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M Sc.

Psychiatry

Dropout Syndromes

DROPOUT SYNDROMES

A Study of Individual, Family and Social Factors in
Two Montreal High Schools

by

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ABSTRACT

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SUMMARY:

The aim of the study was to examine reasons for dropping out of high school. Two Montreal schools in contrasting income areas were selected for study. The total student population of each (roughly 1000 in each school) was surveyed using a questionnaire which included demographic information, a dropout predictor scale (Demos D Scale) and a stress scale (Langner Scale). Subsequently the students who actually dropped out over the following year were identified (N = 199), contacted by telephone (N = 158), and strenuous attempts were made to interview them (N = 50). A control group of 32 students who graduated was also interviewed and both controls and dropouts completed a personality test (Junior-Senior High School Personality Questionnaire). The material from the semi-structured interviews was roughly scaled and quantified for statistical manipulations.

A number of conclusions were drawn. There were twice as many dropouts from the lower income school, but the higher income families were able to send children with school

difficulties to private schools, an alternative beyond the means of the less affluent families. The dropout predictor instrument proved invalid. I.Q. did not prove a major factor. The most significant predictors of dropping out (on the basis of multiple regression analysis of the interview data) were (1) parents' mental health, (2) attitude towards school administration, (3) father's character in student's eyes, (4) skipping school regularly, (5) frequency of being sick, (6) difficulty with high school authority and (7) degree of closeness to father.

In a general way this study implicated the family rather than the school as the major source of difficulty in the etiology of dropping out. Five dropout syndromes emerged from the data (1) dropouts from homes broken by parental separation, (2) dropouts from homes broken by parental death, (3) dropouts with personality disorders and family pathology, (4) the "black-sheep" dropouts and (5) family tradition dropouts.

The study concludes with some suggestions for further research.

Résumé

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Titre de la Thèse

"Dropout Syndromes": Etude des facteurs individuels, familiaux et sociaux des syndromes de défection chez des élèves ("drop-outs") de deux écoles secondaires de Montréal.

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Resumé

L'objet de cette étude est l'examen des raisons de la défection scolaire chez des élèves du secondaire. Aux fins de l'étude, deux écoles de Montréal ont été sélectionnées dans deux quartiers de revenus opposés. La population étudiante totale de chaque école (N-1000 dans chacune) a été soumise à l'étude au moyen d'un questionnaire comprenant des renseignements démographiques, une échelle de prédiction de la défection (Demos D scale), et une échelle de "stress" (Langner Scale). Par la suite, les élèves ayant effectivement abandonné leurs études au cours d'année furent identifiés (N-199), contactés par téléphone (N-150) et des efforts acharnés furent tentés pour obtenir des entrevues avec eux (n-50). Un groupe témoin de 32 élèves ayant terminé leurs études furent également vu et les deux groupes remplirent un test de personnalité (Junior-Senior High School Personality Questionnaire). Les données recueillies à partir des entrevues semi-structurées furent grossièrement évaluées sur échelle et quantifiées pour les calculs statistiques.

On a tiré un certain nombre de conclusions. Il y a eu deux fois plus de défections de l'école du quartier à revenus plus faibles, mais les familles disposant de revenus plus élevés étaient en mesure d'envoyer leurs enfants ayant des difficultés scolaires dans des écoles privées, une possibilité dépassant les moyens des familles moins prospères. L'échelle de prédiction de la défection ("dropout") est apparue dépourvue de validité. Le quotient intellectuel n'a pas été avéré comme facteur important. Les facteurs les plus significatifs de prédiction de l'abandon des études ("dropping out") - fondés sur l'analyse en régression multiple des données obtenues dans les entrevues) ont été:

- 1) la santé mentale des parents

- 2) L'attitude envers l'administration de l'école
- 3) le caractère du père aux yeux de l'élève
- 4) l'habitude de l'école buissonnière
- 5) la fréquence de maladies
- 6) les difficultés avec les autorités scolaires
- et 7) le degré d'intimité avec le père.

D'une manière générale, cette étude tend à impliquer que c'est la famille plutôt que l'école qui est à l'origine principale des difficultés dans l'étiologie de l'abandon des études. Cinq syndrômes caractérisant ces élèves en rupture d'études ("dropouts") se sont manifestés d'après les données:

- 1) étudiants ("dropouts") provenant de foyers brisés par la séparation des parents
- 2) étudiants ("dropouts") issus de familles brisées par la mort (d'un) des parents
- 3) étudiants ("dropouts") atteints de troubles de la personnalité et pathologie familiale
- 4) étudiants typiquement "Brebis galeuses" ("black sheep dropouts")
- et 5) étudiants abandonnant leurs études par tradition familiale.

L'étude se termine par quelques suggestions pour de futures recherches.

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CHAPTER I
INTRODUCTION

It is a widely held belief in the Western world that as many young people as possible should receive a high school education. To this end a gradually increasing number of high schools have been built in our communities and a steadily increasing proportion of the population in the appropriate age range are attending these schools (Table I.1). Many countries have enacted legislation requiring school attendance until age 14 to 16.

Consistent with this zeitgeist there has been an increasing concern over the fact that a significant proportion of young people leave high schools before graduating. Research studies on dropouts began to appear only in the middle sixties however and largely in the United States (6,13,15,20,28). Canadian studies are few. Drumme (9) examined the dropout problem in New Brunswick, Guest (14) in Winnipeg, and Barnes (2) in the South Okanagan region of British Columbia.

With a few exceptions, these studies have been demographically oriented and retrospective - studying the features of students after they have already left the school system. They have also for the most part lacked comparable data on control groups. The findings indicate that in recent years from 20 to 50 per cent of students who enter the first year of high school drop out before they graduate. Variations in dropout rates are

TABLE I:1

PERCENTAGE OF POPULATION OF HIGH SCHOOL AGE ENROLLED IN
HIGH SCHOOL BY COUNTRY

Country	Age Group	1950	1960	1967
Canada	13 - 19	31%	49%	49%
Denmark	13 - 18	59%	-	68%
Finland	12 - 19	57%	-	65%
France	11 - 12	-	46%	62%
Germany (F.R.).	11 - 18	-	55%	66%
Italy	11 - 18	-	55%	66%
Norway	14 - 19	-	62%	78%
Sweden	13 - 18	46%	54%	-
United Kingdom	11 - 17	51%	68%	72%
U.S.S.R.	15 - 17	20%	60%	67%

Derived from Unesco Statistical Year Book 1970

associated with such factors as social class (the lower the class level, the higher the proportion of dropouts) and culture (Barnes, (2) for example found a significantly higher dropout rate among non-English, non-Canadian born students). Studies in the U.S. indicate that integrated schools generate equal numbers of black and white dropouts, whereas the rates are much higher among blacks in non-integrated schools (1). In Canada, reservation Amerindians have an exceptionally high dropout rate.

High school dropout research is fraught with a number of special problems. There is first the problem of definition. What is a dropout? It is clear that all students do not have an equal educational potential. One definition of a dropout would be that he is a student who leaves the educational system before he reaches his full potential. A student with a very low potential who left in the middle of his high school career would by this definition, not be a dropout; whereas a student with a very high potential would be called a dropout unless he persisted through university. But for research purposes, the identification of high and low potential students is fraught with too many controversies and difficulties to be practical. Another difficulty is that of what we might call "functional dropouts". Many students attend school in body but their minds are elsewhere and for practical purposes they should be called dropouts. But again the identification of such dropouts is too difficult for

practical research purposes. Similarly there are perhaps a few "bodily dropouts" who obtain a high level of education in the outside world; perhaps superior to the education they would have received in our high schools. Again these pseudo dropouts present grave identification problems. Most dropout research defines a dropout simply as a student who leaves high school before receiving his graduation diploma. In our present research we also used this definition.

Another problem has to do with the disgruntled attitude of most dropouts. They have had chronic difficulties with the school system and often with the "adult world" in general before finally giving up the race. Motivating dropouts to come to one's office for an interview is not easy. Finally, as with any longitudinal study, we ran into the difficulty of keeping track of subjects over an extended period of time; this is especially difficult with young people who tend to be highly mobile when not tied to the school system. These difficulties make it virtually impossible to obtain representative samples and the findings of any longitudinal dropout study must be evaluated accordingly.

Our aim in the present research, was to add to our knowledge of the dropout problem as it occurs in Canada. In brief, we surveyed the entire populations of two Montreal High Schools in contrasting socio-economic areas in January, 1971 using a stress measure and a scale which purported to identify potential

dropouts (Demos Scale). Over the following year the actual dropouts from both schools were identified and a sample of dropouts and controls were interviewed. Our main research goals were (1) To determine the actual number of dropouts, and compare their demographic features with controls. (2) To examine the validity of the Demos Dropout Scale. (3) To compare the personal characteristics of dropouts and controls using the Junior, Senior High School Personality Questionnaire of the I.P.A.T.. (4) To study the significance of a variety of individual, family and group factors involved in dropping out using a semi-structured psychiatric interview with dropouts and controls. (5) On the basis of the findings, to suggest possible methods for retaining a greater proportion of students in the educational system.

CHAPTER II

DROPPING OUT OF HIGH SCHOOL: A REVIEW OF THE LITERATURE

What kind of students drop out of high schools today?

From a review of the literature, a fairly clear picture of their general characteristics emerges. An almost universal finding is that dropping out is greatest among those of low socio-economic status. The vicious circle of poverty producing illiteracy and illiteracy producing poverty still persists in most of the world. The societies which have been most successful in eliminating poverty have gone furthest in eliminating illiteracy. The adverse effect of poverty often begins with malnutrition of the mother during pregnancy and the aftermath may continue to limit an individual's physical and mental development for the rest of his life. In the United States 5 million mildly retarded children come from the lower socio-economic strata and their handicap may, at least partly, be attributed to environmental deprivation (7).

To what extent does this factor contribute to the problem of high school dropouts? Bachman et al (1) studied a probability sample of 2,500 grade ten boys, drawn from 100 representative high schools throughout the United States (1966-1969). They used an extensive questionnaire, I.Q. and other psychological tests and interviews focusing on social environment, values, attitudes and mental health. They found that 23 per cent of those at the bottom of the socio-economic scale were dropouts compared to

only 4 per cent in the top category. Analysis of the 1961 United States census suggests that 70 per cent of all dropouts come from families whose income is below \$5,000 a year (28).

Although statistically the majority of dropouts are from the bottom of the class structure, it cannot be concluded that low income causes dropouts without taking into consideration other components of poverty. Greene (13) states that low socioeconomic status, little education and semi-skilled or unskilled jobs are characteristic problems of the family backgrounds of the majority of dropouts.

What about the relation of family stability to social class level? According to Hollingshead (16) there have been no adequate studies on this relationship. But in reviewing a number of community studies and including data from his own work described in Elmtown's Youth, he suggests there is an increase in family instability as one descends the class scale. In Elmtown he found 85 per cent of class II families and 82 per cent of class III families were intact after 15 or more years of marriage. But in class IV (working class) 77 per cent were intact and in class V (lowest class) only 40 to 50 per cent were intact.

The relationship between social class and dropping out, then, is highly complex and may well be more related to family instability than low income itself.

The second crucial factor is the family background of

the dropout, since their problems often originate much earlier in life (1). The family plays a basic role in a child's personality and influences his pattern of cognitive, emotional and social interactions. Parents provide the child with his early models of identification, the esteem of one parent for the other and the self-esteem of each of them influences the value the child places upon his primary love objects (23). It is from the family that the child must achieve a sense of identity, a feeling of trust and security, the ability to avoid conflicts and anxiety and the capability of adjusting to his environment.

The study of the families of dropouts indicates that the disturbance in positive relations to his parents is carried over to the child-teacher relationship. Although the family pattern of dropouts is heterogeneous and the mechanism of influence of parents on their children's future learning is not understood (3), researchers have found many characteristic patterns which could affect the child's learning. All studies indicate a significantly higher number of dropouts among children from broken homes. Barnes (2) estimates that 63 per cent of dropouts in a school district of British Columbia came from unstable families compared to 12 per cent in matched controls. According to Bachman (1), families disrupted by separation have poorer parent-son relationships and more dropouts than families separated by death. In his study 11.5 per cent of boys from intact homes who entered

grade 10 later dropped out; in homes broken by death the proportion was 16.5 per cent and rose to 19.6 per cent for homes broken by separation. Although the dropout rate is as much as twice as high for boys from broken homes as compared to those from homes which are intact, still as far as actual numbers are concerned two thirds of the dropouts derive from intact homes.

According to Lichter(20), the parents of dropouts are usually inconsistent in their discipline; their roles as parents are not adequately differentiated and there are a variety of combinations of weak, punitive or rejecting fathers with over-protective, hostile or uninvolved mothers. Parents of dropouts may have high expectations of their children or they may devalue or underestimate them. Greene (13) emphasizes that some dropouts are the "scapegoat" of the family. Bachman (1) believes that the better a child gets along with his parents, the higher is his self-esteem, personal efficiency and school ability.

Halpern, in Hammer's book (15), looks at the family of dropouts from the psychoanalytic point of view. He speculates that the mother of an impaired learner is possessive and narcissistic, unable to enter into a giving, loving relationship with her husband. She may concentrate on her children. The fathers of under-achievers are often tense, angry, competitive men who make it difficult for their sons not only to compete with them but to constructively identify with them. Fear of competing with the father may give rise to a helpless, dependent

relationship with the mother. The son may adopt a masochistic relationship with the father provoking punishment and seeking protection. Halpern also observed a suspension of certain tasks of the super-ego in "anti-achievers" as a guilt-relieving mechanism.

Lichter et al (20) in their clinical observation of 105 emotionally disturbed dropouts noticed that the dropouts' households were often unstable and that one or both parents were immature and unable to cope with their adolescents. Even the more mature ones had predominantly negative relationships with their children. Adequate and satisfactory maturation and transformation of early pleasure-seeking and gratification brings about the achievement of latency, consequently energy and interest is available for learning. Otherwise, the result is fixation or regression to immature modes of functioning. Healthy learning activities are blocked. The child will continue to seek pleasure, and avoid anxiety through many defensive mechanisms; passivity, aggressiveness, withdrawal and denial of reality. Marcus (23) intensively studied the families of seven boys and five girls between 12 and 14 years old, who were failing for the second consecutive year. He found a disturbance in positive object relationships and speculated that early, persistent frustration and conflict created a type of ego impairment which was difficult to treat due to defenses against further identification.

As would be expected, a third important factor is the student's negative attitude towards school. The lowest rate of college entrance and the highest rate of high school dropouts has been reported among those who had negative feelings toward school (1). There is a vicious circle here; as the student begins to do poorly in school, he begins to dislike school; the more he dislikes school and begins to feel that school is a kind of prison, the more his performance deteriorates.

~~To what extent does an educational system and/or a~~ specific school contribute to these negative feelings towards school on the part of dropouts? Researchers hold conflicting views. Dillion (13) asserts that 70 per cent of the dropouts blame the school as the primary source of their dissatisfaction and reason for leaving. A study by the United States Department of Labour in 1947 (13) of 524 boys and girls in Louisville, Kentucky, shows that of the 440 who did not graduate, 67 per cent left, at least in part, because of dissatisfaction with some phases of school life. Greene (13) points out that the dropouts do not participate in school activities. They feel alienated from school and that they are not getting help from anyone. They express their dissatisfaction with school as dislike for teachers and certain subjects.

On the other hand, it is clear that a student who leaves the school with some degree of shame over his failure, needs to bolster his self-esteem by rationalizing and blaming external circumstances. Inability to adapt to school, for those who find

safety and comfort at home or elsewhere, maintains their hostile and uncooperative attitude towards school.

Several studies indicate a further cluster of characteristics that are linked to negative attitudes. Dropouts show a progression characterized by a gradual loss of interest in school subjects, by increasingly poorer performance and finally partial withdrawal before the final act of dropping out. Bachman (1) and Greene (13) both found that over half of those who later drop out were held back prior to Grade 10. Over half of those with "D" averages in Grade 9 dropped out, whereas only 2 per cent of the "A" students did so. In this study (1) it was estimated that about 40 per cent of those who failed a grade later dropped out; there was only a 10 per cent dropout rate among those who never failed a grade. Barnes (2) reports over 72 per cent of dropouts had repeated at least one grade, and 44 percent had repeated more than one grade. The figures for matched control subjects, were 43 per cent and 10 per cent respectively.

Poor attendance is the most crucial warning symptom of dropping out. There is a direct relationship between dropping out and absenteeism especially when it increases to more than fifteen days a year. Lichter et al (20) studied 105 intellectually capable, emotionally disturbed high school dropouts from 25 public high schools in Chicago between 1954-1958. Of these 105 students, 61 per cent had had poor school attendance records.

Doing homework is a good indicator of student interest

and the amount of homework done is a fair predictor of dropping out. Of those who reported doing less than five hours of homework per week, an estimated 33 per cent became dropouts (1). Of those who did twenty or more hours of homework a week, only 11 per cent dropped out.

Greene (13) and Cervantes (6) have discussed the importance of peer group influence on dropping out. They found that the friends of a typical dropout were not usually approved of by their parents. They were not usually school oriented and were either older or younger than the dropout himself. The dropout clung to these inappropriate friends out of despair, needing someone to sympathize with him. Other dropouts were loners, having no friends at all.

The fourth factor is the personality of dropouts. Are they different from non-dropouts? Siegel (15), after reviewing the literature, finds no conclusive evidence or agreement as to the personal characteristics of individuals with learning problems. He quotes Erik Erikson's opinion that these students are experiencing a prolonged identity crisis involving acute alienation from their ambitions and their emotions. They lack a sense of personal worth. Alves and Mason (15) indicate that under-achievers tend to be more negative in their attitudes towards themselves and others. Feelings of inferiority, lack of faith in others and, at times hostility were pointed out by Kurtz and Swenson (15). These researchers give the impression

that the dropout is unable to experience himself as a person in his own right due to immaturity or to extreme conflict with his family and with his environment as a whole. He is struggling to be himself but he feels that everyone he depends upon is attempting to mold him to their own pattern, therefore removing him still further from himself. As one of Siegel's students exclaimed "I would rather flunk everything than do what they want". In this way he expressed his sense of being overwhelmed and his attempt to protect his own ego-boundary. His feelings of self confidence and self reliance have been shattered repeatedly leaving him with the feeling that he can only do wrong. Therefore, he should stop trying and go after immediate gratification.

According to Farnsworth (15) more than 50 per cent of the total dropout population have significant emotional difficulties. He adds that the dropouts are often characterized by inaction or non-action. They live in a kind of non-action commune. They run away from any situation which requires motivation, participation, effort and cooperation. Lichter et al (20), who worked in a public agency in Chicago staffed with case workers, psychologists and a consultant psychoanalyst, conducted ongoing interviews with motivated, disturbed dropouts. It was disclosed that youngsters and their parents often had serious emotional problems and that the school difficulties had resulted from these. Indeed, for most of these students, school was only one

of many areas of maladjustment. They were immature in their general personality formations; about two thirds of the boys and one half of the girls were dependent and unwilling to assume any self-responsibility; the boys generally expressed their dependency in open helplessness and the girls in angry demands; less than one third were relatively mature in their character formations but were struggling with developmental tasks; less than one fourth of the students were suffering from specific neuroses (36 per cent of the girls and 11 per cent of the boys were diagnosed as neurotic); the majority were suffering from developing character disorders; 64 per cent of the girls and 89 per cent of the boys had problems because of their character formation; few dropouts had compulsive characters.

On the other hand there was also a significant group of dropouts whose difficulties were only marginally different from non dropouts. It would appear in these cases that dropping out could have been prevented by relatively minor circumstances such as a new, supportive peer group, an especially interested teacher or a warm and understanding parent. In his study of dropouts, Bachman (1) found that there was a greater need for self-development in the college entrance group. These students felt that they could control their own fortunes. They had "internal control". Dropping out is more likely to occur among those who feel that circumstances are "in the hands of fate" and that they do not have any control over their lives. For these there is

"external control", he also found that 10 per cent of his respondents were bothered by nervousness, headaches, loss of appetite, sleeping troubles and difficulty getting up in the morning. An estimated one third of these students dropped out of high school, while 17 per cent of them entered college. Honesty, kindness and cooperation were positively related to educational attainment. Aggression and delinquent behaviour were the most important factors in predicting dropouts. He estimated that 37 per cent of those with the highest score in independence at Grade 10 level, 30 per cent of those highest in impulse to aggression and 60 to 65 per cent of those most delinquent in school later drop out. After leaving school, Greene (13) reports that only 5 per cent of dropouts get into trouble with the police. He feels that society's inadequacy in coping with these youngsters between the time they leave school and the time they enter the labour market results in the irrational assumption that all dropouts are delinquents.

Boys drop out more frequently than do girls. Almost all studies reveal that 55 to 60 per cent of dropouts are boys. This is rather puzzling since, as the future breadwinners, boys would seem to require a higher education than girls. Greene (13) suggests a number of reasons. Boys are generally given independence at an earlier age than girls and there are perhaps more part-time jobs available for boys. These factors may give the high school boy the impression that he can make his way in

the world without submitting to the arduous educational process. Also, particularly in the early grades, the teachers are much more likely to be women; the male student may get the impression that the world of school is a female world. This idea is probably class-linked to some extent; in the lower socioeconomic classes and particularly in rural areas, going to school and doing well at school may be regarded as "sissy" behaviour. Some evidence for this class-linked education difference in Montreal is provided by a recent survey (Prince et al, (25)) which showed that in low-income families the mother has a level of education similar to the father, whereas in the high-income family the father is much more likely to be better educated (Table 2:1).

Finally, what about the controversial factor of low I.Q? According to Greene (13), several studies have in fact shown that dropouts have lower mean I.Q.'s than high school graduates. But he also feels that there are relatively few students that are so low in intelligence that they cannot profitably be educated in our high schools. According to Greene, failure in previous years has labelled the student and he has come to accept and internalize this judgement. In his view then, the feeling of incompetence, rather than actual low I.Q. is the more important factor. Otto Spranger (15) quotes O. Ray Warner of the United States Office of Education, as saying that about three-quarters of a million students will drop out of high

TABLE 2.1

EDUCATION LEVELS OF PARENTS IN LOW AND HIGH INCOME SAMPLES
(MONTREAL)

EDUCATION LEVEL	LOW INCOME (N=113)		HIGH INCOME (N=116)	
	FATHER	MOTHER	FATHER	MOTHER
None	4	2	0	0
Some grade school	23	22	1	1
Completed grade school	29	42	3	1
Some high school	44	39	9	10
Completed high school	11	8	15	21
Some university	2	0	23	42
Completed university	0	0	65	41

schools during 1970 and of these 11 per cent have I.Q.'s of more than 110, 50 per cent have I.Q.'s between 90 and 109. He believes that 61 per cent of dropouts could complete standard vocational, technical or college education. For the remainder, half could complete special high school courses and the other half would require other special educational programs. Since none of these alternatives are available, he concludes that the majority of dropouts leave school not because of lack of intelligence but for social and psychological reasons.

Other investigators attribute more importance to I.Q. as a factor in dropping out. MacPherson (22)¹ reports on a follow-up study of a representative sample of 1,208 children selected from all children born in Scotland in 1936. From the whole sample, only 75 pupils (6.2 per cent) achieved a high school certificate. As far as I.Q. was concerned, as Table 2:2 indicates, an I.Q.¹ of 145 was needed for a pupil to have 50 per cent chance of receiving a High School Leaving Certificate.

A pupil with an I.Q. of 127 has a 50 per cent probability of completing high school and a 25 per cent chance of receiving the High School Leaving Certificate.

¹He used the Terman-Merrill I.Q. test and explains the rather high I.Q. levels as being due to large standard deviations and the skewness of distribution.

TABLE 2:2

Boys and Girls in Five-Year Courses

I.Q.	Whole Sample	All in 5-year Courses	All Completing 5-year Courses	All Attaining Leaving Certificate
170+	3	3	3	3
165-9	4	4	3	1
160-4	3	3	3	2
155-9	6	6	6	5
150-4	9	9	9	6
145-9	11	11	8	4
140-4	23	20	12	9
135-9	20	19	11	7
130-4	43	36	19	13
125-9	47	37	22	9
120-4	67	47	18	7
115-9	76	41	16	6
110-4	86	36	6	1
105-9	111	31	6	1
100-4	129	23	6	1
95-9	132	18	2	-
90-4	111	11	-	-
90	327	-	-	-
Total	1208	365	150	75

He estimated that another 66 pupils could have obtained leaving certificates on the basis of their I.Q. alone, if they had not left the school. Studying factors in addition to I.Q., MacPherson examined the personality of dropouts by home visits. He concluded that character traits (perseverance, conscientiousness and the will to do well) play the most important role in remaining in school.

Other research has focused upon the importance of reading ability as the major factor in the dropout problem. It has been estimated that more than 90 per cent of all the work taught in school involves the ability to read (13). All studies indicate that the dropouts are generally two years behind in their reading ability. Greene quoted Penty saying only 45 per cent of poor readers remain in school long enough to graduate. Bachman (1) estimates that the dropout rate for those at the lowest level of reading skill is greater than 40 per cent.

CHAPTER III

PRESENT RESEARCH: SURVEY OF TWO HIGH SCHOOLS, METHODS AND RESULTS

For our present research we selected two high schools in Montreal. For contrast, one high school was selected from a working class area of the city and the other was selected from a high income area. The proposed research was first discussed with the principals of the schools in question and when agreement was obtained at this level, permission was granted from the Protestant School Board of Greater Montreal. The general plan was as follows (1) to survey the entire population of both schools to try to predict those who were liable to drop out (2) to identify the actual dropouts over a subsequent one year period (3) to assess the validity of the dropout instrument thereby and (4) to interview the dropouts and a sample of graduating controls to determine whether there were any consistent social, family or personality differences distinguishing the two groups.

FIRST STAGE: SURVEY RESULTS

The first stage consisted of a survey of the total population of each of the high schools during January 1971. A questionnaire was administered to all students, class by class, after a brief word of instruction.

The questionnaire covered demographic data (ethnicity, occupation, family income, education of parents and siblings, pupil's educational attainment including number of subjects failed, number of different high schools previously attended), the Demos

"D" Scale for the identification of dropouts and the Langner Scale (19) as a measure of psychological stress.

A word should be said about the Demos Scale. It was designed to pick out potential dropouts by measuring attitudes. It consists of twenty-nine statements which the pupil is asked to score on a five point continuum. The statements cover:

1. Attitudes towards teachers.
2. Attitudes towards education.
3. Influences of peers or parents.
4. School behaviour.

Examples of some of the Demos statements are as follows:

1. Teachers understand the problems of students.
2. It is necessary for one to have a high school education.
3. It is good for friends to help one make up his (her) mind.
4. It is more important to have a good time in school than it is to study and learn.

After each statement, the student is given five alternative responses: nearly always, most of the time, sometimes, very few times and nearly never. He must choose the one with which he agrees most. To assess validity, the test was given, by Demos, to three groups in California: Group 1 consisted of one hundred and five randomly selected Anglo-American high school students, Group 2, of thirty male juvenile delinquents and Group 3, of

high school dropouts. On the basis of significant score differences between these groups, Demos considers his test to have adequate validity. Although in our opinion this was not adequately demonstrated, it was the only dropout prediction instrument we could find. We decided, therefore, to use it and further assess its validity in the course of our study.

The Langner Scale (19) is a twenty-two item self-report check list of psychiatric symptoms indicating impairment (see appendix C). This instrument was developed during the course of the Midtown study of psychiatric disorder in Manhattan, New York City. It provides a rough indication of where people lie on a continuum of impairment in life functioning due to very common psychiatric symptoms. Langner studied the validity of these twenty-two symptoms and found discriminating power between ill and well groups at the 0.01 confidence level or better.

There were 1,100 students in each of our schools. In the Middle Income School 1,027 and in the High Income School 1,038 completed the questionnaires. The others were either absent or their answers were incomplete and were removed from the sample.

The two schools fit well into the respective communities which they serve. The Middle Income School, built in 1932, is a plain, simple, brick building. Located on the corner of two narrow streets with similar buildings around, it has no grounds but there is a playing field two blocks away. The school is equipped with a gym, a vocational work shop and other club facilities. It

offers, in the senior years, more technical, industrial and business courses than the high income school. In the year of our study, its staff turnover was about 20 per cent.

The High Income School, built in 1961, is a very attractive, modern building surrounded by wide open spaces. There are broad lawns and a huge playing field. The school possesses more facilities for sport and other activities than the Middle Income School. Comparably speaking, in the senior years, this school offers a richer assortment of academic courses although the content of the basic curriculum in both schools is the same. In the year of our study, the High Income School had a staff of 64, of which 12 left representing a turnover of about 20 per cent.

While conducting the survey, we observed striking differences between the attitudes of the students in the two schools. In the High Income School, students were curious, asked questions, demanded information and showed healthy signs of aggressivity; most of the students were sophisticated, attentive and cooperative.

In the Middle Income School, students tended to be more passive and compliant. They did not ask questions but simply followed instructions. On the surface, they seemed much more submissive towards their teachers. Their behaviour seemed similar to that of their fathers who were holding subordinate work positions and following orders whereas in the High Income School most of the fathers were either professional or executives and their children's behaviour was patterned on their roles.

SURVEY RESULTS:

As Table 3:1 indicates, our sample proved to be equally balanced according to sex in the two schools.

TABLE 3:1 SCHOOL POPULATIONS BY SEX.

Sex.	High Income School		Middle Income School	
	Number.	Percentage.	Number.	Percentage.
Boys.	557	53.7	545	53.1
Girls.	481	46.3	482	46.9
Total.	1038	100	1027	100

Tabulation of family income in the two schools (Table 3:2) confirmed that there were marked contrasts between the two groups. In the High Income School, over three-quarters of the students came from families with incomes over \$10,000 per year, whereas in the Middle Income School, over three-quarters of the students derived from families with incomes lower than \$10,000.

TABLE 3:2 INCOME LEVEL OF STUDENTS' FAMILY.

Family Income.	<u>High Income School.</u>		<u>Middle Income School.</u>	
	Number	Percentage.	Number.	Percentage
Less than \$5,000 per year.	33	3.2	89	8.7
\$5,000-\$10,000 per year.	188	18.1	433	42.2
\$10,000 or more per year.	702	67.6	172	16.7
Unknown.	115	11.1	333	32.4
Total	1038	100	1027	100

In Table 3:3 we have divided our two schools' students according to their fathers' occupation. We found that 70 per cent of the students in the High Income School belong to classes 1 and 2 as compared to the Middle Income School where more than 50 per cent belong to classes 4, 5, and 6.

TABLE 3:3 FATHER'S OCCUPATION*

Class.	<u>High Income School.</u>		<u>Middle Income School.</u>	
	Number.	Percentage.	Number.	Percentage
1	201	19.4	10	1.0
2	540	52.0	146	14.2
3	47	4.5	57	5.5
4	17	1.6	108	10.5
5	76	7.3	345	33.6
6	23	2.2	121	11.8
7	12	1.2	39	3.8
8	0	0	2	.2
Unknown.	120	11.6	194	18.9
Total.	1038	100	1027	100

* In this table we have classified fathers' occupations according to a 7 point "occupational class" scale devised by Blishen (3). Class 1, in the table, indicates highest status occupations (judges, physicians etc.) and class 7 indicates lowest status occupations (cooks, charworkers etc.) Classes 2 to 6 range between. Class 8 fathers are students.

We wanted to determine whether there is any relationship between dropping out and working mothers. It is interesting to notice here that regardless of class or income about 65 per cent of the mothers do not work outside the home (Table 3:4).

TABLE 3:4 MOTHER'S OCCUPATION

Occupation.	<u>High Income School</u>		<u>Middle Income School</u>	
	Number.	Percentage.	Number.	Percentage.
Housewife.	639	61.6	638	62.1
Part-time work outside the home.	183	17.6	103	10.0
Full-time work outside the home.	172	16.6	232	22.6
Unknown.	44	4.2	54	5.3
Total.	1038	100	1027	100

Also, as Table 3:5 indicates, in high income families 60 per cent of fathers finished university as compared to 6 per cent in middle income. Another interesting difference is that in high income families only 10 per cent of the fathers did not finish high school whereas in middle income families 60 per cent did not finish high school, (i.e. they had been dropouts themselves).

TABLE 3:5 FATHERS' EDUCATION

Level of Education.	High Income School		Middle Income School.	
	Number.	Percentage.	Number.	Percentage.
Some Elementary School.	11	1.1	140	13.6
Completed Elementary School.	17	1.6	146	14.2
Some High School.	70	6.7	321	31.3
Completed High School	169	16.3	194	18.9
Some University.	108	10.4	69	6.7
Completed University.	589	56.8	60	5.8
Unknown.	74	7.1	97	9.5
Total.	1038	100	1027	100

We found the mothers' education runs roughly parallel to that of the fathers in each group (Table 3:6). The number of mothers who completed university in high income families is about 12 times greater than that in the middle income families and 60 per cent of mothers in the middle income group did not finish high school as compared to 11 per cent in the high income group (i.e. they were dropouts themselves). It is also interesting to note that whereas in the middle income group the mothers are about equally educated, or even slightly better educated than the fathers, in the high income group the fathers are significantly better educated than the mothers. This goes along with the idea that education is more esteemed in the higher income strata of society than in the lower income strata.

TABLE 3:6 MOTHERS' EDUCATION.

Level of Education	<u>High Income School</u>		<u>Middle Income School</u>	
	Number.	Percentage	Number.	Percentage.
Some Elementary School.	10	.9	106	10.3
Completed Elementary School.	16	1.5	172	16.8
Some High School	91	8.8	339	33.0
Completed High School.	279	26.9	273	26.6
Some University.	190	18.3	28	2.7
Completed University.	382	36.9	32	3.1
Unknown.	70	6.7	77	7.5
Total.	1038	100	1027	100

The populations of both schools were overwhelmingly of English origin (see Table 3:7). There were too few students with other ethnic backgrounds to use ethnicity as a possible variable related to dropping out.

TABLE 3:7 FATHERS' ETHNIC ORIGIN.

<u>Ethnic Origin.</u>	<u>High Income School</u>		<u>Middle Income School.</u>	
	<u>Number.</u>	<u>Percentage.</u>	<u>Number.</u>	<u>Percentage.</u>
English	748	72.1	788	76.7
French	19	1.8	59	5.7
English-French	9	0.9	22	2.1
Italian	0	0.0	3	0.3
Irish	8	0.8	16	1.6
Jewish	46	4.4	5	0.5
West European	48	4.6	28	2.7
East European	67	6.5	38	3.7
Other	45	4.3	18	1.8
Unknown	48	4.6	50	4.9
Total	1038	100	1027	100

Regarding academic performance we looked at two indicators, the number of years the student was behind what would have been expected for his age and the number of subjects he failed.

To complete the "number of years behind", we used the following expected achievement levels:

Student born in 1953, should be in Grade 11 at age 17.

Student born in 1954, should be in Grade 10 at age 16.

Student born in 1955, should be in Grade 9 at age 15.

Student born in 1956, should be in Grade 8 at age 14.

Student born in 1957, should be in Grade 7 at age 13.

According to these standards, 91 per cent of students in the High Income School are not behind (Table 3:8). This is 11 per cent more than Middle Income School. About 6 per cent in High Income School are 1 year behind as compared to 15 per cent in the Middle Income School.

TABLE 3:8 STUDENTS' NUMBER OF YEARS BEHIND

Number of years behind.	<u>High Income School.</u>		<u>Middle Income School.</u>	
	Number.	Percentage.	Number.	Percentage.
0	951	91.6	824	80.2
1	66	6.4	163	15.9
2	20	1.9	35	3.4
3	1	.1	3	.3
4	0	0	1	.1
5	0	0	1	.1
Total	1038	100	1027	100

We also found 70 per cent of high income students have not failed any subject as compared to 46 per cent of middle income students; close to 14 per cent failed one subject in the high income group as compared to 18.5 per cent in the middle income group. The rest of the table indicates that the number of subjects failed is doubled in the middle income group as compared to the higher income group. (see Table 3:9).

TABLE 3:9 NUMBER OF FAILED SUBJECTS.

Number of failed subjects.	<u>High Income School.</u>		<u>Middle Income School.</u>	
	Number.	Percentage	Number.	Percentage.
0	722	69.5	476	46.3
1	145	14.0	190	18.5
2	74	7.1	158	15.4
3	35	3.4	78	7.6
4	26	2.5	43	4.2
5	18	1.7	30	2.9
6	4	.4	26	2.5
7	2	.2	6	.6
8	4	.4	7	.7
9	8	.8	13	1.3
Total.	1038	100	1027	100

The literature suggests a relationship between dropping out and frequent school changes. Our findings do not support this idea (Table 3:10). We found that the high income students tend to have more moves than the middle income students.

TABLE 3:10 STUDENTS' NUMBER OF CHANGED HIGH SCHOOLS.

Number of High Schools changed.	<u>High Income School</u>		<u>Middle Income School.</u>	
	Number.	Percentage.	Number.	Percentage.
0	728	70.1	803	78.2
1	169	16.3	141	13.7
2	60	5.8	35	3.4
3	33	3.2	14	1.4
4	5	.5	10	1.0
5	2	.2	2	.2
6	4	.4	3	.3
7	0	0	0	0
8	1	.1	0	0
Unknown	36	3.4	19	1.8
Total	1038	100	1027	100

Previous studies have suggested that there may be a relationship between number of siblings and dropping out. As Table 3:11 indicates there seems to be no consistent difference in number of siblings in our two samples.

TABLE 3:11 STUDENTS & NUMBER OF SIBLINGS.

Number of Siblings.	<u>High Income School.</u>		<u>Middle Income School.</u>	
	Number.	Percentage.	Number.	Percentage.
1	241	23.2	290	28.2
2	315	30.3	276	26.9
3	220	21.2	168	16.4
4	103	9.9	125	12.2
5	60	5.8	53	5.1
6	14	1.4	16	1.5
7	2	.2	2	.2
8	2	.2	7	.7
9	2	.2	3	.3
Unknown.	79	7.6	87	8.5
Total.	1038	100	1027	100

When we look at the proportions of siblings who have had trouble with their schooling, however, (dropping out or behind at school) we see a highly significant difference between the two schools (Table 3:12).

TABLE 3:12 NUMBER OF SIBLINGS WHO ARE BEHIND OR WHO HAVE DROPPED OUT

<u>High Income School.</u>		<u>Middle Income School.</u>	
Number.	Percentage.	Number.	Percentage.
82	7.9	201	19.6

It will be recalled that in our initial total survey questionnaire we used two previously developed instruments, the Demos D Scale and the Langner Scale. The findings on the Demos Scale will be reserved for the next section where its validity is discussed.

The Langner Scale indicates that the middle income students had a significantly higher level of stress (at $P < .01$ level) than the high income students (Table 3:13). This finding is consistent with what is already known about the relationship (in adults) between stress and income (Roberts et al, (26)), as exemplified in Table 3:14.

TABLE 3:13 LANGNER SCALE
SCORES ACCORDING TO SCHOOL

	High Income School.	Middle Income School.
	N = 1038	N = 1027
Mean	2.77	3.14
Standard Deviation	2.63	2.91
T-test	-3.01	
Significance	P < .01	

TABLE 3:14 FAMILY INCOME AND LEVEL OF STRESS
from Roberts et al. (26)

Monthly Income	N.	Langner Scale Mean Score.
Under \$150	57	6.2
150 -- 200	28	4.4
200 -- 400	113	2.7
400 -- 600	32	2.3
600+	11	1.1

SECOND STAGE: VALIDATION OF DEMOS "D" SCALE.

For validation of the Demos Dropout Scale, all students who scored 85 or higher on this scale (indicating a 90 to 100 per cent likelihood of dropping out according to the scale designer) were drawn out. There were 70 in the High Income School and 50 in the Middle Income School. Half of each schools' "dropouts" predicted by the scale were interviewed. These psychiatric evaluation interviews lasted 45 minutes. An attempt was made to create as friendly and frank an atmosphere as possible. These interviews revealed that the Demos Dropout Scale picked up students who, although they may have had difficulties in their schooling and at times with their parents, did not have any intention of discontinuing their education. Their ability to verbalize and their desire for independence appeared rather healthy. We also interviewed students low on the Demos "D" Scale (supposedly indicating a high probability of staying in school). Our clinical impression was that there was no very significant difference between the two groups. Also, statistical analysis of these high and low scoring groups in all factors shown in Tables 3:1 to 3:13 failed to demonstrate any differences.

To further substantiate our results we compared the Demos "D" Scale scores of the two schools (Table 3:15). We found no significant differences between the two schools for the total score on "attitudes toward teachers" or "attitudes toward education".

There was, however, a significant difference ($P < .01$) in

H

two of the Demos subscales, "attitudes toward peers and parents" and "attitudes toward school", but these were in the wrong direction according to subsequent findings: that is, the middle income students expressed more favourable attitudes on the Demos Scale but, as will be shown, actually dropped out at a much greater rate than the high income students!

TABLE 3:15 DEMOS "D" SCALE SCORES OF THE TWO SCHOOLS *

High School		Total Score Demos	Attitudes toward Teachers	Attitudes toward Education	Attitudes toward Peers & Parents	Attitudes toward school
High Income School (N=1038)	Mean	70.10	26.43	17.96	13.52	12.17
	Standard Deviation	11.15	4.55	5.19	2.49	2.97
Middle Income School (N=1027)	Mean	69.54	26.70	17.91	12.66	11.70
	Standard Deviation	23.10	4.61	4.23	2.40	2.78
T. test		0.70	-1.31	0.24	8.00	3.76
Significance		N.S.	N.S.	N.S.	P<.01	P<.01

*The higher the score the greater the probability of dropping out.

As a final validation technique, we waited one year to identify our actual dropouts. We found only a few with high Demos scores. Table 3:16 compares 101 actual dropouts with 32 randomly selected Grade 11 students (who graduated) as a control group. There is no difference between the dropouts and the control group in either the total score or any of the subscores.

Since we did not find any differences between actual dropouts and graduating students on the Demos "D" Scale and because of the other evidence for invalidity cited above, we feel this is an inappropriate tool for the identification of dropouts.

TABLE 3:16 DEMOS "D" SCALE SCORES OF CONTROL AND DROPOUT SAMPLES

	Mean Total Demos	Mean T-Score (Attitudes toward Teachers)	Mean E-Score (Attitudes toward Education)	Mean D-Score (Attitudes toward Peers & Parents)	Mean S-Score (Attitudes toward School)
Control N 32	69.15	26.03	18.09	12.81	12.21
Dropouts N 101	72.44	28.07	19.32	13.05	11.92
T-test	-1.40	2.29	-1.24	-0.48	-0.46

D.F. 131 No significant difference between actual dropouts and graduating controls.

CHAPTER IV

COMPARISON OF DROPOUTS WITH NON DROPOUTS

The final stage involved the identification of actual dropouts over a one year period (February 1st, 1971 to February 1st, 1972), interviews with as many of them as possible, and interviews with a comparable graduating control group.

Commencing February 1st, the names of all dropouts from the two schools were obtained from the official school register. The registers were examined at monthly intervals throughout the year.

It was realized however that perhaps some dropouts would simply not return to school after the summer vacation. To explore this possibility in September 1971, the 70 students in each school who had attended in the Spring but who failed to register in the Fall were contacted by phone. In this way the students who were actually quitting were distinguished from those who had transferred to another high school. An attempt was also made, in the latter case, to decide whether the transfer was made because the student was having difficulties * (and was perhaps a potential dropout) or whether the transfer was for reasons unrelated to school difficulties.

Finally, a third approach to determine the actual number of

*Failed a grade, not studying, wanting to drop their schooling and having difficulties with their families.

dropouts was made by comparing the names of all students who had completed the original questionnaire in February 1971 with the attendance list as of February 1972. Many additional students were found not to be present in school. The same procedure of telephoning was used to determine the present status of these missing students.

The findings are shown in Table 4:1. In the High Income School, 5.2 per cent, and in the Middle Income School, 14.1 per cent of students of the total population of each school, in one year, dropped out. One might also want to estimate the proportion of students who enter high school but do not get their graduation certificate. Based on our present figures, we would estimate that for the High Income School 19 per cent leave before graduation as compared with 34 per cent in the Middle Income School (Table 4:2).

TABLE 4:1

THE FATE OF THE POPULATION OF TWO HIGH SCHOOLS OVER A ONE YEAR PERIOD.

(February 1971 - February 1972)

Number of Students	High Income School		Middle Income School	
	No.	%	No.	%
Graduates.	231	22.3	282	27.5
Dropouts.	54	5.2	145	14.1
Left for Private Schools due to school difficulties.	48	4.6	0	0
Moved or transferred to another school or district.	140	13.4	65	6.3
Left but came back to the same school.	10	0.9	11	1.1
No contact possible.	16	1.5	15	1.5
Stayed in their school.	539	52.1	509	50.5
Total	1038	100	1027	100

TABLE 4:2

SCHOOL GRADUATES AND SCHOOL DROPOUTS IN ONE YEAR

Number of Students	High Income School		Middle Income School	
	No.	%	No.	%
Graduated	231	81.1	282	66.0
Dropout	54	18.9	145	34.0

TABLE 4:3

DROPOUTS FROM EACH SCHOOL BY SEX

Sex	High Income School		Middle Income School		Both Schools	
	No.	%	No.	%	No.	%
Male	18	64%	86	66%	104	66%
Female	10	36%	44	34%	54	34%

TABLE 4:4

THE GRADE OF DROPPING OUT

Grade	High Income School Dropouts		Middle Income School Dropouts		Both Schools Dropouts	
	No.	%	No.	%	No.	%
7	1	3.6	-	-	1	
8	4	14.3	15	11.5	19	39.6
9	6	21.4	37	28.5	43	
10	9	32.1	59	45.4	68	60.4
11	8	28.6	19	14.6	27	

1. DROPOUTS VERSUS NON DROPOUTS ON THE BASIS OF SURVEY DATA

Of the 199 actual dropouts, from both schools during the one year of our study, 158 had completed the original questionnaire.¹ It was therefore possible to compare the survey data of dropouts with the rest of the school population.

Table 4:3 demonstrates that, as with other studies boys outnumber girls among the dropouts. This is remarkably consistent in both schools, two-thirds of the dropouts are boys.

Table 4:4 stresses that dropping out is largely from grade 10 and 11. Again this is consistent in both schools. In general the number of dropouts increases with grade level except that there is a drop in grade 11.

When we compared the survey data of the dropouts with the non-dropouts, there are several significant differences (Table 4:5). The dropouts derived more frequently from lower income families and from families where fathers' jobs were more menial; the fathers' education followed the same trend but did not reach statistical significance. Mothers' occupation (whether housewife, part-time worker or full-time worker) showed no relation at all to dropping out.

Two indices reflecting school performance - "years behind" and "number of subjects failed" - both showed the expected re-

¹ A number of dropouts had not completed the original questionnaire and were therefore dropped from the study.

relationships but only "years behind" reached statistical significance.

The most striking difference between the dropouts and the non dropouts of both schools is the mean Langner Scale score (Table 4:6). Dropouts consistently showed higher stress levels.

TABLE 4:5

COMPARISON OF DROPOUTS WITH NON DROPOUTS BY
SURVEY RESULTS OF BOTH SCHOOLS

No.	Description	% Dropout	% Non Dropout	Chi ²	d.f.	Signi- ficance
1.	Family income:	(N = 136)	(N = 1481)			
	above \$10,000/yr.	11	59			
	\$5,000-\$10,000/yr.	67	36	7.9	2	p < .05
	under \$5,000/yr.	22	5			
2.	Father's occupation:	(N = 132)	(N = 1612)			
	classes 1-2	12	54			
	classes 3-5	50	37	7.2	2	p < .05
	classes 6-9	38	9			
3.	Mother's occupation:	(N = 144)	(N = 1823)			
	housewife	62	65			
	part-time job	13	15	0	2	N.S.
	full-time job	25	20			
4.	Father's education:	(N = 139)	(N = 1755)			
	did not finish h.s.	50	35			
	high school	25	18	1.78	2	N.S.
	University	25	46			
5.	Mother's education:	(N = 140)	(N = 1778)			
	did not finish h.s.	75	36			
	high school	13	29	5.25	2	N.S.
	university	12	35			
6.	No. of years behind	(N = 158)	(N = 1907)			
	0 years	43	89			
	1 year	43	10	5.9	2	p < .05
	2 or more years	14	1			
7.	No. of subjects failed:	(N = 158)	(N = 1907)			
	0 subjects	25	61			
	1 subject	12	16	7.37	3	N.S.
	2 subjects	25	11			
	3 or more subjects	38	12			
8.	Sibling education:	(N = 158)	(N = 1907)			
	no information or					
	no siblings behind	75	88			
	1 or more siblings			1.24	1	N.S.
	behind	25	12			

TABLE 4:6
COMPARISON OF DROPOUTS WITH NON DROPOUTS BY
LANGNER SCALE

	High Income School		Middle Income School		Both Schools	
Langner Scale	Dropouts	Non Dropouts	Dropouts	Non Dropouts	Dropouts	Non Dropouts
	(N = 28)	(N = 1010)	(N = 130)	(N = 897)	(N = 158)	(N = 1907)
Mean	4.3	2.7	4.1	3.0	4.2	2.85

TABLE 4:7
CURRENT STATUS AND STRESS LEVELS
OF NON-INTERVIEWED DROPOUTS

(N = 108)

Current status	N	Percentage	Mean Langner Scale Score
Working	41	38	3.1
Not working			
(a) Residential child care institution (Weredale House)	15	14	3.4
(b) At home	19	17.5	4.3
(c) Drifting (not at home)	33	30.5	5

2. DROPOUTS VERSUS CONTROLS ON THE BASIS OF INTERVIEW DATA

Once the actual dropouts had been identified in the manner described, they were contacted by telephone and letter and invited to the researcher's private office for an interview. Dropouts were almost always difficult to locate and reluctant to come for an interview or keep appointments. When persuasion and encouragement failed to bring a sufficient number, an emolument of five dollars was offered which worked in ten cases. Fifty dropouts were finally interviewed. Most of these were seen only once. Several entered brief psychotherapy, but none were motivated to continue beyond a few sessions. The other 108 dropouts¹ who were contacted but refused to be interviewed, did at last answer one question: "What have you been doing since you left school?" Table 4:7 demonstrates their stress levels (Langner Scale) according to their work status. Some 38 per cent of these had found jobs and they were the least stressed (and therefore, perhaps, healthiest) according to the Langner Scale that had been administered about a year earlier. Their mean score was 3.1 which is close to the average for the total population (High Income School 2.77; Middle Income School 3.14). The most stressed students were those who become "drifters" after leaving school -

¹ In a few cases, the dropout himself was never contacted, but information about him was provided by other family members.

they were not living at home and as far as the parents knew, were not working. The drifters (33 per cent) had a Langner Scale score of 5 and the remainder (31.5 per cent) who were not working but were either in residential care or were staying at home had scores of 3.4 and 4.3 respectively.

Finally, there were 41 dropouts who could not be contacted but some had completed our initial questionnaire. It is interesting to note that their mean Langner Scale score was 4 indicating that they were roughly similar to the sample contacted insofar as stress level is concerned. Although we were able to interview only 25 per cent of the dropouts, and have minimal information on an additional 50 per cent, we feel that our findings are roughly representative of dropouts in general.

The interview with the 50 dropouts and 32 randomly selected controls was a semi structured approach as well as the Junior-Senior High School Personality Questionnaire. I.Q. measures (Henmon-Nelson) ** were obtained from school records. Interviewing of the dropouts took place from three weeks to three months after dropping out of school. The interviews lasted about 45 minutes and systematically covered the following areas: chief complaints; family relationships and family difficulties; student's childhood development and health record; details of primary and secondary education; family attitudes towards education; student's attitudes towards teachers and school administration; student's habits and future plans. We mainly concentrated on objective facts rather than subjective interpretations and individual dynamic formulations.

To analyse the data derived from these semi-structured interviews, we clustered the information into a number of rough-

* This test is considered a reliable and valid personality measurement of students of high school age. It screens those who need help with emotional conflicts or behaviour disorders. It is thought to be a reliable predictor of students who require counseling.

** The Henmon-Nelson Tests of Mental Ability are self-administered tests for Grades 3 to 8 and 7 to 12 estimating overall general intelligence. Each of the three elementary and three high school forms have 90 items arranged in order of increasing difficulty. The tests are strictly verbal-vocabulary, group administered and computer scored.

ly scaleable categories, including (1) personal characteristics, (2) characteristics of the family, (3) attitudes towards school administration and teachers and (4) attitudes towards education. (See Appendix A for details of these categories).

1. Differences in Personal Characteristics.

As other studies have shown, males predominate in the dropout group. Our dropout group was 65 per cent male. In addition, as Table 4:8 indicates, all categories examined showed significant differences between the two groups by Chi-square analysis. The dropouts had more childhood anxiety symptoms; more frequent periods of illness; had less self-confidence and were more likely to day-dream. As regards peer group relationship, the dropouts were either more likely to be isolated or, on the other hand were excessively involved with peers.

Although the mean I.Q.'s of the dropouts are significantly lower (101.4 for dropouts as compared with 113.4 for the others), the majority came from the average I.Q. range (91 - 110) and slightly more were from the over 111 I.Q. level than from the under 91 level. Future planning also significantly distinguished the two groups as did the use of drugs, although this latter characteristic was less marked than some of the others in the series.

In order to determine more clearly the relative importance of these personal characteristics as well as their inter-relationship we employed a multiple regression analysis. To do this

we chose the seven most important personal characteristics as shown by the Chi-square analysis (Table 4:8) and added, as well, sex. As Table 4:9 indicates we found that these eight independent variables simultaneously accounted for 72.1 per cent of the variance at the 1 per cent significance level. Four of these variables however were not significant separately but were accounted for by the other four. The four variables that proved of greatest significance were: -

1. The number of childhood anxiety symptoms.
2. Future planning.
3. Sex.
4. Degree of involvement with friends.

In order to pursue the matter further and to determine the cumulative effect of these variables, we used a stepwise multiple regression analysis technique. As Table 4:10 shows, this technique indicated that the most powerful predictors of dropping out were the number of childhood symptoms, future planning, sex, frequency of being sick and to a less important extent the degree of involvement with friends.

2. Characteristics of the Family.

In this section we consider the families of the students. Some of these characteristics are relatively subjective being the attitude of the student towards his family or his appraisal of his parents, while others are objective demographic facts such as the father's and mother's education, family income etc. Table

TABLE 4:8

DIFFERENCES BETWEEN DROPOUTS AND NON DROPOUTS1. PERSONAL CHARACTERISTICS

Personal Characteristics	Dropout Percentage N = 50	Non-Dropout Percentage N = 32	Chi-Square	Degree of Freedom	Significance
Three or more childhood anxiety symptoms:	80	23	36.1	3	$P < 0.01$
Frequency of being sick in life span.	78	30	28.7	2	$P < 0.01$
Having very little self confidence.	58	10	23.9	2	$P < 0.01$
Excessive day-dreaming.	68	22	18.6	1	$P < 0.01$
Having a few friends.	7	85	49.5	2	$P < 0.01$
Having no close friends.	30	5			
Being constantly with friends.	63	10			
	93	15			
I.Q. categories.					
(below 91)	17	4	25.9	3	$P < 0.01$
(91-110)	61	24			
(111 and above)	22	72			
Drug use few times or regularly.	67	35	13.4	2	$P < 0.01$
Hallucinogen regularly or few times.	25	2	7.4	2	$P < 0.05$
Future planning:					
Definite ideas	23	80	31.9	3	$P < 0.01$
Unrealistic ideas	13	0			
No ideas or some ideas	64	20			
	77	20			

TABLE 4:9

MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES IN
PERSONAL CHARACTERISTICS OF DROPOUTS AND NON DROPOUTS

Personal Characteristics.	B	Beta	STD error of B	F	Significance
Number of childhood anxiety symptoms.	-0.7	-0.35	0.03	7.35	$P < 0.01$
Frequency of being sick.	-0.11	-0.20	0.08	1.96	N.S.
Self confidence.	-0.02	-0.07	0.14	0.24	N.S.
Day-dreaming.	-0.07	-0.07	0.14	0.24	N.S.
Degree of Involvement with friends.	-0.14	-0.22	0.09	2.57	$P < 0.05$
Future plans.	-0.13	-0.27	0.06	5.20	$P < 0.01$
I.Q. category.	-0.04	-0.09	0.05	0.66	N.S.
Sex.	-0.24	-0.24	0.11	5.01	$P < 0.01$

R = 0.85

 $R^2 = 72.1$ per cent

STD error=0.30

F=9.07

Degree of freedom = 8/28

Significance = 0.01

TABLE 4:10

STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES IN
PERSONAL CHARACTERISTICS OF DROPOUTS AND NON DROPOUTS

Personal Attitude	B	Beta	STD error of B	F	Signifi- cance
Number of childhood anxiety symptoms.	-0.08	0.38	0.02	10.72	$P < 0.01$
Future plans.	-0.14	-0.30	0.05	8.06	$P < 0.01$
Sex.	-0.23	-0.23	0.10	5.17	$P < 0.01$
Frequency of being sick.	-0.13	-0.24	0.06	4.31	$P < 0.01$
Degree of involve- ment with friends.	-0.14	-0.23	0.08	3.2	$P < 0.05$

R = 0.84

 $R^2 = 71.1\%$

STD error = 0.29 F = 15.25

Degree of freedom = 5/31

Significance = 0.01

4:11 sets out the Chi-square analysis of the differences in family characteristics. Two of these characteristics, the father's education and the mother's occupation, proved non-significant. The father's occupation and the mother's education proved significant only at the .05 level and the other nine characteristics were all significant at the .01 level. Looking at the most objective of these characteristics we find that the dropouts' families differ from the non dropouts' in a number of important features; for example, 42 per cent of the dropouts are from families in which the parents are divorced or in which either or both parents are dead whereas only 8 per cent of the others come from such families. As regards family income it is clear that there is a definite trend for the dropouts to come from low income families. Similarly only 54 per cent of the dropouts compared to 90 per cent of the non dropouts are living with both parents. The importance of the emotional climate of the family in the dropout phenomenon is indicated by the fact that 60 per cent of the dropouts have emotionally disturbed or mentally ill parents whereas only 18 per cent of the control group have emotionally disturbed parents. Turning to the more subjective characteristics of the family it is clear that how a student feels and sees his parents (regardless of how they are) is an important aspect. Eighty per cent of our dropouts do not feel close to their fathers whereas only 15 per cent of the non

dropouts have this feeling. Of the 20 per cent of dropouts who feel close to their father, the majority (17 per cent) have uneducated fathers which may, in fact, foster dropping out, if identification is strong. A significant factor here appears to be how the father is perceived. Only 10 per cent of the dropouts consider their father to be a "strong man" as compared to 90 per cent of the non dropouts. The others feel that their father is either weak, punitive or rejecting. As Table 4:11 indicates the attitude towards the mother is almost equally important.

Turning now to the multiple regression analysis of family characteristics, we picked out seven of the most important features. These seven independent variables simultaneously accounted for 82 per cent of the variances. There are three variables which are significant at the .01 level and one at the .05 level. A stepwise multiple regression analysis of family characteristics (Table 4:13) indicates that the three most significant contributing factors were the father's character in the student's eyes, the degree of closeness to the father and the parents' mental health.

TABLE 4:11

DIFFERENCES BETWEEN DROPOUTS AND NON DROPOUTS

2. FAMILY CHARACTERISTICS

No.	Family Characteristics	Percentage Dropout	Percentage Non-Dropout	Chi ²	Degree of Freedom	Significance
1	Relationship between parents.					
	- getting along	35	87			
	- not getting along	23	5			
	- separated or divorced	27	5	13	25.1	3
	- either or both parents dead	15	3			P < 0.01
2	One or both parents emotionally disturbed or mentally ill	60	18	17.8	2	P < 0.01
3	Closeness to father.					
	- not close	80	15			
	- close to uneducated father	17	28			
	- close to educated father	3	57	85	47.9	3
4	Father's education	56	36	5.0	2	N.S.
5	Father's occupation					
	- classes 3-9	82	55	8.5	2	P < 0.05
6	Seeing the father as emotionally "strong"	10	90	63.4	3	P < 0.01
7	Being close to mother	40	82	25.3	3	P < 0.01
8	Seeing the mother as cold, rejecting or overprotective.	85	15	47.3	3	P < 0.01
9	Mother's education did not complete high school.	59	35	9.2	2	P < 0.05

TABLE 4:11 (cont'd)

No.	Family Characteristics	Percentage Dropout	Percentage Non-Dropout	Chi ²	Degree of Freedom	Significance
10	Mother's occupation - housewife	57	65	5.4	2	N.S.
11	Family income.					
	- above \$10,000/yr.	11	62			
	- \$5,000-\$10,000/yr	64	35	12.2	2	P < 0.01
	- below \$5,000/yr.	25	3			
12	Living with both parents.	54	90	13.9	3	P < 0.01
13	One or more sibling dropout..	43	10	11.9	3	P < 0.01

TABLE 4:12

MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES IN FAMILYCHARACTERISTICS OF DROPOUTS AND NON DROPOUTS

Family Characteristics	B	Beta	STD error of B	OF	Significance.
Parents' relationship to each other,	0.04	0.10	0.04	1.19	N.S.
Parents' mental health-	-0.07	-0.16	0.04	3.51	$P < 0.01$
Current degree of closeness to father or father surrogate	-0.07	-0.24	0.03	4.65	$P < 0.01$
Father's character in student's eyes	-0.21	-0.53	0.05	20.81	$P < 0.01$
Current degree of closeness to mother or mother surrogate	-0.03	-0.10	0.04	0.82	N.S.
Mother's character in student's eyes	-0.02	-0.04	0.05	0.14	N.S.
Family income	-0.10	-0.12	0.07	2.27	$P < 0.05$

R = 0.91

 $R^2 = 82\%$

STD error = 0.23

Degree of freedom = 7/37

F = 24.13

Significance = 0.01

TABLE 4:13

STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES IN
FAMILY CHARACTERISTICS OF DROPOUTS AND NON DROPOUTS

Family Characteristics	B	Beta	STD error of B	F	Significance
Father's character in student's eyes	-0.24	-0.61	0.04	32.02	$P < 0.01$
Current degree of closeness to father or father surrogate	-0.08	-0.25	0.03	5.85	$P < 0.01$
Parent's mental health	-0.07	-0.17	0.03	4.76	$P < 0.01$

$R = 0.89$

$R^2 = 79.7\%$

STD error = 0.24

Degree of freedom = 3/41

F = 53.71

Significance = 0.01

3. Attitude Towards School Administration and Teachers.

Since dropouts always blame their schools for their failure, we have tried to separate the different aspects of schools to see more closely where their problem lies. As Table 4:14 demonstrates, 63 per cent of dropouts started to have difficulty with their teachers in elementary school, (12 per cent in non dropouts). These difficulties rose to 88 per cent in high school, (15 per cent for non dropouts). The same percentage of dropouts have difficulty with school authorities, (non dropouts = 18 per cent). Only 8 per cent of dropouts pay attention in the classroom as compared to 74 per cent of non dropouts. The remaining stated that they were bored, restless, or caused trouble in the classrooms. The most significant factor was a critical attitude towards school administration. Ninety-eight per cent of the dropouts did not feel that they were "handled rightly" whereas only 15 per cent of non dropouts felt this way. Most dropouts seemed to be asking for more control in the sense of more attention, care, and understanding with firmness; others only demanded individual care and affection but no discipline and they believed that they would do well if they got that. Transfer from one high school to another was not as significantly different between the two groups. Forty-one of dropouts changed one or more high schools as compared to 12 per cent of non dropouts.

Multiple regression analysis of attitude towards school (Table 4:15) indicates that 5 independent variables simultan-

ously account for 74 per cent of the variance. Two were significant at the 1 per cent level; attitude towards school administration and difficulty with high school authorities.* Two other factors were significant at the 5 per cent level: difficulty with teachers in elementary school and high school. The attitude in class was not significant.

Stepwise multiple regression analysis of attitude towards school (Table 4:16) reveals that of these 4 independent variables, the most significant contributing factor is attitude towards school administration. Dropouts feel they can neither accept the administration nor adapt to it. Next is their difficulty with the school authorities and with their teachers in elementary and high schools. We could say that their difficulty is more or less with the system, i.e. the way they feel "things are run" rather than with individual teachers or subjects.

4. Attitude towards Education.

We have separated the attitude towards education from the attitude towards school in order to be able to see how much of the dropouts' difficulties are academic and how much they are interpersonal and disciplinary. As Table 4:17 shows, 59 per cent of dropouts failed two or more subjects in high school (non

* Includes principals and vice-principals. The latter, consisting of 2 males and 2 females in each high school, were very important because they were more frequently involved in disciplinary actions.

TABLE 4.14

DIFFERENCES BETWEEN DROPOUTS AND NON DROPOUTS3. ATTITUDE TOWARDS SCHOOL ADMINISTRATION AND TEACHERS

No.	Attitude towards school	Dropouts Percentage N = 50	Non Dropouts Percentage N = 32	Chi Square	Degree of Freedom	Significance
1.	Had difficulties with teachers in elementary school	63	12	25.5	3	$P < 0.01$
2.	Having difficulty with teachers in high school	88	15	56.8	3	$P < 0.01$
3.	Difficulty with high school authorities	88	18	56.9	3	$P < 0.01$
4.	Paying attention in the class	8	74	49.2	3	$P < 0.01$
5.	Not critical of school administration	2*	85	73.0	2	$P < 0.01$
6.	Moving from one or more high schools,	42	12	11.0	3	$P < 0.05$

* 98 Per cent of dropouts felt the way they are handled is wrong. About two-thirds want more discipline and one-third less discipline but both with more understanding.

TABLE 4:15

MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES BETWEEN DROPOUTS' AND
NON DROPOUTS' ATTITUDE TOWARDS SCHOOL ADMINISTRATION AND TEACHERS

Attitude towards school and teachers	B	Beta	STD error of B	F	Signifi- cance
Difficulty with teachers in elementary school	-0.06	-0.12	-0.03	2.99	$P < 0.05$
Difficulty with teachers in high school	-0.08	-0.22	-0.05	2.94	$P < 0.05$
Difficulty with high school authorities	-0.09	-0.24	0.05	3.50	$P < 0.01$
Attitude in class	0.03	0.06	0.04	0.39	N.S.
Attitude towards school administration	-0.26	-0.48	0.04	37.06	$P < 0.01$

R = 0.86

 $R^2 = 74.7$ per cent

STD error = 0.25

Degree of freedom = 5/76

F = 44.92

Significance = 0.01

dropouts = 17 per cent); 45 per cent of dropouts failed once or more in elementary school (non dropouts = 10 per cent); 80 per cent of dropouts but only 15 per cent of non dropouts failed one year or more in their school careers.

The most important factors related to educational attitudes seem to be (1) skipping school regularly (97 per cent of dropouts as compared to 7 per cent of non dropouts), (2) amount of time spent studying per week (3.3 per cent of dropouts study six or more hours per week as compared to 44 per cent of non dropouts;) 31 per cent of dropouts did not study at all as compared with 8 per cent of non dropouts. We found that non dropouts' difficulties were more likely to be with certain subjects: e.g. 28 per cent of non dropouts found some subjects were hard whereas 8 per cent of dropouts felt that way. This supports our next finding that there is no significant difference between the two groups as far as the numbers of subjects they dislike goes. We could conclude, perhaps, that the changing of the curriculum would not go far in alleviating the dropout problem.

Table 4:18 shows that the four independent variables simultaneously account for 79 per cent of the variances. Only two variables are significant and account for the other two, also. These are skipping school regularly and the amount of time spent studying per week (Table 4:19).

TABLE 4:16

STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES BETWEEN DROPOUTS' AND NON
DROPOUTS' ATTITUDE TOWARDS SCHOOL ADMINISTRATION
AND TEACHERS

Attitude towards schooling	B	Beta	STD error of B	F	Signifi- cance
Attitude towards school administration	-0.26	-0.47	0.42	37.73	$P < 0.01$
Difficulty with high school authorities.	-0.08	-0.22	0.04	3.15	$P < 0.05$
Difficulty with teachers in elementary school	-0.05	-0.11	0.03	2.84	$P < 0.05$
Difficulty with teachers in high school	0.07	-0.20	0.04	2.64	$P < 0.05$

R = 0.80

 $R^2 = 74.6$ per cent

STD error = 0.25

Degree of freedom = 4/77

F = 56.50

significance = 0.01

TABLE 4:17

DIFFERENCES BETWEEN DROPOUTS AND NON DROPOUTS

4. ATTITUDE TOWARDS EDUCATION

No.	Attitude towards education	Dropouts Percentage	Non Dropouts Percentage	Chi Square	Degree of freedom	Significance
1.	Two or more subjects failed in high school	59	17	13.5	3	$P < 0.01$
2.	One or more years failed in elementary school	45	10	15.38	3	$P < 0.01$
3.	One or more years failed in elementary and high school	80	12	43.98	3	$P < 0.01$
4.	Skipping school regularly	97	7	80.6	3	$P < 0.01$
5.	Six hours or more study per week	3.3*	44**	27.5	3	$P < 0.01$
6.	Having difficulty only with subjects (not with authorities or teachers as well)	8	28	7.4	2	$P < 0.05$
7.	No. of subjects liked ***		N.S.			N.S.

* 31 percent of these did not study at all

** 8 percent of these did not study at all

*** These subjects were Math, French, History, Geography, English, Sciences, Geometry and Physics.

TABLE 4:18

MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES BETWEEN DROPOUTS AND NON DROPOUTS

ATTITUDE TOWARDS EDUCATION

Attitude towards education	B	Beta	STD error of B	F	Significance
No. of subjects failed	0.01	0.04	0.02	0.42	N.S.
Total No. of years failed	-0.07	-0.10	0.05	1.73	N.S.
Skipping School regularly	-0.12	-0.75	0.01	89.76	$P < 0.01$
No. of hours spent studying per week	-0.09	-0.22	0.03	11.82	$P < 0.01$

R = 0.89

 $R^2 = 79.6$ per cent

STD error = 0.23

Degree of freedom = 4/59

F = 57.74

Significance = 0.01

TABLE 4:19

STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES BETWEEN DROPOUTS! ANDNON DROPOUTS' ATTITUDE TOWARDS EDUCATION

Attitude towards education	B	Beta	STD error of B	F	Significance
Skipping school regularly	-0.13	-0.79	0.01	162.98	$P < 0.01$
No. of hours spent studying per week	-0.10	-0.23	0.03	14.22	$P < 0.01$

 $R = 0.89$ $R^2 = 79$ per cent

STD error = 0.23

Degree of freedom = 2/61

F = 114.80

Significance = 0.01

5. Which factors are most significant?

We have now analysed some 35 features and attitudes of dropouts taken as 4 separate clusters. Let us now examine the global picture to see which of the items from the entire inventory are most important in their relationship to dropping out. Table 4:20 gives the seven most important factors. Taken together these seven account for 88.7 per cent of the variability between dropouts and non dropouts. These factors would be the best and most "economical" predictors of dropping out. In order of significance, they are:

1. Parents' mental health.
2. Attitude towards school administration.
3. Father's character in student's eyes.
4. Skipping school regularly.
5. Frequency of being sick.
6. Difficulties with high school authorities.
7. Closeness to father.

Of these seven factors, three are related to home, two to the school and two to the dropout himself and his education.

In summary we can say on the basis of this analysis that the teenager most likely to drop out of school would be one whose parents (one or both) are emotionally disturbed, and who sees his father as a weak person with whom he has a distant relationship. He is very critical of the school administration and has trouble with school authorities. He is frequently absent from school and is often sick.

TABLE 4:20

STEPWISE MULTIPLE REGRESSION ANALYSIS OF THE DIFFERENCES BETWEEN DROPOUTS ANDNON DROPOUTS

Areas of differences Between dropouts and non dropouts	B	Beta	STD error of B	F	Signifi- cance
Parents' mental health	-0.07	-0.22	0.02	11.94	$P < 0.01$
Attitude towards school administra- tion	-0.18	-0.33	0.055	11.25	$P < 0.01$
Father's character in student's eyes	-0.11	-0.27	0.03	8.41	$P < 0.01$
Skipping school regularly	-0.03	-0.22	0.01	4.57	$P < 0.01$
Frequency of being sick	-0.07	-0.13	0.03	3.54	$P < 0.01$
Difficulty with high school authority	-0.06	-0.18	0.03	2.89	$P < 0.05$
Degree of closeness to father	0.04	0.14	0.02	2.40	$P < 0.05$

R = 0.94

R² = 88.7 per cent

STD error = 0.18

Degrees of freedom = 7/31

F = 35.00

Significance * *

CHAPTER VDROPOUT SYNDROMES

Although the statistical analysis of the characteristics of dropouts is of some help in understanding their gross features, we must now examine individual case histories to obtain a more intricate and richer picture. As stated in the previous chapter, the interview concentrated on social factors and group dynamics rather than on intra-psychic problems, for purposes of classification and comparisons with non dropouts.

A CLASSIFICATION OF DROPOUTS

After examining the data from our interviews with the fifty dropouts and thirty-two controls, we found that they fell naturally into 5 main clusters according to the most important single cause of dropping out.

- | | | |
|---|----|-------|
| 1. Dropouts from homes broken by parental separation | 12 | (24%) |
| 2. Dropouts from homes broken by parental deaths | 7 | (14%) |
| 3. Dropouts with personality disorders and family pathology | 10 | (20%) |
| 4. The "black sheep" dropout | 12 | (24%) |
| 5. Family tradition dropout | 9 | (18%) |

Some further confirmation that such a breakdown is significant was obtained by examination of the personality profiles of the dropouts and controls with Junior - Senior R.S.P.Q. These differences are summarized in Table 5:1.

In interviews with the control group (N = 32) we, of course, found some students who also derived from broken families, pathological families etc. The proportions of these were as follows:

1. Controls from homes broken by parental separation.	2	(6%)
2. Controls from homes broken by parental deaths	1	(3%)
3. Controls with personality disorders and family pathology	3	(10%)
4. The "black sheep" control	0	(0%)
5. Family tradition control	0	(0%)

It is to be noted that 26 (81. per cent) could not be placed in any of these categories and we can say clearly that they derive from relatively "healthy" families.

In the further presentation of these findings, case examples of each of these five dropout syndromes will be given and, where possible, case examples of controls in similar family situations.

1. Dropouts From Homes Disrupted by Parental Separation or Divorce.

Twelve of the dropouts were discovered to come from families where the parents were so incompatible that they had separated or divorced. As Table 5:2 indicates, most of these children were currently living with their mothers, but the important factor was that they reported feeling unwanted and unsupported: in only one of the twelve cases the dropout reported that the

parent he was living with was "loving". The others described them in terms suggesting rejection, punitiveness, "weakness" or over-protective. It must, of course, be remembered that these descriptions are based on the students' reports only.

The mean Langner score on this group of dropouts (8 of the 12 where it was available) is 7 indicating a high level of stress. The mean I.Q. of the 8 that were available was 103.

Let us now turn to an examination of a characteristic sample of this group in detail. The following are four brief case vignettes of dropouts from broken homes followed by vignettes of two other students from broken homes who did not drop out. This comparison will serve to emphasize that separation in itself is not necessarily the decisive factor; equally important is the relationship maintained with the adult who ultimately cares for the child.

TABLE 5:1

MULTIPLE REGRESSION ANALYSIS OF SIGNIFICANT FACTORS OF JR. SR. H.S.P.Q. OF 5

GROUPS OF DROPOUTS IN COMPARISON TO CONTROL GRADUATING GROUP.

Dropouts from homes disrupted by parental separation	Dropouts from homes broken by death of parents	Dropouts with personal disorders &/or family psycho- pathology	The "Black Sheep" dropouts	Family tradi- tion dropouts
H- at 1% Q+ at 5%	C-, J- at 1% E+ at 5%	C- at 1% Q+4 at 5%	G- at 1% O+ at 1%	Q3 at 1%

These factors described by the test:

- H- Shy, withdrawn, slow, restricted interests, careful and threat sensitive.
- Q+2 Self-sufficient, resourceful, prefers own decisions.
- C- Emotional instability, or ego weakness. Emotionally less stable, easily upset, changeable.
- J- Zestful, liking group action.
- E+ Dominance or ascendancy (assertive, aggressive, competitive, stubborn).
- Q+4 High Ergic Tension (tense, frustrated, driven, overwrought, fretful).
- G- Low Superego strength or lack of acceptance of group moral standards (disregards rules, expedient).
- O+ Guilt Proneness (apprehensive, self-reproaching, insecure, worrying, troubled).
- Q3 Low Self Sentiment integration. The individual is essentially untutored, unreflective, emotionally and a narcissistic rejection of cultural demands.

TABLE 5:2

DROPOUTS FROM HOMES BROKEN BY SEPARATION

Case No.	Sex	I.Q.	Langner Score	Father's Personality*	Mother's Personality	Duration of Separation by year	Living Arrangement	Father's Occupation
50	F	-	-	Immature weak	Rejecting	10	7 yrs Foster Home. Subsequently with Mother	Carpet Layer
48	F	-	7	Weak	Rejecting	10	Both parents alternately	Editor of big magazine.
22	M	122	-	Rejecting Alcoholic	Over Protective	5	Mother	Unemployed
38	M	-	12	Punitive	Rejecting	7	Father	Company President
19	F	93	13	Rejecting	Rejecting	15	Mother	Janitor
17	M	-	2	Unknown	Over Protective	19	Mother	Unknown
9	M	97	3	Good	Loving	5	Mother	Dead
24	M	86	-	Rejecting	Over Protective	17	Mother	Truck Driver
7	F	112	9	Over Protective	Rejecting	11	8 yrs with Mother. Subsequently with Father	C.N.R. Worker
46	F	-	-	Never knew	Mentally Ill	No Father	Mother and Hospital and Institutions	Unknown
2	M	106	5	Weak Remarried	Nervous Remarried	14	Grandparents	Unknown
11	F	105	5	Weak	Rejecting	5	Alternating	Unemployed

*Judgment based on the students' descriptions only.

I. VIGNETTES OF DROPOUT GROUP FROM
HOMES BROKEN BY PARENTAL SEPARATION

Case No. 48 (Dropout).
Grade: 11
High Income High School
I.Q.: Unknown
Langner Scale: 7

This 18 year old girl was very unhappy from age 8 when her parents separated after a life of constant conflict. She hated high school, started on heavy drugs at 15, left school for a commune and ended up in jail. Her father, a 40 year old university graduate, whom she describes as a weak person, took her home. Then she moved in with her mother, also a university graduate, whom she describes as emotional and illogical, only to be disappointed again; she disliked her mother very much and returned to her father and went back to school. A brother, 14, a good student and dependable person, lives with the father. A sister, 12, and brother, 8, who is very sensitive, live with the mother.

She sucked her thumb until age 8, and felt that she was an unwanted child. She feels that she doesn't belong to school, and since her parents never really cared about children and she has no attachment, she's been searching for a place where she really belongs, thus joining the hippie movement.

Case No. 9 (Dropout).
Grade: 9
Middle Income High School
I.Q.: 97
Langner Scale: 3

This 17 year old boy was an average student up to grade 5, when he failed after his parents' separation. The father, with elementary school education, to whom he was close, died two years ago and he started skipping school. The mother, also with elementary school education, to whom he now feels close, is planning remarriage. He left school in grade 9 to work. A sister, 18, finished high school and other sisters, 13, 12, 7, and 6 remain in school.

Although he had no childhood anxiety symptoms and seems to be a "healthy dropout", the parents' separation and his failure in grade 5; the father's death and his skipping school; and the mother's remarriage and his dropping out of school are clearly not all coincidences, but rather reaction to three serious rejections.

Case No. 50 (Dropout).
 Grade: 9
 Middle Income High School
 I.Q.: Not done

This 16 year old girl has been extremely nervous from early childhood. Since the parents' separation, she has been in two foster homes from age 6. For the past three years she has been living with her mother to whom she "can't talk". The 41 year old father, a carpet layer, is happy-go-lucky, is affectionate and visited her at the foster homes, but he is not dependable. The extremely moody 33 year old mother does not let the girl get close to her nor does she trust her. Though planning remarriage she never talks about it with her daughter. Brothers, ages 19 and 14 who completed grades 10 and 9 respectively, live with the father. A sister, 17, who completed grade 11, lives with the mother too, and is favoured by her. Another sister 12, has been placed in a foster home but nobody visits her.

As a child she had many nightmares, wet her bed up to age 7, lied very much, and had frequent temper tantrums. She has observed her mother's fainting spells and stomach troubles plus other neurotic symptoms. She always thought that she would avoid such displays but she gets them too. Indeed she had to stop school because of the fainting spells she has had ever since she found out about the mother's remarriage.

Case No. 11 (Dropout).
 Grade: 10
 Middle Income High School
 I.Q.: 105
 Langner Scale: 5

This 17 year old girl had no difficulty until grade 6 when her parents separated, at which time she started skipping school regularly until she finally dropped out. The 50 year old father has some elementary education and is not working. He drinks a lot and takes his daughter along with his girlfriends to night clubs. She likes him very much. The 41 year old mother, with high school education, also drinks a lot. She is fond of her daughter, yet rejects her. The mother has been unhappy and sick very often since the separation. After their divorce the mother had custody of the girl who wanted to live with her father. The mother constantly reproaches her and warns her of getting pregnant. She ran away and returned once, but left again to live with a pregnant girlfriend, after which she is getting to like her father more and more.

A brother, 20, dropped out of school in grade 10 and left home because of his mother, but came back and is now working. Another brother, 19, also dropped out in grade 10 and left home because of his mother, but came back and is working. A brother, 15 is so far doing well in grade 9.

Being very nervous, the subject has headaches often lasting 3 - 6 days, scratches herself, has stomach aches and pains in her chest, cries a lot and has started drinking. Though she wants to return to school, this would involve returning to live with her mother which she cannot face. She has been chronically torn between father and mother. She is confused and unstable.

II. VIGNETTES OF CONTROL GROUP (NON DROPOUTS)
FROM HOMES BROKEN BY PARENTAL SEPARATION

Case No. 61 (Control).
Grade: 11
Middle Income High School
I.Q.: 107
Langner Scale: 2

This 18 year old boy was an average student in grade school. In grade 8 he had negative feelings for school and he started fooling around and avoided studying. But the next year he picked up and has been doing well ever since. His father, a foreman with elementary school education, is a kind-hearted, gentle, and considerate man, with whom he has a good relationship. The father's girlfriend is good to the three boys. His mother, who has fallen in love with someone else, left her husband two years ago.

He feels as close to his mother now as when she was living with them. As a child he bit his nails and wet his bed to age 8. He likes sports, and reading and wants to be a draftsman.

Case No. 53 (Control).
Grade: 11
Middle Income High School
I.Q.: 125
Langner Scale: 0

This 17 year old boy was 6 years old when his parents were divorced. He did well in grade school, and has done well in high school. Like his 19 year old brother, he has difficulty with French, but passed every other subject last year. The mother, with elementary school education works as a book-keeper and looks after the two boys. She is a happy person and the family is very close. The boys get along well with the mother's boyfriend.

The boy does not know much about his father who has remarried; he is never mentioned at home. As a child, he did not have any neurotic symptoms. His interest in school flagged for a short while in grade 9 and he skipped school twice. He now spends 2 hours a week studying and plays hockey a lot.

2. Dropouts from Homes Broken by Parental Death.

In this group the death of one or both parents has had such an adverse effect on the family that it seems to be the main cause of a student's dropping out. Again, as in the case of dropouts from homes broken by separation, the remaining parent has not been able to provide sufficient emotional support for the child to reach his full potential. The average Langner Score of this group is 5. They are less stressed than children from homes broken by separation with Langner Scores of 7. The non dropout case No. 71 is a good example of what a child goes through when a parent dies and how he may cope with the blow, if the other parent is supportive.

I. VIGNETTES OF DROPOUT GROUP

FROM HOMES BROKEN BY PARENTAL DEATH.

Case No. 36 (Dropout).
Grade: 9
Middle Income High School
I.Q.: Not done

This 18 year old boy was doing well up to grade 6 when he started to lose interest in studying and finally left school before entering grade 10. His father died of a brain tumor at the age of 36 when the boy was one year old. The 42 year old mother, a housewife, is emotionally ill. She has a disturbed family background and has suffered from depression from time to time. The boy never lived with her and is presently in an institution. He describes his mother as being extremely bossy and domineering: "a person to whom it is hard to be kind". He has a good relationship with his aunt. He tried returning home to live with the mother but after four months she developed a depression and he returned to the institution. His 22 year old brother also left school in grade 8, joined the U.S. army and went to Viet Nam.

He still bites his nails and was sucking his thumb up to last year. He started telling lies at the age of 9 and felt very much deprived from the beginning. At present he works in a body shop and likes it.

TABLE 5:3

DROPOUTS FROM HOMES BROKEN BY DEATH OF PARENTS

Case No.	Sex	I.Q.	Langner Score	Father	Mother	Student's Age at time of death	Living Arrangement
36	M	-	5	Died	Emotionally ill	1 year	8 years - Foster Home. 9 years - Institution.
47	M	-	6	Very Weak	Died	11 years	With unemployed father for 7 years
3	M	-	5	Died	Mentally ill	3 years	Lived 14 years with disturbed mother
4	F	-	8	Rejecting	Died	6 years	11 years living with father and step-mother
45	M	86	-	Died	Overprotective	16 years	Living 1 year under mother's control
23	M	100	1	Died	Died	8 years (father) 10 years (mother)	In Institution
29	M	103	-	Died	Rejecting	4 years	With mother 13 years

Case No. 23 (Dropout).
 Grade: 9
 High Income High School
 I.Q.: 100
 Langner Scale: 1

This 15 year old boy had school difficulties from the beginning. He barely completed grade 3 when his 60 year old father (a lumber-jack with high school education) died. They had been very close. His mother, whom he describes as a kind, caring and extremely hard-working person, also died, when he was 10. He has no recent news of his 25 year old brother and his 22 year old sister. A 24 year old sister is married and another 20 year old sister is sick. He has no relationship with any of them.

After the death of his father he was frightened of the dark and wet the bed. He lived in a foster home for four years. He had temper tantrums and hated school. He disliked his foster father whom he considered stupid. He didn't accept his foster mother whom he describes as bossy and domineering. He resented her especially because of his feeling that she gave more privileges to other boys. He is now living in an institution. He is an example of the possible effect of parental death on the children's education: the three older brothers and sisters finished high school before the mother's death whereas neither he nor his youngest sister got further than grade 9.

Case No. 47 (Dropout).
 Grade: 11
 Middle Income High School
 I.Q.: Not done
 Langner Scale: 6

This 18 year old boy was doing well in elementary school and in high school up to grade 10 when he started losing interest, falling asleep in classes and skipping school. He finally quit in grade 11. The 49 year old father, with grade 9 education has been unemployed for the past four years claiming medical difficulties. He is a happy-go-lucky man to whom the boy feels close and with whom he gets along satisfactorily. The mother died 7 years ago at the age of 39 from lung cancer, when the boy was in grade 6. Her death was a shock to him and he didn't believe it for a long time. He describes her as "the perfect woman". He was very close to her. A 26 year old brother, an accountant, is married and takes night courses. A 24 year old brother is married, has finished high school and is in computer science. A 23 year old brother is married and working, but is not interested in education. A 15 year old sister is doing well in grade 9.

The boy bit his nails and had nightmares up to age 13 and had temper tantrums up to age 14. The death of the mother and the weakness, sickness and unemployment of the father for 4 years had a great effect on him. The two brothers who spent their formative years in an integrated family have been successful but the two youngest have been unable to cope since the death of the mother who seems to have been the backbone of the family.

Case No: 4 (Dropout).

Grade: 10

Middle Income High School

I.Q.: Not done

This 17 year old girl was a good student in elementary school, but found it difficult to adjust to high school where "class periods changed before she got used to any one teacher".

She describes her 51 year old father, a chauffeur with elementary school education, as being impossible to get along with. He has always fought with his daughters, but the subject is now the only one stuck with him at home. Her mother was killed in a boat accident when the girl was 6 years old. She missed her a lot; she was taken care of by her older sister for 3 years until the father remarried. The step-mother is a 51 year old part-time worker and although she has a little more understanding than the father, the girl has never felt close to her. A 26 year old sister has finished high school and is married. A 22 year old sister didn't finish high school. A 20 year old brother quit in grade 11 because his girlfriend was pregnant. The eldest sister, who finished high school, got along with her father quite well.

As a child, the subject had many nightmares and feared the dark. She reports many aches and pains. She never spent any time studying. She daydreams a lot but has no idea about the future or what she wants to do. She likes an easy life and switches boy friends often. She did well up to the time the step-mother came into the picture at which point she felt double rejection both from her father and her step-mother.

II. VIGNETTE OF A CONTROL GROUP

FROM HOMES BROKEN BY PARENTAL DEATH.

Case No. 71 (Control)
Grade: 11
High Income High School
I.Q.: 115
Langner Scale: 2

This 17 year old girl was an average student in elementary school. Her mother died when she was in grade 4. She passed three hard years, until her father remarried a woman who had three children. She was then in grade 7 and for the first time in high school. She had to find new friends and so she faced difficulties both at home and at school. However, she passed that year. The step-mother, a university graduate, is very sensitive, out-spoken and a good disciplinarian. Her children are good students. Her father, a lawyer, is outgoing and considerate, and she has always had a good relationship with him.

As a child, she sucked her thumb and was frightened of dogs up to age 7. In school, she never had real problems with her teachers.

7 3. Dropouts with Personality Disorders and Family Pathology.

In this group we include dropouts whose main problem seems to lie in their own personality disorder and/or in marked family pathology. The dropout's personality disorder is of the type which makes adaptation to school very difficult. They are non-conformists (either passive or active). They are not able to develop positive cooperative personal relationships. As our case histories indicate, usually one or both parents are emotionally disturbed and the child is involved with them. The average Langner Score of this group is 3.3 they generally do not show signs of anxiety, their behaviour being an accepted part of their personality. They are the most difficult dropouts

to handle.

The control case(No. 74) is an example of how one healthy parent can support and pull a child through high school in spite of such a personality disorder and in spite of psychopathology in the other parent.

TABLE 5:4

DROPOUTS WITH PERSONAL DISORDERS AND/OR FAMILY PSYCHOPATHOLOGY

Case No. No.	Sex	I.Q.	Langner Score	Father's Personality	Mother's Personality	Dropout's Personality
42	M	-	-	Weak	Rejecting	Infantile Dependency
43	F	-	-	Weak	Rejecting Domineering	Hysterical Personality
6	F	97	2	Rejecting	Over- Protective	Symbiotic re- lationship with mother
16	M	95	2	Punitive	Over- protective	Passive- dependent
40	F	98	7	Rejecting	Affectionate	Hysterical char- acter neurosis
5	M	114	1	Retired	Over- protective	Infantile depend- ency immaturity
44	F	69	-	Weak	Emotionally disturbed	Hysterical char- acter personality
26	M	104	-	Weak	Emotionally disturbed	Passive- aggressive
39	F	88	4	Mentally ill hospitalization	Emotionally disturbed	Personality disorder
31	M	108	4	Mentally ill hospitalization	Rejecting Destructive	Character neurosis

I. VIGNETTES OF DROPOUT GROUP

WITH PERSONALITY DISORDERS AND FAMILY PATHOLOGY

Case No. 40 (Dropout).
Grade: 11
Middle Income High School
I.Q.: 98
Langner Scale: 7

This 10 year old girl disliked school from the beginning. In high school she began having difficulties with her teachers. She feels that her 37 year old father, a railway yard man with elementary school education, is too rigid and strict and has ignored her from age 9. The father admits that he hates seeing females getting their own way and has always pushed her to study, telling her she is like his own mother - fat, lazy and useless. Since the age of 11, when she claims he made incestuous approaches, she has avoided him and is scared of him or any man. She said, "I still have nightmares that my father is coming to my room to make love to me". The 36 year old mother, a housewife with elementary school education, is a quiet, sensitive and affectionate woman, but she doesn't feel close to her either. The 11 year old brother, in grade 5, is a very nervous boy.

The subject wet her bed up to age 12. She still bites her nails, has nightmares, is scared of the dark and lies a lot. She daydreams a lot and spends all her time out with her friends. She finds it difficult to get along with males. This girl has been traumatized by the rejection of her father and is still struggling to have him accept and love her for herself rather than for what she can achieve.

Case No. 16 (Dropout).
Grade: 9
Middle Income High School
I.Q.: 95
Langner Scale: 2

This 18 year old boy had a bad start in school when he failed grade 1. However, he finished elementary school without more trouble. His real difficulties began in grade 8. The 50 year old father with high school education and a railway employee is good and fair to him, although they argue a lot, and the boy describes him as a strong-willed and domineering man.

In school, he annoyed his teachers who reacted by suspending him. At home his father was punitive. He describes his

40 year old mother, a housewife with elementary education, as a nagging, argumentative, bossy and stubborn woman. He feels that his mother, afraid to argue with her husband, argues with him. His brother 14, in grade 8 is having the same problems. Brother 9, is in grade 6.

As a child he was overprotected and very much attached to the mother. In school he protected himself by having older friends whose domination he didn't like. In high school he made friends from outside school and started using drugs and eventually hard drugs extensively and regularly. In grade 9 he quit school for one year and spent 3 months travelling across Canada. When he ran out of money, he returned home and went back to grade 9, but he couldn't continue because of complete disagreement with his parents and his teachers. He has tried to work but, unable to accept authority, he always gets fired. Between the punitive father and overprotective, domineering mother, he has developed personality problems that give rise to great difficulty in co-operating with others.

Case No. 42 (Dropout)
Grade: 10
Middle Income High School
I.Q.: Not done
Langner Scale: Not done

This 17 year old boy performed well in school until grade 9, and in grade 10 dropped out. He describes his 46 year old father who is a cook as a proud man who is unable to see his son's point of view. The 45 year old mother is a cleaning lady who is emotional and a worrier. Up to the age of 11 he says he always obeyed his father's orders and studied. At age 14, his father had a severe car accident. He was hospitalized for 3 months and spent a few months in a convalescent hospital. He then stayed home for 2 years and was indeed never able to work afterwards. At the time of the father's accident the son joined the "hippie movement".

The father feels that since he had the accident, "He isn't strong enough to be a father to his son and the son is rebelling". The mother wanted him to do well in school but she never pushed. He wants to do everything himself, but doesn't know how. He says that they always know that he doesn't know what he wants, but they never told him what to do. "If my mother would have pushed me, I would still be in school", since he feels close to her and respects her. Now, he feels, it's too late. The 20 year old sister is a good student at Loyola. She moved out last year. A sister, age 11, is also a good student in grade 5.

While young he had no symptoms and was considered a good

child until 4 years ago when he started to have hippie friends. He has tried hash, grass and last summer took acid regularly 2 - 3 times a week. During intoxication he felt inferior, unsure of himself and had hallucinations. At age 14, he ran away for two weeks when his father was sick. This boy is an example of the important relationship between the father's competence and the performance of the child; the father's accident and disability clearly coincides with the son's schooling difficulties.

Case No. 39 (Dropout).

Grade 9

Middle Income High School

I.Q.: 88

Langner Scale: 4

This 15 year old girl was an average student up to grade 6 when school gradually became difficult for her. In grade 8 she started taking L.S.D., lost interest in school, began getting into trouble and was admitted to the Douglas Hospital. The 41 year old father is a porter with some elementary school education and a history of several admissions to the Allan Memorial Institute and Douglas Hospital. His diagnosis has been "severe character disorder". She describes him as temperamental but likes him "the way he is". The mother, a waitress with some high school education, has been described by the hospital as passive and lenient toward her daughter. The family has been under the care of the Family Service Agency of Montreal. The student describes the mother as "bad and quick tempered", yet feels close to her. She has, however, run away from home several times. A brother 12 and a sister 10 are doing well.

She denies any early childhood symptoms saying she was doing well until she started on drugs. As the parents' fighting increased, she increased drug use, was unable to attend school, joined the hippie movement, used drugs excessively and had several "bad trips". Her own hospital discharge summary describes her as appearing depressed, feeling worthless, having low self-esteem, exhibiting disruptive behaviour and hating the world around her and herself. In the hospital she showed impulsive behaviour and was provocative toward males; she was confined to her room because of having intercourse with another patient. As she herself stated, she resembles her father with his character neurosis, yet she is at times passive and lenient like her mother. The final breakdown of her family has upset her tremendously.

II. VIGNETTES OF CONTROL GROUP

WITH PERSONALITY DISORDERS AND FAMILY PATHOLOGY.

Case No. 74 (Control).
Grade: 11
High Income High School
I.Q.: 124
Langner Scale: 4

This 17 year old girl disliked school from the beginning. She had difficulty at home with her mother and at school with her teachers. She gradually started to like some teachers and then began liking high school and her interest in education grew. Her father, with some college education, works as a photographer. He is liberal-minded, sensitive and has lots of interest in the children, spending much time with them. There is trust and respect between them. The mother has some college education and is outgoing and emotional but is dogmatic and refuses to admit her faults. She has had many physical illnesses. The student has a brother of 9 and a sister of 7.

As a child she was scared of "bloodsuckers" and wet her bed up to age 6. She likes photography, sports, sewing and would like to go to university.

4. The "Black Sheep" Dropout.

This group of dropouts appear to be selected for special negative treatment by one or both parents. In some cases the child is cast in the role of "the stupid one of the family", or the "trouble maker". This selected child seems sometimes to represent some other person from the parents' past for whom there was a special dislike, rivalry or jealousy. In other cases the child may represent some unacceptable facet of the parents' own personalities.

In any case the child finds himself treated differently from the other children for no reason that he can ascertain. He often goes on to fulfill the negative role in which he has been cast. If this role involves "being stupid" or "being a failure in

school", the result may be a dropout. Our case histories tend to indicate that the father may have a special importance in this kind of dropping out. The father's academic values, expectations and ambitions are vital nourishment for the teenager's interest, motivation and school functioning, and his negative expectations seriously influence the student's potential abilities and adaptation.

In our 12 cases, 10 were rejected by their fathers, one had a weak father and one had a mentally ill father. Among their mothers, five were rejecting, five were overprotective, one was detached and one was affectionate. The average Langner Score of this group is 7.5 which is higher even than those from separated families. It seems that the child in such cases is constantly being reminded how worthless he is. (Case nos: 49, 8, 14, 34, 1, 15).

TABLE 5:5

THE "BLACK SHEEP" DROPOUTS

Case No.	Sex	I.Q.	Langner Score	Father's Personality	Mother's Personality	Duration of being a "Black-Sheep"
49	F	84	9	Rejecting	Rejecting	From birth
32	M	129	8	Rejecting	Rejecting	Started in grade 5
8	M	108	16	Rejecting	Affectionate	Started in grade 4
15	F	128	4	Rejecting Weak man	Overprotective, strong	From birth
18	M	106	8	Mentally ill Hospitalization	Overprotective	Early childhood
14	F	113	7	Rejecting	Rejecting	Early adolescence
21	M	96	6	Weak	Overprotective	Early childhood
30	M	92	-	Rejecting	Rejecting	From birth
34	M	104	-	Rejecting	Overprotective	Started in grade 7
35	M	-	8	Rejecting	Rejecting	Since adoption
1	M	117	12	Rejecting	Overprotective	Started in grade 9
37	M	-	-	Cold Rejecting	Detached	Started in grade 11

1. VIGNETTES OF THE BLACK SHEEP DROPOUT GROUP

Case No. 49 (Dropout).

Grade: 11

High Income High School

I.Q.: 84

Langner Scale: 9

This 19 year old girl hated school before she was old enough to go! The 62 year old father, a university graduate, whom she describes as nervous, rigid, unsympathetic, tried to teach her mathematics when she was very young and when she couldn't understand, he used to get angry. The 43 year old mother is close to her only superficially. She had been hoping for another son. The brother, 21, is a postgraduate student, a brilliant scholar and a favourite of the family.

She bit her nails up to age 12 and still sucks her thumb, has nightmares and is afraid of the dark. From early childhood she has had headaches, stomach pains and has been sick very often. She was always compared to her brother and as her efforts to reach his level failed, she started accepting the role of a failure which was assigned to her. She dislikes everything the family likes and does exactly the opposite of what she is told. The mother, (who was also interviewed), dislikes girls due to jealousy of her own four sisters and the father wanted to have a son who would be a scholar. From the daughter's point of view, there was no room for her in her family and so she joined the hippie movement.

Case No. 8 (Dropout).

Grade: 8

Middle Income High School

I.Q.: 108

Langner Scale: 16

The difficulties of this 15 year old boy began in grade 4 when he could not get along with his teachers or with his classmates. His 38 year old father, a service station attendant with elementary school education, is very strict, has a bad temper, never understands him and makes promises that are never fulfilled. He has a negative image of the boy and the boy is afraid of him. The 36 year old mother, a housewife, is affectionate but goes along with the father. A sister, 14, is about to get married. Another sister, 12, and a brother, 9, are doing well in school and a sister, 10, gets poor marks and doesn't get along with her teachers.

This boy was born prematurely and, in his early childhood

had nightmares and was afraid of dogs; he wet his bed up to the age of 15. He lied and stole from both his parents. He feels his father prefers his sisters to him and is ashamed of him. All his parents want from him is that he study and so although he remembers being sick in grade 8 for a while, he never told them. Once, two years ago, he ran away from home with the idea of becoming a priest. He also felt trapped in school and his only way out was daydreaming. This boy, target of his father's negative image, has been longing for affection and love from early childhood and remained frustrated. Crippled by his overwhelming anxieties, he has neither been able to function as a student, nor as an individual.

Case No. 14 (Dropout).
Grade: 11
Middle Income High School
I.Q.: 113
Langner Scale: 7

This 19 year old girl was a good student until grade 8 when fear of her father died away and she gradually lost interest in her schooling. The 57 year old father, an accountant with some high school education, has been "lazy, hypochondrical and unhappy from childhood" and is constantly complaining. She finds him a total disappointment and has not been able to talk to him since age 13. The 50 year old mother, a housewife with some education, is patient and hard working, yet she has never been close to her either. The 20 year old sister has finished high school and has always been considered the "good one" in the family.

As a child she bit her nails and continues to do so; she had fears of snakes, darkness and the unknown. Her fears and anxieties increased a lot at the age of 13 with her frequently being tired and ill in the morning and having no self-confidence. "I started to be afraid of crowds. I was very tense in school and by the time I got home I was exhausted and went to bed right away." She has tried to get involved in social life but unsuccessfully. Her relations with boys have been poor; she tends to search out their faults and "gets tired of them".

Case No. 34 (Dropout).
Grade: 10
High Income High School
I.Q.: 104
Langner Scale: Not done

This 18 year old boy began having difficulties in school.

in grade 7 when he felt he failed while others, no better, were allowed to pass. He failed grade 7 three times and was in grades 8 and 9 two years each. The 52 year old father is a weak, outspoken man who used to beat the boy when the mother not not home until one day he couldn't take it and ran away. He broke into a boys' camp and was taken to court. Although the father stopped beating him after that experience, the boy still felt uncomfortable living at home. He loves his 50 year old, outspoken, tough and domineering mother who, he thinks, treats all the children alike.

One brother, 22, is working and lives at home. Another, 20, is doing very well at Dawson College. A sister, 15, also does not like the father. He feels like an outsider in the family. He even suspects that he is not the son of his father in spite of the mother's reassurance. Although he loves his mother, because of this father he cannot live with the family and has been living away from home for the past year and a half.

Case No. 1 (Dropout).

Grade: 10

Middle Income High School

I.Q.: 117

Langner Scale: 12

This 18 year old boy had no difficulty up to grade 9. In May 1971, he left school for the second time. His troubles started when he detached himself from the family, seeking friendships outside. He started to take drugs and was very much involved with the gang. His girl friend was a settling influence, but she got pregnant which disturbed him very much; he left school and started heavy drugs. He then met another girl through whose encouragement he stopped drugs and went back to school.

The 47 year old father, a train conductor with some high school education, spends most of his time with his friends and generally comes home drunk, belittles the boy and calls him a big disappointment. The 45 year old mother, an accountant, is overprotective, domineering, bossy and a much stronger character than the father. He feels close to her but she considers him a baby in need of protection. A sister, 21, is married and has finished high school as a good student. As a child he had nightmares and was afraid of the dark and spiders. At the age of 12 he stole from his parents and in the past two and one half years, he has been lying and skipping school. He still bites his nails and sucks his thumb. Overprotected by mother and ignored by father, he was functioning rather well until he tried to detach himself, at which point he started to act like his father, de-

pendent on his friends, drugs or girl friend. The collapse of his marginal adjustment occurs whenever any of his emotional supports are absent.

Case No. 15 (Dropout).

Grade: 10

Middle Income High School

T.Q.: 128

Langner Scale: 4

This 16 year old girl was a good student in elementary school but lost interest in grade 9. She started falling asleep in class. The only interests she has are dancing, listening to rock music and going for drives. She stays home and daydreams a lot. The 40 year old father¹, a university graduate and vice-president of a company, favours her, treating her very much like his own father used to treat his brother, the favourite one, who became a nobody; whereas he, who was always ignored and had to look after himself, went to university. The 47 year old mother, an office clerk with some university education, is nervous and often sick, tired and unhappy. The parents have never gotten along: the mother believes the boy is ugly, dislikes sex and could very easily do without it. They fight a lot and the father is usually the loser. The girl believes that the father is only interested in money and feels sorry for her mother. She doesn't want to be what her father wants her to be, i.e. a student. The 21 year old sister, married for a year, has had 2 years of university education and is very sarcastic and bossy, treating her husband, a soft man, the way her mother treats her father.

The girl has been biting her nails all her life and recently she has been more nervous and lies to her parents. She has nightmares, was afraid of the dark and wet her bed up to the age of 10. She is a tomboy. With a weak father and a strong, domineering and cold mother who project their parental difficulties on her (the father sees his brother in her and the mother discharges her hostility to the father on her), she is a good example of the "Black Sheep" phenomenon.

¹ The father was also interviewed.

5. Family Tradition Dropout.

In this category we have placed a group of dropouts who seem to drop out because it is a family tradition. They are all from the Middle Income High School. Their families are intact and they often have a reasonably good relationship with at least one parent. Their mean Langer Scale score is 3.6 which is not significantly different from the mean for the entire middle income population (3.14). We might call them "normal dropouts".

They have the following common characteristics:

1. Almost all the parents are themselves dropouts; of the 18 parents of our 9 cases, only one of the mothers had completed high school.
2. Most of their siblings are also dropouts; of 23 siblings, 21 did not complete high school.
3. Often a double message is given by the parents; although they encourage their children to work hard at school, they accept their poor performance and failure in a very matter-of-fact way as if they expected it. There was almost the feeling in some families that the child would be disloyal to the family if he got through high school. As is demonstrated in Table 5:7, the fathers are all lower level blue-collar workers with whom the dropout identifies.

TABLE 5:6

FAMILY TRADITION DROPOUTS

Case No.	Sex	I.Q.	Langner Score	Father's Education	Mother's Education	Father's Occupation	Siblings' above age 17 education
25	F	76	8	Some elementary	Some elementary	Carpenter	6 dropouts out of 7
41	M	103	3	Elementary	Elementary	Cleaner	3 dropouts out of 3
10	F	-	5	Dropout	Dropout	Cleaner	3 dropouts out of 3
12	M	108	0	Dropout	Dropout	Caretaker	2 dropouts out of 3
13	M	113	2	Elementary	High School	Factory Worker	2 dropouts out of 2
27	M	104	-	Dropout	Elementary	Plumber	1 dropout out of 1
28	M	92	-	Dropout	Dropout	Cleaner	3 dropouts out of 3
33	F	-	-	Dropout	Dropout	Foreman	1 dropout out of 1
20	M	97	-	Elementary	Dropout	Worker at C.P.R.	-

I. VIGNETTES OF THE FAMILY TRADITION DROPOUT GROUP

Case No. 25 (Dropout).
Grade: 8
Middle Income High School
I.Q.: 76
Langner Scale: Not done

This 17 year old girl was an average student and did well up to grade 5. She quit school after 3 years in grade 8. She describes her 61 year old father, a carpenter with some elementary education, as a very good man who is active and does not lose his temper. The 52 year old mother, with some elementary education, who sews part-time, is a domineering, unaffectionate woman. The parents get along with each other, but she is afraid of both of them. The 33 year old sister left home at 15, finished high school after leaving home and is married and has one child. Sisters 31 and 27 both left school after grade 8 and are married. Brothers 29, 27, 21 and 19 left school at grades 7, 8, 8 and 9. A sister 15 and brothers 13 and 10 are still in school.

She is a nail biter. She had many bad dreams and wet her bed up to age 10. She has no friends and is extremely tense with people, feels shy and inferior and her only interest is in cooking. She is hard-working and has a job in a restaurant. In this family, there are obviously many elements to cause 6 out of 7 children to dropout of high school and in her case, the main reason is her limited intelligence.

Case No. 13 (Dropout).
Grade: 10
Middle Income High School
I.Q.: 113
Langner Scale: 2

This 18 year old boy was a very good student, got a scholarship in grade 6 and was actively enjoying school up to grade 8. In grade 9 he started doing badly in school and had many troubles with the administration. He blamed everything on the crowd he was associating with and finally left school in grade 10. Aware of being extremely dependent, he finds it hard to be otherwise. The 51 year old father has an elementary school education and is a very sensitive hard working man who believes his son would get into trouble all the time. The 49 year old mother is a housewife with high school education and is described as being very emotional and dull. Sisters 28 and 26 dropped out of school in grades 9 and 7 and are both married.

As a little boy he was spoiled and overprotected by his mother, bit his nails and was afraid of the dark; stayed by himself but never felt sure of himself. Being dependent, he did well until his dependency was switched to his hippie friends, after which he became increasingly involved with clubs, friends, dances and drugs, or daydreams. Being brought up overprotected by the mother and having no involvement with the father, he searched outside the home for support.

Case No. 10 (Dropout).
Grade: 8
Middle Income High School
I.Q.: Not done
Langner Scale: 5

This 17 year old girl was a rather good student up to grade 7, although she failed grade 4. Then, in high school when she was more or less left on her own, with her teachers not telling her directly what to do, she had a hard time and finally dropped out. The 49 year old father is a cleaner with some high school education. The girl finds him understanding and likes him. She is also very close to her mother, a 46 year old woman with some high school education. Her brother, 24, quit school in grade 10 and is now working. The 19 year old sister also left school in grade 10 and is married. Another sister, 17, left school in grade 9. The 16 year old brother and 12 year old sister are still in school.

This girl lost interest in studying when she ran into difficulties in high school. As a child she didn't have any anxiety symptoms except lying at an early age. The fact that both parents were dropouts and especially identification with her father has been the main factor in her dropping out.

Case No. 28 (Dropout).
Grade: 9
Middle Income High School
I.Q.: 92
Langner Scale: Not done

This 17 year old boy was an average student in grade school and liked his teachers. In grade 8 he did badly and he believes that it was because he associated with the wrong crowd. He started hating authority and having difficulties with his teachers. In grade 9 he was put in practical courses, did not like the teachers and was finally kicked out of school. He got a job as a messenger

boy but was fired a month later. The 54 year old father, a cleaner, is a tough, strict and overpowering man who does not communicate with any member of his family. The boy is afraid of him, yet respects him and feels close to him when they go fishing and hunting. He is also close to his 44 year old mother, a housewife, who he considers a nice lady. She has cancer and had an operation this year. The 20 year old sister went up to grade 10, got pregnant and left school. She now lives at home with her baby and works as a waitress. She dislikes the father. The 18 year old sister went up to grade 9 and now works in a factory. She gets along a little bit better with the father. The 15 year old brother has quit school, grade 8, and is in boys' farm.

He has been heavily involved with drugs and in stealing. He dislikes the father very much. The boy has no neurotic symptoms. He wasn't pushed to study and has no self-confidence. He would like to be a hockey player and spends lots of his time daydreaming.

1

CHAPTER VIDISCUSSION

Before discussing the findings, a word or two should be said about some of the shortcomings of our methodology. Clearly the major deficiency of the research lies in the fact that all the interviewing was conducted by one person who was also aware that the student before him was a dropout or a control. The potential for reading the biases of the interviewer into the interview was therefore ever present, particularly in areas calling for subjective judgements such as "students image of his father" and "relationships with peer groups" and so forth. A better method would have been to have assigned the dropouts and controls to independent interviewers, or, to have had each student interviewed by a pair of independent interviewers so that inter-rater reliability could have been assessed. Two factors prohibited such refinements in design, the first was economic; the research was carried out without external funds. The second was the nature of the subjects; it was difficult enough to obtain one interview with these often disgruntled dropouts let alone arrange a second with a different interviewer!

Bearing these limitations in mind, a number of points call for discussion. In our early thinking about the problem of dropping out, we predicted that we would find a good number of healthy students of good intelligence who were leaving school because they found it stultifying; who were in fact making a rat-

ional judgment about what was best for themselves and were leaving from a position of strength rather than weakness. We failed to find such students. As our research unfolded it became increasingly clear that dropping out was a symptom of disturbance, the locus of which was primarily in the family. We found that there was a continuous spectrum of dropouts with relatively healthy students who drop out on the basis of family tradition at one extreme and at the other, students with serious personality disorders. Both had adapted to life with minimal subjective distress. Ranged between these were those with higher levels of subjective anguish and disability and who are probably more open to therapeutic intervention.

As compared with the control group, many more of the dropouts derived from broken or disturbed families. In the few controls who suffered similar family problems, the important saving feature seemed to be that there was one parent or guardian who was very positively regarded by the student. This was so in almost all cases. Occasionally, the factor that held the student in school was a special friend or teacher who tipped the balance in spite of familial difficulties. It was clear that most students were working for someone they esteemed and wanted to please. It should also be pointed out that not all of the controls were in good mental health or without family problems. In fact, 10 per cent of the controls were placed in the category "personality disorder and family pathology". It should of course be noted

that over-achievement may be as much a symptom of psychiatric disturbance as under-achievement or dropping out.

Another potentially useful point emerged from this research. Although the Demo Scale failed as a satisfactory predictor of dropouts, there are a number of other indicators that would probably have proved more valid. Teachers can often pick out the potential dropouts on the basis of declining interest in the classroom, failure to do homework and most significantly, increasing absenteeism. These tokens of flagging interest could readily serve as the basis for referral for student or family counselling and a dropout prevention programme.

To our knowledge, no dropout prevention programmes based on such an early detection system have been developed. Such few programmes as there are have tried to work with the dropout after he has finally given up and withdrawn from the system. One such programme is that developed in the province of New Brunswick and commenced in 1961 (9), under the auspices of the Youth Division of the Department of Youth and Welfare. They asked the principals of high schools throughout the province to report the names of dropouts to their head office. After indexing, a Youth Service representative in the local district visited the school principal, teacher or student counsellor and tried to interview the dropout - often a very difficult task. The primary focus of the programme was statistical, but they were also concerned with reasons for

dropping out and possible remedies. From a rehabilitative perspective, they attempted to have as many dropouts as possible discuss their problems with guidance counsellors.

Our research voices broader issues concerning the general question of school mental health. How best can disturbed children and potential dropouts in our high schools be handled? There remains considerable debate on the matter. There are advocates for the management of such children within the standard school system through counselling, psychiatric consultation with teachers and psychiatric treatment of selected students. Schonfeld (27) feels that students with difficulties should be spread throughout the system and not concentrated in special classes or schools since such segregation results in feelings of alienation and "being different".

But there are equally strong advocates for the need of special classes or schools - even residential schools - as pioneered by Aichorn (21), Redl and Bettelheim (15). They believe that consultation and treatment is not sufficient and that disturbed children do best in small specialized classrooms within therapeutic milieus under the guidance of specially trained educators.

There has indeed been very little in the way of evaluative research on the two approaches. Balow (21) after an extensive review of the literature on such programmes, concluded that "the majority of publications have been in prescriptions; subjective

descriptions and clinical studies". Vacc (30) in the latest study on this question found that emotionally disturbed children in their regular classes achieve less well on the wide-range achievement test and behaviour rating scale than do emotionally disturbed children in special classes. Further, he found that emotionally disturbed children in regular classes were less well accepted than normal children. His data seems to support and justify the need for additional classes. Clearly, much more research should be conducted on this vital question.

One of the more interesting findings of our present study was the use of private schools to prevent dropping out by the higher income families. How effective are these private schools in holding students in the educational system? This is not known and warrants investigation. Our study suggests that the cause of dropping out lies much more in the family than in the school. The important question remains however - how can the contemporary high school best provide aid to potential dropouts?

CHAPTER VII

SUMMARY

Our prime objective in this study was to determine whether there are any differences between high school dropouts and graduates, and if so, in which areas and due to what causes. Our findings may be summarized as follows.

- I. In the Middle Income School, of 1027 students, 145 dropped out (14.1%) in one year, while 282 students graduated (27.5%) which represents one dropout for every two graduates. In the High Income School of 1038 students, 54 dropped out (5.2%) in one year, while 231 students graduated (22.3%) representing one dropout for every four graduates. In this latter school, also, 48 students (4.6%) were transferred to private schools (with or without boarding facilities) because of school or family difficulties.
- II. The Demos Dropout Scale (the only instrument we were able to discover which purports to predict dropping out) was used on the total population of both high schools. It was found to be invalid: (a) the High Income School population with a lower dropout rate had significantly higher scores (more likely to drop out) on some of the Demos subscales; (b) when a cut-off point of 70 is used to indicate a high probability of dropping out (as recommended by the scale designer), we found that a higher number of students were

selected for dropping out in the High Income School (which was the reverse of what actually occurred); (c) when the Demos Scale scores of the actual dropouts (N = 101) was compared with the sample of graduates (N = 32) there were no significant differences. This was true for total scores, subscale scores and individual question scores.

III. Using the Langner Scale as a measure of psychosocial stress, the middle income students (N = 1027) registered a significantly higher score ($p < .01$) than the high income students (N = 1038). The mean scores were 3.14 and 2.77 respectively. There was also a significant difference between the stress levels of the dropouts (N = 101; Langner mean score 4.46) and non-dropouts (N = 32; Langner score 2.88) at the .05 level (t - test). We also found differences in stress levels among dropouts according to degrees of social competence. Those who were working scored 3.1; those who were not working 4.3; and those who were disturbed and unable to work, 5. Dropouts in institutions from low income broken families had a mean Langner score of 3.4 (N = 15), and students from the High Income High School (N = 48) who were transferred to Private Schools because of school difficulties had a mean Langner score of 3.7.

- IV. Comparing the personality of dropouts with non-dropouts using the Junior - Senior High School Personality Questionnaire of I.P.A.T. we found that dropouts as a group, score within the normal range but in comparison with non-dropouts they are generally far less emotionally stable. They are more reserved, with less ego strength, tense, careless, sensitive and demanding according to this test.
- V. To determine the most significant factors in dropping out of high school, the interviewed dropout samples were combined (high and middle income schools, $N = 50$) and compared with the non-dropouts ($N = 32$) using t-test, chi-square and multiple and stepwise regression analysis techniques. Forty-two factors were divided into four categories, (1) personal characteristics, (2) family attitude, (3) school attitudes and (4) attitudes towards education.

(1) Personal Characteristics

Boys dropped out more often than girls in the ratio of 2 to 1. The most important factors proved to be (a) childhood anxiety symptoms (b) often being sick (c) having no plan for the future (d) being either isolated or excessively clinging to peers.

Other significant factors were: dropouts were less self-confident, day-dreamed more, used drugs more and caused more social problems.

I.Q. level seemed to be an unimportant factor.

(2) Family Characteristics

The most significant factors were (a) attitude towards the father (dropouts tended to see their fathers as weak and distant), (b) parents of dropouts were often incompatible with each other or emotionally disturbed.

Less significant factors included (a) having dropout siblings, (b) cold, rejecting or overprotective mothers.

Factors that proved not significant included educational level and occupation of father and mother.

(3) Attitude towards School

The most significant factor proved to involve negative attitudes towards the school administration. Less significant attitudes were those towards elementary and high school teachers and other authorities. Attitudes in class and number of school transfers proved not significant.

(4) Attitude towards Education

Skipping school and number of hours spent studying proved to be the most significant factors here. Less significant were repeating the grade or a number of subjects. Liking or disliking specific subjects in the curriculum was not significant.

Of all 42 factors studied, 7 stand out as most important in the following order:

1. Parents' mental health
2. Attitude towards school administration

3. Father's character in student's eyes
4. Skipping school regularly
5. Frequency of being sick
6. Difficulty with high school authority.
7. Degree of closeness to father

VI. In addition to the statistical comparisons of dropouts and controls described above, a clinical approach was used to divide the dropouts into clusters according to the most important reason for dropping out. There proved to be five such clusters.

1). Dropouts from Homes Broken by Parental Separation

Twenty-four per cent of our dropouts were from families with a long history of parental conflict. Parents were either separated or divorced and the student was living with one of the parents or in a foster home or an institution. These dropouts were highly stressed with a mean Langner score of 7.

2). Dropouts from Homes Broken by Parental Death

For fourteen per cent of the dropouts, one or both parents had died and they lived with a parent or guardian who was not able to provide sufficient emotional support. Only 1 of the 32 controls had lost a parent by death.

The mean Langner score of these dropouts was 5 as compared with the score of 7 registered by the group from separated parents.

3). Dropouts with Personality Disorder and Family Pathology

These were the most difficult dropouts and constituted 20 per cent of the sample. They suffer a variety of personality or character disorders which interfere with their adaptability to the school system. One or both parents are emotionally disturbed. As a group they showed the least amount of stress with a mean Langner score of 3. Although very few of the dropouts had been engaged in anti-social behaviour (16 per cent), those that were, came most often from this subgroup.

4). The "Black Sheep" Dropouts

This was a group of 12 (24 per cent) dropouts who were treated differently than their siblings. They were either rejected, overprotected or especially belittled by one or both parents. They had a mean Langner score of 7.5.

5). Family Tradition Dropouts

These dropouts (18 per cent) come from low income families which are often close-knit and which do not value higher education. Both parents were themselves dropouts as were almost all the siblings (20 out of 23 in our 9 cases) They were much less stressed than the above groups with a mean Langner score of 3.3. Their mean I.Q. was 99 as compared with the mean I.Q. of 113 of the graduating controls and 101 for the total dropout group.

APPENDIX A

QUANTIFICATION OF DATA

FROM SEMI-STRUCTURED INTERVIEWS

In order to handle the information derived from the semi-structured interviews (from both dropouts and controls), the following categories were devised. Each category was assigned a numerical score for punches on computer cards as indicated.

1. Personal Characteristics

a. No. of childhood anxiety symptoms:

0 = no symptoms

1 = 1

2 = 2

" " "

9 = no information

b. Frequency of being sick:

0 = very little

1 = some

2 = very much

9 = no information

c. Self-confidence:

0 = very much

1 = some

2 = very little

9 = no information

d. Day-dreaming:

- 0 = not much
- 1 = yes a lot
- 9 = no information

e. Degree of involvement with friends:

- 0 = a few close friends
- 1 = constantly with friends
- 2 = no close friends
- 9 = no information

f. Future plans:

- 0 = definite plan
- 1 = some ideas
- 2 = no ideas
- 3 = unrealistic plans
- 9 = no information

g. I.Q. category:

- 0 = above average (111 and above)
- 1 = high normal (101-110)
- 2 = low normal (91-100)
- 3 = below average (90 and below)
- 9 = no information

h. Sex:

- 0 = Female
- 1 = Male

2. Characteristics of the Family

a. Parents' relationship to each other:

- 0 = get along together
- 1 = 'don't get along
- 2 = separated
- 3 = divorced
- 4 = either or both parents is dead
- 9 = no information

b. Parents' mental health:

- 0 = both healthy
- 1 = mother emotionally disturbed
- 2 = father " "
- 3 = both " "
- 4 = mother mentally ill
- 5 = father " "
- 6 = both " "

c. Current degree of closeness to father (or father-surrogate):

- 0 = very close to educated father
- 1 = " " " uneducated "
- 2 = not involved with father
- 3 = distant since early puberty
- 4 = hated father since beginning
- 9 = no information or no father

d. Father's character in student's eyes:

- 0 = strong
- 1 = weak
- 2 = punitive
- 3 = rejecting
- 4 = no information

e. Current degree of closeness to mother (or mother surrogate):

- 0 = very close to educated mother
- 1 = " " " uneducated "
- 2 = not involved with mother
- 3 = distant since early puberty
- 4 = hated mother since beginning
- 9 = no information or no mother

f. Mother's character in student's eyes:

- 0 = loving
- 1 = cold, unaffectionate
- 2 = overprotective
- 3 = rejecting
- 9 = no information or no mother

g. Family income:

- 0 = above, \$10,000/yr.
- 1 = between \$5,000 - \$10,000/yr.
- 2 = under \$5,000/yr.
- 9 = no information

3. Attitude towards School Administration and Teachers:

a. Difficulty with teachers in elementary school:

- 0 = no difficulty
- 1 = very little difficulties
- 2 = many difficulties
- 3 = hated teachers

b. Difficulty with teachers in high school:

- 0 = no difficulty
- 1 = very little difficulties
- 2 = some difficulties
- 3 = hated teachers

c. Difficulty with high school authorities:

- 0 = no difficulty
- 1 = very little difficulties
- 2 = some difficulties
- 3 = hated authorities

d. Attitude in class:

- 0 = paid attention
- 1 = bored
- 2 = restless
- 3 = causing trouble
- 9 = no information

e. Attitude towards school:

- 0 = no difficulty
- 1 = asking for less control
- 2 = " " more "
- 9 = no information

4. Attitude towards Education:

a. No. of subjects failed:

0 = no subject failed

1 = 1 " "

2 = 2 " "

" 3 or more " "

9 = no information

b. Total no. of years failed:

0 = no year failed

1 = 1 " "

2 = 2 " "

c. Grade started skipping school:

0 = no skipping

1 = in grade 1, 2, 3 or 4

2 = in grade 5

3 = in grade 6

8 = in grade 11

9 = no information

d. No. of hours spent studying per week:

0 = 16 hrs. and up

1 = 11 - 15 hrs.

2 = 6 - 10 hrs.

3 = 1 - 5 hrs.

4 = no studying

APPENDIX B

TABLES DEMONSTRATING DIFFERENCES BETWEEN DROPOUTS AND CONTROLSDATA DERIVED FROM SEMI-STRUCTURED INTERVIEWSI. PERSONAL CHARACTERISTICS:

Number of early childhood anxiety symptoms	Percentage	
	Non Dropouts	Dropouts
0	10	6
1-2	20	6
3-4	8	22
5 and more	1	27
Chi ²	36.123	
NDF	3	
P	<.001	

Frequency of being sick	Percentage	
	Non Dropouts	Dropouts
Very little	28	13
Some	6	6
Very much	6	41
Chi ²	28.700	
NDF	2	
P	<.001	

Self-Confidence	Percentage	
	Non Dropouts	Dropouts
Very little	4	35
Some	4	4
Very much	32	21
Chi ²	23.879	
NDF	2	
P	<.001	

Day-Dreaming	Percentage	
	Non Dropouts	Dropouts
Not much	32	19
A lot	9	40
Chi ²		18.552
NDF		1
P.		<.001

Degree of involvement with friends	Percentage	
	Non Dropouts	Dropouts
A few close friends	33	4
No close friends	2	18
Constantly with friends	4	39
Chi ²		62.188
NDF		2
P		<.001

I.Q. SCORE OF DROPOUTS AND NON DROPOUTS

Score	No. of Non Dropouts vs Dropouts	Mean	Standard Deviation	Degrees of Freedom	T Value	Signifi- cance
	29	113.4483	11.513			
I.Q.				62	3.86	P <.001
	35	101.4286	13.031			

I.O. Category

	Percentage	
	Non Dropouts	Dropouts
90 and below	2	9
91 - 100	3	16
101- 110	8	17
111 and above	23	12
Chi ²		25.915
NDF		3
P		<.001

Drug Involvement*

	Percentage	
	Non Dropouts	Dropouts
No drugs	26	20
Only a few times	13	25
More or less regularly	1	15
Chi ²		13.356
NDF		2
P		<.01

* Includes Cannabis, Amphetamines, Barbiturates and Hallucinogens.

Hallucinogens and Amphetamine Use

	Percentage	
	Non Dropouts	Dropouts
Non	39	44
A few times	1	4
Regularly	1	11
Chi ²		7.435
NDF		2
P		<.05

Students Social Problem

	Percentage	
	Non Dropouts	Dropouts
None	36	3
Isolated, mostly stays at home	2	31
Has run away from home	1*	10
Serious problems, drugs, police record, delinquency, pregnancy	1*	16
Chi ²	72.924	
NDF	3	
P	<.001	

Student's Future Plan

	Percentage	
	Non Dropouts	Dropouts
Definite plan	23	8
Some ideas	9	6
No ideas	7	38
Unrealistic plan	1*	8
Chi ²	31.935	
NDF	3	
P	<.001	

*There was no one in this category, therefore 1 was given for statistical analysis.

II. FAMILY CHARACTERISTICS

Parents' relationship to each other	Percentage	
	Non Dropouts	Dropouts
Get along	33	22
Don't get along	2	14
Separated or divorced	2	17
Either or both parents is dead	1	9
Chi ²	25.130	
NDF	3	
P	<.001	

Parent's mental health	Percentage	
	Non Dropouts	Dropouts
Both healthy	33	24
Either or both parents emotionally disturbed	6	33
Either parent mentally ill	1	3
Chi ²	17.826	
NDF	2	
P	<.001	

Current degree of closeness to father or father surrogate	Percentage	
	Non Dropouts	Dropouts
No information or no father	1	5
Very close to educated father (high school graduate)	22	2
Very close to uneducated father (high school dropout)	11	10
Not involved or distant since puberty or hating from beginning	5	44
Chi ²	47.900	
NDF	3	
P	<.001	

Father's education	Percentage	
	Non Dropouts	Dropouts
Elementary school or high school dropout	9	42
Finished high school	6	19
College and above	10	14
Chi ²	5.039	
NDF	2	
P	Not significant	

Father's occupation	Percentage	
	Non Dropouts	Dropouts
Classes 1 - 2	13	13
Classes 3 - 5	13	39
Classes 6 - 9	3	19
Chi ²	8.495	
NDF	2	
P	<.05	

Father's character in student's eyes	Percentage	
	Non Dropouts	Dropouts
No father	1	5
Strong	35	6
Weak	2	17
Punitive or rejecting	1	33
Chi ²	63.365	
NDF	3	
P	<.001	

Current degree of closeness to mother or mother surrogate	Percentage	
	Non Dropouts	Dropouts
No information or no mother	1	2
Very close to educated mother (high school graduate)	20	6
Very close to uneducated mother (high school dropout)	13	18
Not involved or distant since early puberty or hated from beginning	6	34
Chi ²		25.290
NDF		3
P		<.001

Mother's character in student's eyes	Percentage	
	Non Dropouts	Dropouts
No information or no mother	1	1
Loving	33	9
Cold and unaffectionate or rejecting	1	27
Overprotective	5	23
Chi ²		47.32
NDF		3
P		<.001

Mother's education	Percentage	
	Non Dropouts	Dropouts
Elementary school or high school dropout	9	44
Finished high school	7	21
College and above	10	9
Chi ²		9.259
NDF		2
P		<.05

Mother's occupation	Percentage	
	Non Dropouts	Dropouts
Housewife	17	42
Part-time work	6	8
Full-time work	3	24
Chi ²	5.421	
NDF	2	
P	Not significant	

Family income	Percentage	
	Non Dropouts	Dropouts
Above \$10,000 per year	18	18
\$5,000 - \$10,000 per year	10	45
Below \$5,000 per year	1*	8
Chi ²	12.236	
NDF	2	
P	<.01	

Living with	Percentage	
	Non Dropouts	Dropouts
Both parents	35	33
One parent or grandparents	2	15
One step-parent	1	5
Institution, foster home or community	1	8
Chi ²	13.946	
NDF	3	
P	<.01	

* There was no one in this category, therefore 1 was given for statistical analysis.

Number of siblings dropped out of high school	Percentage	
	Non Dropouts	Dropouts
0	35	35
1	2	14
2	1*	7
3	1*	5
Chi ²		11.903
NDF		3
P		<.01

III. SCHOOL ADMINISTRATION AND TEACHERS

Difficulty with teachers in elementary school	Percentage	
	Non Dropouts	Dropouts
None	35	22
Very little	3	17
Some	1	13
Hated teachers	1	8
Chi ²		25.516
NDF		3
P		<.001

Difficulty with teachers in high school	Percentage	
	Non Dropouts	Dropouts
None	33	7
Very little	2	5
Some	3	7
Hated teachers	1	42
Chi ²		56.787
NDF		3
P		<.001

* There was no one in this category, therefore 1 was given for 0 statistical analysis.

Difficulty with high school authorities and causing problems	Percentage	
	Non Dropouts	Dropouts
None	33	7
Very little	5	6
Some	1	7
Hated authorities.	1*	40
Chi ²	56.863	
NDF	3	
P	<.001	

Attitude in the class	Percentage	
	Non Dropouts	Dropouts
Paid attention	29	5
Bored	8	23
Restless	1*	17
Causing trouble	1*	16
Chi ²	49.198	
NDF	3	
P	<.001	

Attitude toward school	Percentage	
	Non Dropouts	Dropouts
Asking for more control	4	43
Asking for less control	2	17
No difficulty	33	1
Chi ²	73.015	
NDF	2	
P.	<.001	

* There was no one in this category, therefore 1 was given for statistical analysis

Number of schools changed	Percentage	
	Non Dropouts	Dropouts
None	23	39
One	1*	23
Two	1*	4
Three or more	1*	8
Chi ²	11.045	
NDF	3	
P	<.05	

Number of subjects failed	Percentage	
	Non Dropouts	Dropouts
None	14	23
One	6	8
Two	2	16
Three or more	2	29
Chi ²	13.487	
NDF	3	
P	<.01	

Number of years failed in elementary school	Percentage	
	Non Dropouts	Dropouts
None	36	33
One	2	23
Two	1*	3
Three or more	1*	1
Chi ²	15.38	
NDF	3	
P	<.01	

* There was no one in this category, therefore 1 was given for statistical analysis.

Total number of years failed	Percentage	
	Non Dropouts	Dropouts
None	35	12
One	3	31
Two	1*	11
Three or more	1*	6
Chi ²		43.978
NDF		3
P		<.001

Grade started skipping school	Percentage	
	Non Dropouts	Dropouts
No skipping	37	2
Elementary school skipping	1*	6
Grades 7 - 9	1*	40
Grades 10-11	1*	12
Chi ²		80.611
NDF		3
P		<.001

Number of hours spent studying in a week	Percentage	
	Non Dropouts	Dropouts
No studying	3	19
1 - 5 hours	19	40
6 -10 hours	10	1
11 hours and more	7	1
Chi ²		27.464
NDF		3
P		<.001

* There was no one in this category, therefore 1 was given for statistical analysis.

Difficulty only with subjects	Percentage	
	Non Dropouts	Dropouts
No	28	56
Yes	11	5
Chi ²		5.676
NDF		1
P		<.05

Number of subjects disliked	Percentage	
	Non Dropouts	Dropouts
None	8	13
One	15	10
Two	11	23
Three or more	5	15
Chi ²		6.921
NDF		3
P		No significant

APPENDIX C - THE LANGNER SCALE

1. Are you the worrying type?

No	0
Yes	1
Other (specify)	X

2. Have you ever been bothered by shortness of breath when you were not exercising or working hard? Would you say

Often	1
Sometimes	2
Never	3
Other (specify)	X

3. Do you have periods of such great restlessness that you cannot sit still very long?

No	0
Yes	1
Other (specify)	X

4. Would you say your appetite is poor, good or too good?

Poor	1
Fair	2
Good	3
Too Good	4
Other (specify)	X

5. Do you once in a while suddenly feel hot all over?

No	0
Yes	1
Other (specify)	X

6. Have you ever been bothered by your heart beating hard? Would you say

Often	1
Sometimes	2
Never	3
Other (specify)	X

7. In general, would you say that most of the time you are in very good spirits, good spirits, low spirits or very low spirits?

Very good	1
Good	2
Low	3
Very low	4
Other (specify)	X

8. Do you feel weak all over much of the time?

No 0
Yes 1
Other (specify) X

9. Do you have periods of days, weeks or months when you cannot take care of things because you cannot get going?

No 0
Yes 1
Other (specify) X

10. Are you ever bothered by nervousness (irritability, tension)?
Would you say

Often 1
Sometimes 2
Never 3
Other (specify) X

11. Have you ever had any fainting spells (lost consciousness)?
Would you say

Never 0
A few times 1
More than a few times 2
Other (specify) X

12. Do you ever have trouble in getting to sleep or staying asleep?
Would you say

Often 1
Sometimes 2
Never 3
Other (specify) X

13. Are you bothered by acid (sour) stomach several times a week?

No 0
Yes 1
Other X

14. Does your memory seem to be all right (good)?

No 0
Yes 1
Other (specify) X

15. Have you ever been bothered by "cold sweats"? Would you say

Often 1
Sometimes 2
Never 3
Other (specify) X

16. Do your hands ever tremble enough to bother you? Would you say

Often	1
Sometimes	2
Never	3
Other (specify)	X

17. Do you seem to have fullness (clogging) in your head or nose much of the time?

No	0
Yes	1
Other (specify)	X

18. Do you have worries that get you down physically (make you physically ill)?

No	0
Yes	1
Other (specify)	X

19. Do you feel somewhat apart even among friends (isolated, alone)?

No	0
Yes	1
Other (specify)	X

20. Do you have the feeling that things always turn out wrong for you?

No	0
Yes	1
Other (specify)	X

21. Are you ever troubled with pains in the head or headaches? Would you say

Often	1
Sometimes	2
Never	3
Other (specify)	X

22. Do you sometimes feel that nothing is worthwhile any more?

No	0
Yes	1
Other (specify)	X

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