Three Myths? The Over-Representation of the Gifted Among Dropouts, Delinquents, and Suicides

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Are the gifted over-represented in groups with high rates of "dropping out" of school, delinquency, and suicide?

Gifted Dropouts

In general, a dropout is a student who has withdrawn from his academic setting without graduating, for any reason other than death, illness, or transfer (French, 1969). Dropouts are usually discussed as one category (high school and college), despite the selectivity of the college population. Influences unique to age and grade level of dropouts may make generalizations across studies futile, and demographic characteristics must also be taken into consideration.

In New York State, 55% of gifted children were reported as underachieving and 19% of high schools dropouts as being gifted (Nyquist, Note 1). Elsewhere, over 72% of dropouts repeated at least one grade, and 44% had repeated more than one grade; in a matched sample of persisters, 43% had repeated one grade, 10% had repeated more than one (Barnes, 1973).

Hecht (1975) asked why the academically gifted and potential dropouts are traditionally viewed at opposite ends of a continuum. Using teacher ratings, he found 20% of potential dropouts came from families on welfare, while only 3% of this group were described as academically gifted. Academically gifted subjects were described as coming from stable homes of the majority culture, obtaining good grades, and being well adjusted. Opposite characteristics were described for potential dropouts. Hecht pointed that teachers may be confusing academic giftedness with students who appear socially acceptable and nontroublesome. As many as half of gifted children might go unnoticed due to the inadequacy of group tests and teacher nominations as reliable indicators of giftedness (U.S. Commissioner of Education, 1972).

Attempts have been made to determine the characteristics of dropouts versus persisters. Students who withdraw in good standing appear undifferentiated from successful persisters in terms of ability whereas those who withdraw following academic difficulty resemble persisters who failed (Vaughan, 1968; Watley, 1965; Zaccaria & Creaser, 1971). On the other hand, Rossman & Kirk (1970) found that students who withdraw in good standing from the University of California at Berkeley were actually intellectually superior to the successful persisters. These dropouts had higher verbal ability, exhibited a greater need for independence, and were more intellectually oriented than persisters.

There is also a group of dropouts who differ only marginally from persisters. It has been suggested that in these cases dropping out may have been prevented by such influences as a new supportive peer group, an interested teacher, or warm and understanding parents (Zamanzadeh, 1975).

High-ability dropouts give similar reasons for withdrawing as do average dropouts, especially disliking school, wanting to get a job, or getting married (French, 1969). At the same time, personality inventories have revealed discrepancies between male high-ability dropouts and persisters. Male dropouts were more assertive, independent, self-assured, rebellious, competitive, cheerful, expressive, frank, happy-go-lucky, and talkative than the persisters—qualities consistent with some definitions of giftedness. School pressures for conformity might create a stumbling block for the potential dropout rather than a lack of interest in school.

High-ability dropouts may show signs of maladjustment (Lichter, 1962), hostility (Rose & Elton, 1966), non-conformity, family conflicts (Johnson, 1970; Watley, 1965), suspiciousness, oversensitivity, and egotism (Vaughan, 1968). Others have suggested that high-ability dropouts are not emotionally maladjusted but have different developmental needs (Zaccaria & Creaser, 1971).

Gifted dropouts have been considered and even compared with average dropouts; however, rigorous designs have not been utilized. Due to vagueness of definition, variations in age and grade level of the students involved, poor control over demographic features and lack of follow-up on the permanence of having dropped out, conclusions are difficult to make. It is possible that a contemporary study with a fairly broad definition of giftedness may achieve different results, but it is unclear how they might differ

The high rate of underachievement among school dropouts is a further concern, well discussed elsewhere by Whitmore (1980).

Gifted Delinquents

Speculations have been offered that delinquency among intellectually superior children is indeed rare (Burt, 1944; Eilenberg, 1961; Gath, Tenneth & Pidduck, 1970b; Haarer, 1966; Karpas, 1964), yet no effort has been made to assess he actual number of gifted children whose behavior warrants court contact (Lowe & Karnes, Note 2). Delinquents in general are likely to be male, 14-15 years old on first referral (though exhibited behavior problems appear earlier),

hostile, defiant, suspicious, usually retarded in schoolwork and reading ability, frequently truant, often from broken homes, or homes lacking in self-respect, understanding, or stability (Perlman, 1960).

How might gifted delinquents differ? One British study found the mean age at first court appearance to be significantly higher for bright delinquents than the average (Gath, Tenneth & Puddick, 1971). Bright delinquents escape detection longer (Burt, 1944; Merrill, 1974; McCord & McCord, 1959; Pakenham, 1958), however, Gath et al. (1970) found no indication that brightness was a factor that saved these children from earlier detection. They did not find more skill or planning in the crimes committed by bright delinquents. Average delinquents made more of a profit by their crimes. The inner urge to learn can be so discouraged and penalized by society, family, and friends that these children turn outside their standard social groups to meet their needs (Parker, Note 3; Parker, 1979).

Average and bright delinquents were found to be similar in social and criminological characteristics, but there was greater severity of psychiatric disturbance among the bright delinquents (Gath, Tenneth & Pidduck, 1970a). Delinquency records of these two groups were shown to be alike in the number of previous convictions (Gath, Tenneth & Puddick, 1971). Leniency toward bright delinquents, in terms of being sent to institutions less frequently, was not substantiated in later stages of their criminal careers (Tenneth & Gath, 1975). There was no significant difference in the frequency of reoffending and little difference was discovered in the nature of offences (Tenneth & Gath, 1975). This was contrary to reports that brighter delinquents have a lower rate of recidivism (Caplan & Powell, 1964).

The two groups were also found to be similar in educational characteristics (Gath, Tenneth & Puddick, 1970b). The majority of bright delinquents was found to be underfunctioning educationally, as seen by inappropriate school placements, poor attendance, and low exam scores. Bright delinquents were found to read well in comparison to the average delinquent, however, low scholastic achievement was found.

It has been found that personality traits related to delinquency in some intelligence and social class subgroups were not related to delinquency in other intelligence and social subgroups (Conger, Miller & Walsmith, 1970). Traits that differentiated delinquents from nondelinquents in a high IQ, socio-economically favored group failed to differentiate them in deprived groups of average intelligence. Not one delinquent was found in the above-average IQ and deprived group. Glueck and Glueck (1950) found 41.6% of delinquents with average intelligence or higher, below the mean, but high enough to generate numbers of highly able delinquents.

A very promising line of research was described by King (Notes 4, 5). Of 256 sixth-grade children in a rural school

district, 95 or 37% were identified as gifted on fairly broad criteria. There were 28 or 11% identified as delinquent-prone, six of whom were also in the gifted category. These six represent 2% of the 256 but 21% of the delinquent-prone group, below the gifted proportion in her own study but well above the proportion of gifted usually cited in the general population. King's studies point out well the importance of support at home and school in averting delinquency, but do not unambiguously resolve the incidence question.

Except in cases of very serious offences, intellectually superior delinquents are not highly represented in correctional institutions (Lowe & Karnes, Note 2), but, at least when they are younger, signs of ability bias sentences in the direction of allowing another chance. It has been reported that brighter children apprehended by the law may be returned to their homes if it appears likely that the social status of the home is such that the parents are able and willing to provide adequate controls (Mann & Mann, 1939; Haarer, 1966). Gath et al. (1970b) found 7.8% of delinquents in remand homes to have an IQ of 115 and above; in the general population 16.5% would obtain such an IQ. Since research on delinquency and ability is based largely on institutionalized delinquents, the results may indicate a lower representation of the gifted than truly exists.

Though a disproportionate number of delinquents come from low socio-economic groups (Haarer, 1966; Tarnopol, 1970), the cultural group biases of group intelligence tests may be another flaw in the methodology used to discover the intellectual ability of delinquents.

The use of intelligence tests for detecting gifted delinquents presents another difficulty. Total IQ scores are frequently used to identify gifted delinquents, rather than using a profile of subscores. Quite often an individual will have an average or below-average IQ score, yet an aboveaverage performance or verbal subscore on such a test as the WISC (Haarer, 1966). There are strengths among delinquents that should be tapped; intuitive ability, ability to organize, and leadership qualities (Johnson, 1979). Johnson reported that the IQs of many (an exact figure was not stated) incarcerated youth were at a level indicating mental retardation and 32% had identified learning disabilities; 16% of unincarcerated youth had learning disabilities by the same criteria. Reading problems and emotional disturbances (From a Correspondent, 1956) are also prevalent. Up to 70% of delinquents have abnormal electroencephalograms (EEGs), which indicate a learning disability (Tarnopol, 1970). This figure is quite high when one considers that only 15 to 27% of the total population have abnormal EEGs.

How many learning disabled delinquents are unidentified gifted children? Parker found a high percentage of gifted delinquents with learning disabilities (Notes 6, 7). Learning disabilities hide the fact that these delinquents are gifted. At the same time the true percentage of gifted,

learning disabled delinquents is still unknown. There may be reasons for the low published findings concerning the representation of the gifted in a population of delinquents. Data on institutionalized youth are biased by the exclusion, at least early in criminal careers, of some categories of offenders. Those not leniently treated include many for whom most standard IQ tests are prejudiced. As well, many qualities highly valued in "straight" youngsters, leadership, challenge of authority, originality, become or are seen as perverted in delinquents. The proportion of gifted among delinquents remains likely to rise; it is not possible yet to tell how far.

Gifted Suicides

Finally we will deal with the most tragic of the three problems, suicide. This myth may perhaps be the most difficult to dispel, the primary reason being the physical absence of individuals available for inquiry concerning their decision to die. Data collected in relation to suicide are usually obtained from those who attempted suicide but survived, or from psychological autopsies (Shneidman, 1971). It is possible to be skeptical about the validity of data from survivors on the grounds that there may be real differences in characteristics of attempters versus suicides. Psychological autopsies are retrospective reconstructions that help coroners and medical examiners decide the cause of death was accidental or suicidal.

One must be cautious when interpreting studies on suicide. It has been shown that at different ages, different characteristics or attitudes play a role, (Shneidman & Farberow, 1957). The wish to kill and be killed decreases with age, while the wish to die increases with age. Attitudes towards death are also age-related (Litman, 1967; Shneidman, 1967). Children under ten who attempt suicide often see death as reversible or nonpermanent, whereas adolescents see suicide as final and irreversible (O'Hara, 1979). There are others who believe that adolescents view death more like their younger counterparts, in a form of magical thinking (Miller, 1975).

Statistical data are often unreliable since a large number of suicides go unreported because of social, religious, and legal taboos, and are possibly categorized as accidents (Bakwin, 1964; Miller, 1975). The rate of suicide may also vary according to different cultural values, acceptability or nonacceptability of suicide (Farberow 1975).

The three common causes of suicide (a) depression, (b) hostility or aggression, and (c) opportunity to join a deceased loved one (Faigel, 1966) may apply to gifted youth as well as to the general population, but not necessarily in the same ways.

The most common emotion observed in the suicidal patient is depression (Miller, 1975). Boredom, restlessness, and preoccupation with trivia are often symptoms of depression in adolescents, who frequently resort to acting out behavior such as delinquency and drug abuse (Faigel,

1966; Miller, 1975). These same behaviors are characteristic of gifted underachievers. In addition, newspaper and magazine reports of youth suicide seem repeatedly to deal with highly able youngsters who are doing well in school.

Depressed adolescents responded more readily to the suggestion of suicide than adults (Miller, 1975). A high correlation has been found between creativity and susceptibility to the degree to which individuals respond to the suggestion of suicide (Bowers, 1978).

There is no question about the seriousness of the 250% increase in young suicides over two recent decades (Hendin, 1975; Petzel & Cline, 1978). Suicide has been cited as being the third cause of death for the 15-19-yearold group in the United States (Miller, 1975) and in the 15-24-year-old age range (U.S. Department of Health, Education, and Welfare, 1976). Only accidents (a suspect category) and homicides resulted in more deaths. If intellectual ability has any role in predicting suicidal tendencies, it might be found in campus suicides. Higher suicide rates occur at highly competitive and selective schools (Lester & Lester, 1971; Ross, 1969; Seiden, 1969). Students in such colleges typically have average and above average grades (Fox, 1971; Lester & Lester, 1971). This may indicate that average or above-average intellectual ability may play a role in suicidal behavior. On the other hand, low ability and failure could be just as crucial. At lease one study suggests that not all highly competitive and selective colleges have high suicidal rates; Harvard experienced a 50% decrease in its suicide rate between 1949 and 1965 (Farnsworth, 1972). Also, adults with more than average education are less likely to commit suicide than people with less (Havighurst, 1973). The reverse has been said about adolescent suicide. College students have been reported to have a higher suicide rate than noncollege individuals of the same age (Seiden, 1969), and to be a high risk group (Fox, 1971; Lester & Lester, 1971; Pinkerton, 1969; Ross, 1969; Senseman, 1969). Higher suicide (Peck & Schrut, 1971; Petzel & Cline, 1978) and suicide attempt (Senseman, 1969) rates have in contradiction been found among nonstudents rather than students of college age.

In a study conducted at Berkeley, two thirds of the campus suicides were above the average grade point average (GPA) of Berkeley students; however, the difference was not statistically significant (Seiden, 1966). A greater proportion of suicides was found at the (more selective) graduate level. It was found that 91% of the undergraduate suicides were above the average GPA, whereas only 40% of the graduate suicides were above the average GPA (because of more selection in graduate admissions, these rates may be for students of similar ability).

Seiden (1966) found a correlation between student suicide and decrease in GPA. He attempted to explain why the top 10% or so of undergraduates with good high school grades would be prone to suicide. Through interviews

with family and friends, it was found that the majority of these students were dissatisfied with their work, had a fear of failure and feelings of inadequacy. Even though their GPA had dropped prior to their suicide, these individuals were still performing above average. Two suggested causes of suicide for these able individuals were that their internal standards were too high, leading to frustration no matter how well they performed, and whereas they were, the top students in high school, their drop in GPA in their final semester in college threatened their feelings of self-esteem.

There appear to be no significant differences in the distribution of IQ between suicidal persons and others (Lester, 1972; McDowall, 1968; Murthy, 1969; Ravensborg & Foss, 1969; Vinoda, 1966). The Terman & Oden (1947) longitudinal research had found the incidence of suicide in their sample was 4.07% (the subjects were then just over college age). The death rate in this sample was below that of the general population. It is not clear whether this was true specifically for suicides. Shneidman (1971) found the mortality rate in Terman's sample remained lower than in the general population in 1970.

It has been hypothesized that there is a link between self-destroying activity and various cognitive processes and styles (Levenson, 1974; Levenson & Neuringer, 1971, 1974; Neuringer, 1964, 1976; Shneidman, 1971, Spiegel & Neuringer, 1963; Triposes, 1976; Williams & Nickels, 1969). The source of data used to investigate this hypothesis has often been the suicide note. Suicidal behavior has been linked to diminished problem-solving capacity (Binswanger, 1958; Cavan, 1928; Dublin & Bunzil, 1933; Levenson & Neuringer, 1971; Menniger, 1938; Neuringer, 1964; Shneidman, 1957, 1961, 1969). Levenson & Neuringer (1971), though their sample was small, found their suicidal group scored significantly lower on the WAIS arithmetic subtest, and failed the Rokeach map test problems more often than psychiatric and normal individuals. Suicidal individuals. because of either temporary or permanent cognitive deficiencies, might find it difficult to generate new or alternate solutions to debilitating emotional problems.

Conclusion

Gifted or high-ability dropouts, delinquents, and suicides certainly exist.

The balance of findings on dropouts suggests, at present, that the proportion of gifted dropouts may be average. The most common reasons ascertained for dropping out were perhaps no more applicable to the gifted than to others. On the other hand, a broadened definition of giftedness may encompass more dropouts, and research on later return to studies may affect the result either way. The best estimate may turn out to be that the gifted are at least equally represented among dropouts.

The existing literature on delinquency suggests underrepresentation of the gifted. Even with more contemporary definitions of giftedness including leadership and creativity, it is difficult to imagine the proportion of gifted among delinquents being found to be over-represented, except perhaps in rural populations (whose small size will only marginally affect the total). This should not diminish the importance of attending to the very different group of delinquents whose high abilities set them apart from the majority. The size of this group may also expand if new attention to learning disabilities among delinquents removes the stigma of general disability from them and enables their strengths to be tapped.

Suicide statistics and theories about the causes of suicide are the most accommodating to the idea of over-representation of the gifted, especially at college age. No major theory of suicide includes high ability as a contributor, but such might make people more aware of the world's frustrations, the limitations on human ability to solve these problems, and more exposed to the personal pressures of certain conditions or undertakings such as graduate studies at a time in their lives when so many other needs compete for their energy.

This review should, nevertheless, dispel the notion that gifted youth require no special help, that they can make it on their own. At least some do not, and there may be more than are apparent now. It also remains possible in all three contexts, but especially delinquency and suicide, that the reasons for involvement of gifted youth may differ from those for others, hence require different strategies for their prevention or rescue.

Reference Notes

- Nyquist, E. The gifted. The invisibly handicapped or there is no heavier burden than a great potential. Paper presented at the National Conference on Gifted, Albany, NY, 1973.
- Lowe, J. D. & Karnes, F. A. A study of psychoeducational characteristics of intellectually gifted delinquents. Unpublished manuscript, University of Southern Mississippi, Hattiesburg, MS, 1977.
- Parker, M. Bright children in trouble with the law. Paper presented at the Third World Conference on Gifted and Talented Children, Jerusalem, July 1979. (Available from the Kootenay Centre for the Gifted, Box 805, Kaslo, BC, Canada VOG 1M0)
- King, M. S. Rural delinquency proneness: Its relationship to giftedness, environmental support, and environmental availability. Paper presented at the annual meeting of the Council for Exceptional Children, Philadelphia, April 1980. (Based on unpublished doctoral thesis, of the same title, University of Wisconsin-Platteville, 1979)
- King, M. L. Self concept as it is related to environmental support and environmental availability in gifted nural sixth graders. Unpublished manuscrpit, Office of Student Development, University of Wisconsin-Platteville, 1980.
- Parker, M. Learning disabilities, perceptual handicaps and central processing difficulties. Unpublished manuscript, 1980. (Available from the Kootenay Centre for the Gifted, Box 805, Kaslo, BC, Canada V0G 1M0)
- Parker, M. Report on the Ontario gifted project. (Report presented to the Associate Deputy Minister for the Children's Service Division, Government of Ontario, on gifted delinquent youth, conducted from January 18 to May 30, 1980. Available from the Kootenay Centre for the Gifted, Box 805, Kaslo, BC, Canada V06 IM0)

References

- Bakwin, H. Journal of the American Medical Women's Association, 1964, 19, 489.
- Barries, K. E. The school dropout as a community problem. Canada's Mental Health, 1973, 21, 25-29.
- Binswanger, L. The case of Ellen West. In R. May, E. Angel, & H. Ellenberger (Eds.), Existence, NYC: Basic Books, 1958.
- Bowers, P. G. Hypnotizability, creativity and the role of effortless experience. International Journal of Experimental Hypnosis, 1978, 26, 184-202.
- Burt, C. The young delinquent. London: London University Press, 1944. Caplan, N. S., & Powell, M. A. A cross comparison of average to superior IQ delinquents. Journal of Psychology, 1964, 57, 307-318.
- Cavan, R. S. Suicide, Chicago: University of Chicago Press, 1928.
- Conger, J., Miller, W., & Walsmith, C. Antecedents of delinquency: Personality, social class, and intelligence. In P. Mussen, J. Conger, & J. Kagan (Eds.), Readings in child development. NYC: Harper & Row, 1970.
- Dublin, L. I. Suicide: A sociological and statistical study. NYC: Ronald, 1963.
- Dublin, L. I., & Bunzel, B. To be or not to be: A study of suicides. NYC: Random House, 1933.
- Eilenberg, M. D. Remand home boys 1930-1955. British Journal of Criminology, 1961, 2, 111-131.
- Faigel, H. Suicide among young persons. Clinical Pediatrics, 1966, 187-190.
- Farberow, N. S. Suicide in different cultures. Baltimore: University Park Press, 1975.
- Farnsworth, D. Foreword. In E. S. Shneidman, Death of the college student. NYC: Behavioral Publications, 1972.
- Fox, R. Today's students. Suicide among students and its prevention. Royal Society of Health Journal, 1971, 91, 181-185.
- French, J. L. Characteristics of high ability dropouts. NAASP Bulletin, 1969, 53, 67-79.
- French, J. L. The highly intelligent dropout. In J. C. Gowan & E. P. Torrance (Eds.), Educating the ablest: A book of readings on the education of the gifted. Itasca, IL: Peacock, 1971.
- From a Correspondent. Intelligent delinquents—disproving Bentham. Times Education Supplement, March 2, 1956, 271.
- Gath, D., Tenneth, G., & Pidduck, R. Psychiatric and social characteristics of bright delinquents. *British Journal of Psychiatry*, 1970, 116, 151-160. (a)
- Gath, D., Tenneth, G., & Pidduck, R. Educational characteristics of bright delinquents. British Journal of Educational Psychology, 1970, 41, 216-219. (b)
- Gath, D., Tenneth, G., & Pidduck, R. Criminological characteristics of bright delinquents. British Journal of Criminology, 1971, 11, 275-279.
- Glueck, S., & Glueck, E. Unraveling of delinquency. NYC: The Commonwealth Fund, 1950.
- Greene, B. I. Preventing student dropouts. Englewood Cliffs, NJ: Prentice-Hall, 1966.
- Haarer, D. L. Gifted delinquents. Federal Probation, 1966, 30, 43-46.
- Havighurst, R. Suicide and education. In E. S. Shneidman, On the nature of suicide. San Francisco: Jossey-Bass, 1973.
- Hecht, K. A. Teacher ratings on potential dropouts and academically gifted children: Are they related? *Journal of Teacher Education*, 1975, 26, (2), 172-175.
- Henden, H. The age of sensation. NYC: Norton, 1975.
- Johnson, D. E. Personality characteristics in relation to college persistence. Journal of Counseling Psychology, 1970, 17, 162-167.
- Johnson, J. L. An essay on incarcerated youth: An oppressed group. Exceptional Children, 1979, 45, (7), 566-571.
- Karpas, M. R. The juvenile delinquent. In J. Roucek, The difficult child. NYC: Philosophical Library, 1964.
- Lester, D. Why people kill themselves. Springfield, IL: C. C. Thomas, 1972.

- Lester, G., & Lester, D. Suicide: The gamble with death. Englewood Cliffs, NJ: Prentice-Hall, 1971.
- Levenson, M. Cognitive correlates of suicidal risk. In C. Neuringer (Ed.), Psychological assessment of suicidal risk. Springfield, IL: C. C. Thomas, 1974.
- Levenson, M., & Neuringer, C. Problem-solving behavior of suicide attempters. *Journal of Consulting and Clinical Psychology*, 1971, 37, 433-436.
- Levenson, M. & Neuringer, C. Suicide and field dependency. Omega, 1974, 181-186.
- Lichter, S. O., Rapien, E. B., Siebert, F. M., & Sklansky, M. A. The dropouts. A treatment study of intellectually capable students who dropout of high school. Glencoe, NY: Free Press, 1962.
- Litman, R. E. Sigmund Freud on suicide. In E. S. Shneidman (Ed.), Essays in self destruction. NYC: Science House, 1967.
- Mann, D., & Mann, H. Age and intelligence of a group of juvenile delinquents. Journal of Abnormal and Social Psychology, 1939, 34, 351-360.
- McCord, J., & McCord, W. Origins of crime. NYC: Columbia University Press, 1959.
- McDowall, A. W. Subsequent suicide in depressed in-patients. British Journal of Psychiatry, 1968, 114, 749-754.
- Merrill, M. A. Problems of child delinquents. London: Harrapard, 1974.
- Miller, J. P. Suicide and adolescence. Adolescence, 1975, 10, (37), 11-24.
- Murthy, V. A. Personality and the nature of suicide attempts. British dournal of Psychiatry, 1969, 115, 791-795.
- Neuringer, C. Rigid thinking in suicidal individuals. Journal of Consulting Psychology, 1964, 28, 54-58.
- Neuringer, C. Current developments in the study of suicidal thinking. In E. S. Shneidman, Suicidology: Contemporary Developments. NYC: Grune & Stratton, 1976.
- O'Hara, J. Young suicides. Maclean's, July 30, 1979.
- Pakenham, F. A. Causes of crime. London: Weindenfeld & Nicholson, 1958.
- Parker, M. Bright kids in trouble with the law. G/C/T, 1979, 9, 62-63.
- Peck, M., & Schrut, A. Suicidal behavior among college students. HSMHA Health Reports, 1971, 86, 149-156.
- Perlman, I. R. Juvenile prevention: The size of the problem. Juvenile Delinquency, Facts, Facets, 1960, Whole No. 4.
- Petzel, S., & Cline, D. Adolescent suicide. Epidemiological and biological aspects. In S. Feinstein & P. Giovacchin (Eds.), Adolescent Psychiatry, Volume 6. Chicago: University of Chicago Press, 1978, 239-266.
- Pinkerton, W. S., Jr. The lethal impulse. Wall Street Journal, March 6, 1969.
- Ravensborg, M. R., & Foss, A. Suicide and the natural death in a state hospital population. *Journal of Consulting and Clinical Psychology*, 1969, 33, 466-471.
- Rose, H. A., & Elton, C. F. Another look at the college dropout. Journal of Counseling Psychology, 1966, 13, 242-245.
- Ross, M. Suicide among college students. American Journal of Psychiatry, 1969, 126, 220-225.
- Rossman, J. E., & Kirk, B. A. Factors related to persistence and withdrawal among university students. *Journal of Counseling Psychology*, 1970, 17, 36-62.
- Seiden, R. Campus tragedy: A study of student suicide. Journal of Abnormal Psychology, 1966, 71, 389-399.
- Seiden, R. Suicide among youth. A supplement to the bulletin of suicidology. Washington: National Institute of Mental Health, 1969.
- Senseman, L. A. Attempted suicide in adolescents. A suicide prevention center in Rhode Island is in urgent need. Rhode Island Medical Journal, 1969, 52, 449-451.
- Shneidman, E. S. The deaths of Herman Melville, In H. P. Vincent (Ed.), Melville & Hawthorne in the Berkshires. Kent, OH: Kent State University Press, 1967.
- Shneidman, E. S. On the deromanticization of death. American Journal of Psychotherapy, 1971, 25, 4-17.
- Shneidman, E. S., & Farberow, N. L. Clues to suicide. NYC: McGraw-Hill. 1957

- Spiegel, D., & Neuringer, C. Rode of dread in suicidal behavior. Journal of Abnormal Psychology, 1963, 66, 507-511.
- Tarnopol, L. Delinquency and minimal brain dysfunction. Journal of Learning Disabilities, 1970, 3, 200-207.
- Tenneth, G., & Gath, D. Bright delinquents: Three year follow-up study. Journal of British Criminology, 1975, 15, 386-390.
- Terman, L., & Oden, M. Genetic studies of genius: Vol. 4. The gifted child grows up. Stanford: Stanford University Press, 1947.
- Tripodes, P. Reasoning patterns in suicide notes. In E. S. Shneidman, Suicidology: Contemporary developments. NYC: Grune & Stratton, 1976.
- U. S. Commissioner of Education. Education of the gifted and talented. Washington: U. S. Government Printing Office, 1972. (Report #72-502, The Marland Report)
- U. S. Department of Health, Education and Welfare. Monthly vital statistics report, provisional statistics, annual summary for the U. S. (1975), 1976, 24, No. 13, June 30.
- Vaughn, R. P. College dropouts: Dismissed vs. withdrawn. Personnel & Guidance Journal, 1968, 46, 685-689.
- Vinoda, K. S. Personality characteristics of attempted suicides. British Journal of Psychiatry, 1966, 1143-1150.
- Warner, O. R. The scholastic ability of school dropouts. Selected reports

- and statistics on school dropouts. Washington, DC: U. S. Department of Health, Education, & Welfare, 1964, 11-13.
- Watley, D. J. The Minnesota counseling inventory and persistence in an institute of technology. *Journal of Counseling Psychology*, 1965, 12, 94-97.
- Whitmore, J. R. Giftedness, conflict, and underachievement. Boston: Allyn & Bacon, 1980.
- Williams, C. B., & Nickels, J.B. Internal-external control dimensions as related to accident and suicide proneness. *Journal of Consulting and Clinical Psychology*, 1969, 33, 485-494.
- Zaccaria, L., & Creaser, J. Factors related to persistence in an urban commuter university. Journal of College and Student Personnel, 1971, 12 (4), 286-291.
- Zarnanzadeh, D. Dropout syndromes. Unpublished M. A. thesis, McGill University, 1975.
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