


**INSTITUTE
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Emphasis on Adolescents and Young Adults

AN EPIDEMIOLOGICAL STUDY OF LEARNING
DISABLED ADOLESCENTS IN SECONDARY SCHOOLS:
THE RELATIONSHIP OF FAMILY FACTORS TO
THE CONDITION OF LEARNING DISABILITIES

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Cooperating Agencies

Were it not for the cooperation of many agencies in the public and private sector, the research efforts of The University of Kansas Institute for Research in Learning Disabilities could not be conducted. The Institute has maintained an on-going dialogue with participating school districts and agencies to give focus to the research questions and issues that we address as an Institute. We see this dialogue as a means of reducing the gap between research and practice. This communication also allows us to design procedures that: (a) protect the LD adolescent or young adult, (b) disrupt the on-going program as little as possible, and (c) provide appropriate research data.

The majority of our research to this time has been conducted in public school settings in both Kansas and Missouri. School districts in Kansas which are participating in various studies include: United School District (USD) 384, Blue Valley; USD 500, Kansas City; USD 469, Lansing; USD 497, Lawrence; USD 453, Leavenworth; USD 233, Olathe; USD 305, Salina; USD 450, Shawnee Heights; USD 512, Shawnee Mission, USD 464, Tonganoxie; USD 202, Turner; and USD 501, Topeka. Studies are also being conducted in Center School District and the New School for Human Education, Kansas City, Missouri; the School District of St. Joseph, St. Joseph, Missouri; Delta County, Colorado School District; Montrose County, Colorado School District; Elkhart Community Schools, Elkhart, Indiana; and Beaverton School District, Beaverton, Oregon. Many Child Service Demonstration Centers throughout the country have also contributed to our efforts.

Agencies currently participating in research in the juvenile justice system are the Overland Park, Kansas Youth Diversion Project and the Douglas, Johnson, and Leavenworth County, Kansas Juvenile Courts. Other agencies have participated in out-of-school studies-- Achievement Place and Penn House of Lawrence, Kansas, Kansas State Industrial Reformatory, Hutchinson, Kansas; the U.S. Military; and the Job Corps. Numerous employers in the public and private sector have also aided us with studies in employment.

While the agencies mentioned above allowed us to contact individuals and supported our efforts, the cooperation of those individuals--LD adolescents and young adults; parents; professionals in education, the criminal justice system, the business community, and the military--have provided the valuable data for our research. This information will assist us in our research endeavors that have the potential of yielding greatest payoff for interventions with the LD adolescent and young adult.

AN EPIDEMIOLOGICAL STUDY OF LEARNING DISABLED ADOLESCENTS IN SECONDARY SCHOOLS

Abstract

In recent years, professionals in the field of learning disabilities have begun to address the impact of learning disabilities on adolescents and young adults. Although substantial attention has been directed to the manifestations of learning disabilities in elementary school age populations, the significantly different and increasingly complex demands on adolescents both in and out of school necessitate the development of systematic research on this population. The University of Kansas Institute for Research in Learning Disabilities has collected a broad array of data to form an epidemiological data base on LD adolescents and young adults. Data have been collected from learning disabled, low-achieving, and normal-achieving adolescents as well as from their parents and teachers. In addition, information from the environmental setting of the LD adolescents which pertains to interventions applied on behalf of the student, relationships with others, conditions under which he/she operates and support systems available for his/her use has also been collected. These data have been considered in relation to data on specific learner characteristics to gain a more complete profile of the older LD individual.

Research results presented in Research Reports 12 through 20 detail findings from this comprehensive epidemiology study conducted during 1979-80 by the Institute. It is important for the reader to study and view each of these individual reports in relation to this overall line of research. An understanding of the complex nature of the learning disability condition only begins to emerge when each specific topic or finding is seen as a partial, but important, piece of a larger whole.

The specific aspects of the total study presented in individual Research Reports are listed below:

- Research Report No. 12: Details of the Methodology
- Research Report No. 13: Achievement and Ability, Socioeconomic Status, and School Experiences
- Research Report No. 14: Academic Self-Image and Attributions

- Research Report No. 15: Health and Medical Factors
- Research Report No. 16: Behavioral and Emotional Status from the Perspective of Parents and Teachers
- Research Report No. 17: The Relationship of Family Factors to the Condition of Learning Disabilities
- Research Report No. 18: Social Status, Peer Relationship, Activities In and Out of School, and Time Use
- Research Report No. 19: Support Services
- Research Report No. 20: Classification of Learning Disabled and Low-Achieving Adolescents

AN EPIDEMIOLOGICAL STUDY OF LEARNING DISABLED

ADOLESCENTS IN SECONDARY SCHOOLS:

THE RELATIONSHIP OF FAMILY FACTORS TO THE CONDITION OF LEARNING DISABILITIES

Since the inception of the learning disability field in the early 1960s, emphasis for treatment and intervention has been on younger children. Only recently has attention been turned to addressing the educational and life adjustment needs of adolescents and young adults as well (Alley & Deshler, 1979). A prerequisite step to developing sound instructional systems and procedures for the older-aged learning disabled is for the field to achieve a thorough understanding of the complex nature of the condition of learning disabilities in older populations.

There are some unique problems related to adolescents with learning disabilities (LD) which have not been adequately addressed within the research on learning disabilities in elementary populations. Among these are the following. The demands of the curriculum in secondary schools or job requirements in employment settings are significantly different from the demands placed on LD students in elementary settings. Thus, the manifestations of the specific learning disability may be altered. Second, there are many variables associated with the condition of learning disabilities. It would appear that the complexity and interaction of these increase as the adolescent moves from school to non-school settings and as the number and variety of his/her social groupings increase (Deshler, 1978). Thirdly, there is very little knowledge

about the conditions confronting the LD adolescent and young adult in non-school settings and the degree to which these individuals can cope with these circumstances.

The complex nature of the condition of learning disabilities and the unique features of the conditions and the environment facing the LD adolescent and young adult demonstrate the need for systematic research on this population. Therefore, the purpose of a major line of research conducted by The University of Kansas Institute for Research in Learning Disabilities has been to collect a broad array of data to form an epidemiological data base on older LD populations. Data have been collected from the environmental setting of the LD adolescent which pertain to interventions applied on behalf of the student, conditions under which he/she operates, and support systems available for his/her use. These data have been considered in relation to data on specific learner characteristics to gain a more complete profile of the older LD individual.

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Introduction

Most research efforts targeting the condition of learning disabilities have centered on the attributes of the learner. Thus, the focus has been on the intrinsic cognitive and behavioral causes of the condition. It seems equally important to consider the environmental factors related to the condition. Lewin (1935) used the formula, $B = f(PE)$, where B = behavior, P = person, and E = environment, to explain human behavior. Through such an approach, learning disabilities would be conceptualized as a condition which results from a complex interaction between the learner and the environment.

What has been considered to be one of the more crucial sets of environmental factors in a person's life is the set of family conditions which surround each individual. Throughout the child-development literature are references to the pervasive influence the nuclear family has on a child's behavior and personality development (e.g., Claussen, 1966). Such parent behaviors and family conditions as attention to children, discipline and punitiveness, warmth, protectiveness, use of rewards, modeling, cognitive structuring, ordinal position in the family sibling structure, and social class have been studied in relation to child behavior (see Martin, 1975, for a review). However, as Kauffman (1977) stated,

Family size, birth order, presence of grandparents, or other relatives in the home, broken families, father absence, and the presence of stepparents, for example, have not been shown to be in themselves sufficient to produce behavioral pathology... These variables of family composition and structure appear to be predictive of the child's behavioral development only in very complex interactions with each other and with other factors, such as socioeconomic status, ethnic origin, and the child's age, sex, and temperamental characteristics.
(pp. 73 & 74)

Other theorists insist that the relationship between family and child is a two-way street. That is, children have an effect on their parents as well as parents having an effect on their children (e.g., Martin, 1975; Siegel, 1974). Thus, it appears that although a relationship between family factors and child behavior exists, this relationship is characterized by its complexity.

Unfortunately, the research in this area has centered on the relationship between family factors and such child characteristics as behavior disorders, general mental health, and serious pathology. The relationships between family factors and the specific condition of learning disabilities is largely unknown at this time. This is surprising since parents have been intimately related to the field of learning disabilities since its inception as they advocated for services for their exceptional children. Indeed, federal law (PL 94-142) now guarantees parents the right to participate in the development of their LD son/daughter's programs. Current literature regarding parents of learning disabled children centers on how parents should and can be involved in the process of ensuring their child receives appropriate services (e.g., Baren, Smith & Liebl, 1978; Wallace & McLoughlin, 1979). Here, the emphasis is on professionals and parents working together to create a partnership or team approach. Other literature discusses the problems that parents of exceptional children face and gives suggestions for the solution of these problems (e.g., Siegel, 1974). Only one study has centered on the specific behaviors of the parents of children with learning disorders. Wetter (1972) compared the attitudes of parents of children with learning disorders to the attitudes of parents of non-LD children and found

that they were distinctly different. The parents of LD children had attitudes involving more overindulgence and more rejection than the other parents. Clearly, more research is warranted in an area which may shed further light on a perplexing condition. This research was designed to study the relationship between parent and child behavior as related to the condition of learning disabilities in adolescents.

Methodology

Subjects

Three groups of adolescents and their parents participated in this part of the study. The adolescents included LD students, low-achieving students, and normal-achieving students in grades 7, 8, 9, 10, 11, and 12. LD students were those currently being served in programs for learning disabled students and validated by the IRLD Validation team. Low-achieving (LA) students were students who had recently received one or more failing grade in required subjects, scored below the 33rd percentile on group administered achievement tests, and who were not receiving special educational services. Normal-achieving (NA) students were those who had passing grades, scored above the 33rd percentile in achievement, and who were not receiving special educational services. The students and their parents agreed to participate in this study. For more details on student selection, see The University of Kansas Institute for Research in Learning Disabilities Research Report No. 12 (Schumaker, Warner, Deshler, & Alley, 1980). Two hundred thirty-four LD students and 162 of their parents, 222 low-achieving students and 144 of their parents, and 215 normal-achieving students¹ and 184 of their parents took part.

Settings

Three school districts in northeast Kansas agreed to participate (USDs #500, #512, and #202). The students provided information for this study in small, quiet rooms selected by their schools. Parents provided information at their leisure at home. (For more information regarding settings see Schumaker et al., 1980).

Measurement Systems

Two assessment instruments, the Youth Instrument and the Parent Instrument, were utilized in this analysis. Both instruments were designed with a number of questions regarding parent-child interactions, family conditions, and child perceptions of parent behavior. A number of different answer formats were used in the questions. Some involved Likert-type scales, others involved multiple-choice answers, and still others allowed open-ended responding. (For more information about the instruments see Schumaker et al., 1980).

Procedures

In individual sessions, the students were read the questions (and possible answers) by an interviewer. The students' responses were recorded on the instrument either by the interviewer or the student, at the student's choice. The parent instruments were either mailed or carried home by the students. Follow-up letters and phone calls prompted delayed returns.

Data Analysis

The Kansas University Institute for Research in Learning Disabilities Research Reports in which data from the first phase of the comprehensive Level I epidemiological study are numbered (including the present report) 12 through 20. A thorough discussion of the

specific procedures used in data analysis for the complete study as a whole as well as the rationale for those procedures is contained in Research Report Number 12, Details of Methodology. (Schumaker et al., 1980) The following comments are condensed from that report.

In general, two types of variables are discussed in Research Reports 12-20: (a) individual items from the Youth, Parent, or Regular Teacher Assessment Instruments, or specific ability or achievement test scores and (b) FSCALES. The FSCALES were derived by equally weighting and averaging performance on two or more items from one of the assessment instruments. Based on a factor analysis of each assessment instrument, items were combined into an FSCALE if they had a moderate to strong loading on the same factor. A complete listing of the items which made up each FSCALE is contained in Research Report Number 12.

In order to test for significant group differences in individual assessment instrument items, test scores, or FSCALES, the following procedure was adopted. The BMDP7D computer program (Dixon, 1975) was used to conduct a univariate F test for each variable under consideration. For each variable, if the p value associated with F was less than or equal to .01, confidence bands for each mean were constructed. Two standard errors of the mean ($SE = SD/\sqrt{n}$) were added and subtracted from each mean. If the confidence bands for a given pair of means did not overlap, the means were considered significantly different.²

Results

Home Description

The youths and parents were asked to answer a number of questions

about conditions present in the home. The data for those variables in which a significant difference was found between at least one pair of subject groups (LD and LA, LD and NA, LA and NA) are shown in Tables 1-7. In each table are shown: (a) the question(s) asked and the possible answers, (b) the mean answer for each group, (c) the standard deviation for each group, (d) the range of answers, (e) the numbers of persons responding, (f) the F value, and (g) an indication of whether or not the confidence bands for each pair of groups overlapped. If the overlap indication is listed as "No", this means that there is no overlap between the means for a given pair of groups. Thus, there is a significant difference between the means for these two groups in the given pair. If the overlap indication is "Yes", then there is overlap between the means and no significant difference was found between members of the listed pair. The data presented in all the tables represent data collected in both junior and senior high schools for the LD and LA groups and collected in a senior high school for the NA group. Data are not yet analyzed for the junior high normal achievers. The asterik (*) on the tables indicates whether a given difference held up when only the senior high data were considered and the two asteriks (**) indicate whether a given difference held up when only the junior high data were considered. The junior high replications will only be in the comparison between the LD and LA groups, because there are no NA group data available for the other comparisons.

Table 1 shows the youth responses to a question about how many people live in their home. Significantly fewer people live in the homes of the NA group than in either the LD or LA groups. The same differences exist between the groups when the number of children born

into the family before the target child was born (Table 2) is considered, with significantly fewer previous children in the NA families. The number of sisters in the family is significantly different for the LA and NA groups, with the NA group having the lowest number of sisters of all three groups (Table 3).

Insert Tables 1, 2, and 3 about here

When the youths were asked to describe their homes, significant differences were found between the NA and the other two groups in the number of rooms in the home (Table 4), the number of items they reported possessing (Table 5), and the number of books in their homes (Table 6). In all cases, the NA group reported having significantly more rooms, more items, and more books than the other two groups. Inspection of the means for the LA and LD groups reveals virtually no differences between them on these three variables.

Insert Tables 4, 5, and 6 about here

Table 7 shows the data for junior and senior high samples on a composite variable achieved by dividing the number of rooms in a home by the number of people living in the home. Again, the significant differences are found between the NA group and the other two groups, with no meaningful differences between the LD and LA groups. These results indicate that the normal-achieving students in our sample come from homes with fewer children and with more resources than the low-achieving and LD students.

Insert Table 7 about here

Background of Family Members

The students' parents were asked to report on the level of education they had achieved. Tables 8 and 9 show the fathers' and mothers' educational levels, respectively. In both cases, the educational levels for the parents of the NA group are significantly higher than those of the parents of the other two groups. The mean education for parents of NA students was participation in college, whereas the mean for parents of LD and LA students ranged between a high school and a trade school diploma.

Insert Tables 8 and 9 about here

The parents were also asked to specify their current occupations. Each occupation was given a score derived from Duncan's Socioeconomic Index (Duncan, 1961). This index awards each occupation a score from 1-97, depending on the status of the job. For example, the occupation of laborer in a textile mill receives a score of 1, whereas a dentist or an osteopath receives a score of 96. Tables 10 and 11 show the results for fathers' and mothers' occupations respectively. Again, sig-

Insert Tables 10 and 11 about here

nificant differences were found between the parents of NA students and those of the LD and LA parents. The mean occupation for fathers of

NA students is "inspector in public administration" whereas the mean occupation for fathers of LD and LA students is "manager of personal services" or "manager of transportation", respectively. The mothers' occupation scores were derived from only those mothers who reported that they were employed. The occupation of "housewife" or "homemaker" is not included in the Duncan scale. Of the NA mothers 27.4% were housewives as were 43.3% of the mothers of LD students and 43.4% of the mothers of LA students. Of the mothers who were employed, the mean occupation of the mothers of NA students was "official in a society or union", whereas the mean occupation of the mothers of LD students was "self-employed manager" and for mothers of LA students was "construction inspector".

Table 12 shows that very few, if any, of the families spoke foreign languages in the home. None of the families of LD students spoke foreign languages because those students whose families did speak foreign languages had probably been eliminated from the LD sample in the validation process as being "culturally disadvantaged". The NA sample had significantly more families who spoke other languages in their homes than the other two samples.

Insert Table 12 about here

Table 13 depicts the data regarding the number of times the family had moved since the target child's birth. The families of NA children had moved the most (a mean of 3.9 times) and the families of LD children the least (a mean of 3.2 times). There is a significant difference between these two groups only.

Insert Table 13 about here

The parents were also asked to report whether or not family members had experienced any learning or handicapping problems. The question is shown in Table 14, along with results for the sum of handicapping conditions reported in each family. Table 15 shows the percentages of families reporting handicapping conditions in particular family members. The data indicate that families of LD students have experienced the most handicapping conditions and families of NA students the fewest. The significant differences lie between the families of NA students and those of the other two groups. No significant differences were found between the LD and LA groups.

Insert Tables 14 and 15 about here

These data on family background reflect those reported for home description. The families of NA students have parents with higher levels of education and higher status occupations than the other two groups of students, and family members with fewer handicapping conditions. The families of LD and LA students appear to be very similar in these regards.

Parenting Techniques

The students and parents were asked to report about the techniques the parents use when interacting with their child, the support they give the child, and the parent-child relationship. When the youths were asked how their parents would react to a good grade in

school, the LD and NA students responded that their parents would be equally responsive, where the LA students reported that their parents would be significantly less responsive (Table 16).

Insert Table 16 about here

When the parents were asked how they would respond to a low grade, the parents of LD students reported that they would be the most supportive and helpful. Their response was significantly higher than the response of parents of the NA group, whose response, in turn, was significantly higher than the response of parents of the LA group. These data are depicted in Table 17.

Insert Table 17 about here

Table 18 shows the results of parent and youth responses to a question about the amount of time parents spend helping their child with homework. Both the students and parents agree that the parents of LD youths spend the most time helping them with homework, the parents of NA youths the least time, and the parents of LA youths the medium amount of time. According to the youths' responses all of the comparisons yielded significant differences.

Insert Table 18 about here

When the youths were asked how effective their parents are at helping them with homework, the LD youths reported their parents to

be the most helpful. Their response was significantly higher than both the LA and NA students' responses (Table 19).

Insert Table 19 about here

Table 20 shows how parents responded to a question concerning what they would do if their child reported a problem with a teacher. Both the parents of the LD and LA groups reported they would do significantly more than the parents of the NA students. There were no differences between the LD and LA groups on this issue.

Insert Table 20 about here

Similarly, there were no differences between LD and LA parent groups on the matter of supervision. The parents of NA students report that they know the whereabouts of their son/daughter more often than the parents of the other two groups (Table 21).

Insert Table 21 about here

Tables 22 and 23 show data concerning two punishment techniques used by the parents. Regarding the use of "lectures" (Table 22), parents of NA youths are significantly more likely to use lectures than parents of LD youths. Of the three groups, parents of LD youths are least likely to use lectures. Regarding the use of "hitting", parents of low-achieving youths are the most likely to use this form of punishment and they are significantly more likely to use it than

parents of the normal achievers (Table 23).

Insert Tables 22 and 23 about here

Finally, the youths and parents were asked a question about the frequency with which the youth spoke to his/her parents about things happening in his/her life. The results of their reports are shown in Table 24. Both the parents and youths agree that NA students speak the most frequently (2-3 times a week) with their parents, the LA students the least frequently (once a week), and the LD students fall between these two groups. According to youths and parents, the NA students talk to their parents significantly more frequently than students in the other two groups. According to the parents, the LD youths speak significantly more frequently with their parents than the LA youths.

Insert Table 24 about here

Parent Satisfaction with School

When the parents were asked to rate how satisfied they were with the current schooling received by their son/daughter, their responses ranged from completely dissatisfied to completely satisfied in all three groups (see Table 25). The parents of the normal achievers were the most satisfied (5.5 on a 7-point scale); parents of the LD youths were the next most satisfied (4.8); and parents of the LA group were the least satisfied (4.2). The differences between all three groups were significant.

Insert Table 25 about here

Parent Expectations

The parents were asked what expectations they had for their son/daughter's eventual educational achievements. The results are depicted in Table 26. On the average, parents of the NA group expect their children to achieve a college degree. This response was significantly higher than the expectations of both other groups of parents, who on the average, expect their son/daughter to achieve a trade or vocational school certificate. There were no differences found between the LA and LD groups in this regard.

Insert Table 26 about here

Similar results are shown in Table 27 from parent responses to a question about the occupation their son/daughter would eventually have. Using the Duncan Socioeconomic Index again, each parent's response was given a score from 1-97. Parents of the NA group had the highest expectations, with the average occupational expectation being "credit manager". This was significantly higher than the expectations of the parents of both LA and LD groups whose mean responses were "repair service" and "retail tradesperson" respectively. The expectations of the parents of the LD and LA groups did not significantly differ from each other.

Insert Table 27 about here

Variables Showing No Significant Differences Between Any of the Groups

A number of variables yielded no significant differences between any of the groups. A list of these variables is shown in Table 28. To review the specific question asked for each variable, refer to the actual instruments employed. These instruments are available from The University of Kansas Institute for Research in Learning Disabilities.

Discussion

This study has indicated that there are few differences in the family conditions surrounding LD and low-achieving adolescents. The majority of differences were found between the normal-achieving group and the other two (LD and LA) groups, which looked remarkably similar in many regards. The families of the normal achievers appear to have more resources, fewer children, and parents with higher levels of education and higher status occupations. In addition, the families of NA students experience fewer handicapping conditions in family members than the other two groups, and the parents have higher expectations for their children.

The principal differences between the LD and low-achieving groups fall in the area of parenting techniques used by their parents. The parents of the LD students appear more supportive in that they spend more time helping their child on homework, their help is perceived by the youths as more effective, they react more positively to success of the youth, and they are more supportive in cases of failure. The LD youths speak more often to their parents about things that are happening in their lives; this perhaps reflects a closer parent-child relationship for the LD students than the LA students. Finally, the parents of LD

students are more satisfied with the education their children are receiving than the parents of the LA students.

These results suggest two alternative hypotheses. It is possible that once students are labelled learning disabled, their parents become more supportive, help them more with their homework, and express more interest in their lives. They perceive that their child has been formally labelled an underdog and needs advocates. On the other hand, it is possible that the parents of LD children were especially supportive before their children were labelled. Because of their tendency to be supportive and go to the school at signs of trouble, these parents may have sought the extra help they perceived their children to need and, through this advocacy, may have caused their children to be labelled learning disabled.

If this is the case, it is possible that a large number of children who are failing in school are not being served because they do not have effective advocates working for them in the referral and diagnostic processes. Clearly, further research exploring the role of parent advocacy in these processes is warranted. Parents should be surveyed before and after their child has been labelled LD, asking questions regarding their supportive behaviors. This would determine whether their behaviors change once their child is labelled LD. In addition, the supportive behaviors of parents should be studied during the referral and diagnostic processes. This would determine whether the students who are referred and selected for special services receive more parent support than the youths who are not.

Footnotes

¹This includes 60 normal-achieving junior high students for whom data have not been analyzed to date.

²Because of the large number of means that are being compared, in the epidemiology study as a whole, it is likely that some of these will be "significantly" different on the basis of sampling error alone. A cross-validation study is currently under way in an attempt to substantiate differences found in Research Reports 13-20.

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TABLE 1

YOUTH DESCRIPTION OF HOME: NO. OF PEOPLE

YOUTH QUESTION: IN ALL, HOW MANY PEOPLE LIVE IN YOUR HOME?
 _____PEOPLE

YOUTH RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 5.009$	$\bar{x} = 5.050$	$\bar{x} = 4.383$	LD/LA: YES *
	SD = 2.000	SD = 1.956	SD = 1.427	LD/NA: No *
	RANGE = 2-20	RANGE = 2-15	RANGE = 2-17	LA/NA: No *
	N = 234	N = 219	N = 214	F = 8.9138
				P ≤ .001

* ALSO EVIDENT WHEN ONLY SENIOR HIGH DATA IS CONSIDERED.

TABLE 2

NUMBER OF CHILDREN BORN BEFORE TARGET CHILD

PARENT QUESTION: TO HOW MANY CHILDREN DID THE MOTHER GIVE BIRTH BEFORE THIS SON/DAUGHTER?

_____ CHILDREN

PARENT RESPONSE	LD	LA	NA	OVERLAP
$\bar{x} = 1.850$	$\bar{x} = 2.245$	$\bar{x} = 1.443$		LD/LA: Yes
SD = 1.705	SD = 2.248	SD = 1.525		LD/NA: No
RANGE = 0-10	RANGE = 0-11	RANGE = 0-9		LA/NA: No
N = 160	N = 139	N = 183		F = 7.7465
				P ≤ .001

TABLE 3

NUMBER OF SISTERS

PARENT QUESTION: HOW MANY SISTERS DOES THIS SON/DAUGHTER HAVE?

PARENT RESPONSE	LD	LA	NA	OVERLAP
$\bar{X} = 1.360$	$\bar{X} = 1.688$	$\bar{X} = 1.136$	LD/LA: YES	
SD = 1.273	SD = 1.426	SD = 1.130	LD/NA: YES	
RANGE = 0-7	RANGE = 0-7	RANGE = 0-9	LA/NA: No	
N = 161	N = 144	N = 184	F = 7.633	
			P ≤ .001	

TABLE 4

YOUTH DESCRIPTION OF HOME: NO. OF ROOMS

YOUTH QUESTION: IN ALL, HOW MANY ROOMS ARE THERE IN YOUR HOME?

_____ROOMS

YOUTH RESPONSE	LD	LA	NA	OVERLAP
	$\bar{X} = 9.756$ SD = 3.212 RANGE = 3-29	$\bar{X} = 9.608$ SD = 3.234 RANGE = 3-23	$\bar{X} = 12.028$ SD = 3.085 RANGE = 5-23	LD/LA: YES* LD/NA: No* LA/NA: No*
	N = 234	N = 517	N = 213	F = 39.4133 P ≤ .001

TABLE 5

YOUTH DESCRIPTION OF HOME: SUM OF ITEMS

YOUTH QUESTION: PLEASE SAY WHETHER OR NOT THE FOLLOWING ITEMS ARE IN YOUR HOME:

	No	Yes
A RADIO	1	2
A TELEPHONE	1	2
A TELEVISION	1	2
A BICYCLE	1	2
A PHONOGRAPH	1	2
A DICTIONARY	1	2
A SET OF ENCYCLOPEDIAS	1	2
30 OTHER BOOKS OR MORE	1	2
A FAMILY CAR	1	2
A TYPEWRITER	1	2
A DOG OR CAT	1	2
A FISH IN A TANK	1	2
A NEWSPAPER DELIVERED DAILY	1	2
A WEEKLY NEWS MAGAZINE	1	2
A PAIR OF BINOCULARS	1	2
MORE THAN 10 PHONOGRAPH RECORDS	1	2
A MAP OR GLOBE OF THE WORLD	1	2

YOUTH RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 13.556$ SD = 2.345 RANGE = 5-17	$\bar{x} = 13.532$ SD = 2.443 RANGE = 2-17	$\bar{x} = 15.009$ SD = 1.394 RANGE = 7-17	LD/LA: YES* LD/NA: No* LA/NA: No*
	N = 234	N = 222	N = 215	F = 34.7436 P ≤ .001

TABLE 6

YOUTH DESCRIPTION OF HOME: NO. OF BOOKS

YOUTH QUESTION: How MANY BOOKS ARE IN YOUR HOME?

NONE OR VERY FEW (0-10)	=1
A FEW BOOKS (11-25)	=2
ONE BOOKCASE FULL (26-100)	=3
TWO BOOKCASES FULL (101-250)	=4
THREE OR FOUR BOOKCASES FULL (251-500)	=5
A ROOM FULL (501- OR MORE)	=6

YOUTH RESPONSE

LD	LA	NA	OVERLAP
\bar{x} = 3.735 SD = 1.276 RANGE = 1-6	\bar{x} = 3.719 SD = 1.255 RANGE = 1-6	\bar{x} = 4.609 SD = 1.083 RANGE = 2-6	LD/LA: Yes* LD/NA: No* LA/NA: No*
N = 234	N = 221	N = 215	F = 38.7518 P ≤ .001

TABLE 7

NUMBER OF ROOMS PER PERSON IN FAMILY

JUNIOR
HIGH
STUDENTS

LD	LA	NA	OVERLAP
$\bar{X} = 2.038$	$\bar{X} = 2.036$	-	LD/LA: YES
SD = .743	SD = .829	-	
N = 111	N = 105	-	

SENIOR
HIGH
STUDENTS

LD	LA	NA	OVERLAP
$\bar{X} = 2.230$	$\bar{X} = 2.214$	$\bar{X} = 2.950$	LD/LA: YES
SD = .947	SD = 1.025	SD = 1.214	LD/NA: No
N = 123	N = 111	N = 212	LA/NA: No

F = 29.6
P ≤ .001

TABLE 8

FAMILY BACKGROUND--FATHER'S EDUCATION

PARENT QUESTION: PLEASE SPECIFY THE HIGHEST LEVEL OF EDUCATION THE FATHER OF THIS CHILD HAS ACHIEVED

- GRADE SCHOOL = 1
- SOME HIGH SCHOOL = 2
- HIGH SCHOOL DIPLOMA OR GED = 3
- TRADE OR VOCATIONAL SCHOOL CERT. = 4
- SOME COLLEGE = 5
- COLLEGE DEGREE = 6
- GRADUATE OR PROFESSIONAL DEGREE = 7

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 3.680$	$\bar{x} = 3.624$	$\bar{x} = 5.220$	LD/LA: YES*
	SD = 1.720	SD = 1.686	SD = 1.859	LD/NA: No*
	RANGE = 1 - 7	RANGE = 1 - 7	RANGE = 1 - 7	LA/NA: No*
	N = 147	N = 133	N = 182	F = 43.3874
				P ≤ .001

TABLE 9

FAMILY BACKGROUND--MOTHER'S EDUCATION

PARENT QUESTION: PLEASE SPECIFY THE HIGHEST LEVEL OF EDUCATION THE MOTHER OF THIS CHILD HAS ACHIEVED

- GRADE SCHOOL = 1
- SOME HIGH SCHOOL = 2
- HIGH SCHOOL DIPLOMA OR GED = 3
- TRADE OR VOCATIONAL SCHOOL CERT. = 4
- SOME COLLEGE = 5
- COLLEGE DEGREE = 6
- GRADUATE OR PROFESSIONAL DEGREE = 7

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 3.646$ SD = 1.526 RANGE = 1 - 7	$\bar{x} = 3.594$ SD = 1.539 RANGE = 1 - 7	$\bar{x} = 5.142$ SD = 1.569 RANGE = 1 - 7	LD/LA: Yes* LD/NA: No* LA/NA: No*
	N = 161	N = 143	N = 183	F = 55.2433 P ≤ .001

TABLE 10

FATHER'S OCCUPATION

PARENT QUESTION: WHAT IS THIS CHILD'S FATHER'S OCCUPATION?

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{X} = 41.411$	$\bar{X} = 42.677$	$\bar{X} = 63.006$	LD/LA: Yes*
	SD = 24.759	SD = 28.432	SD = 22.422	LD/NA: No*
	RANGE = 4 - 88	RANGE = 4 - 96	RANGE = 4 - 96	LA/NA: No*
	N = 112	N = 99	N = 161	F = 32.7044
				P ≤ .001

TABLE 11

MOTHER'S OCCUPATION

PARENT QUESTION: WHAT IS THIS CHILD'S MOTHER'S OCCUPATION?

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 46.026$	$\bar{x} = 48.257$	$\bar{x} = 58.303$	LD/LA: YES*
	SD = 22.067	SD = 19.824	SD = 19.691	LD/NA: No*
	RANGE = 4 - 84	RANGE = 4 - 84	RANGE = 8 - 92	LA/NA: No*
	N = 76	N = 70	N = 119	F = 10.08
				P ≤ .001

TABLE 12

LANGUAGE OTHER THAN ENGLISH

PARENT QUESTION: DO YOU SPEAK A LANGUAGE OTHER THAN ENGLISH IN YOUR HOME?

No 1
 Yes. . . . 2

PARENT RESPONSE LD	LA	NA	OVERLAP
$\bar{x} = 1.000$ SD = 0 RANGE = 1	$\bar{x} = 1.007$ SD = .083 RANGE = 1-2	$\bar{x} = 1.049$ SD = .217 RANGE = 1-2	LD/LA: Yes LD/NA: No LA/NA: No
N = 162	N = 144	N = 182	F = 6.2754 P ≤ .01

TABLE 13

NUMBER OF DIFFERENT HOMES

PARENT QUESTION: IN HOW MANY DIFFERENT HOMES HAS THIS SON/DAUGHTER LIVED SINCE BIRTH?

PARENT RESPONSE LD	LA	NA	OVERLAP
$\bar{x} = 3.169$ SD = 2.057 RANGE = 1-12	$\bar{x} = 3.355$ SD = 2.470 RANGE = 1-12	$\bar{x} = 3.949$ SD = 2.610 RANGE = 1-12	LD/LA: YES LD/NA: No LA/NA: YES
N = 136	N = 124	N = 158	F = 4.2743 P ≤ .01

TABLE 14

SUM OF HANDICAPS IN THE FAMILY

PARENT QUESTION: HAVE ANY OF THE FOLLOWING PERSONS EXPERIENCED LEARNING OR OTHER HANDICAPPING PROBLEMS?

	No	Yes
CHILD'S MOTHER	1	2
CHILD'S FATHER	1	2
CHILD'S BROTHER	1	2
CHILD'S SISTER	1	2
ANYONE ELSE IN THE FAMILY	1	2

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{X} = .497$ SD = .917 RANGE = 0-4	$\bar{X} = .326$ SD = .696 RANGE = 0-3	$\bar{X} = .095$ SD = .313 RANGE = 0-2	LD/LA: Yes* LD/NA: No* LA/NA: No*
	N = 157	N = 138	N = 179	F = 14.9979 P ≤ .001

TABLE 15

PERCENTAGE OF FAMILIES REPORTING HANDICAPPING
CONDITIONS IN PARTICULAR MEMBERS

	LD	LA	NA
MOTHER	6%	4%	0%
FATHER	9%	6%	1%
BROTHER	18%	11%	6%
SISTER	9%	7%	2%
OTHER PERSON	8%	4%	2%

TABLE 16

PARENT TECHNIQUES: REACTION TO SUCCESS

YOUTH QUESTION: IF YOU GOT A GOOD GRADE ON A TEST IN SCHOOL, WHAT WOULD PROBABLY HAPPEN?

MY PARENTS LECTURE ME ABOUT WHY CAN'T I DO THAT ALL THE TIME. = 1

NOTHING HAPPENS = 2

MY PARENTS TELL ME I DID A GOOD JOB = 3

MY PARENTS TELL ME I DID A GOOD JOB AND ARRANGE SOMETHING SPECIAL LIKE TAKING ME SOMEPLACE, OR SPENDING EXTRA TIME WITH ME = 4

YOUTH RESPONSE

LD	LA	NA	OVERLAP
$\bar{x} = 2.765$ SD = .959 RG = 1 - 4	$\bar{x} = 2.457$ SD = .988 RG = 1 - 4	$\bar{x} = 2.749$ SD = .605 RG = 1 - 4	LD/LA: NO** LD/NA: YES* LA/NA: NO*
N = 234	N = 221	N = 215	F = 8.7941 P ≤ .001

** ALSO EVIDENT WHEN JUNIOR HIGH DATA ONLY IS CONSIDERED.

TABLE 17

PARENT TECHNIQUES: REACTION TO FAILURE

PARENT QUESTION: IF YOUR SON/DAUGHTER CAME HOME WITH A LOW GRADE IN A SUBJECT, WHAT WOULD YOU PROBABLY DO?

- NOTHING = 0
- I'D PUNISH HIM/HER = 1
- I'D TALK TO HIM/HER AND TELL HIM/HER TO WORK A LOT HARDER = 2
- I'D TALK TO THE TEACHER TO FIND OUT WHAT THE PROBLEM WAS AND MAKE SURE MY SON/DAUGHTER GOT EXTRA HELP (E.G., TUTORING) IN THE SUBJECT = 3

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 2.56$ SD = .569 RANGE = 0-3	$\bar{x} = 2.271$ SD = .666 RANGE = 0-3	$\bar{x} = 2.320$ SD = .586 RANGE = 0-3	LD/LA: No** LD/NA: No LA/NA: No
	N = 160	N = 141	N = 182	F = 10.1122 P ≤ .001

TABLE 18

PARENT SUPPORT WITH HOMEWORK

YOUTH QUESTION: EACH EVENING, HOW MUCH TIME ON THE AVERAGE DO YOUR PARENTS SPEND HELPING YOU WITH HOMEWORK?

PARENT QUESTION: EACH EVENING, HOW MUCH TIME ON THE AVERAGE DO YOU SPEND HELPING THIS SON/DAUGHTER WITH HOMEWORK?

NO TIME	= 0
LESS THAN 15 MIN.	= 1
15-30 MIN.	= 2
30-60 MIN.	= 3
1-2 HOURS	= 4
2-3 HOURS	= 5
MORE THAN 3 HOURS	= 6

YOUTH			OVERLAP
RESPONSE	LD	LA	
\bar{x} = 1.296	\bar{x} = .878	\bar{x} = .460	LD/LA: No**
SD = 1.477	SD = 1.063	SD = .697	LD/NA: No*
RANGE = 0 - 6	RANGE = 0 - 4	RANGE = 0 - 3	LA/NA: No
N = 230	N = 222	N = 213	F = 29.9902
			P ≤ .001

PARENT			OVERLAP
RESPONSE	LD	LA	
\bar{x} = 1.327	\bar{x} = .985	\bar{x} = .724	LD/LA: Yes
SD = 1.125	SD = 1.057	SD = .684	LD/NA: No
RANGE = 0 - 5	RANGE = 0 - 5	RANGE = 0 - 4	LA/NA: Yes
N = 156	N = 137	N = 181	F = 16.6148
			P ≤ .001

TABLE 19

PARENT EFFECTIVENESS IN
HELPING SON/DAUGHTER

YOUTH QUESTION: HOW GOOD ARE YOUR PARENTS IN HELPING YOU
WITH HOMEWORK?

- THEY CONFUSE ME MORE = 1
- THEY DO AN O.K. JOB = 2
- THEY REALLY HELP ME TO UNDERSTAND
THINGS AND DO A GREAT JOB = 3

PARENT RESPONSE	LD	LA	NA	OVERLAP
$\bar{X} = 2.130$	$\bar{X} = 1.906$	$\bar{X} = 1.887$	LD/LA: No	
SD = .773	SD = .666	SD = .574	LD/NA: No	
RANGE = 1-3	RANGE = 1-3	RANGE = 1-3	LA/NA: YES	
N = 216	N = 202	N = 194	F = 8.2714	
			P ≤ .001	

TABLE 20

PARENT SUPPORT WITH PROBLEMS

PARENT QUESTION: IF YOUR SON/DAUGHTER CAME HOME AND TOLD YOU THAT HE/SHE WAS BEING TREATED UNFAIRLY BY THE TEACHER, WHAT WOULD YOU PROBABLY DO?

NOTHING; I FIGURE HE/SHE IS OLD ENOUGH TO SOLVE HIS/HER OWN PROBLEMS = 0

I'D TALK TO HIM/HER ABOUT IT AND GIVE ADVICE AS TO WHAT TO DO. = 1

AFTER FINDING OUT ABOUT THE PROBLEM, I'D CALL THE TEACHER AND TALK ABOUT THE PROBLEM. = 2

AFTER FINDING OUT ABOUT THE PROBLEM, I'D GO TO THE SCHOOL AND TALK TO THE TEACHER ABOUT THE PROBLEM. = 3

PARENT RESPONSE LD	LA	NA	OVERLAP
$\bar{x} = 2.107$ SD = .883 RANGE = 0 - 3	$\bar{x} = 1.943$ SD = .927 RANGE = 0 - 3	$\bar{x} = 1.478$ SD = .777 RANGE = 0 - 3	LD/LA: YES* LD/NA: No* LA/NA: No
N = 159	N = 140	N = 182	F = 24.7638 P ≤ .001

TABLE 21

PARENT SUPERVISION

PARENT QUESTION: HOW OFTEN DO YOU KNOW WHERE YOUR SON/
DAUGHTER IS WHEN HE/SHE IS AWAY FROM HOME?

- NEVER 0
- RARELY. 1
- A FEW TIMES 2
- ABOUT HALF THE TIME . . . 3
- OFTEN 4
- QUITE OFTEN 5
- ALWAYS. 6

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 5.148$	$\bar{x} = 4.803$	$\bar{x} = 5.366$	LD/LA: Yes
	SD = 1.076	SD = 1.262	SD = .765	LD/NA: No
	RANGE =	RANGE = 0-6	RANGE = 3-6	LA/NA: No *

N = 162

N = 142

N = 183

F = 11.9069

P ≤ .001

TABLE 22

PARENT TECHNIQUES-LECTURES

YOUTH QUESTION: DO YOUR PARENTS DO ANY OF THESE THINGS TO
 PUNISH YOU? NO YES
 LECTURE YOU = 1 2

YOUTH RESPONSE

LD	LA	NA	OVERLAP
$\bar{x} = 1.748$ SD = .435 RANGE = 1-2	$\bar{x} = 1.783$ SD = .413 RANGE = 1-2	$\bar{x} = 1.860$ SD = .347 RANGE = 1-2	LD/LA YES LD/NA NO LA/NA YES
N = 234	N = 221	N = 215	F = 4.5724 P ≤ .01

TABLE 23

PARENT TECHNIQUES: HITTING

YOUTH QUESTION: DO YOUR PARENTS DO ANY OF THESE THINGS TO PUNISH YOU?

HIT YOU (SPANK, SLAP) NO YES
= 1 2

YOUTH RESPONSE

LD	LA	NA	OVERLAP
$\bar{x} = 1.219$ $SD = .414$ RANGE = 1-2	$\bar{x} = 1.252$ $SD = .435$ RANGE = 1-2	$\bar{x} = 1.126$ $SD = .332$ RANGE = 1-2	LD/LA YES LD/NA YES LA/NA NO
N = 233	N = 222	N = 215	F = 5.9528 P ≤ .01

TABLE 24
PARENT-CHILD RELATIONSHIP

YOUTH QUESTION: ABOUT HOW OFTEN DO YOU TALK TO YOUR PARENT(S)
ABOUT THINGS THAT ARE HAPPENING IN YOUR LIFE?

PARENT QUESTION: ABOUT HOW OFTEN DOES YOUR SON/DAUGHTER TALK
TO YOU ABOUT THINGS THAT ARE HAPPENING IN HIS/HER LIFE?

- RARELY, IF EVER = 0
- ONCE A MONTH = 1
- 2-3 TIMES A MONTH = 2
- ONCE A WEEK = 3
- 2-3 TIMES A WEEK = 4
- ONCE A DAY = 5
- MORE THAN ONCE A DAY = 6

YOUTH

RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 3.073$	$\bar{x} = 2.982$	$\bar{x} = 3.967$	LD/LA: Yes*
	SD = 2.296	SD = 2.113	SD = 1.722	LD/NA: No*
	RANGE = 0 - 6	RANGE = 0 - 6	RANGE = 0 - 6	LA/NA: No*
	N = 234	N = 221	N = 215	F = 8.7941
				P ≤ .001

PARENT

RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 4.074$	$\bar{x} = 3.618$	$\bar{x} = 4.563$	LD/LA: No
	SD = 1.648	SD = 1.742	SD = 1.260	LD/NA: No*
	RANGE = 0 - 6	RANGE = 0 - 6	RANGE = 0 - 6	LA/NA: No*
	N = 162	N = 144	N = 183	F = 15.1872
				P ≤ .001

TABLE 25
PARENT SATISFACTION WITH SCHOOL

PARENT QUESTION: HOW SATISFIED ARE YOU WITH THE CURRENT SCHOOLING YOUR SON/DAUGHTER IS RECEIVING?

- COMPLETELY DISSATISFIED = 1
- DISSATISFIED = 2
- SLIGHTLY DISSATISFIED = 3
- NEITHER SATISFIED NOR DISSATISFIED = 4
- SLIGHTLY SATISFIED = 5
- SATISFIED = 6
- COMPLETELY SATISFIED = 7

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{X} = 4.831$ SD = 1.679 RANGE = 1-7	$\bar{X} = 4.246$ SD = 1.876 RANGE = 1-7	$\bar{X} = 5.555$ SD = 1.205 RANGE = 1-7	LD/LA: No** LD/NA: No* LA/NA: No*
	N = 160	N = 142	N = 182	F = 27.6753
				P \leq .0000

TABLE 26

PARENT EXPECTATIONS FOR SCHOOLING

PARENT QUESTION: HOW MUCH SCHOOLING DO YOU EXPECT THIS SON/DAUGHTER WILL GET EVENTUALLY?

- FINISH GRADE SCHOOL (1-8 GRADES) = 1
- SOME HIGH SCHOOL = 2
- HIGH SCHOOL DIPLOMA = 3
- TRADE OR VOCATIONAL SCHOOL CERT. = 4
- SOME COLLEGE = 5
- COLLEGE DEGREE = 6
- GRADUATE OR PROFESSIONAL DEGREE = 7

PARENT RESPONSE

LD	LA	NA
$\bar{x} = 3.806$	$\bar{x} = 3.894$	$\bar{x} = 5.934$
SD = .994	SD = 1.263	SD = .883
RANGE = 2 - 7	RANGE = 1 - 7	RANGE = 3 - 7

N = 160

N = 141

N = 182

OVERLAP

LD/LA: YES*

LD/NA: No*

LA/NA: No*

F = 227,5415

P ≤ .001

TABLE 27

PARENT EXPECTATION FOR OCCUPATION

PARENT QUESTION: WHAT KIND OF OCCUPATION DO YOU THINK YOUR SON/DAUGHTER MAY EVENTUALLY HAVE?

PARENT RESPONSE	LD	LA	NA	OVERLAP
	$\bar{x} = 57.037$ SD = 33.092 RANGE = 4-96	$\bar{x} = 53.194$ SD = 34.139 RANGE = 4-96	$\bar{x} = 74.139$ SD = 18.920 RANGE = 8-96	LD/LA: Yes LD/NA: No LA/NA: No
	N = 81	N = 72	N = 144	F = 17.9552 P ≤ .001

TABLE 28

VARIABLES YIELDING NO SIGNIFICANT DIFFERENCES

<u>YOUTH ASSESSMENT INSTRUMENT</u>	<u>QUESTION No.</u>	<u>VARIABLE No.</u>
TEACHING TECHNIQUES USED BY PARENTS	5A	12
SATISFACTION WITH PARENT TEACHING	5A	13
FREQUENCY OF PUNISHMENT	6	14
PARENT'S USE OF REASONS	7A	22
SATISFACTION WITH PARENT'S REASONS	7B	23
PARENT SUPERVISION	8	24
PARENT REACTION TO FAILURE	11	27
USE OF RESTRICTING PRIVILEGES AS PUNISHMENT	6B	17
USE OF EXTRA WORK AS PUNISHMENT	6B	18
<u>PARENT ASSESSMENT INSTRUMENT</u>		
RELATIONSHIP TO CHILD (PARENT, GRANDPARENT, ETC.)	2	3
MARITAL STATUS OF PARENTS	3	4
NUMBER OF BROTHERS	5	6
NUMBER OF CHILDREN BORN AFTER THIS CHILD	7	8
TIME BETWEEN THIS CHILD'S BIRTH AND ONE BORN BEFORE	18	29-32
TIME BETWEEN THIS CHILD'S BIRTH AND ONE BORN AFTER	19	33-36
MOTHER'S RACE	8	9
FATHER'S RACE	9	10
HOURS PER WEEK MOTHER WORKED WHEN CHILD WAS YOUNG	14	19
PARENT FEELING OF EFFECTIVENESS IN HELPING YOUTH	49	130