MOTHERS' EXPECTATIONS FOR THE FUTURES OF THEIR MENTALLY HANDICAPPED CHILDREN

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BY

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A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Science

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July 1988

St. John's Newfoundland

ISBN 0-315-45086-X

ABSTRACT

Twenty-eight mothers of 29 school-aged, mentally handicapped children were interviewed at home during the summer of 1987 to determine what expectations they held for the futures of their children and to determine what factors influenced these expectations.

Data analysis showed that all mothers had developed expectations for the futures of their children in virtually all areas examined. It appears that the development of these expectations is very much influenced by the mothers' estimations of the childrens' degree of handicapping condition. Further analysis revealed that mothers' perceptions of their childrens' abilities is influenced by mothers' perceptions of their childrens' overall development. No particular developmental factor, i.e., language development, fine motor skills, mobility etc. could be identified as contributing to mothers perceptions of their childrens abilities. Factors previously thought to influence the development of maternal expectations, i.e., family or professional support and socioeconomic status of the families had little effect in this study. All results described in this study were done so with caution in light of the small sample size ($n = 28$).

ACKNOWLEDGEMENTS

I would like to acknowledge the G. Allan Roeher Institute, Toronto, for the Scottish Rite Charitable Foundation Bursary awarded me for the 1985 - 86 academic year.

I would like to offer my sincere thanks to both the Roman Catholic School Board and the Avalon Consolidated School Board for their assistance in distributing my letter and consent form to the mothers of students with mental handicaps.

I would also like to offer my sincere appreciation to Dr. Abe Ross, Mr. Malcolm Grant and Dr. Kofi Marfo for their guidance and invaluable advice.

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INTRODUCTION

All parents set goals and have expectations for the futures of their children. Parents of children with mental handicaps are no different from other parents in terms of developing goals for the futures of their children. Research has indicated that the expectations developed by parents of mentally handicapped children range from unrealistically high (given the degree of the child's handicapping condition) to extremely low (when parents feel there are no alternatives for their children). The researcher's own experience in the field of services to families with a mentally handicapped member has allowed for observation of a number of variables (some of which have been incorporated into this study) that may influence parental expectations.

In general, mothers are the primary care givers for mentally handicapped family members. Although exceptions to this generalization have become more frequent over the years, fathers who act as primary care givers are still very much in the minority. Thus, it was decided to include only mothers in this study. Mothers of children with mental handicaps vary greatly in their expectations, goals and service-seeking behaviour. Some mothers expect only that their mentally handicapped children will remain at home, within the family unit, and receive the love and care they need. Other mothers make plans for their children to move out of the family unit and live in group homes or supervised apartment settings. Some mothers of school-aged children with

mental handicaps want their children to attend semi-integrated classes; others advocate strongly for full integration in regular classes. While some mothers do not consider training for their children past the mandatory school period, other mothers make plans for their children to enter programs that offer such services as pre-vocational training, sheltered workshops and employment training. The question that precipitated this study was, "What leads to this great range of expectations?"

This study addresses two questions: (1) "What expectations do mothers of mentally handicapped children hold in terms of educational and vocational achievements as well as residential alternatives for their children?" and (2) "What influences the development of these expectations?" A review of previous research indicates three factors which may influence mothers expectations for the futures of their mentally handicapped children: (1) mothers' evaluations of their children's abilities, (2) family socioeconomic status, and (3) the amount and type of family and professional support available.[1]

Maternal Expectations and Perception of Childrens' Abilities

Parents' evaluations of their childrens' abilities have been examined in two ways: (1) by comparing parents' perceptions of their childrens' abilities relative to the abilities of non-handicapped age peers, and (2) by comparing parents' appraisals of their childrens' abilities with appraisals of professionals, based on the results of some standardized test of functioning,

i.e., intelligence test.

A number of studies have examined mothers' evaluations of the abilities of their mentally handicapped children, relative to the abilities of non-handicapped children. Meyerowitz, (1967) examined how parental awareness of mental retardation affected parental views of their childrens' future. The sample for this research included parents of 180 children entering the first grade of a public school system. One-hundred and twenty of these children were labeled mentally handicapped (based on IQ scores ranging from 60 - 85) and, as stated by Meyerowitz, were randomly assigned to either a regular class (Control Group n = 60) or a special education class (Experimental Group n = 60). Meyerowitz does note that placement of children into the Experimental Group did require parental consent. In a Criterion Group, were 60 children (IQ's ranging from 90 - 110) in regular classes, whose families had been matched, with those of the handicapped children, on socioeconomic status. Parents of all the children were interviewed at home, three times over a two year period.

Parents were judged to be "aware" of a mental handicap in their children if, during the course of the first home interview (one month after the beginning of the first school year) they made any mention of intellectual deficiency. Twenty-seven of the sixty parents with children in the Experimental Group were judged to be aware of any mental handicap and eighteen of the sixty of parents with children in the Control Group were judged to be

aware. It is interesting to note that three parents with children in the Criterion Group were judged to be aware of a mental handicap in their children.

Analysis of expectations for the future indicated that parents of the mentally handicapped children (both the Control and Experimental Groups combined) had significantly lower educational expectations than did the parents of the Criterion Group children. With respect to occupation and ability, parents of the Criterion Group were found to have significantly higher evaluations of their children's abilities and occupational expectations than parents of the Control Group. Parents of the Control Group tended to have higher ability evaluations and occupational expectations than did parents of the Experimental Group, although these differences were not significant.

The major problem with this study lies in the measure of parental awareness. While some criteria guidelines were employed to dichotomize parents into categories of "aware" and "unaware", i.e., parents who stated that their children were judged to be intellectually deficient by professionals had to express agreement with that judgement in order to be classified as "aware", the measure was generally unstructured. A second, and related problem involved the treatment of the parents whose children were placed in the Experimental Group. As stated previously, parental permission was required to place children in a special class. This permission was obtained following parents meeting with school officials who, while not referring

specifically to mental retardation, did stress the need and potential benefits of children's placement into the special class. It is possible that such treatment influenced the way these parents thought about their children both in terms of abilities and expectations. Further, it is not stated by the authors how many parents, following meetings with school officials, refused to allow their children to attend the special class. It is therefore possible that some children who had been randomly assigned to the Experimental Group actually became part of the Control Group when their parents refused them entry into the special class.

A study by Serbin, Steer and Lyons, (1983) examined mother's estimates of their children's abilities. This study looked at estimates of mothers of developmentally delayed children relative to estimates of mothers of non-delayed children, as well as the absolute difference between actual test performance and mothers' estimates for both groups. Seventeen mothers of developmentally delayed pre-school boys and seventeen mothers of non-delayed pre-school boys were asked to: (1) predict how their sons would perform on the Embedded Figures Test, (2) predict the performance of the "average child of the same age" and (3) rate their son's attentiveness and cooperation during the testing.

During the cognitive testing session mothers and independent observers both rated the boys on attentiveness and cooperation. Observers were not told whether the child they were observing was delayed or not (although the authors concede that the observers

may have known, because of information obtained from the mothers during the pre-test interview).

Results of this study showed that the mothers of the non-delayed boys thought their children would score higher than the average child, while mothers of the delayed boys thought their sons would score lower. Both groups of mothers predicted that their sons would perform better than they actually did, but mothers of delayed boys predicted better performance (in comparison to actual test results) by a wider margin. The difference between actual and predicted performance was significant for the mothers of developmentally delayed boys but not for the mothers of non-delayed boys. There was no significant difference in attentiveness and cooperation between the developmentally delayed boys and the non-delayed boys as rated by the observers. However, when compared to the observer, mothers of the delayed boys rated their sons as less cooperative and attentive, while mothers of non-delayed boys rated their sons as more cooperative and attentive. The authors contend that mothers of developmentally delayed boys attributed the low test scores their sons had obtained to their sons' lack of cooperation and motivation and not to their intellectual deficit. This subsequently translates into a life of "consistent disapproval and parental disappointment" (Serbin, Steer & Lyons, 1983, p.89).

A study by Venn, DuBose and Merbler, (1977) surveyed parents and teachers of ten severely handicapped children to examine their expectations for the adult lives of the children. All of

the children were visually impaired and had at least one other handicapping condition (although the latter was not specified). Chronological ages of the children ranged from 3 - 16 years with developmental ages ranging from 2 - 8 years.

Both parents and teachers of these ten children were asked to complete a questionnaire which was designed to reflect a continuum of levels of potential achievement in areas of education, vocational placement, residential independence, social relationships, and annual earnings. Comparisons were then made between the parents responses and the teachers responses.

Analysis of the questionnaire results indicated that parents had higher expectations for their children's achievements in all areas, with the exception of self-help skills, in which teachers had higher expectations. Although parent expectations were generally higher than teacher expectations, the difference between the two groups was not significant. The difference between categories was also not significant. There was, however, a significant difference between the expectations of parents and teachers for the highest level of educational achievement. While parents expected their children to achieve an educational level between elementary and junior high school, teachers expected the children to attain an educational level between kindergarten and elementary school.

Venn, DuBose and Merbler (1977), concluded that while parents hold slightly higher expectations for the adult lives of their severely handicapped children, both parents and teachers

had expectations for these children that generally fell in the middle of the continua of achievement alternatives. No reliability or validity data were reported for the questionnaire used in this study. While educational expectations differed between teachers and parents, this difference could have been due to mothers reporting expectations based on actual grade level achievement of their children while teachers were reporting expectations based on actual educational accomplishment regardless of grade level. Another explanation for the discrepancy between parents' and teachers' expectations could lie in the different educational backgrounds of the parents and teachers. However, educational background information on parents and teachers was not reported in this study.

An interesting assumption is made in virtually all studies that compare parents' and professionals' perceptions of childrens' abilities. When parents' expectations or perceptions are higher than those of professionals, the parents' expectations or perceptions are labelled as being "unrealistically high". It is seldom assumed that the expectations or perceptions of professionals are "unrealistically low". The question then is, what exactly constitutes "realistic" expectations or perceptions of ability? One way to define realism is in terms of scores generated on reliable, standard tests of functioning or intelligence.

Some studies have examined parental evaluations of their children's ability and expectations for their children's future

by comparing parents' evaluations of their childrens' abilities with the results of some standardized test of functioning. These studies have attempted to address the issues of "predictive realism", defined as the realism of expectation regarding the child's future achievements (Wolfesberger and Kurtz, 1971). Zuk (1959) contended that parents of mentally handicapped children exhibited a positive bias in how they portrayed their children's abilities. Zuk referred to this bias as autistic distortion and defined it as parents unrealistic evaluation of the potential of their handicapped children for future growth and development. Zuk used the Vineland Maturity Scale (Doll, 1935) to assess parents' perceptions of mentally handicapped nursery schoolers. Teachers of these pre-schoolers also completed the scale. A comparison of the Social Quotients (SQ) for each child, resulting from analysis of information given by the parents and teachers indicated that parents consistently rated their children's abilities higher than teachers. It was also found that childrens' derived SQ based on information supplied by parents was significantly higher than IQ scores obtained from recent standardized tests. In a review of this study, Wolfensberger and Kurtz (1971) point out that the assumption upon which Zuk based his research i.e., that SQ's and IQ's are always equal, is now known to be invalid.

Jensen and Kogan (1962) reported that, when compared to a professional's rating of children based on the Jensen and Kogan Rating Scale (Jensen & Kogan, 1962), mothers of children who were both physically and intellectually handicapped were more

likely to rate their children unrealistically high, than were mothers of less handicapped children. It is interesting to note that Jensen and Kogan's findings are in direct opposition to the findings of Zuk (1959) who concluded that the presence of a physical handicap in a child who was also mentally handicapped reduced parents' tendency to over estimate their children's abilities.

In a study conducted by Barclay and Vaught, (1964), mothers of 40 children with cerebral palsy (20 of whom were under the age of six years) completed the Jensen and Kogan Rating Scale (Jensen & Kogan, 1962). This scale was designed specifically to, "investigate the tendency of parents to overestimate the ultimate level of achievement of the child" (Barclay & Vaught, 1964, p.62). A person completing this scale estimates future achievement in areas of education, vocation, and social functioning. A rating scale, based on the Stanford-Binet, Form L-M and the Vineland Maturity Scale was also filled out by the investigators. Thus, test results were used as a basis for estimates of future achievement by the investigators and differences between mothers' ratings and the investigators' test-based ratings were compared.

Results showed that the mother's ratings of the child's ability was significantly higher than the researcher's ratings. Further, when children's intellectual abilities were examined, it was found that for those judged to be "borderline mentally-retarded" or below, the mothers rated their children's ability in

an unrealistically positive direction, regardless of their age or motor involvement.

A major problem with this study lies in the investigators' assumption that parental predictions of ability and achievement are less valid than the researchers' predictions. Wolfensberger and Kurtz (1971), who define "parental realism" as the parent's tendency to accurately assess his/her child's abilities, disabilities and adequacy of behaviour, contend that parents may very well be able to correctly estimate their child's functioning level in terms of developmental age or some similar descriptor. However, it is quite possible that what professionals have labeled as "unrealistic" is actually the parents reluctance or inability to give an accurate IQ estimate or accept a diagnostic label which for them possess a strong negative connotation.

A study by Marfo, Browne, Gallant, Smyth, Corbett & McLennon (1988) lends moderate support to the contention that parents can accurately assess the abilities of their children. This study involved a program evaluation of the Direct Home Services Program, an in-home, early intervention program for mentally handicapped pre-schoolers and their families. Subjects were parents of 200 children who either had previously received, or were, at the time of the study, receiving the service. Part of the screening requirements of the Direct Home Services Program is the Alpern-Boll Developmental Profile (Alpern & Boll, 1972), which assesses the developmental age of the child (in months) in five different developmental areas. From scores of individual

entry-level Alpern-Boll assessments, the researchers derived the Developmental Delay Severity Index (DDSI), a measure of severity of handicap, based on the difference between the child's developmental age and chronological age (at time of first assessment), divided by chronological age (at time of first assessment). When this measure was compared to parents' own ratings of their childrens' functioning levels (based on a 4 point scale ranging from mild to profound) the correlation was .37 ($p < .001$). The researchers also found a correlation ($r = .38$, $p < .001$) between parents' ratings and children's current developmental age.

While able to assess their children's abilities, it may well be that mothers of children with mental handicaps (or other handicapping conditions) do have a tendency to make higher estimates of the abilities and future achievements of their children than the estimates of professionals using standardized tests. However, a study by Hunt and Paraskevopoulos (1980) of 50 mothers of non-handicapped preschool children shows that they too have a tendency toward higher estimates of the abilities of their children. The premise of the study was that mothers who know their children's abilities and interests are less likely to confront them with environments posing either boring undermatches or distressing overmatches. Children were tested on 96 items selected to be just under, within, and above the ability of the average child. While one research assistant tested the child, another research assistant interviewed the mother and asked her

to predict how her child would perform on each item. Results showed that, on the whole, the mothers participating in this study had a tendency to overestimate of the number of items to which the child would respond correctly. The mean number of items passed by the children was less, by 16, than the mean number of items which their mothers predicted they would pass. Results of this study then, indicate that it is not only mothers of mentally handicapped children who estimate their children's abilities to be higher than professionals or tests would indicate; mothers, as a whole have a tendency to do this.

Socioeconomic Status

Family socioeconomic status and the level of parental expectations appear to be negatively correlated. Iano, (1970) examined the impact of social class on parental evaluations of their mentally handicapped children. Of the parents of 106 mentally handicapped children attending ten public schools in upstate New York, eleven parents were rated as upper middle class, twenty-nine as middle class, forty-six as lower middle class and twenty as lower class. These ratings were based on the Hollingshead Index of Social Position (Hollingshead & Redlich, 1958). Iano found that parents of upper and middle class status were more often negative in their evaluation of their child than parents of lower middle and lower class status. In referring to their child's social, intellectual and independence abilities, it was found that parents of the lower class status more often

expressed high than low estimates of achievement while parents of upper and middle class status more often expressed low than high estimates of achievement.

Iano points out that middle and upper class parents place a greater value on education and achievement than do parents of lower class status. Thus, lower class parents probably have higher expectations for their mentally handicapped children because they attach less importance to the child's slow educational progress.

In terms of parental realism in appraising the abilities of their mentally handicapped children, Wolfensberger and Kurtz, (1971) also found that parents of higher and middle socioeconomic status are more realistic than parents of lower socioeconomic status. Wolfensberger contends that the upper and middle class are more future oriented and see education as the main means of achieving upward mobility and career prestige. Among the middle class, education is also seen as related to intelligence. The lower class, on the other hand, are more concerned with the demands of the immediate situation and tend to place more emphasis on physical achievement than on mental achievement. It is possible that parents within the lower socioeconomic classes do not identify a mental handicap as readily as they would a physical handicap (Wolfensberger & Kurtz, 1971).

On the basis of interviews with 76 mothers of mildly and severely mentally handicapped children living in Israel, Weller, Cohen and Rahman, (1974) concluded that middle class mothers

with severely mentally handicapped children more accurately appraised the functioning level of their children than did lower class parents of moderately retarded children. The authors note that this finding may well be a result of an interaction of social class and degree of handicap. They explain that while middle class mothers may have been more intellectually alert to their childrens' handicapping conditions, it is also plausible that mothers of children with severe mental handicaps are less able than mothers of children with mild mental handicaps, to distort their evaluations of their children's potential.

Available Social Support

It is likely that parental expectations are influenced by "experts" in the field of mental retardation, family members and self-help groups comprised of other parents with mentally handicapped children. Although there have been no studies examining the link between these sources and parental expectations, a number of studies have examined use of social support and the mediating influence of social support on parental attitudes.

In examining changes that occur in family support networks over the life cycle of mentally handicapped persons, Suelzle and Keenan (1981) had 330 mothers, whose children ranged in age from a few months to 21 years complete a lengthy mail-out survey. A total of 751 families were identified, for this study, through the educational facilities serving Lake County, Illinois. All of

these families were mailed consent forms to sign, indicating their willingness to participate in the study. While a total of 458 families consented to complete the survey the final number of respondents was 330. This number represents 43.9% of the total number of families originally identified and 72.1% of those who consented to participate. It should be noted, when interpreting the results of this study, that although the number of subjects was large, they could represent a somewhat biased sample.

Results of the "Utilization of Services" data indicate that personal support networks tended to decline as children became older. Significant declines in the use of family members or friends as babysitters or for respite also occurred as the children grew older. Although not significant, there was a decline, as well, in the parents utilization of "rap sessions" with other parents and parent counselling and guidance. A possible explanation of this decreased utilization of support was attributed to a perceived decreased number of support options available to parents of older mentally handicapped children. This explanation was further supported by findings that parents of mentally handicapped young adults perceived a greater number of unmet service needs than did parents of any other age group.

An exploratory study by Dunst, Trivette and Cross (1986), examined the mediating influences of social support in terms of both satisfaction with the various sources of support and the number of support sources available. This study was based on a systems theory which postulates that social networks and the

support that network members provide both directly and indirectly influence the behaviour, attitudes, expectations and knowledge of parents and their offspring as well as other network members. Subjects were 137 parents who were participants in an early intervention program for handicapped and developmentally-at-risk pre-schoolers. Results of the three self-report surveys completed by the parents indicated that parents who were more satisfied with their support network tended to be less protective of their children. Parents who reported inadequate supports were found to increase the degree of over-protectiveness as their children grew older. In terms of a parents perception of his/her child's behaviour, it was found that those families with more supportive networks rated their children as having less troublesome behaviors than did families with minimal supports.

Pessimism (undefined by the authors) concerning the children's future was reported to be significantly related to the sex of the child (parents of females were more pessimistic than parents of males) and the age of the child (parents of older children were more pessimistic than parents of younger children). Parents of mentally handicapped children were more pessimistic about their childrens' futures than parents of physically handicapped children. Pessimism was found to increase with increasing age of the children, especially among parents with larger degrees of support. The authors also reported that the amount of progress children made over the course of a year (obtained by examining records of the children's IQ tests), was

significantly related to social support in that children were more likely to make progress if they had parents with supportive social networks.

The major problem with this study, given that it was exploratory in nature was that the dependent measures were not operationally defined for the reader. As a result, it is difficult to properly interpret a number of the outcomes.

Summary

In summary, it appears that mothers of developmentally delayed children have lower educational and occupational expectations than do mothers of non-delayed children. However, they often have higher expectations and estimates of ability than the results of standardized tests would warrant. As shown by Hunt and Paraskevopoulos (1980), the discrepancies between mothers' estimates of ability and estimates derived from a standardized tests of functioning, may not be confined to mothers of developmentally delayed children. There may be a tendency among all mothers to overestimate the abilities and achievement potential of their children. The relationship between expectations and socioeconomic status, as well as between expectations and availability of support services is less clear, and may, in fact, be dependent on mothers perceptions of childrens' abilities and/or the quality of the support available to the family as a whole.

This study will examine what expectations mothers hold for

the futures of their mentally handicapped children in areas of educational and vocational achievement, residential placement and independence in daily living. In addition, possible factors influencing the development of these expectations will be explored by examining the effect of childrens' abilities and degree of handicap, present school placement, the amount of both professional and family support available to the mothers and their children and the family socioeconomic status on their expectations of their child.

METHOD

Sampling Procedure

Subjects for this study were mothers whose mentally handicapped children were attending primary, elementary, junior high, or high school during the 1986-87 academic year. Prior to subject selection, a research proposal was submitted to the Superintendents of both the Roman Catholic and Avalon Consolidated School Boards. Approval was sought to send letters to mothers of students attending either Developmental Programs or Trainable Mentally Handicapped (TMH) classes, requesting their assistance in the study of maternal expectations for the future lives of their mentally handicapped children.

Following approval of the proposal and meetings with School Board officials, a total of 13 schools (6 Roman Catholic and 7 Avalon Consolidated) in the St. John's and metropolitan area were identified as having Developmental Programs and/or TMH classes. Meetings with Principals of these schools revealed a total of 151 students labelled, "mentally handicapped".

Principals of each school were supplied with packages to be distributed, by the Developmental class or TMH teachers, to each student to bring home to his/her mother (See Appendix A). These packages contained a letter of introduction and explanation from the researcher, a consent form, and a pre-addressed, stamped envelope. Mothers wishing to participate in the research were asked to complete the consent form and send it to the researcher

in the envelope provided.

One hundred and fifty-one packages were distributed to the schools between June 4 and June 8, 1987. Twenty-nine mothers agreed to participate and were contacted by telephone, to arrange a convenient time for the researcher to conduct a home visit.

Ethical considerations related to confidentiality necessitated this multiple stage delivery method for distributing the original packages to the subjects. In order to get the researcher's letter of introduction and explanation and the consent forms to the 151 mothers in the identified population, while preserving their confidentiality the packages had to go from the school principal to the classroom teacher to the students to bring home to their mothers without the researcher being able to identify individuals. It is likely that a number of these packages were lost at each step. One of the major factors which may have contributed to the loss of packages was the timing of the delivery, i.e., June, which is the end of the school year. For example, teachers are concerned with end of year projects, families may go on vacation early, etc. Packages placed in childrens' book bags, because it was the end of the school year, may not have been checked by parents.

As mothers names were unknown to the researcher until the consent forms were returned, it was impossible to follow-up with the mothers to discover how many had actually received the package. Because of this the response rate of 19.2% of the population should not be viewed as an 80.8% refusal rate.

If one assumes that all 151 mothers actually received the packages that were distributed by the schools, it is possible that this sample is biased. Possible biases might include respondents personal characteristics such as helpfulness or increased interest in the well-being of their children. However, it is difficult to see how these or any other particular characteristics may have consistently influenced the dependent variables of this study.

Instruments and Procedures

Three questionnaires were employed in this study. The Parent Perception Questionnaire (PPQ) was designed primarily to evaluate mother's perceptions of the developmental level of their mentally handicapped children (See Appendix B). Fifteen of the 21 items asked mothers to evaluate their children's developmental progress in areas such as communication, comprehension, social interaction, gross and fine motor skills, as well as general life skills and school progress. Items were answered using a five-point scale with alternatives ranging from "poor" to "excellent". Other items in this questionnaire dealt with the children's school programs, their degree of integration with non-handicapped children, and the mother's involvement with organizations for the mentally handicapped.

The Child Expectations Scale (CES) is an 11-item Likert scale designed to assess expectations that mothers hold regarding the futures of their mentally handicapped children. Expectations

are assessed in the domains of schooling, physical and financial independence, socialization and community involvement, living and working environments, and support program involvement (See Appendix C). The order in which the Parent Perception Questionnaire and the Child Expectations Scale were completed was randomized across subjects. Subjects completed these questionnaires on their own in the presence of the researcher.

The Demographic Questionnaire included questions regarding marital status, family income and age, education and occupation of mothers, spouses and offspring (See Appendix D). The Demographic Questionnaire was always administered last; items were asked orally and responses recorded by the researcher.

All three questionnaires were reviewed by the researcher and her Supervisory Committee to ensure clarity of each item. As well, the questionnaires were pre-tested with three mothers of non-handicapped children to ensure clarity of each item.

RESULTS AND DISCUSSION

The purpose of this research was two-fold: to discover what expectations mothers held for the futures of their mentally handicapped children and to discover what factors influenced the development of these expectations.

Demographics

The final sample for this research included 28 (18.5% of the population originally contacted) mothers of mentally handicapped children attending school. One mother, who had originally consented to participate in the study, could not arrange a home visit for the researcher because her child was hospitalized during the data collection period.

All subjects resided in the metropolitan area of St. John's. Sixteen (57.1%) resided in the city of St. John's itself; eight (28.6%) resided in the Mt. Pearl/Goulds/Kilbride area; three (10.7%) resided in the Torbay/Middle Cove/Pouch Cove area and one (3.6%) resided in Conception Bay South.

Information on the marital status of the subjects revealed that twenty-three (82.1%) were married; four (14.3%) were either separated, widowed or divorced and one (3.6%) was never married. Mother's ages ranged from 28 to 59 years with the average age being 41 years (SD = 8.87). One subject did not disclose her age. Demographic information collected on other family members showed spouses of subjects ranged in age from 32 to 59 years, with an

average age of 41 years (SD = 7.44).

Education levels of mothers showed that seven (25%) had not completed schooling past grade 8; sixteen (57.1%) had up to grade 11 education; two (7.1%) had completed one to three years of university and three (10.7%) had completed between four and six years of university. Five mothers (17.9%) had completed course work and obtained diplomas from post - secondary institutions other than university. Information on education levels of spouses showed two spouses (7.1%) had completed only Junior High School; eighteen (64.3%) had high school education and three (10.7%) had completed four to six years of university. Of the six spouses who had attended either a Polytechnical or Community College, four (17.4%) had earned diplomas from these institutions.

Twenty-four mothers were biological mothers, one was an adoptive parent and three were foster mothers. Of the three foster mothers, one had two mentally handicapped children, both of whom were included in the study. Thus, while the number of subjects was 28 mothers, information was collected and reported on 29 children with mental handicaps. Mothers of eleven (37.9%) children first became aware of their children's mental handicap at birth. Mothers of nine (31.0%) children reported suspecting their children were not developing normally and subsequently had these suspicions confirmed by medical professionals. Mothers of three (9.7%) children reported that they first became aware of their children's mental handicap when the schools in which they were enrolled recommended assessment of their children's

abilities. The mother of one (3.4%) child was informed, as a result of a school assessment, that her child was mentally handicapped but did not agree with the diagnosis and at the time of this study did not consider her child to be mentally handicapped. Mothers of four (13.8%) children were foster mothers and knew, prior to the children being placed in their homes, that the children were mentally handicapped. The mother of one (3.4%) child reported knowing through her own observations that her child was mentally handicapped.

Information on the twenty-nine target children revealed that, at the time of the study, their average chronological age was thirteen years (SD = 4; Range: 6 to 19). Nineteen (65.5%) were male, ten (34.5%) were female. In terms of mobility, twenty-two (75.9%) of the children could walk, three (10.3%) crawled, two (6.9%) used wheelchairs, and two (6.9%) had be carried.

In terms of mothers' estimations of children's degree of handicap, one child (3.4%) was classified as not at all mentally handicapped, fourteen children (48.3%) were classified as mildly mentally handicapped, nine children (31.0%) were classified as moderately mentally handicapped, and four (13.8%) were classified as severely handicapped. One mother stated that she could not estimate her child's degree of handicap. In comparison with the development of non-handicapped age peers, mothers of twelve children (41.4%) believed their children were very much behind, mothers of sixteen (55.2%) children believed their children were somewhat behind, and the mother of one child (3.4%), who was not

considered to be mentally handicapped, believed her child was developmentally about the same. Table 1 shows this distribution.

All target children had at least one sibling and the average number of siblings per target child was 2.65. Thirty-eight (49%) of the siblings were students; seven (9%) were pre-schoolers; three (3.9%) were housewives; three were unemployed and twenty-six (33.8%) were employed. Siblings ranged in age from 1 year to 34 years, with an average age of 16.8 years.

Of the 25 subjects who responded to the question on family income, five (17.8%) indicated an income between $5,000 and $11,999 a year; eleven (39.3%) between $15,000 and $34,999 a year; seven (24.9%) between $35,000 and $74,000 and two families reported annual incomes of more than $75,000. Two subjects would not disclose their family incomes and one subject did not know. See 'List C', Appendix D.

All twenty-three spouses were employed at the time of the study. Seven spouses (20.4%) were listed as either unskilled or semi-skilled workers; three (13%) as skilled tradesmen; five (21.7%) worked in clerical or sales fields; six (26.1%) were proprietors or managers of small businesses and two (8.6%) were semi-professionals or professionals. Ten (35.7%) mothers worked outside the home. This distribution of spousal employment is reflected in the distribution of family income.

Index Development

In addition to analyzing the individual items of the PPQ and the CES, the following indices were developed from groups of related items to allow for the examination of two themes, maternal expectations and maternal perceptions of their childrens' abilities in the development of maternal expectations for the future lives of their mentally handicapped children. While the indices were developed separately, they were moderately correlated ($r = .65$; $p < .05$).

Index of Maternal Expectation: In order to achieve a reliable measure of mothers' expectations, items 1 through 10 of the Child Expectations Scale were combined to produce the Index of Maternal Expectations. Reliability was established by the use of Cronbach's Alpha with subsequent deletion of items that added little to the overall reliability. The original reliability for all ten items was .71. In the final analysis, items 2 and 9 were deleted and the eight items included in the index had a reliability of .76. Table 2 shows the reliability analysis for this Index.

Given the nature of the scales on which the mothers responded, scores for the Index of Maternal Expectation could range from a minimum of 1.00 to a maximum of 4.75. Index scores were obtained by adding the item scores and dividing by the number of items checked by the mothers. A higher composite score indicated a higher level of expectation. The mean score for this index was 2.63 (SD = .90; Range : 1.14 to 4.25). See Table 3.

Evidence of construct validity for the Index of Maternal Expectations was obtained by performing an Analysis of Variance on the scores of mothers who estimated their children's degree of handicap as severe (n = 4: $\bar{X}$ = 1.50; SD = .36), moderate (n = 9: $\bar{X}$ = 2.54; SD = .89) or mild (n = 14: $\bar{X}$ = 2.99; SD = .60). A significant difference in these scores (F = 7.3; $p < .003$) indicates that scores from this scale were influenced by mothers' perceptions of their childrens' degree of handicap. Mothers who viewed their children as severely handicapped had relatively lower scores on the Index of Maternal Expectations.

Index of Perceived Ability: In order to achieve a reliable measure of mothers' perceptions of their childrens' abilities, items 7 through 16 of the Parent Perception Questionnaire were combined to produce the Index of Perceived Ability. Item 7 on the questionnaire was divided into two separate questions. Mothers who indicated that their children could verbalize were asked to answer part "a" of the question while mothers who indicated their children could not verbalize were asked to answer part "b". For purposes of constructing this index, both parts "a" and "b" of this question were combined so that all subjects could be included. Reliability was established by the use of Cronbach's Alpha with subsequent deletion of the items that added little to the overall reliability. The original reliability for all ten items was .80. In the final analysis, item 16 was deleted and the nine items included in the index had a reliability of .82. Table 4 shows the reliability analysis for this Index.

Composite scores ranging from a minimum of 1 to a maximum of 5 were computed for the nine items of the Index of Perceived Ability. Scores for this index were obtained in the same manner as were scores on the Index of Maternal Expectations. A higher composite score on the Index of Perceived Ability indicated a higher perceived level of functioning of the target child. The mean score for this index was 3.4 (SD = .81; Range : 1.67 to 5.00). See Table 3.

A degree of construct validity, as outlined in the Index of Maternal Expectations, was indicated by a significant difference ($F = 4.27$; $p < .02$) in the Index of Perceived Ability scores among mothers who estimated their children's degree of handicap as severe ($\bar{X} = 2.56$; SD = .70), moderate ($\bar{X} = 3.42$; SD = .61) or mild ($\bar{X} = 3.67$; SD = .71). This difference indicates that scores obtained from this scale were influenced by mothers' perceptions of their childrens' degree of handicap. Mothers who viewed their children as severely handicapped had relatively lower scores on the Index of Perceived Ability.

Maternal Expectations

Results of separate analyses of items 1 through 11 of the Child Expectations Scale (CES) clearly show that the sample of mothers participating in this research had definite expectations for the futures of their mentally handicapped children. With few exceptions, all mothers could indicate on the scales provided, that they did have some expectations for the futures of their

children in terms of schooling, residential alternatives, financial independence, self-care, planning and managing day-to-day affairs, activity in the community, social relationships, and post-school training and employment options.

For those mothers who could not indicate their expectations for school, post-school training and employment, the "don't know" alternative appeared to reflect a lack of appropriate facilities rather than a lack of expectations on the mothers' part. These mothers indicated in conversation that while they expected their children to be engaged in some functional activity when they finished school, they could not state a specific activity because existing post-school training programs could not accommodate their children's needs.

A number of studies have attempted to examine the "predictive realism" (Wolfensberger and Kurtz, 1971) of parental expectations regarding futures of mentally handicapped children. Studies by Boles (1959), Zuk (1959), Jensen and Kogan (1962) and Barclay and Vaught (1964) all found that mothers expressed "unrealistically high" expectations and estimates of future achievement when compared with expectations of the researchers. Unlike these studies, the present research made no attempt to compare maternal expectations with expectations of professionals based on the results of some standardized test of functioning. It appears, however that expectations held by participants in this study are not "unrealistically high" in terms of mothers' ratings

of items on the Child Expectation Scale.

Further evidence of this moderation can be seen from results of the Index of Maternal Expectations, where the four mothers who classified their children as severely handicapped tended to have the lowest expectation scores ($\underline{X}$ = 1.5; $\underline{SD}$ = .36), the fourteen mothers who classified their children as moderately handicapped had mean expectation scores close to the middle of the scale ($\underline{X}$ = 2.54; $\underline{SD}$ = .89) as did the nine mothers who classified their children as mildly handicapped ($\underline{X}$ = 2.99; $\underline{SD}$ = .60). The expectation scores of mothers who rated their childrens' degree of handicap as severe, moderate, or mild were all significantly different from each other ($\underline{F}$ = 7.30; $\underline{p}$ < .003). This difference indicates that, relative to each other, mothers' ratings of their childrens' degree of handicap were consistent with their expectations.

Factors Influencing the Development of Expectations

The primary purpose of this research was to identify the variables that most influenced the development of mothers' expectations for the future lives of their mentally handicapped children. To identify these variables, a multiple regression analysis was conducted with the Index of Maternal Expectations as the dependent variable. Based on previous research, a total of 12 independent variables were entered into the equation, using stepwise multiple regression: (1) mothers' perceptions of childrens' overall development (2) mothers' estimation of degree

of handicap (3) mother's age (4) mother's level of schooling (5) mother's occupation (6) father's age (7) father's level of schooling (8) father's occupation (9) sex of target child (10) age of target child (11) family income and (12) Index of Perceived Ability The multiple R for all 12 independent variables was .77 (60% of the variance accounted for). Mothers' estimations of their childrens degree of handicap, was the only independent variable which passed the .05 significance test. Subsequent analysis revealed that this variable accounted for 6% of the overall variance.

Previous research has indicated three factors that influence maternal expectations for the futures of their mentally handicapped children: (1) mothers' evaluations of their childrens' abilities, (2) family socioeconomic status and (3) amount and type of family and professional support available.

Mothers' Evaluations of Their Childrens' Abilities: Mothers' descriptions of their childrens' abilities in the 10 developmental areas examined in the Parent Perception Questionnaire were not compared to any professional description or clinical assessment results. The decision to exclude such external validity criteria from this study was partly based on insufficient time and financial resources but was more strongly based on the researchers belief that such was not necessary. Mothers know their children best; they can assess their children's abilities based on behaviour they observe while their

children perform in a home setting. Ability estimates given by professionals are often not a true reflection of abilities because assessment results are a product of created activity in a created environment. Furthermore, in the present study, these mothers had no reason to consciously or unconsciously distort their evaluations of their childrens' abilities. As an introduction to the Parent Perception Questionnaire, (where mothers were asked to give <u>their</u> description of their childrens' abilities using a 5 point Likert scale ranging from "poor" to "excellent") mothers were assured that this was not a formal assessment of any type; the information obtained would only be used for research purposes. As a result, mothers did not have to be concerned that their evaluations of their childrens' abilities would later be used as a tool for program placement or service provision. This section will examine mothers' evaluations of their children's abilities as a function of the Index of Perceived Abilities and also as a function of maternal expectations.

In an attempt to discover which variables most influenced mothers' perceptions of their children's abilities, and thus determined perceived degree of handicap, a stepwise multiple regression analysis was run. Using the Index of Perceived Abilities as the dependent variable and entering the same 12 independent variables as noted in the multiple regression analysis examining maternal expectations (the twelfth independent variable in this case was changed to the Index of Maternal

Expectations), the multiple R was .70 (48.6% of the variance accounted for). It was found that the best predictor of mothers' perceptions of their children's abilities was mothers' perceptions of overall development. This variable accounted for 3.2% of the variance and was the only variable of the 12 to pass the tolerance test and be entered into the equation.

In examining the relationship between degree of handicap and developmental level, it was found that all four mothers who classified their children as severely handicapped also indicated that their childrens' development was very much behind that of their non-handicapped peers. Of the nine mothers who classified their children as moderately handicapped, four mothers indicated that their children were very much behind and five mothers indicated that their children were only somewhat behind developmentally. Eleven of the fourteen mothers classifying their children as mildly handicapped stated their children were somewhat behind their non-handicapped age peers while the remaining three indicated their children were very much behind. The one mother who did not believe her child was handicapped at all stated that her child was about the same in terms of development when compared to non-handicapped age peers. The correlation ($r = .61$; $p < .0003$) between perceived degree of handicap and developmental level strongly indicates that mothers are consistent in rating their children on related dimensions such as degree of handicap and developmental level. Questions about childrens' developmental levels and perceived degree of

handicap were separated by 20 other items (see Appendix B) so it is unlikely that mothers' answers to the question on perceived degree of handicap were influenced by a desire to be consistent with answers to the question on childrens' developmental level.

It is not clear whether mothers weighted some factors of the Parent Perception Questionnaire more than others when rating their childrens' degree of handicap. In an attempt to clarify this, a multiple regression analysis was run using individual items from the Index of Perceived Ability to determine whether or not one particular item used in the Index accounted for most of the overall variance. Item 21 of the Parent Perception Questionnaire (estimation of degree of handicap) was the dependent variable and the individual items of the Index of Perceived Ability were the independent variables. The multiple R for all 9 independent variables was .66 (44% of the variance accounted for). None of the individual items accounted for a significant amount of the variance.

Perceived ability scores among mothers rating their childrens' degree of handicap as either severe ($\bar{X}$ = 2.56; SD = .70), moderate, ($\bar{X}$ = 3.42; SD = .61) or mild ($\bar{X}$ = 3.67; SD = .71) were found to be significantly different (F = 4.27; $p < .03$). This would indicate that, relative to each other, these mothers were able to appropriately assess the functioning level of their children.

Analysis of these descriptions and related items appears to confirm the contention by Wolfensberger and Kurtz (1971) that

parents can, in fact, accurately assess the functioning level of their children when asked to do so. Wolfensberger refers to this as "concurrent realism" and states that while parents have a tendency to slightly overestimate the receptive and expressive communication skills of their children, they are otherwise quite accurate in their estimates of their children's abilities. Furthermore, Wolfensberger found in his review of the literature that parents estimates of their children's abilities do not deviate significantly from those of professionals who estimate children's abilities on the basis of standardized test results.

As noted previously the overall scores of the Index of Maternal Expectations among mothers who estimated their children's degree of handicap as either severe, moderate or mild, maternal expectations are influenced by perceived degree of handicap. Mothers who estimate their children's degree of handicap to be severe have significantly lower expectations for their children than mothers who estimate their children's degree of handicap to be moderate. Likewise, mothers who estimate their children's degree of handicap to be moderate have significantly lower expectations than mothers who estimate their children's degree of handicap to be mild. The relatively high maternal expectations for children perceived as only mildly handicapped is consistent with results of the program evaluation study by Marfo et. al. (1988). Marfo and his colleagues also used a version of the Child Expectations Scale in their study of 200 parents of children who had participated, or were participating at the time

of the study, in the Direct Home Services Program. Marfo et. al. found that in all three areas of expectation (schooling and independence; physical care and socialization; and future living and working environments) parental expectations were negatively related to the perceived degree of handicap.

Socioeconomic Status: Iano (1970), in his study of parents of 106 children labeled "educable mentally retarded", found that parents of upper class (n = 11) and middle class (n = 29) status more often expressed low estimates of childrens' abilities, while parents of lower middle class (n = 46) and lower class status (n = 20) expressed higher estimates. There were no indications of such a trend for the sample of mothers in this research. As noted above, multiple regression analysis showed that income was not an important contributor to the overall variance, and Analysis of Variance showed no significant difference in the perceived ability scores of low income ($\bar{X}$ = 3.54; SD = .93), middle income ($\bar{X}$ = 3.48; SD = .88) and high income ($\bar{X}$ = 3.35; SD = .64) families (F = .095; ns).

Analysis of Variance was also performed to examine differences in the expectation scores of low income mothers ($\bar{X}$ = 2.58; SD = .86), middle income mothers ($\bar{X}$ = 2.59; SD = .87) and high income mothers ($\bar{X}$ = 3.03; SD = .99). No significant differences were found (F = 0.58; ns). Again, multiple regression analysis showed no significant contribution of this factor to the overall variance in terms of maternal expectations. Small sample

size may, however, have affected this outcome.

Family and Professional Support: Mothers were asked to describe the amount of family support they had with regard to their handicapped children and their decisions about their children. The majority of mothers (65.5%) rated their families as excellent in this regard; 24.1% rated their families as moderately good to good and 10.3% rated the degree of family support as poor.

Dunst, Trivette and Cross (1986) found that parents who perceived their support networks as satisfactory tended to be less overprotective than parents who perceived available supports as inadequate. Dunst et. al. noted though that parental overprotectiveness is not related to the degree of the children's intellectual impairment. Analysis of scores from the Index of Maternal Expectations between mothers rating their family support as poor ($\bar{X}$ = 2.21; SD = 1.25), moderately good ($\bar{X}$ = 2.25; SD = .88), good ($\bar{X}$ = 2.83; SD = 1.21) and excellent ($\bar{X}$ = 2.75; SD = .84) showed no significant difference (F = .58; ns). Analysis of scores from the Index of Perceived Abilities also showed no significant differences (F = 1.08; ns) between mothers rating their family support as poor ($\bar{X}$ = 3.48; SD = .65), moderately good ($\bar{X}$ = 2.78; SD = .87), good ($\bar{X}$ = 3.41; SD = .28) and excellent ($\bar{X}$ = 3.59; SD = .85).

Mothers were also asked about their involvement in various support groups. Such support groups are usually made up of other

parents of children with mental handicaps and people with an interest in the well being of people with mental handicaps. These formal (or informal) support groups are distinct from family and professional supports in that they represent an environment where parents can both receive support and give support to other parents of children with mental handicaps. Only two (6.9%) of mothers considered themselves very involved in the activities of the local Canadian Association for Community Living (the Vera Perlin Society); four (13.8%) reported that they were somewhat involved. The majority of mothers (23 or 79.3%) had no involvement with this Association. When asked if they were involved with any type of parent support group, twenty-two mothers (75.9%) reported no involvement; three (10.3%) reported some involvement and three (10.3%) reported they were very involved.[2]

Results from questions regarding utilization of professional supports showed that, as a group, mothers had limited contact with any of the professionals listed except with the Direct Home Services Program (a home based teaching program for parents of mentally handicapped children under the age of seven years). Fifty per-cent (14) of mothers indicated they had previous contact with the Direct Home Services Program . A comparison of expectation scores showed no significant differences between mothers who availed of the program ($\bar{X}$ = 2.65; $\underline{SD}$ = 1.00) and mothers who had not ($\bar{X}$ = 2.61; $\underline{SD}$ = .81) ($\underline{F}$ = .02; $\underline{ns}$). A comparison of perceived abilities scores between mothers who had

availed of this program ($\underline{X}$ = 3.30; $\underline{SD}$ = .83) and mothers who had not ($\underline{X}$ = 3.59; $\underline{SD}$ = .80) also showed no significant differences ($\underline{F}$ = .88; $\underline{ns}$).

Mothers were asked to indicate (by checking the appropriate alternative(s)), what support programs they believed their children would require as they became older. For the five support programs listed, mothers of twelve children (41.4%) indicated their children would require respite care services[3], mothers of seven (24.1%) indicated their children would require a behaviour management program, mothers of thirteen children (44.8%) believed their children would require further life skills training upon finishing their school program, and mothers of ten children (34.5%) believed their children would require further social skills training. Mothers of seventeen children (58.6%) indicated that their children would require on the job support.

Analysis of Variance for each of the above five support programs was performed to examine any differences in expectation scores between mothers who indicated a need for a given program and mothers who did not. The only significant difference ($\underline{F}$ = 11.9; $\underline{p} < .002$) occurred between expectation scores of mothers who indicated their children would require respite care services as they grew older ($\underline{X}$ = 2.05; $\underline{SD}$ = .76) and those who indicated their children would not require respite care ($\underline{X}$ = 3.04; $\underline{SD}$ = .77). Mothers who felt their children would not need to avail of respite care had higher expectations for their children than mothers who felt that such a service would be required. Further

analysis showed that mothers who indicated no need for respite care services also had significantly higher perceived ability scores ($\underline{X}$ = 3.72; $\underline{SD}$ = .64) than mothers who indicated that this service would be required ($\underline{X}$ = 3.04; $\underline{SD}$ = .89) ($\underline{F}$ = 5.61; $\underline{p}$ < .03). It is not surprising that mothers who identified Respite Care as a required support program for their child had significantly lower perceived ability and expectation scores than did mothers who did not identify this program as a need. Mothers who perceived their children as having limited skills likely provided their children the most care and therefore readily identified this service as being important to both themselves and their handicapped children.

School Program: Data analysis of school program information appears to indicate a relationship between school program attended during the 1986-87 academic year and mothers' expectation and ability scores. This data will be examined and discussed here.

During the 1986-87 academic year, nine children (31%) attended a Developmental Program; three (10.3%) attended a TMH class in a Primary School; seven (24.1%) attended a TMH class in an Elementary School; four (13.8%) attended a TMH class in a Junior High School and four attended a TMH class in a High School. Two target children attended an integrated (regular) primary school program.

In assessing mothers' perceptions of the level of

integration in their children's school programs, two (6.9%) stated their children were fully integrated, i.e., they engaged in virtually all activities with non-handicapped children; five (17.2%) stated that their children engaged in about one-half of their school activities with non-handicapped children, fifteen (51.7%) indicated their children were integrated only during free play times such as recess and lunch and six (20.7%) indicated that their children had virtually no contact with non-handicapped children during school hours. Mothers were also asked how integrated they believed their childrens school programs should be. Most mothers (44.8%) believed their children should spend about one-half of their school days in activities with non-handicapped children and seven mothers (24.1%) believed their children should be fully integrated into regular classrooms. None of the mothers believed their children required totally segregated school programs.

Childrens' ages and school programs were examined in relation to mothers expectation scores. Analysis of Variance showed no significant difference between expectation scores and ages of the children ($F = 1.83$; hs). There was however, a significant difference ($F = 8.35$; $p < .0001$) between expectations of mothers whose children were attending a Developmental Program ($\bar{X} = 1.62$; $SD = .39$), a Primary TMH Program ($\bar{X} = 3.21$; $SD = .69$), an Elementary TMH Program ($\bar{X} = 2.96$; $SD = .91$), a Junior High School TMH Program ($\bar{X} = 2.78$; $SD = .47$), a High School TMH Program ($\bar{X} = 3.22$; $SD = .31$) and a Regular (Integrated) Primary

School Program ($\bar{X}$ = 3.69; SD = .08). When age of the child was treated as a covariate, this significant difference persisted (F = 8.61; $p < 0.0001$) indicating that school program placement is an important factor in the development of maternal expectations. However, as discussed later, the direction of this influence is unclear. A Duncan's Multiple Range Test, on uncovaried data, indicated that expectation scores of mothers whose children were enrolled in a Developmental Program during the 1986-87 academic year were significantly lower ($p < .05$) than scores of mothers whose children were enrolled in other types of school programs. There were no significant differences between the expectation scores of mothers whose children were not enrolled in the Developmental Programs.

Analysis of Variance also indicated a significant difference (F = 2.69; $p < .05$) between the perceived ability scores of mothers whose children were attending a Developmental Program ($\bar{X}$ = 2.78; SD = .62), a Primary TMH Program ($\bar{X}$ = 3.81; SD = .84), an Elementary TMH Program ($\bar{X}$ = 3.48; SD = .93), a Junior High TMH Program ($\bar{X}$ = 4.06; SD = .58), a High School TMH Program ($\bar{X}$ = 3.92; SD = .34) and a regular (Integrated) Primary School Program ($\bar{X}$ = 3.56; SD = .79). When age of child was treated as a covariate, the significance of this difference decreased to F = 2.34, $p < .07$, indicating that both school program and age of children may have been accounting for this effect. A Duncan's Multiple Range Test, on uncovaried data, indicated that mothers whose children were enrolled in either a High School TMH or a

Junior High TMH Program had significantly higher ($p < .05$) perceived ability scores than did mothers whose children attended a Developmental Program. No other significant perceived ability scores were noted between other programs.

Developmental Programs are educational programs that are specifically designed for individuals with severe disabilities. These programs have a limited academic curriculum but are heavily involved in the teaching of basic life skills and non-verbal communication skills. Prior to school entrance children with mental handicaps are assessed by a representative of the school board. Based on this assessment, school board officials decide which program will best serve the needs of the child. Of the nine children who attended a Developmental Program during the 1986-87 academic year, four children were classified by their mothers as being severely handicapped; three children were classified as moderately handicapped; one child was classified as mildly handicapped and one child's mother could not classify the degree of her child's handicap. Seven of the nine children were estimated by their mothers to be developmentally very much behind non-handicapped children. See Table 5.

It has been noted that mothers of these children have the lowest expectation scores of all mothers in this study and that their perceptions of their childrens' abilities are significantly lower than those of mothers of children in either High School or Junior High TMH classes. The question regarding these expectation and ability scores is: Do mothers place their children in

Developmental Programs because they realize they are severely handicapped, or does this realization come about because the children have been placed in such programs?

In examining the first alternative, it has been noted that all four children who were rated as severely handicapped by their mothers attended a Developmental Program during the 1986-87 academic year. Seven of the 9 children attending Developmental Programs were rated by their mothers as being developmentally very much behind other children. It is plausible then, that mothers' perceptions of their childrens' abilities accurately reflect the findings of the school-entry assessment.

However, it is interesting to note that six of the nine children attending Developmental Programs were 10 years old or older and four were chronologically of age to be in either Junior High or High School. Yet, of the three schools in this study that had Developmental Programs, one was an Elementary School and two were Primary Schools. It is possible then that at least some of these mothers' expectation and ability scores reflected program placement, especially given that four of the students were in age-inappropriate school levels. Mothers' scores on the Index of Expectation and Index of Perceived Ability could reflect a thought process such as the following: "Although my child is 17 years old, he/she attends a Primary (or Elementary) School; therefore, he/she must be severely handicapped and have extremely limited capabilities."

Summary and Conclusions

Mothers participating in this study all demonstrated some level of expectation for the futures of their mentally handicapped children in areas of educational and vocational achievement, residential placement and independence in daily living. Mothers' expectations were very much influenced by their estimations of their children's degree of handicap. Mothers who perceived their children to be severely handicapped had significantly lower expectations for their children than did mothers who perceived their children to be moderately or mildly handicapped.

Mothers' perceptions of degree of handicap, as obtained by scores of the Index of Perceived Ability, were themselves influenced by how mothers perceived their children's overall development. Further examination failed to show that childrens' performance in any one developmental area contributed significantly to maternal views of childrens' overall development. It appears that mothers are considerably more complex than they have previously been given credit for in terms of their evaluations of their childrens' abilities. Mothers do not simply base their evaluations on their childrens' performance in one or two developmental areas, they seem to view all developmental areas as complexly inter-related factors which form an overall picture of ability. Indeed, if mothers were not so complex in their evaluations of their childrens' abilities, i.e., if they based their evaluation solely on verbal ability, then the

realism of mothers' perceptions would have to be questioned.

Previous research (Iano, 1970; Weller, Cohen & Rahman, 1974; Wolfensberger & Kurtz, 1971) indicated that family socioeconomic status influenced both the development of expectations and parental perception of their childrens' abilities. This finding was not replicated in the present study, possibly because of the small sample size.

The impact of utilization of professional and social supports on the development of expectations and on mothers perceptions of their childrens' abilities was not demonstrated in this study. In general, the mothers studied were not involved in any structured support groups. Most mothers in this study (65.5%) rated their family support as excellent. There were no significant differences between mothers with varying degrees of family support for either expectation or ability scores.

School placement appeared to be related to both the expectation and perceived ability scores of mothers whose children attended Developmental Programs. There are two possibilities: either mothers' of these children are realistically appraising their childrens' handicaps, or mothers' are basing their perceptions and expectations on the fact that their children have been placed by the School Boards in programs designed especially for children with severe handicaps.

Three important aspects of mother's expectations have

significant implications for policy makers and service providers. Nearly 80% of mothers in this study indicated they felt their children should be integrated for at least one-half of the school day. Yet only about 24% of mothers reported this was the case in the 1986/87 school year. This would indicate a maternal preference, away from segregated classes and toward more integrated education for children with mental handicaps.

Approximately 83% of mothers believed that their children would, as adults live either with responsible family members or in their own homes with some support. This indication of a maternal preference for children living at home as opposed to institutions and group homes should be further examined by service providers, especially in light of the supports that will be required to ensure that children can live in the community successfully.

Nearly 60% of mothers expect that their sons or daughters will work in non-segregated environments, i.e., in community-based businesses. This preference for community-based employment as opposed to sheltered workshop employment should be viewed by the vocational services system as indication that the demand for on-the-job supports will continue.

This research study has just scratched the surface of maternal expectations and their determinants; additional research is clearly warranted. The issue of maternal (or parental) expectations for the futures of children with mental handicaps is

of vital importance, especially when one considers that those expectations, regardless of their origin, strongly affect the quality of life of the handicapped offspring and maximal degree of independence he/she eventually achieves. It is, after all, largely through the efforts of parents that changes in service systems have resulted. One assumes that parents with high expectations are those who advocate for appropriate and dignified services for their children.

This research project did not include qualitative questions. Future research, using open-ended questions might result in a clearer understanding of the nature of maternal expectations. Such research design would also allow for examination of the difference between what mothers "expect" for their children and what they "hope" for their children. One subject commented when answering the question "Where do you expect (your son/daughter) to live as an adult?", that she expected her son to live at home, but she hoped he would live in a supervised apartment.

Small sample size was probably the most serious problem confronting this study. However, as noted in the section on Sampling Procedure, there was no ethical way around this problem. Statistically significant results are not affected by the small sample size. The significant results reported are conceptually sensible; however, there is no doubt that a larger sample would certainly allow for a greater degree of confidence in and generalizabilty of the data. Small sample size was probably the most important factor in our failure to replicate previous

research findings concerning the effects of social and professional support as well as socioeconomic status on the development of maternal expectations. A larger sample would also have allowed for further examination of the relationship between expectations, abilities, school placement, and age of child.

Further research, with a larger sample taken from a broader geographic area would allow for examination of how school program placement and maternal expectations are related, regardless of perceived degree of handicap. For example, does a mother of a severely handicapped child attending an integrated school program, have higher expectations for her child than a mother of an equally handicapped child attending a special class? Further research is also needed to examine more fully the relationship between socioeconomic status and expectations. If parents of higher socioeconomic status have higher expectations for their children, is social class the only determinant? How important are factors associated with social class, such as parental education and parental awareness of the availability of services and programs? If these latter factors are important then service professionals need to ensure that families are well informed regarding available programs.

Finally, researchers in the area of maternal or parental expectations need to study individuals who are beyond school age. Parents of adults with mental handicaps are perhaps more concerned about their children's futures because they (the parents) are increasingly aware of the need for their children to

be independent. Perhaps by examining parental expectations concerning handicapped adults, we can learn more about determinants of expectations for handicapped children.

NOTES

1. Research on the effect of guilt and denial on parent's expectations were not included in this study since there is considerable disagreement among researchers about the validity of this research, e.g., Blacher (1984).

2. The question on parent-support-group involvement was added to the Parent Perception Questionnaire because of a home visit with Subject #2. As a result, these data were not collected for Subject #1.

3. The Respite Care Program is a service offered to families of mentally handicapped individuals, through the Department of Social Services, Government of Newfoundland and Labrador. The purpose of this program is to give both parents and the handicapped family member a break from routine and from each other. Respite services are designed to meet families needs. Respite Care Workers can provide respite either within the individual's own home or by taking the handicapped family member out into the community to engage in some preferred activity. Respite Homes are also available for families who require long term respite such as a few days or a week.

TABLES

Table 1.

Maternal Ratings of Children
by Degree of Handicap and Overall Development

	Degree of Handicap				
Overall Development	Severe	Moderate	Mild	Not at All	Don't Know
Very Much Behind	4	4	3		1
Somewhat Behind		5	11		
About the Same				1	

Table 2.

Reliability Analysis for the Index of Maternal Expectations

Child Expectations Scale Item #	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha If Item Deleted
1	.68	.51	.83
3	.80	.76	.72
4	.74	.75	.71
5	.76	.82	.70
6	.58	.46	.74
7	.48	.36	.75
8	.31	.24	.76
10	.47	.32	.74

Table 3.

Individual Subject Scores for Index of Maternal Expectations and Index of Perceived Ability

Subj. #	Index M.E.	Index P.A.	Subj. #	Index M.E.	Index P.A.
1	2.50	4.78	15	4.25	5.00
2	1.88	2.33	16	3.00	3.67
3	1.75	3.00	17	3.00	3.67
4	3.25	3.22	18	2.63	3.67
5	3.63	4.22	19	2.38	3.78
6	1.50	3.11	20	3.13	3.44
7a	1.50	2.11	21	2.75	4.56
7b	1.25	3.22	22	2.88	3.89
8	2.50	2.56	23	1.88	3.00
9	3.13	4.56	24	3.63	3.00
10	2.13	3.67	25	3.25	4.11
11	3.88	3.44	26	1.50	5.26
12	3.13	3.44	27	1.33	2.33
13	1.14	1.67	28	3.88	3.67
14	3.75	4.11			

Table 4.

Reliability Analysis for the Index of Perceived Ability

Parent Perception Questionnaire Item #	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha If Item Deleted
7	.73	.65	.77
8	.24	.30	.83
9	.49	.59	.80
10	.53	.37	.80
11	.33	.15	.82
12	.61	.69	.78
13	.71	.81	.77
14	.73	.64	.77
15	.21	.39	.83

Table 5.

Children's Perceived Degree of Handicap
by School Program Attended During the 1986-87 Academic Year

	Perceived Degree of Handicap				
Program	Mild	Moderate	Severe	Not at All	Don't Know
Developmental Program	1	3	4		1
Primary TMH	2	1			
Elementary TMH	4	2			
J. High TMH	3	1			
High Sch. TMH	3	1		1	
Regular Primary	1	1			

REFERENCES

Alpern, G.D., & Boll, T.J. (1972). Developmental Profile. Indianapolis, Indiana: Psychological Development Publications. In K. Marfo, N. Browne, D. Gallant, R. Smyth, A. Corbett, & D. McLennon. (1988). Early intervention with handicapped and developmentally delayed pre-school children in Newfoundland and Labrador: Report of the 1986 evaluation study. In Press.

Barclay, A. & Vaught, G. (1964). Maternal estimations of future achievement in cerebral palsied children. American Journal of Mental Deficiency, 69, 62-65.

Blacher, J. (1984). Sequential stages of parental adjustment to the birth of a child with a handicaps: fact or artifact? Mental Retardation, 22, (2), 55-68.

Doll, E.A. (1935). A genetic scale of social maturity. American Journal of Orthopsychiatry, 5, 180-188. In G.H. Zuk, (1959). Autistic distortions in parents of retarded children. Journal of Consulting Pyschology, 23 (2), 171-176

Dunst, C.J., Trivette, C.M., & Cross, A.H. (1986) Mediating influences of social support: personal, family and child outcomes. American Journal of Mental Deficiency, 90 (4), 403-417.

Hollingshead, A.B., & Redlich, F.C. (1958) Social class and mental illness: A community study. New York: John Wiley. In R.P. Iano (1970) Social class and parental evaluation of educable retarded children. Education and Training of the Mentally Retarded, 5, 62-67.

Hunt, J.McV., & Paraskevopoulos, J. (1980). Children's psychological development as a function of the inaccuracy of their mothers' knowledge of their abilities. Journal of Genetic Psychology, 136, 285-298.

Iano, R.P. (1970). Social class and parental evaluation of educable retarded children. Education and Training of the Mentally Retarded, 5, 62-67.

Marfo, K., Browne, N., Gallant, D., Smyth, R., Corbett, A. & McLennon, D. (1988). Early intervention with handicapped and developmentally delayed pre-school children in Newfoundland and Labrador: Report of the 1986 evaluation study. In Press.

Meyerowitz, J.H., (1967). Parental awareness of retardation. American Journal of Mental Deficiency, 71, 637-643.

Serbin. L.A., Steer, J. & Lyons, J.A. (1983). Mother's perceptions of the behaviour and problem-solving skills of their developmentally delayed sons. American Journal of Mental Deficiency, 88, 86-90.

Suelze, M. & Keenan, V. (9181). Changes in family support networks over the life cycle of mentally retarded persons. American Journal of Mental Deficiency, 86, 267-274.

Venn, J.J., DuBose, R.F. & Merbler, J.B. (1977). Parent and teacher expectations for the adult lives of their severely and profoundly handicapped children. AAESPH Review, 2, 232-238.

Weller, L., Costeff, C., Cohen, B., & Rahman, D. (1974). Social variables in the perception and acceptance of retardation. American Journal of Mental Deficiency, 79 (3), 274-278.

Wolfensberger, W. & Kurtz, R.A. (1971). Measurement of parents' perceptions of their children's development. Genetic Psychology Monographs, 83, 3-92.

Zuk, G.H., (1959). Autistic distortions in parents of retarded children. Journal of Consulting Pyschology, 23 (2), 171-176.

APPENDIX A

LETTER TO PARENTS AND CONSENT FORM

Dear Parent,

I am a graduate student in Psychology, attending Memorial University, and am presently working on my Master's Thesis.

To complete my research, I need to gather information from mothers of children who have a mental handicap. I am writing you to tell you a little about my research and to ask you for your help in providing me with some information.

The purpose of my research is to find out what expectations you have for the future of your mentally handicapped child, and what things influence these expectations. You can help me gather the information I need for this research by allowing me to do a brief home visit with you and, at that time, completing three (3) questionnaires.

The Avalon Consolidated (Roman Catholic) School Board has approved my research and has agreed to give your child this letter to bring home to you. I would add that whether or not you decide to participate in this research is entirely your own decision, and will not influence your child's school program in any way.

Please be assured that all information you give me will be held in strictest confidence and will only be used in this research. Your name, or your child's name, will <u>not</u> appear on any of the questionnaires or in the final paper.

If you agree to participate in this research, please fill out the attached consent form and return it to me in the pre-addressed, stamped envelope provided. By filling out and returning this consent form, you will be agreeing to allow me to telephone you and set up a convenient time for me to visit your home and fill out the three questionnaires. This home visit should last about one hour.

Thank-you for taking the time to read this, and I thank-you in advance for your anticipated cooperation.

Sincerely yours,

LISE NOSEWORTHY

CONSENT FORM

Dear Ms. Noseworthy,

I have read the letter you sent me asking for my participation in your research. I understand that all information will be kept confidential and used only for the purpose of this research, and I am willing to have you visit me at home and administer three questionnaires.

_____
PARENTS SIGNATURE

Please complete the following information:

Parents Name: (Please Print)_____

Telephone Number (Home)_____

(Work)_____

Best time to call:_____

APPENDIX B

PARENT PERCEPTION QUESTIONNAIRE

INSTRUCTIONS FOR PARENT PERCEPTION QUESTIONNAIRE

You know your child best. This questionnaire deals with your perception of your child's level of functioning and your child's abilities in certain areas. This is not meant to be an assessment of your child, rather, I am interested in getting a total picture of how your child is doing in areas such as school, at home and with his/her friends.

For some of the questions you will have to check off (_____) the statement that best describes your child or your child's activities in a particular area. For questions 7 through 17 you will have to circle, on the scale provided, the level that best describes your child's abilities.

PARENT PERCEPTION QUESTIONNAIRE

1. How did you first become aware of your child's mental handicap?
   AT BIRTH: N = 11
   FOSTER CHILD: N = 4
   DIAGNOSED BY DOCTOR: N = 9
   INFORMED FOLLOWING SCHOOL ASSESSMENT: N = 4
   OWN OBSERVATION: N = 1

2. How old was your child at that time?
   X = 10 MOS. (RANGE: 0-84 MOS.) N = 29

3. In comparison with non-mentally handicapped children of the same age, is your child's overall development:

   ___ very much behind N = 12
   ___ somewhat behind N = 16
   ___ about the same N = 1

4. In what school program is your child currently enrolled?
   ___ Developmental Programme N = 9
   ___ T.M.H. Class
      ___ Primary N = 3
      ___ Elementary N = 7
      ___ Junior high school N = 4
      ___ High school N = 4
   ___ Career Education/Work Study
      REGULAR PRIMARY: N = 2

5. How integrated is your child's school program?
   ___ My child engages in virtually all school activities with non- handicapped peers N = 2
   ___ About half of classroom activities are done with non-handicapped peers N = 5
   ___ My child is integrated with non-handicapped peers during free play activities such as recess N = 15
   ___ My child's classroom is in a regular school but virtually all activities are done within the classroom group N = 6
      DON'T KNOW: N = 1

5a. How integrated would you like your child's school program to be?

___ My child should be engaging in all school activities with non-handicapped peers N = 7

___ About half of classroom activities should be done with non-handicapped peers N = 13

___ My child should be integrated with non-handicapped peers during free play activities such as recess N = 8

___ Activities my child engages in should all be done within the classroom group

DON'T KNOW: N = 1

6. How much contact have you had with the following professionals?

	Previous Contact	No Contact	Occasional Contact	Regular Contact
Child Management Specialist	N=14	N=14		N=1
Behaviour Management Specialist	N=3	N=25		N=1
Educational Psychologist		N=27	N=2	
Educational Therapist	N=1	N=26	N=2	
Teacher	N=1		N=2	N=26
Family Doctor	N=1		N=10	N=18
Psychiatrist	N=1	N=26	N=1	N=1
Psychologist	N=2	N=26	N=1	
Respite Care Worker	N=1	N=18	N=7	N=3
Social Worker	N=4	N=17	N=3	N=5

FOR QUESTIONS #7A THROUGH #17, PLEASE CIRCLE, ON THE SCALE PROVIDED, THE LEVEL THAT BEST DESCRIBES YOUR CHILD'S ABILITIES

7. Does your child communicate verbally?
   Yes____ (Please answer question 7a.) N = 21
   No ____ (Please answer question 7b.) N = 8

7a. How would you describe your child's verbal ability?

$\bar{X} = 3.00$; N = 21

```
I----------I----------I----------I----------I
POOR                MODERATELY              EXCELLENT
                      GOOD
```

7b. If your child does not communicate verbally, how would you best describe his/her ability to communicate?

$\bar{X} = 1.85$; N = 8

```
I----------I----------I----------I----------I
POOR                MODERATELY              EXCELLENT
                      GOOD
```

8. How would you describe your child's ability to understand what is said to him/her?

$\bar{X} = 3.76$; N = 29

```
I----------I----------I----------I----------I
POOR                MODERATELY              EXCELLENT
                      GOOD
```

9. How would you describe your child's social skills?

$\bar{X} = 2.97$; N = 29

```
I----------I----------I----------I----------I
POOR                MODERATELY              EXCELLENT
                      GOOD
```

10. How would you describe your child's progress in school?

$\bar{X} = 3.28$; N = 29

```
I----------I----------I----------I----------I
POOR                MODERATELY              EXCELLENT
                      GOOD
```

11. How would you describe your child's general behaviour?

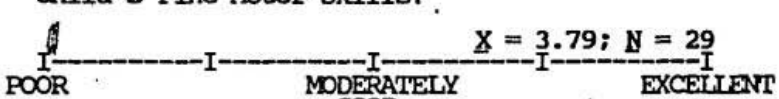
$\underline{X} = 3.48$; $\underline{N} = 29$

12. The term "Gross Motor Skills" refers to your child's ability to move his/her arms, legs, head etc. How would you describe your child's Gross Motor Skills?

$\underline{X} = 3.86$; $\underline{N} = 29$

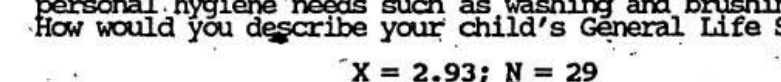
13. The term "Fine Motor Skills" refers to your child's ability to manipulate small objects with his/her hands (e.g., to pick up a toy or a fork). How would you describe your child's Fine Motor Skills?

$\underline{X} = 3.79$; $\underline{N} = 29$



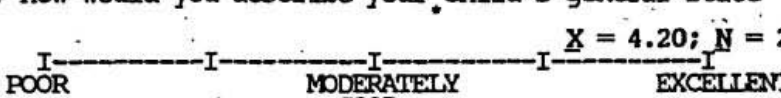
14. The area of "General Life Skills" refers to your child's ability to dress/undress, feed and attend to his/her personal hygiene needs such as washing and brushing teeth. How would you describe your child's General Life Skills?

$\underline{X} = 2.93$; $\underline{N} = 29$



15. How would you describe your child's general state of health?

$\underline{X} = 4.20$; $\underline{N} = 29$



16. How would you describe the amount of family support you have with regard to your child and decisions about your child?

$\underline{X} = 4.18$; $\underline{N} = 29$

17. How does your child usually get from one place to another?
___ My child walks N = 22
___ My child crawls N = 3
___ My child uses crutches
___ My child uses a walker
___ My child uses a wheelchair N = 2
___ My child must be carried N = 2
___ Other (Please specify) _____

18. Please list all extra curricular activities your child engages in on a regular basis.

_____ _____
_____ _____
_____ _____

19. How involved are you in the activities of your local Association for Community Living and/or the Vera Perlin Society?

___ Not at all involved N = 22
___ Somewhat involved N = 4
___ Very involved N = 2

20. How involved are you an organized parent support group?

___ Not at all involved N = 21
___ Somewhat involved N = 3
___ Very involved N = 3
___ MISSING: N = 1

21. If you were asked to "classify" or "label" your child's degree of mental handicap, would you say that he/she is:

___ Not at all mentally handicapped N = 1
___ Mildly mentally handicapped N = 14
___ Moderately mentally handicapped N = 9
___ Severely mentally handicapped N = 4
___ DON'T KNOW: N = 1

APPENDIX C

CHILD EXPECTATIONS SCALE

INSTRUCTIONS FOR CHILD EXPECTATIONS SCALE

Many parents express concern about the future for their children. This questionnaire deals with <u>your expectations</u> for your child.

Each question asks you to indicate "what you expect for your child". Imagine your child's name in the blank on each question. Check the answer (____) that best represents your expectations for your child.

CHILD EXPECTATIONS SCALE

1. How far will _____ go in school?

____ Developmental Programme N = 8
____ TMH Class: ____ Primary School
____ Elementary School N = 1
____ Junior High School N = 1
____ High School N = 12
____ Special Education Class: ____ Primary School
____ Elementary School
____ Junior High School
____ High school N = 4
____ Vocational school N = 2
____ College or University
____ DON'T KNOW: N = 1

2. Where will _____ live as a teenager?

____ In an institution
____ In a group home N = 3
____ With his/her own family N = 26

3. How independent financially will _____ be as an adult?

____ Will require complete financial support N = 12
____ Will require some financial support N = 14
____ Will be self-supporting N = 3

4. How well will _____ be able to care for himself/herself physically, as an adult?

____ Will need care all day long N = 7
____ Will need some help every day for physical care N = 6
____ Will need help only in strange or unusual situations N = 11
____ Will be entirely self-sufficient physically N = 5

5. How independent will _____ to become in planning and managing his/her own affairs, as an adult?

____ Will need constant supervision N = 11
____ Will need someone to make plans and day-to-day decisions for him/her N = 6
____ Will need help and advice in making major decisions N = 11
____ Will be able to take responsibility for his/her own affairs N = 1

6. How active will _____ to be in the community, as an adult?

____ Will not be able to join in any community organizations or affairs N = 1
____ Will be able to join but will not take an active role N = 14
____ Will be able to be an active member of a community group or activity N = 12
____ Will be able to take leadership roles

7. How much will _____ be involved in informal social relationships, as an adult?

____ Will relate only to people within the family N = 5
____ Will socialize with relatives or friends of the family N = 3
____ Will make friends of his/her own N = 20
DON'T KNOW: N = 1

8. Where will _____ will live as an adult?

____ In an institution N = 1
____ With responsible family members N = 17
____ In a small group home with some supervision N = 4
____ In his/her own home or apartment with some support N = 7
____ In his/her own home or apartment independently

9. After completing school, where do you think _____ will go for additional training?

____ Pre-Vocational Training Centre N = 7
____ Sheltered Workshop N = 9
____ Vocational School N = 4
____ College or University
____ Other (please specify) _____ N = 4
____ Will not require additional training N = 2
WORK: N = 2
DON'T KNOW: N = 1

10. In which of the following environments will _____ work when he/she is an adult?

____ Prevocational Training Centre N = 4
____ Sheltered Workshop N = 6
____ Supervised or Supported Employment N = 15
____ Competitive Employment N = 1
FAMILY BUSINESS: N = 1
DON'T KNOW: N = 2

11. Which of the following support programs will _____ require as he/she grows older? (check as many as applicable)

____ Respite Care N = 12
____ Behaviour Management N = 7
____ Life Skills Training N = 13
____ Social Skills Training N = 10
____ On-the-job Support N = 17

APPENDIX D

DEMOGRAPHICS QUESTIONNAIRE

DEMOGRAPHICS QUESTIONNAIRE

This questionnaire deals with demographics, or information specific to you and your family. The questions will include information on your place of residency, your education and the education of your children. All of this information will be kept confidential.

DEMOGRAPHICS QUESTIONNAIRE

1. In what city or town do you reside?
   - ST. JOHN'S: N = 16
   - MOUNT PEARL: N = 4
   - GOULDS: N = 2
   - KILBRIDE: N = 2
   - CONCEPTION BAY SOUTH: N = 1
   - TORBAY: N = 1
   - MIDDLE COVE: N = 1
   - POUCH COVE: N = 1

2. What is your present marital status?

   ____ Never married N = 1
   ____ Now married N = 23
   ____ Separated N = 2
   ____ Divorced N = 1
   ____ Widowed N = 1
   ____ Other (please specify) _____

3. What is your date of birth?

   day___ month year___ X = 41.18 YEARS
   N = 27

4. What is the highest level of schooling you have completed?

____ No formal schooling

Elementary or secondary school

____ Kindergarten
____ Grade 1
____ Grade 2
____ Grade 3
____ Grade 4
____ Grade 5
____ Grade 6
____ Grade 7
____ Grade 8
____ Grade 9
____ Grade 10
____ Grade 11
____ Grade 12

University

____ Less than one year
____ 1 Year
____ 2 Years
____ 3 Years
____ 4 Years
____ 5 Years
____ 6+ Years

Degree:
____ None
____ BA/BSC
____ MA/MSC
____ PHD
____ Professional Degree
____ Diploma

Other Post Secondary

____ Less than one year
____ 1 Year
____ 2 Years
____ 3 Years
____ 4 Years
____ 5+ Years

Diploma:
____ Yes
____ No

From:
____ Poly technical School
____ Community College
____ Teachers College
____ Other (please specify) _____

5. What is your occupation?

_____

6. What is your spouses date of birth?
   day ___ month ___ year ___ $\bar{X}$ = 41.35 YEARS
   N = 23

7. What is the highest level of schooling your spouse has completed?

___ No formal schooling

Elementary or secondary school

___ Kindergarten		
___ Grade 1	___ Grade 5	___ Grade 9
___ Grade 2	___ Grade 6	___ Grade 10
___ Grade 3	___ Grade 7	___ Grade 11
___ Grade 4	___ Grade 8	___ Grade 12

University

___ Less than one year	
___ 1 Year	___ 4 Years
___ 2 Years	___ 5 Years
___ 3 Years	___ 6+ Years

Degree:
___ None
___ BA/BSC
___ MA/MSC
___ PHD
___ Professional Degree
___ Diploma

Other Post Secondary

___ Less than one year	
___ 1 Year	___ 4 Years
___ 2 Years	___ 5+ Years
___ 3 Years	

Diploma: ___ Yes ___ No

From:
___ Poly technical School
___ Community College
___ Teachers College
___ Other (please specify) _____

8. What is your spouses occupation?

_____

PLEASE COMPLETE THE FOLLOWING INFORMATION ABOUT ALL YOUR CHILDREN (START WITH THE OLDEST AND END WITH THE YOUNGEST)

9 a. Sex: ____ Male
____ Female

Date of Birth: ____ ____ ____
day month year

Status: ____ Natural Child
____ Adopted Child
____ Foster Child

Where is he/she living? ____ Home
____ Not at Home

Highest level of schooling completed: _____

Occupation: _____

b. Sex: ____ Male
____ Female

Date of Birth: ____ ____ ____
day month year

Status: ____ Natural Child
____ Adopted Child
____ Foster Child

Where is he/she living? ____ Home
____ Not at Home

Highest level of schooling completed: _____

Occupation: _____

c. Sex: ____ Male
____ Female

Date of Birth: ____ ____ ____
day month year

Status: ____ Natural Child
____ Adopted Child
____ Foster Child

Where is he/she living? ____ Home
____ Not at Home

Highest level of schooling completed: _____

Occupation: _____

d. Sex: ____ Male
____ Female

Date of Birth: ____ ____ ____
day month year

Status: ____ Natural Child
____ Adopted Child
____ Foster Child

Where is he/she living? ____ Home
____ Not at Home

Highest level of schooling completed: _____

Occupation: _____

e. Sex: ____ Male
____ Female

Date of Birth: ____ ____ ____
day month year

Status: ____ Natural Child
____ Adopted Child
____ Foster Child

Where is he/she living? ____ Home
____ Not at Home

Highest level of schooling completed: _____

Occupation: _____

10. Please look at List C and give me the letter that includes your family/household income before taxes. This figure should include all family/household income... wages, salaries, interest, dividends, child support and all other incomes.
(If uncertain, what would be you best guess?)

Letter: _____
Income code: _____

LIST C
INCOME CODE SHEET

A. None or loss	
B. Less than $3,000	
C. $3,000 to $3,999	
D. $4,000 to $4,999	
E. $5,000 to $5,999	N = 1
F. $6,000 to $7,999	N = 2
G. $8,000 to $9,999	
H. $10,000 to $11,000	N = 2
I. $12,000 to $14,999	
J. $15,000 to $19,999	N = 5
K. $20,000 to $24,999	N = 3
L. $25,000 to $29,999	N = 1
M. $30,000 to $34,999	N = 2
N. $35,000 to $39,999	N = 3
O. $40,000 to $49,999	N = 2
P. $50,000 to $74,999	N = 2
Q. $75,000 and over	N = 2
R. Don't Know	N = 1
S. Did not answer	N = 2