0.4333**	0.3726*
TOTAL AGGRESSION	-0.3107	-0.3021	-0.2221	-0.4379**	-0.3783*

*p less than 0.01
**p less than 0.001

TABLE 25

Intercorrelation Analysis between The Social Support Questionnaire (SSQ) Scores of the Two Groups and other Measures of Aggression and Perceived Social Support.

N=50

	SSQ(NUMBER)	SSQ(SATISFACTION)
The Interpersonal Support Evaluation List (ISEL) Test		
ISEL(Appraisal)	0.5696**	0.3465*
ISEL(Belonging)	0.5580**	0.5275**
ISEL(Tangential Support)	0.5721**	0.4692**
ISEL(Self-Esteem)	0.6272**	0.3310*
TOTAL ISEL Scale	0.6873**	0.4919**
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)		
PSS,Fr	0.4930**	0.3900*
PSS,Fa	0.5920**	0.3283*
TOTAL PSS Score	0.6785**	0.4424**
The Social Support Questionnaire Test		
SSQ(NUMBER)	1.0000	0.5024**
SSQ(SATISFACTION)	0.5024**	1.0000
Aggression Measures Derived from The M.M.P.I.		
THE HOSTILITY INDEX	-0.5504**	-0.1234
THE DIRECTION HOSTILITY	0.3211	0.1654
INTROPUNITIVE SCALE	-0.4081*	-0.0470
AH(Acting-out Hostility)	-0.5373**	-0.2520
DH(Delusional Hostility)	-0.4259*	0.0037
CO(Criticism of Others)	-0.4835**	-0.1256
DG(Delusional Guilt)	-0.3961*	-0.0044
SC(Self-Criticism)	-0.3735*	-0.0582
The Rosenzweig Picture Frustration Test		
EA(EXTRAPUNITIVE)	-0.4401**	-0.1473
IA(INTROPUNITIVE)	0.0325	0.2497
MA(MAGGRESSION)	0.5033**	0.0099
TOTAL AGGRESSION SCORE	-0.5101**	-0.0127

*p less than 0.01
**p less than 0.001

TABLE 26

Pearson Correlation Analysis between Family Status* of the Two Groups (Suicidal and non Suicidal Subjects) and Measures of Aggression and Perceived Social Support.

N=50	
The Interpersonal Support Evaluation List (ISEL)	
ISEL (Appraisal)	-0.14
ISEL (Belonging)	-0.27*
ISEL (Tangential Support)	-0.30*
ISEL (Self-Esteem)	-0.19
TOTAL ISEL SCORE	-0.18
The Perceived Social Support from Friends (PSS,Fr) and Family (PSS,Fa)	
PSS,Fr	-0.20
PSS,Fa	0.09
TOTAL PSS SCORE	-0.17
The Social Support Questionnaire (SSQ)	
SSQ(NUMBER)	0.18
SSQ(SATISFACTION)	-0.10
Aggression Measures Derived from The M.M.P.I.	
The Hostility Index	-0.03
The Direction of Hostility Index	0.19
Intropunitive Scale	0.07
AH(Acting Out Hostility)	-0.14
DH(Delusional Hostility)	-0.04
CO(Criticism of Others)	-0.07
DG(Delusional Guilt)	-0.13
SC(Self-Criticism)	-0.02
The Rosenzweig Picture Frustration Test	
EA.(Extrapunitive)	-0.09
IA. (Intropunitive)	0.23
MA. (Imaggression)	0.06
Total Aggression Score	-0.05

*significant at p 0.05 level

TABLE 27

Pearson Correlation Analysis between Age of the Two Groups (Suicidal and non Suicidal Subjects) and Measures of Aggression and Perceived Social Support.

N=50	
The Interpersonal Support Evaluation List (ISEL)	
ISEL (Appraisal)	-0.14
ISEL (Belonging)	-0.09
ISEL (Tangential Support)	-0.07
ISEL (Self-Esteem)	-0.03
TOTAL ISEL SCOPE	-0.01
The Perceived Social Support fror Friends (PSS,Fr) and Family (PSS,Fa)	
PSS,Fr	-0.10
PSS,Fa	0.01
TOTAL PSS SCORE	-0.05
The Social Support Questionnaire (SSQ)	
SSQ(NUMBER)	0.01
SSQ(SATISFACTION)	-0.03
Aggression Measures Derived fror The M.M.P.I.	
The Hostility Index	
The Direction of Hostility Index	0.06
Intropunitive Scale	-0.05
AH(Acting Out Hostility)	-0.11
DH(Delusional Hostility)	-0.04
CO(Criticism of Others)	-0.07
DG(Delusional Guilt)	-0.13
SC(Self-Criticism)	-0.02
The Rosenzweig Picture Frustration Test	
EA.(Extrapunitive)	-0.06
IA. (Intropunitive)	0.08
MA. (Imaggression)	0.11
Total Aggression Score	-0.13

None of the the correlations are significant at p 0.05 level.

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