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MOTHERS' PERCEPTIONS OF THEIR PRESCHOOL CHILDREN'S PERSONALITY
BEFORE AND AFTER ENROLLMENT IN AN INTEGRATED TREATMENT CENTRE

by

Mary Kanold Morrison

A Dissertation
submitted to the
Faculty of Graduate Studies and Research
through the Department of Psychology
in Partial Fulfillment of the
requirements for the Degree
of Doctor of Philosophy at
at the University of Windsor

Windsor, Ontario, Canada

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To Donald and Doris Kanold
and to Bill and Katie

ABSTRACT

The present study was designed to measure mothers' perceptions of their preschool children's personality and behaviour before and after the children attended an integrated preschool programme. The children who participated in this study were selected from a clinical population referred to a treatment centre for preschool-age children and a group of normal children also enrolled there. Treatment at this centre includes integrating the children with problems with appropriate peer models. All children whose mother completed a Personality Inventory for Children (PIC) both prior to enrollment and after discharge and who met the criteria for group classification participated in the study. When possible, a Child Behaviour Rating Scale (CBRS) was also collected from the mothers and the teachers. The children were categorized into three groups. The first group (Group N) consisted of 20 boys and 6 girls who were screened by the staff at the centre (i.e., a psychologist, speech pathologist, social worker and teacher) as normal. The second group (Group BP) was made up of 17 boys and 5 girls who were referred and diagnosed as exhibiting behaviour problems. The third group consisted of 16 boys and 5 girls who were referred and diagnosed as 'at risk' for learning problems.

Results indicated that the children from all three groups were rated as generally better adjusted after

participation in the programme. This gives support that preschool integration does not harm normal children when class size is small and the teachers and parents support the concept of integration. Both treatment groups were rated significantly higher on social measures of the PIC giving support to the hypothesis that preschool integration encourages social development in children with problems at the preschool level. There was also evidence that the PIC is an appropriate instrument to evaluate the efficacy of treatment programmes for the preschool-age population.

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Chapter I

INTRODUCTION

Recently, psychologists and child development experts have begun to emphasize child behaviour in an ecological context (e.g., Bronfenbrenner, 1979). Researchers such as Urie Bronfenbrenner have argued that in order to understand the multifaceted aspects of child development, it is necessary to study the child in all of his or her daily situations rather than focusing on one or two major situations such as school or family interactions. A variety of factors are affected by a change in the child's social environment. This point of view has become popular enough for text books on child development to devote chapters to the ecology of child development (e.g., Bee, 1985). Not only has it become popular with academic and theoretical works, it has also been introduced in applied works such as clinical psychology text books on assessment (e.g., Ulrey and Rogers, 1982). Because the trend is recent, many aspects of child development have not been studied from an ecological perspective. One such area is that of integrating children with handicaps into regular schools including preschool and daycare settings.

The recent trend toward integration in preschool settings has been based on the assumption that typical children will demonstrate age-appropriate behaviour from

which the atypical child can benefit socially (Blancher-Dixon, Leonard and Turnbull, 1981). The basis for this assumption is typically a second assumption that the preschool years are a critical period for cognitive and social development (Wilton and Demsen, 1977). This position implies that all handicapped children should attend an integrated preschool because they are exposed to more adequate social models and more favourable opportunities for appropriate social interaction.

Most studies on the effects of preschool integration have focused on the behaviour changes of the atypical child within the specific educational setting. Few studies have studied the effects of integration on the average child in the classroom. Furthermore, fewer studies have evaluated the effects of integration on the atypical or the average child out of the classroom. From a practical perspective, these areas need to be studied before child development specialists, psychologists, and educators can make educated and pragmatic recommendations to parents about the practice of preschool integration.

Consequently, the purpose of this paper will be to analyze the relationship between integration in the preschool setting and children's behaviour as viewed by parents outside of the classroom. In order to do this,

parents were provided with extensive questionnaires to fill out before and after participating in an integration programme offered by a children's mental health centre treating preschool age children.

Much has been written in the past 15 years on preschool integration programmes (e.g., Bricker, Bruder, and Bailey, 1982; Peck and Cooke, 1983; and Odom and Speltz, 1983). The reason for the increase in research in this area has been that there has been a shift to integrated preschools as an educational experience for handicapped children since the early 1970's (Peck and Cooke, 1983).

Bricker (1978) delineates the most frequently suggested rationales for preschool integration utilizing three perspectives. One perspective is a social-ethical viewpoint. This includes: (1) a possibility that societal attitudes toward the handicapped will change in a positive direction; (2) the possibility of deleterious effects on the handicapped child who is isolated from other children and; (3) more efficient allocation of resources in an integrated setting. The second perspective is a legal one based on human rights legislation. The third perspective suggested by Bricker is psychological-educational in focus. The psychological-educational focus includes issues such as the probable positive effects of early stimulation, and

the beneficial aspects that integration might offer such as imitation learning and social/peer interactions. Thus, it would appear that there is sufficient pressure to continue the thrust toward integration.

Most of the arguments for integration favour the handicapped child. For example, Hartup (1978) argues that peer interaction is vital in its contribution to the early socialization of the child. It has been suggested that integration in elementary school is less successful than it might be because the atypical children have missed important developmental accomplishments during the preschool years necessary for appropriate socialization at the elementary school age. He cites many studies that suggest that peer interaction is unique in its contribution to child development in the areas of aggressive socialization, sex role learning and moral development. Thus, by isolating the preschool child from peers, the child is deprived of learning important social skills that will effect relations with others throughout the lifespan.

Additional impetus comes from Bricker and her associates (Bricker, 1978; Bricker and Sandall, 1979; and Bricker, Bruder and Bailey, 1983) who use Piagetian theory to explain why early interaction is critical to later socialization. They argue that the interaction between a

child's existing schemes and the environment leads to more complex cognitive organization and that... "The inclusion of nonhandicapped peers offers a more balanced view of the world and provides a perspective from which to evaluate the additional skills that will be necessary to cope adequately with the larger community." (Bricker et. al. 1983, p. 208). This statement implies that there are benefits for both atypical and typical children who are exposed to an integrated preschool environment.

While the above gives considerable thrust towards the idea of integration, there are factors which have slowed down the progress. For example, although there is considerable empirical and theoretical evidence that peer interaction within a normal setting is beneficial to handicapped children (Bricker, 1983), it does not necessarily follow that placing handicapped and nonhandicapped children in physical proximity will lead to social interaction between members of the two groups. Peck and Cooke (1983) report that early descriptive work suggests that spontaneous interaction between handicapped and nonhandicapped children did not necessarily occur. Later research, however, suggests that nonhandicapped preschool children prefer to play with other children who are close in level of development with or without handicap.

Peterson and Haralick (1977) found little evidence of social rejection of developmentally handicapped children in the preschool setting. However, they found a trend toward a preference by nonhandicapped children for playmates of similar abilities, particularly for more complex play.

Dunlop, Stoneman, and Cantrell (1978) found that atypical and typical children changed differently over time. For a period of 24 weeks, they studied one child with Down's Syndrome, two children with behaviour disorders and three children with Intelligence Quotients below 75, comparing them with six typical children. They found that the handicapped children's solitary play activities decreased over time while the typical children first decreased then increased their solitary play activities but that the two groups became less distinguishable over time. They suggest that results of studies can be confounded if there is no longitudinal component to the study.

Preference for peers of similar developmental level was also found in a longitudinal study reported by Guralnick (1980). Thirty-seven preschoolers' social interactions were analyzed at the beginning and end of a school year. Twelve of the children were nonhandicapped, 9 were mildly handicapped, 5 moderately and 11 severely handicapped. He found that the nonhandicapped and mildly

handicapped children interacted with each other more frequently than expected on the basis of contiguity and the nonhandicapped and mildly handicapped children interacted with the moderately and severely handicapped less frequently than expected.

The above mentioned studies suggest that social isolation or rejection does not appear to be a problem when preschoolers are close in developmental level. Although spontaneous interactions are much less frequent between moderately and severely handicapped children with their nonhandicapped age peers, this is not the case when mildly handicapped and nonhandicapped children are placed in the same classroom.

Other studies have found that there is discrimination between mildly handicapped and nonhandicapped children. Cavallaro and Porter (1980) found that typical preschoolers and preschoolers at risk for developmental delay preferred their own group members in social situations by studying the children's gaze and seating arrangements. Their study provides evidence that physical integration does not result in complete social integration and that both groups of children make discriminations on the basis of developmental level.

It appears from the literature that children who are

closer in developmental abilities will interact with each other more frequently than those children who differ significantly. Although children interact with each other, they still discriminate when developmental differences are involved. How the group is studied makes a difference in how the results are interpreted. For example, if the researchers are studying integration to demonstrate whether there is social rejection of handicapped children, they find that the children are not totally rejected. Mildly handicapped children are more accepted than moderately or severely handicapped children. On the other hand, when assessing whether the children are totally integrated into a setting, results indicate that the children discriminate between groups.

Thus, integration may be perceived as not worth the trouble in terms of the social aspects but worthwhile in terms of the learning and imitation aspects for the handicapped child. It is unlikely that the results of studies like those listed above will impede the trend toward integration. What might be problematic is evidence showing a negative impact of integration on normal or handicapped children.

A number of deleterious consequences might be predicted. For example, children can tease and become

less tolerant rather than more tolerant of someone with a difference. Normal children might use their power at the expense of those who are vulnerable. These kinds of problems have a negative effect on both the handicapped and nonhandicapped child. Scriven (1977) points out that even if there is positive outcome for children with problems, it is ethically wrong to use integration as a form of treatment if the normative children, who are in the majority, were to suffer deleterious effects. There has been minimal attention to this issue in the literature (Bricker et. al., 1983), although some researchers have looked at the effects of integration on the nonhandicapped children. Some have addressed the issue of reverse imitation (i.e., nonhandicapped children imitating the inappropriate behaviour of the handicapped children); (e.g., Peterson, Peterson and Scriven, 1977) and others have studied the cognitive development of the nonhandicapped children (e.g., Bricker and Sandall, 1977).

It appears from the results of studies focusing on reverse imitation that typical preschoolers do not readily imitate the inappropriate behaviours of their atypical peers in the classroom. Peck, Apolloni, Cooke and Raver (1978) anecdotally report reverse imitation rarely occurs. In cases where atypical children's behaviour was imitated, the response was appropriate. In a more rigorous attempt to address the issue, Peterson, Peterson and Scriven (1977)

designed a study to measure directly the imitation of atypical peers by typical preschoolers. Each of 29 children were subject and model. Half of the group had serious developmental delays the others were of average intelligence. Each group was made up of an equal number of boys and girls. The first child was taught 10 simple behaviours to perform. The child was coached until the task was completed without prompting. The next child was called in and asked to watch the task and then the model dismissed and the new child was coached until he or she could complete the task. This procedure was repeated until all of the children had served as a model once. They found that both typical and atypical preschoolers were more likely to imitate a typical peer than one who was atypical. This finding held even when ability and popularity were taken into account. Peck and Cooke (1983) suggest that though reverse imitation appears less likely to occur, typical children may, at times, imitate undesirable behaviours from any of their classmates.

An additional concern is that preschool children may suffer deleterious effects from variables other than the inappropriate behaviour which may be displayed by their peers. If children with special needs are introduced into their classrooms, there is the possibility that their developmental needs will be placed secondary to those of

the atypical children in the classroom. Thus, normative children in an integrated setting may progress at a less — than normal rate. This assumes of course, that preschools affect developmental progress.

Bricker and Bricker (1977), in a series of studies (Bricker and Bricker, 1971; 1972; and 1973) reported the effects of an integrated programme on typical children. They evaluated the nondelayed children's performance on motor, sensorimotor and language tasks and on standardized intelligence tests. They concluded that the typical children did get their needs met and did not develop problems as a function of associating with children who have moderate to severe learning difficulties.

Bricker and Sandall (1979) compared pre- and post-measures of the Student Progress Record and the Wide Range Achievement Test (WRAT) for typical and atypical children. They concluded that integration did not affect the acquisition of academic skills for either group. However, because the WRAT does not measure a broad array of preacademic skills and is not appropriate for children of preschool age, the results of the study are difficult to interpret.

A study utilizing better assessment tools was carried out by Ipsa and Matz (1978) who studied children in a programme with a cognitive focus. They found that both

atypical and typical children improved on all six subscales of the McCarthy Scales of Children's Abilities (the McCarthy) except on the motor scale on which the atypical child did not significantly improve.

In a similar study, Bricker, Bruder and Bailey (1983) found that pre- and post-assessments of children in three different integrated preschool classes using either the Bayley Scales of Infant Development (the Bayley) or the McCarthy and two measures of student progress significantly improved on all measures except the McCarthy General Cognitive Index in one class. They concluded that developmental integration was appropriate for both atypical and typical preschoolers.

Perhaps the most extensive, albeit confusing, study is reported by Cooke, Ruskus, Apolloni and Peck (1981). Pre- and post-scores of three developmental measures were used to study four groups of children between the ages of 2 to 5 years of age. The children came from one of the four following groups: (1) atypical integrated; (2) atypical segregated; (3) typical integrated and (4) typical segregated. In the first years, the scores of the Peabody Picture Vocabulary Test (the Peabody), the Vineland Social Maturity Test (the Vineland) and the Alpern-Boll Developmental Profile (the Alpern) indicated that typical children in segregated schools made significant gains over

typical children in the integrated preschool settings. They also found that atypical children did equally well in either setting. The data indicated atypical children in the integrated settings gained consistently and significantly more than atypical children in the segregated setting. In comparison, the typical children in the integrated setting had post test scores significantly higher on the Vineland and the Alpern Physical Scale. Typical children in the segregated setting scored higher on the Alpern Social Scale.

Results from a second replication of the study in the third year indicated as much positive change in one setting as the other for the atypical children. The integrated atypical group scored higher than the segregated group on the Alpern Communication Subscale. For the typical children, there appeared to be more positive change in the integrated setting. They post-tested higher on the Peabody and the Alpern (all five subscales). The segregated group showed significant gains over the integrated group on the Vineland.

Cooke et. al. admitted that the results from the three years are contradictory but that they saw some trends evolving. One trend was that a segregated setting appeared to offer more for the typical child in terms of social development than did the integrated setting. Another trend

they suggest is that the atypical children post-tested higher on social development scales after attending an integrated preschool. If, as Hartup (1975) suggests, the preschool years are critical for social development, the typical child may be significantly disadvantaged by integration and the ethical issues raised by Scriven (1977) must be thoroughly considered before integrating children is recommended. They suggested that integration programmes must be well designed to meet the needs of all of the children involved or some children might suffer. They also stated that more outcome studies on mainstreaming at the preschool level need to be carried out in order to establish the efficacy of integration at this early age.

In summary, studies using imitation as a dependent measure indicate that both atypical and typical children imitate typical children more readily than atypical children. Studies using cognitive assessments for measuring outcome have reached contradictory conclusions. Bricker & Bricker (1977) and Bricker & Sandall (1979) and Ipsa & Matz (1978) suggest both atypical and typical children benefit from integration. Cooke et. al. (1981) suggest that segregated preschools may be better for normal children in terms of their social development. This suggestion certainly warrants further investigation as it is contradictory to most of the assumptions that have lead to the thrust toward preschool integration.

One way to study the outcome of integrated preschool settings, is to look at parents' opinions of their children after their children have been enrolled in such a setting. From an ecological perspective, a parent's view of a child's behaviour in such a context is important because it reflects the parent's perceptions of the child's behaviour in other settings. According to Mylnek, Hannah and Hamlin (1982), there has been little attention given to objective research on parents involved in integration programmes. There have been some anecdotal pieces written by parents (Michaelis, 1981, for example) but until 1979 there was little research on parents' concerns, perceptions and attitudes about integration.

In 1979, Ferrara reported one of the first investigations on parents' attitudes toward integration. Parents of children with mental retardation were given a questionnaire about their attitudes about integration for their own children and integration in general. Each question was responded to by rating it on a five point Likert scale. Ferrara found that the parents were significantly more positive about integration in general than they were about integration for their own child.

In a more extensive study, Mylnek et. al. (1982) analyzed the returned questionnaires of 159 parents of

children with different types of problems (i.e., emotional disturbance, mental retardation or learning disabilities). They found that parents of children with learning disabilities were most supportive of integration but in addition, children with learning disabilities were more likely to have been exposed to integration.

Other studies have focused on parents' reasons for placing their children with special needs in an integrated setting. Bates, West, and Schnerl (1977) found that out of 35 families, 24 preferred integration because they believed it would lead to higher self esteem for the children and more exposure to normal children's behaviour. Turnbull and Winton (1983) interviewed mothers of children with mental retardation in both segregated and integrated preschools. They found that mothers who chose an integrated setting wanted their children to have exposure to the real world. Mothers who chose a segregated setting wanted their children to have access to a number of professionals and a more specialized programme.

Turnbull and her associates (Blancher and Turnbull, 1982; and MacMillan and Turnbull, 1983) have focused on the needs of the parents of preschool children with mental retardation. They found that often parents of handicapped children are expected to become more overtly active in the

preschool programme than parents of nonhandicapped children. They point out that as with any other parent with a preschooler, they need the services of a preschool to free some time for their own pursuits and that a parent can indeed be involved in the programme without being in the classroom physically.

MacMillan and Turnbull (1983) suggested that parent participation in preschool programmes effects the success of the programme, thus the study of parent perception of preschool integration is probably a useful one. The literature, however, is heavily focused on the parents of the handicapped child. The Bricker and Bricker (1977) study cited earlier is an exception. They describe the responses of parents of the nonhandicapped children in their programme. They state that finding normal children to participate in the project during the initial year was difficult. However, at the end of the first year, all parents of the normal children stated that they believed their child had not suffered any negative effects from the integration and were willing to place their child in the programme again. At the end of the second year, 2 of the 12 parents indicated that their child had picked up some undesirable responses from the delayed children but all requested readmission for the following year. Bricker and

Bricker's questionnaire data appears to represent the only data collected on parental satisfaction with the integrated preschool placements for their normal children. From an ecological viewpoint, parents' views of a child's behaviour in such a context are important because they reflect the parents' perceptions of the child's behaviour in other settings.

One weakness with the Bricker and Bricker study is that it does not deal with the parents of both nonhandicapped and handicapped children. Also, it is uncertain whether the questionnaire is either reliable or valid (i.e., it was not a standardized psychometric instrument with reported reliability and validity correlation coefficients). Consequently, a useful next step is to have parents of both handicapped and nonhandicapped children fill out a reliable and valid trait assessment questionnaire in which the preschool setting acts as a mediator between the first and second assessment.

This attempt to evaluate long-term effects of integration as perceived by parents formed the basis for the present research. In the present study, mothers of children attending a treatment centre for preschool children were asked to fill out a complete Personality Inventory for Children (PIC) and a Child Behavior Rating

Scale (CBRS) before admission to and after discharge from the treatment programme. These questionnaires were then analyzed to determine changes in the mothers' perceptions. The children's teachers also were asked to complete the CBRS. The two measures used in this study are discussed below.

One of the most useful tools designed for objectively measuring children's traits and behaviours from the parent's point of view is the Personality Inventory for Children (PIC). It is described in its original manual (Wirt, Lachar, Klinedinst, and Seat, 1977) as an instrument designed to provide comprehensive and clinically relevant personality descriptions for children between the ages of 3 and 16 years of age. The 600 true or false items make up 33 scales (16 profile scales and 17 supplementary scales). Table 1 describes the scales which are used in his study. These include: 3 validity scales (Lie, F, and Defensiveness); a general screening scale (Adjustment); 12 clinical scales (Achievement, Intellectual Screening, Development, Somatic Concern, Depression, Family Relations, Delinquency, Withdrawal, Anxiety, Psychosis, Hyperactivity, and Social Skills); and one of the supplementary scales (Aggression). For each scale, increasing positive deviancy from the mean suggests greater psychopathology.

Table 1 *

Description of the Scales of the Personality Inventory for Children

| Scale | Description |
|-----------------------------------|---|
| Lie (L) | This validity scale consists of 15 items chosen by rational method to identify a response set which denies common behaviour problems and attributes the most virtuous of behaviours to the child. |
| F | This validity scale consists of 42 empirically derived items. It was designed to identify deviant response sets which exaggerate symptoms or random responses which are usually due to inability to read or understand the questions. |
| Defensiveness (DEF) | This validity scale consists of 26 empirically derived items to measure the respondent's tendency toward denying problems with the child's behaviour. |
| Adjustment (ADJ) | A screening scale consisting of 76 items which assess general psychological adjustment. High scores on this scale indicate a need for psychological evaluation. |
| Achievement (ACH) | This 31 item scale was designed to assist in the identification of children whose academic achievement is below age expectations. |
| Intellectual Screening (IS) | A screening scale made up of items designed to identify children whose difficulties include impaired intellectual functioning. If a high score is obtained, further intellectual assessment is suggested. |
| Development (DVL) | This 25 item scale was constructed to identify children with poor general intellectual and motor development (i.e.,) retarded motor coordination, poor school performance and a lack of any special skills or abilities. |

(Table 1 continues)

(Table 1 continued)

| Scale | Description |
|---------------------------|--|
| Somatic Concern (SOM) | A 40 item scale designed to measure a variety of health related variables such as the frequency and seriousness of health problems and complaints. |
| Depression (D) | This scale is made up of items which were judged to measure childhood depression including lack of energy, poor self concept and crying spells. |
| Family Relations (FAM) | This 35 item scale was designed to assess family cohesiveness and effectiveness, the ability of family members to cooperate in the making of family decisions, the appropriateness of discipline and concerns for the rights of the child. |
| Delinquency (DLQ) | A 47 item scale which reflects anti-social tendencies, impulsiveness, irritability, interpersonal insensitivity and disregard for limits. |
| Withdrawal (WDL) | A 25 item scale designed to identify children who withdraw from social contact. It includes items which indicate emotional, social, and physical isolation, shyness and fear of strangers. |
| Anxiety (ANX) | This 30 item scale is designed to assess such tendencies as brooding, moodiness, poor self concept, irrational fears and nightmares. |
| Psychosis (PSY) | A 40 item scale designed to discriminate children with psychotic symptoms from children with behavioural disturbances or retardation and normal children. High scores indicate children who appear isolated from their peers, withdrawn, anxious and exhibit poor social skills. |
| Hyperactivity (HPR) | A 36 item scale designed to identify children who exhibit the classic hyperkinetic syndrome including such symptoms as emotional lability, active social patterns and interpersonal hostility. |

(Table continues)

(Table 1 continued)

| Scale | Description |
|------------------------|--|
| Social Skills (SSK) | This 30 item scale was designed to assess the social skills required for effective social relations. It measures such areas as peer rejection, lack of friends and the ability to lead and follow. |
| Aggression (AGR) | This supplemental scale consists of items which measure unsocialized and maladaptive aggression including temper tantrums, uncooperativeness and cruelty. |

* Based in part on Porter (1980), 36-38.

The authors of the PIC take into account that not all parents are going to be completely unbiased and honest about their child's problems and behaviours. They state that often, clinicians learn as much about a child's personality by what is not said, almost said and what is read between the lines. They incorporate this into their test by measuring distortion and bias on the PIC profile in the form of three validity scales included on the test.

Two methods of scale construction were utilized to develop the items which make up the scales. One method of scale construction was an empirical-statistical method devised by Darlington (1964) which correlates items with a criterion group (i.e. the answers to items given by parents with children who have a previously diagnosed problem such as psychosis). Scales derived by this method included the F, Defensiveness (DEF), Adjustment (ADJ), Achievement (ACH), Adjustment (ADJ), Intellectual Screening (IS), Delinquency (DLQ), Psychosis (PSY), and Hyperactivity (HYP) scales. The other method of scale construction was a rational approach. This procedure involved informed, skilled judges nominating items from a large item pool to construct each scale. Item acceptance was based on a 75% nomination criterion. Further, the judges had to agree on the direction of the item no less than 66% of the time.

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Scales constructed by the rational method include the Lie (L), Developmental (DVL), Somatic (SOM), Depression (D), Family Relations (FAM), Withdrawal (WDL), Anxiety (ANX), Social Skills (SSK) and Aggression (AGR) scales.

The 1984 PIC Manual is reviewed by Barkley (1985) who cites the reliability data on the standard length scales, the shortened scales and the factor scales. The mean test-retest correlation coefficients for three separate studies are reported as .86, .71, and .89 with ranges of .46 to .94, .39 to .89 and .68 to .93 respectively for the long form.

There has been a considerable amount of research devoted to studying the validity of the PIC. Concurrent validity for preschool children's profiles has been reported by Durrant (1983) who correlated the Intellectual Screening scale, the Developmental scale and the Factor IV (Cognitive Development) with the McCarthy Scales of Children's Abilities (MSCA) and the Peabody Picture Vocabulary Test (PPVT). Significant correlations were found between all of the scores.

Concurrent validity has also been assessed by correlation of the PIC with factors derived from parent, teacher and clinician ratings (Lachar, Gdowski and Snyder, 1984), with factors derived from a 100 item rating scale completed by psychiatry residents (Lachar, Gdowski and

Snyder, 1979), by correlations between the PIC ,D, and HPR scales and the Connors Parent Rating Scale (Leon Kendall, and Garber, 1980); by correlations between the IS and ACH scales and the Wechsler Intelligence Scale for Children - Revised (WISC-R) and the Wide Range Achievement Test (Bennet and Welsh, 1981); and correlations between the ACH, IS and DVL scales and the WISC-R (Dollinger, Goh and Cody, 1984).

There have been numerous studies on the discriminative validity of the PIC. D'Ornellas (1983) found that there was a significant difference between a clinical sample and a normative sample of preschool age children on all but three scales (DEF, L, and HPR) of the 16 narrow band scales and that all four factors of the broad band scales differentiated between the two groups. Lachar, Gdowski and Snyder (1982, 1984) report discriminant validity between groups including children with hyperactivity, cerebral dysfunction, retardation and psychosis and children who somatize, on the broad band scales of the PIC using the original normative group (ages 2 to 16). Other studies report differences between children enrolled in special education class and children enrolled in regular classrooms (DeKrey and Ehly, 1983); Hyperactive and nonhyperactive children (Breen and Barkley, 1982); hyperactive children, children with learning disabilities, and hyperactive

children with learning disabilities (Breen and Barkley, 1984); and children with learning disabilities and children with behaviour disorders (Goh, Cody and Dollinger, 1984).

Several researchers have been able to establish subtypes with unique PIC profiles of different populations of children. These studies include populations of children with learning disabilities (Porter, 1980, for example) and clinic referred children (Rowe-Lonzczynski, 1983).

There have also been some recent studies of the predictive validity of the PIC. Voelker, Lachar and Gdowski (1983) found that the PIC was useful in predicting which hyperactive children would respond well to Methylphenidate. Bloch-Rosen (1984) found that the PIC had the capacity to predict those children who needed post hospitalization residential placement from those who did not need placement.

In summary, there has been a good deal of evidence to suggest that the PIC is a reliable and valid measure of children's personality and behaviour as reported by their parents. However, there has been no report that the PIC is treatment sensitive. Because the purpose of this study is to investigate parents' perceptions before and after treatment, a second questionnaire was administered to make the conclusions somewhat less test specific. Thus, the Child Behavior Rating Scale was also utilized in this

study.

The Child Behavior Rating Scale (CBRS: Cassel, 1962) is a 78 item scale which is divided into six subscales. The six subscales include: Self Adjustment, Home Adjustment, Social Adjustment, School Adjustment, Physical Adjustment and Total Adjustment. The items making up these subscales are limited to explicit, observable behaviours. The items on the CBRS were derived by screening over 1000 cases studies of elementary school age children who were referred for psychological or psychiatric services. The author reports that the CBRS score statistically discriminated between 200 normal and 200 maladjusted children. Spearman-Brown odd-even reliabilites range from .59 for maladjusted children and .87 for the normal group. Teacher rating reliability coefficients were reported as .74. Specific data related to preschool-age children (other than Kindergarten children) is not available.

In the present study, parents were asked to complete the PIC questionnaire before enrolling their children in a preschool treatment program and after finishing the programme. Parents and teachers were also asked to fill out the CBRS. The children were divided into 3 groups according to preadmission diagnoses. The first group consisted of children who had been diagnosed as exhibiting behaviour problems; the second group consisted of children

who were diagnosed as at risk for learning disabilities; and the third group consisted of children who were screened as normal or typical. Each group's pre- and post-PIC profiles were analysed to see if there are changes in the parents' perceptions of their children's behaviour and traits after being enrolled in an integrated preschool programme. Similarly, their scores on the pre- and post-CBRS as rated by their mothers and teachers were analyzed.

There has not been enough research on the effects of integration on preschool-aged children to make precise predictions of changes from the pre-programme to the post-programme scores of the individual scales of the PIC and CBRS. However, from the assumptions that are used to rationalize the need for integrated preschools, certain patterns should be evident. One pattern which should emerge is that parents of typical children enrolled in the integrated treatment facility will rate their children the same or improved in the post-programme evaluation compared to the pre-programme evaluation (reflecting that the children were not perceived as deleteriously effected by exposure to children with problems). A second pattern which should emerge is that parents of children with problems should rate their children as improved in the post-programme evaluation compared to the pre-programme evaluation. Improvement should occur on scales related to

each group's identified problem and on the scales and subscales which are related to social skills (since theoretically the preschool years are a critical period for social development). The results of the study will also help to determine whether the PIC can discriminate between groups of children at the preschool age and if the PIC is treatment sensitive and therefore an appropriate tool for research with preschool children.

Chapter II

METHOD

Subjects

The children participating in this study were selected from a clinical population referred to a treatment centre for preschool-age children and a group of normal children also enrolled there. All children whose parents had completed a Personality Inventory for Children both prior to enrollment and after discharge and who met the criteria for group classification participated in this study. A standardized intelligence test was given to each child in the programme at admission and discharge. The intelligence tests used included the McCarthy Scales of Children's Abilities, the Stanford-Binet (Form L-M), the Wechsler Preschool and Primary Scale of Intelligence and the Bayley Scales of Infant Development. (The same measure was not necessarily given at pre- and post-programme evaluations.) The data was collected from the year 1979 to 1985. Each child had spent at least 6 months in the setting prior to discharge. The average age of admission into the programme was 43.5 months. The average discharge age was 60 months.

The children were categorized into three groups. The first group (Group N) consisted of 20 boys and 6 girls who were selected by the treatment facility as normative children for the integration classroom. The children were

screened by a psychologist, speech pathologist and social worker in order to establish that they were functioning at least in an average range in a variety of areas. Further, they were screened by the integration classroom teacher-counsellors who observed their behaviour in the classroom before they were accepted as appropriate peer models for the programme. The children's intelligence test scores were all in the average or above average range (mean standard score = 115.8).

The second group (Group BP) was made up of 17 boys and 5 girls who were referred to the centre for treatment of behaviour problems. Each child in this group entered the centre's programme because they had been described as exhibiting behaviour problems by the referral source and the parents. In each case, this was confirmed by the psychologist who assessed the child. The children in this group most often earned intelligence quotient scores that were assessed to be in the average range (mean standard score = 85.9). In five cases, the scores were below average, but the scores were interpreted as underestimates due to the child's inappropriate behaviour in the testing situation.

The third group (Group LP) consisted of 16 boys and 5 girls who were diagnosed as at risk for learning disabilities. Problems with learning were mentioned by the referral source and the parents, and this was confirmed

psychometrically. The children in this group generally had intelligence quotient scores between 70 and 85 (mean standard score = 75.0). In some cases, specific deficits in performance pulled the total score below 70. In one case, the intelligence test score was above the range (i.e., 100). (Children referred to the treatment centre were screened for mental retardation and referred to other facilities if this is a presenting problem, therefore, none of the children in this study was diagnosed as having this problem even if their intelligence test score is below average.)

Materials

The primary assessment instrument used in this study was the Personality Inventory for Children (Wirt, Lachar, Klinedinst, and Seat, 1977) The Personality Inventory for Children is made up of 600 true or false items which make up 33 scales (16 profile and 17 supplemental). The 16 profile scales and 1 supplemental scale (AGR) were used in this study. Chapter 1 describes the scales in some detail. Table 1 describes the scales in this study.

The other assessment instrument used in this study is the Child Behavior Rating Scale (CBRS: Cassel, 1962). This scale was filled out by both the child's parents and teachers. It is described in Chapter 1.

The Setting

The treatment facility (The Child's Place) is an

assessment and day treatment centre for preschool children and their families. The children attend 5 half day sessions a week from September through July. Out of a maximum of 40 children, approximately 14 of the children are normative and 26 require therapeutic intervention. There are two treatment classrooms (5-6 children each) and an integration classroom (usually 7 normative children and 3 children who require treatment). Treatment children qualify for an integrated classroom position when they have achieved their treatment goals as outlined by the clinical team. All of the children meet as a group for approximately 15 to 20 minutes before separating to their respective classrooms.

The daily activities for the integration class are described in the programme information pamphlet by Thompson (1983). (See Appendix 1). The experimenter spent 3 days observing various aspects of the programme, and it appeared that the integration classroom did function very similarly to what is described in the brochure. Two teacher-counsellors worked with 10-11 children (7-8 Normative status children and 3-4 Treatment status children). During the observation period, several children were away due to illness. With the addition of volunteers, the child to teacher ratio was 3:2. The Normative to Treatment ratio was 5:1.

Daily activities begin with "Singing Time" which

lasted approximately 15 to 20 minutes. All of the children in the centre were in attendance. After "Singing Time", the children broke up into their classrooms (2 treatment classrooms and the integration classroom). In the integration group, "Circle Time" commenced and lasted between 25 to 35 minutes. Each child in the circle was given individual time to talk with the teacher-counsellor in front of the other children. After "Circle Time", the children were directed to the "Learning Centre Activities". This segment of the day lasted between 30 to 40 minutes and was followed by "Free Play" which lasted 20-25 minutes. This was followed by a snack and then either more free play or a story. In the integration classroom, the Normative children were exposed to Treatment status children 100% of the time. The integration class and the two treatment classes were together as a group for approximately 20% of the time.

Procedure

Each parent whose child entered the treatment centre was routinely given the PIC. The PIC was completed by the child's mother. It was then scored by a trained psychometrist or psychologist. Each child's pre- and post-test profiles were used in the study. Further, many of the children had pre- and post- Child Behavior Rating Scales available in their files filled out by both their parents and their teachers. When available, these scores were also collected for analysis.

Chapter III

RESULTS

Since intelligence test scores were initially collected, preliminary analyses were carried out on the data collected in order to determine whether the three groups significantly differed before treatment and to establish whether the mean preprogramme intelligence test scores significantly changed after discharge from the preschool programme. A 3 (Group) X 2 (Time) analysis of variance was completed. Table 2 is a summary table of the analysis of variance for the pre- and post-programme intelligence test scores. Figure 1 shows the pre- and post-programme scores for the three groups. There was a significant group effect ($F(2,67) = 44.79, p < .0001$), a significant time effect ($F(1,67) = 56.07, p < .0001$), and a significant group by time interaction ($F(2,67) = 11.90, p < .0001$). Simple effects analysis revealed that the intelligence test scores for Group BP and Group LP improved significantly from the preprogramme evaluation to the post programme evaluation while Group N remained the same. The simple effects analysis also revealed that the groups differed significantly both in the preprogramme condition and in the postprogramme condition. The summary table for the simple effects analysis is presented in Table 3.

In order to determine which groups differed from each

TABLE 2

Analysis of Variance Summary Table for the Pre-
and Post-programme Intelligence Test Scores Group N, Group
BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|--------|
| Between Subjects | | | | |
| Group | 28991.3 | 2 | 14495.6 | 44.79* |
| Error | 21685.6 | 67 | 323.7 | |
| Within Subjects | | | | |
| Pre-post | 3325.6 | 1 | 3325.6 | 56.07* |
| Group x Pre-post | 1411.4 | 2 | 705.7 | 11.90* |
| Error | 3973.8 | 67 | 59.3 | |

* p < .0001.

FIGURE 1

Pre- and Post-programme Mean Standard Scores on Intelligence Tests for the Normative Children (Group N), Children with Behaviour Problems (Group BP) and Children with Learning Problems (Group LP)

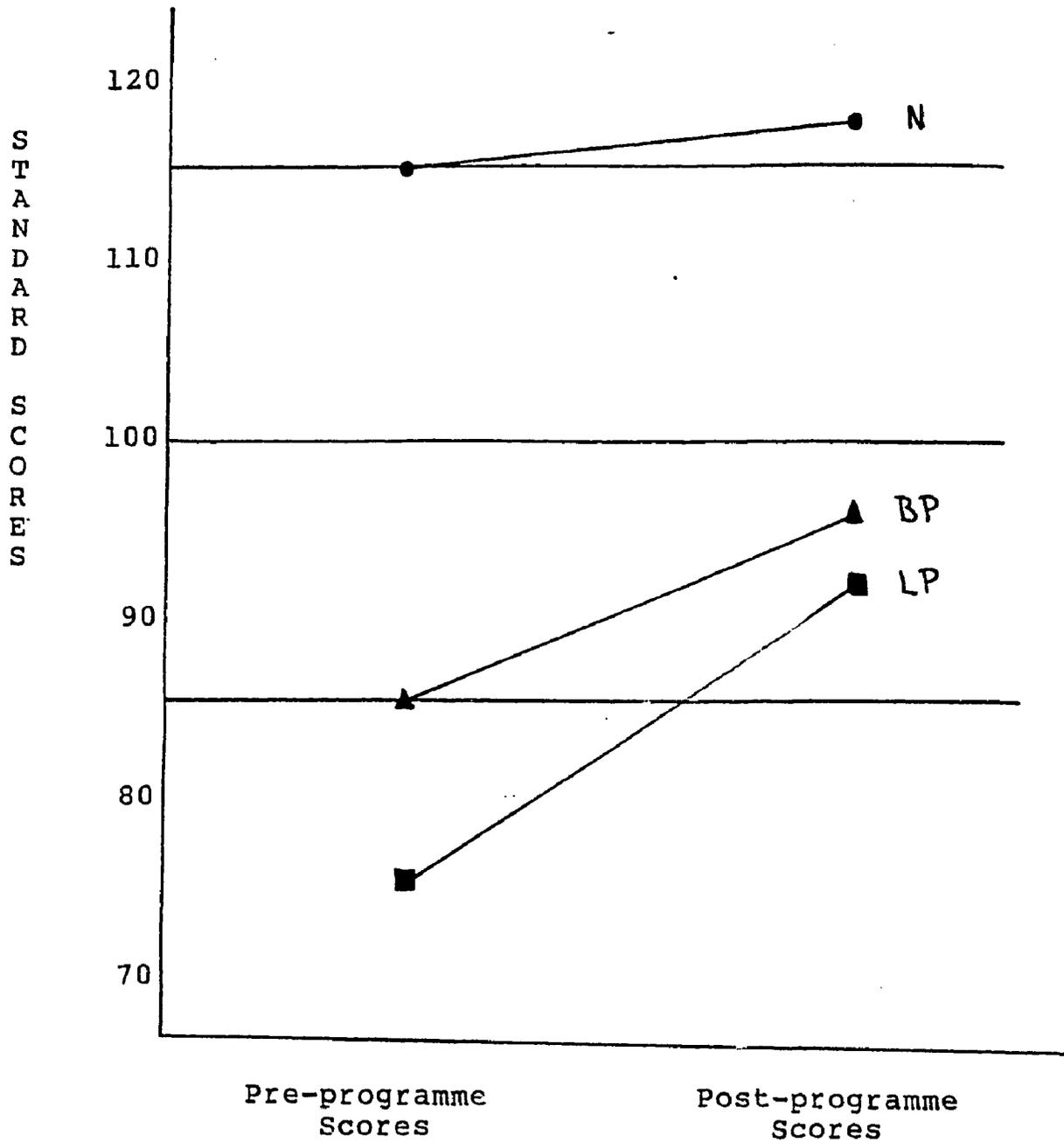


TABLE 3

Analysis of Variance Summary Table for Simple Effects for
the Pre- and Post-programme Intelligence Test Scores Group
N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|-----|----------|---------|
| A at b | 20631.89 | 2 | 10315.48 | 53.87** |
| A at b | 8576.51 | 2 | 4288.25 | 22.39** |
| Pooled Error | | 134 | 191.50 | |
| B at a | 36.30 | 1 | 36.30 | 0.61 |
| B at a | 1233.18 | 1 | 1233.18 | 20.80** |
| B at a | 3470.98 | 1 | 3470.98 | 57.96** |
| Error Within | 3973.81 | 67 | 59.29 | |

**p < .01.

other in the pre-programme evaluation and the post-programme evaluation, individual cell comparisons were calculated. Individual cell comparisons revealed that all groups differed significantly in the pre-programme evaluation. In the post-programme evaluation, Group N differed significantly from Group BP and Group LP but Group BP and Group LP did not differ significantly. Table 4 summarizes the individual cell comparisons.

Analysis of the PIC and CBRS Scores

In order to evaluate the differences among the means of the multiple dependent variables (i.e., the scales of the PIC and the subscales of the CBRS) simultaneously, multiple analyses of variance (MANOVA's) were performed. Unlike analysis of variance (ANOVA), MANOVA takes into account the correlations among dependent variables (Bray and Maxwell, 1985). The statistic selected for the overall test of significance in this study was Pillai's trace criterion (Timm, 1975). Once the overall significance was determined, subsequent ANOVA's provided information as to the location of mean differences. When the ANOVA's indicated a significant time effect, within groups analyses (i.e., one way MANOVA'S for each group) were carried out in order to determine which group differed from pre-evaluation to post-evaluation. Once overall significance

TABLE 4

Results of the Individual Cell Comparisons for the
Pre- and Postprogramme Intelligence Test Scores for Group
N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|-------------------------|-----------|---------|----------|
| Pre-programme Score | N (n=26) | 115.769 | a * |
| | BP (n=23) | 85.870 | b |
| | LP (n=21) | 75,000 | c |
| Post-programme Score | N | 117.538 | a |
| | BP | 96.217 | b |
| | LP | 92.238 | b |

* Means with the same letter beside them do not significantly differ.

group, univariate F ratio's provided information as to the location of mean differences.

The Personality Inventory For Children

The data collected on the PIC is presented in Table 5. A 3 (Group) by 2 (Time) MANOVA with 17 dependent variables (i.e., the 17 scales of the PIC) was calculated. Results indicated a significant group effect ($F(2,67) = 28.69, p < .0001$) and a significant time effect (Pillai's trace, approximate $F(1,67) = 18.18, p < .0001$). There was no significant interaction between group and time indicating that all three groups changed in a similar fashion. Table 6 summarizes the univariate analyses derived from the MANOVA. Figures 2 and 3 show the PIC profiles for the 3 groups in the pre-programme evaluation and the post-programme evaluation respectively.

Tables 7 to 20 present the univariate ANOVA summaries for the individual scales of the PIC which contained significant results. A significant group effect was determined for the F scale ($F(2,67) = 15.63, p < .0001$), ADJ ($F(2,67) = 17.83, p < .0001$), ACH ($F(2,67) = 21.00, p < .0001$), IS ($F(2,67) = 18.04, p < .0001$), DVL ($F(2,67) = 20.60, p < .0001$), SOM ($F(2,67) = 11.05, p < .0001$), D ($F(2,67) = 9.43, p < .001$), FAM ($F(2,67) = 14.39, p < .0001$), DLQ ($F(2,67) = 6.67, p < .01$), WDL ($F(2,67) = 10.40, p < .0001$), ANX ($F(2,67) = 5.14, p < .01$), PSY ($F(2,67) = 23.36, p < .0001$), SSK ($F(2,67) = 14.57, p < .0001$), and AGR

TABLE 5

Mean Scores and Standard Deviations for the Pre- and Post-programme Personality Inventory for Children for Group N, Group BP, and Group LP

| Scale | Group | Mean | SD |
|-----------------------------|-----------|------|------|
| <u>Pre-programme Scores</u> | | | |
| LIE | N (n=26) | 53.6 | 11.7 |
| | BP (n=23) | 48.2 | 8.7 |
| | LP (n=21) | 51.2 | 11.1 |
| F | N | 53.3 | 8.7 |
| | BP | 76.0 | 23.1 |
| | LP | 79.6 | 23.4 |
| DEF | N | 50.9 | 10.4 |
| | BP | 45.0 | 10.8 |
| | LP | 47.1 | 11.4 |
| ADJ | N | 50.0 | 8.1 |
| | BP | 74.6 | 20.6 |
| | LP | 78.2 | 25.9 |
| ACH | N | 50.5 | 9.3 |
| | BP | 67.8 | 17.5 |
| | LP | 67.8 | 12.1 |
| IS | N | 57.5 | 6.8 |
| | BP | 67.4 | 11.6 |
| | LP | 81.3 | 16.6 |
| DVL | N | 50.5 | 8.8 |
| | BP | 65.5 | 15.2 |
| | LP | 72.6 | 15.2 |
| SOM | N | 51.4 | 11.1 |
| | BP | 61.4 | 12.8 |
| | LP | 69.3 | 16.0 |
| D | N | 48.2 | 10.8 |
| | BP | 63.6 | 20.0 |
| | LP | 64.1 | 16.0 |

(table continues)

Table 5 (continued)

| Scale | Group | Mean | SD |
|-------|-------|------|------|
| FAM | N | 46.3 | 6.7 |
| | BP | 60.1 | 14.7 |
| | LP | 58.0 | 9.5 |
| DLQ | N | 50.4 | 7.4 |
| | BP | 59.3 | 14.1 |
| | LP | 64.8 | 16.6 |
| WDL | N | 50.2 | 8.1 |
| | BP | 62.1 | 18.6 |
| | LP | 64.8 | 13.6 |
| ANX | N | 50.1 | 13.2 |
| | BP | 62.1 | 16.8 |
| | LP | 55.5 | 12.4 |
| PSY | N | 54.5 | 9.7 |
| | BP | 83.9 | 21.6 |
| | LP | 82.9 | 21.0 |
| HPR | N | 50.3 | 7.4 |
| | BP | 53.8 | 16.4 |
| | LP | 48.8 | 12.8 |
| SSK | N | 50.2 | 6.8 |
| | BP | 65.1 | 13.4 |
| | LP | 56.4 | 12.4 |
| AGR | N | 46.0 | 5.6 |
| | BP | 66.0 | 18.4 |
| | LP | 60.4 | 18.6 |

Post-programme Scores

| | | | |
|-----|-----------|------|------|
| LIE | N (n=26) | 53.1 | 12.2 |
| | BP (n=23) | 48.4 | 11.0 |
| | LP (n=21) | 51.6 | 11.7 |
| F | N | 47.3 | 8.8 |
| | BP | 64.7 | 23.0 |
| | LP | 68.7 | 20.9 |

(table continues)

Table 5 (continued)

| Scale | Group | Mean | SD |
|-------|-------|------|------|
| DEF | N | 48.4 | 10.9 |
| | BP | 44.5 | 11.7 |
| | LP | 47.5 | 12.5 |
| ADJ | N | 48.9 | 10.9 |
| | BP | 60.0 | 15.7 |
| | LP | 70.6 | 21.3 |
| ACH | N | 46.7 | 10.7 |
| | BP | 61.7 | 16.6 |
| | LP | 70.7 | 19.9 |
| IS | N | 50.1 | 9.7 |
| | BP | 63.2 | 20.8 |
| | LP | 75.8 | 27.8 |
| DVL | N | 45.3 | 10.8 |
| | BP | 62.0 | 16.2 |
| | LP | 72.4 | 21.0 |
| SOM | N | 49.0 | 9.4 |
| | BP | 55.6 | 12.4 |
| | LP | 60.4 | 14.7 |
| D | N | 47.1 | 8.3 |
| | BP | 60.1 | 16.9 |
| | LP | 60.5 | 15.5 |
| FAM | N | 46.0 | 5.9 |
| | BP | 57.4 | 15.0 |
| | LP | 53.5 | 15.5 |
| DLQ | N | 48.8 | 9.9 |
| | BP | 57.0 | 21.9 |
| | LP | 57.2 | 16.2 |
| WDL | N | 47.1 | 6.8 |
| | BP | 57.0 | 13.4 |
| | LP | 58.0 | 10.6 |

(table continues)

Table 5 (continued)

| Scale | Group | Mean | SD |
|-------|-------|--------|------|
| ANX | N | 48.3 | 10.8 |
| | BP | 56.6 | 12.4 |
| | LP | 56.7 | 9.7 |
| PSY | N | 46.2 | 10.1 |
| | BP | 67.8 | 21.5 |
| | LP | 74.6 | 21.5 |
| HPR | N | 51.5 | 8.9 |
| | BP | 47.7 | 18.9 |
| | LP | 54.1 | 15.8 |
| SSK | N | 48.0 | 7.8 |
| | BP | 58.6 | 13.8 |
| | LP | 62.576 | 12.7 |
| AGR | N | 48.4 | 8.0 |
| | BP | 56.1 | 12.9 |
| | LP | 52.1 | 13.8 |

TABLE 6

Multivariate Analysis of Variance Summary Table for the
Pre-and Post-programme Personality Inventory for Children
for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|-----------|----|-----------|-----------|
| Between Subjects | | | | |
| Group | 89132.13 | 2 | 44566.57 | 28.69**** |
| Error | 104072.73 | 67 | 1553.32 | |
| Within Subjects | | | | |
| Time | 10066.50 | 1 | 100066.50 | 18.18**** |
| Group x Time | 1198.69 | 2 | 599.35 | 1.08 |
| Error | 37105.89 | 67 | 553.82 | |

**** $\underline{p} < .0001$.

FIGURE 2

Pre-programme PIC Profiles for the Normative Children (Group N), Children with Behaviour Problems (Group BP), and Children with Learning Problems (Group LP)

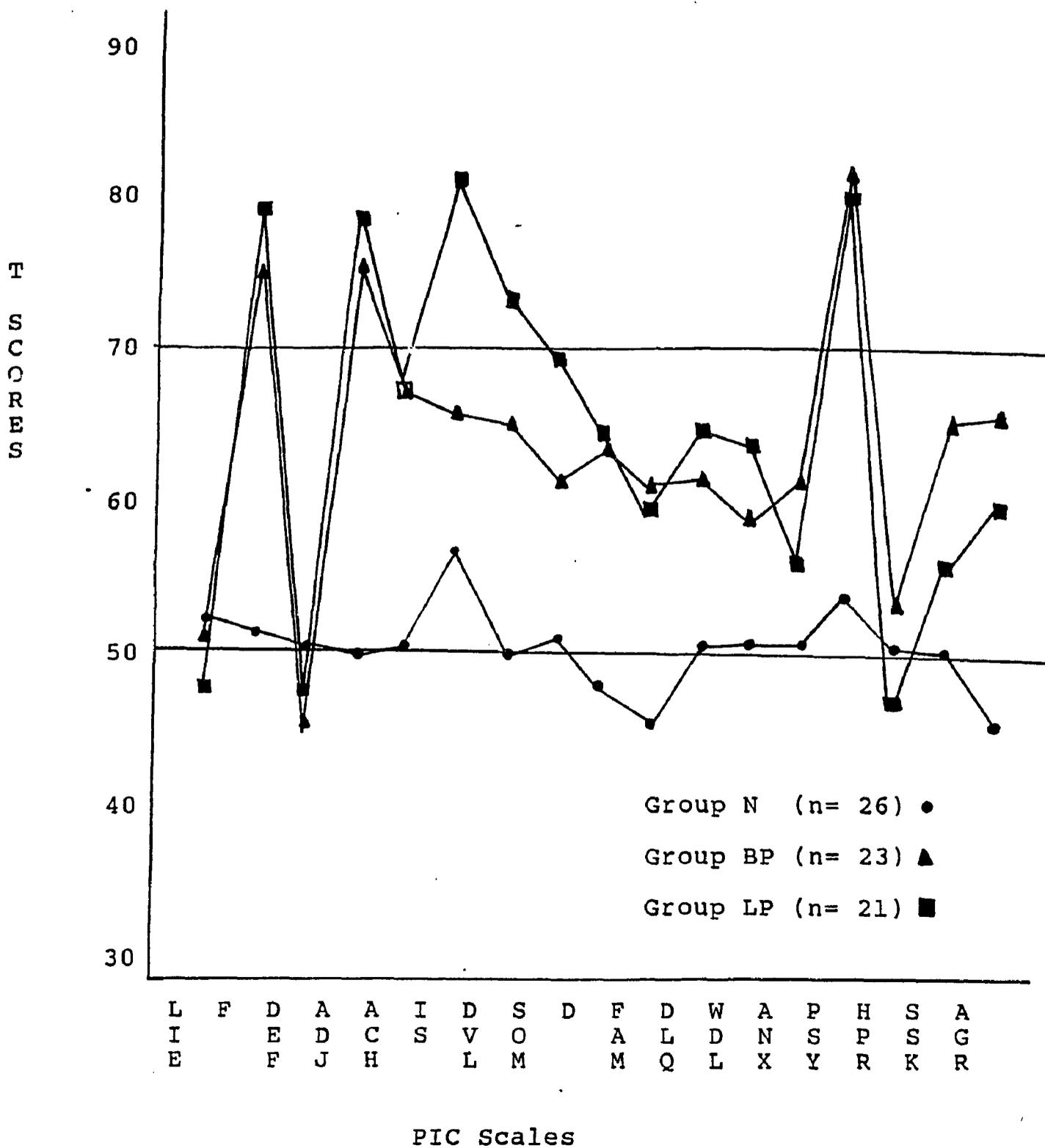


FIGURE 3

Post-programme PIC Profiles for the Normative Children (Group N), Children with Behaviour Problems (Group BP), and Children with Learning Problems (Group LP)

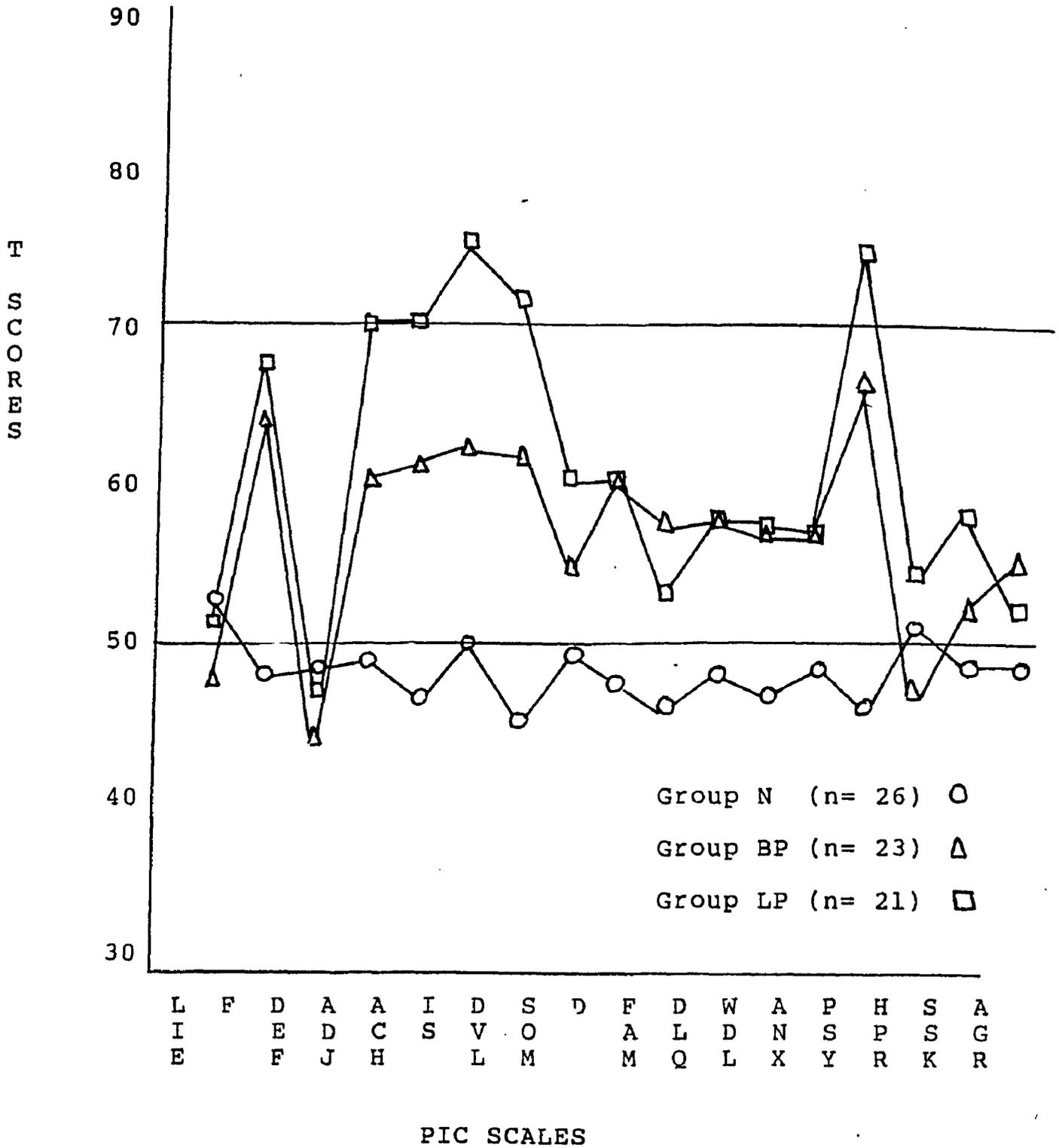


TABLE 7

Analysis of Variance Summary Table for the
Pre- and Post-programme F Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 15822.59 | 2 | 7911.29 | 15.63**** |
| Error | 33915.83 | 67 | 506.21 | |
| Within Subjects | | | | |
| Time | 3168.57 | 1 | 3168.57 | 16.37**** |
| Group x Time | 217.48 | 2 | 108.74 | 0.56 |
| Error | 12968.55 | 67 | 193.56 | |

**** p < .0001.

TABLE 8

Analysis of Variance Summary Table for the
Pre- and Post-programm ADJ Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|-------------------------|----------|----|---------|----------|
| Between Subjects | | | | |
| Group | 15941.27 | 2 | 7970.63 | 17.83*** |
| Error | 29949.44 | 67 | 447.01 | |
| Within Subjects | | | | |
| Time | 2119.36 | 1 | 2119.36 | 11.98** |
| Group x Time | 1118.45 | 2 | 559.22 | 3.16* |
| Error | 11850.27 | 67 | 176.87 | |

* $p < .05$, *** $p < .001$, **** $p < .0001$.

TABLE 9

Analysis of Variance Summary Table for the
Pre- and Post-programme ACH Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | <u>F</u> |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 11360.76 | 2 | 5680.38 | 21.00**** |
| Error | 18124.85 | 67 | 270.47 | |
| Within Subjects | | | | |
| Time | 193.50 | 1 | 193.50 | 1.24 |
| Group x Time | 475.96 | 2 | 237.48 | 1.52 |
| Error | 10497.61 | 67 | 156.68 | |

**** p < .0001.

TABLE 10

Analysis of Variance Summary Table for the
Pre- and Post-programme IS Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 14259.15 | 2 | 7129.57 | 18.04**** |
| Error | 26483.17 | 67 | 395.27 | |
| Within Subjects | | | | |
| Time | 1154.88 | 1 | 1154.88 | 7.45** |
| Group x Time | 60.45 | 2 | 30.22 | 0.19 |
| Error | 10387.18 | 67 | 155.03 | |

** $p < .01$, **** $p < .0001$

TABLE 11

Analysis of Variance Summary Table for the Pre-
and Post-programme DVL Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 14794.15 | 2 | 7397.08 | 20.60**** |
| Error | 24053.85 | 67 | 359.01 | |
| Within Subjects | | | | |
| Time | 311.60 | 1 | 311.60 | 4.04* |
| Group x Time | 148.64 | 2 | 74.32 | 0.96 |
| Error | 5170.33 | 67 | 77.17 | |

* $p < .05$, **** $p < .0001$

TABLE 12

Analysis of Variance Summary Table for the Pre-
and Post-programme SOM Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 5077.57 | 2 | 2538.78 | 11.05**** |
| Error | 15397.32 | 67 | 29.81 | |
| Within Subjects | | | | |
| Time | 1123.58 | 1 | 1123.58 | 11.88*** |
| Group x Time | 242.27 | 2 | 121.14 | 1.28 |
| Error | 6335.42 | 67 | 94.56 | |

*** $p < .001$, **** $p < .0001$

TABLE 13

Analysis of Variance Summary Table for the Pre-
and Post-programme D Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|---------|
| Between Subjects | | | | |
| Group | 6817.36 | 2 | 3408.68 | 9.43*** |
| Error | 24225.31 | 67 | 361.57 | |
| Within Subjects | | | | |
| Time | 262.74 | 1 | 262.74 | 3.23 |
| Group x Time | 46.84 | 2 | 23.42 | 0.29 |
| Error | 5457.03 | 67 | 81.45 | |

*** $p < .001$.

TABLE 14

Analysis of Variance Summary Table for the Pre-
and Post-programme FAM Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 4260.60 | 2 | 2130.30 | 14.39**** |
| Error | 9918.43 | 67 | 148.03 | |
| Within Subjects | | | | |
| Time | 212.87 | 1 | 212.87 | 2.45 |
| Group x Time | 98.60 | 2 | 49.30 | 0.57 |
| Error | 5831.12 | 67 | 87.03 | |

**** $p < .0001$.

TABLE 15

Analysis of Variance Summary Table for the Pre-
and Post-programme DVL Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|--------|
| Between Subjects | | | | |
| Group | 3386.79 | 2 | 1693.39 | 6.67** |
| Error | 17000.23 | 67 | 253.73 | |
| Within Subjects | | | | |
| Time | 506.56 | 1 | 506.56 | 2.70 |
| Grup x Time | 243.42 | 2 | 121.71 | 0.65 |
| Error | 12568.87 | 67 | 187.59 | |

** $p < .01$.

TABLE 16

Analysis of Variance Summary Table for the Pre-
and Post-programme WDL Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 4380.09 | 2 | 2190.04 | 10.40**** |
| Error | 14115.59 | 67 | 210.68 | |
| Within Subjects | | | | |
| Time | 703.55 | 1 | 703.55 | 8.14** |
| Group x Time | 86.90 | 2 | 43.45 | 0.50 |
| Error | 5790.28 | 67 | 86.42 | |

**** $p < .0001$, ** $p < .01$.

TABLE 17

Analysis of Variance Summary Table for the Pre-
and Post-programme ANX Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|--------|
| Between Subjects | | | | |
| Group | 2845.23 | 2 | 1422.61 | 5.14** |
| Error | 18552.46 | 67 | 276.90 | |
| Within Subjects | | | | |
| Time | 104.62 | 1 | 104.62 | 2.18 |
| Group x Time | 182.27 | 2 | 91.14 | 1.90 |
| Error | 3209.70 | 67 | 47.93 | |

** $\underline{p} < .01$.

TABLE 18

Analysis of Variance Summary Table for the Pre-
and Post-programme PSY Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|----------|-----------|
| Between Subjects | | | | |
| Group | 23801.92 | 2 | 11900.96 | 23.36**** |
| Error | 34134.82 | 67 | 509.57 | |
| Within Subjects | | | | |
| Time | 4101.28 | 1 | 4101.28 | 29.64**** |
| Group x Time | 481.45 | 2 | 240.73 | 1.74 |
| Error | 9271.52 | 67 | 138.38 | |

**** $p < .0001$.

TABLE 19

Analysis of Variance Summary Table for the Pre-
and Post-programme SSK Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 6265.10 | 2 | 3132.55 | 14.57**** |
| Error | 14401.65 | 67 | 214.95 | |
| Within Subjects | | | | |
| Time | 525.71 | 1 | 525.72 | 12.64*** |
| Group x Time | 103.64 | 2 | 65.32 | 1.57 |
| Error | 27.86.99 | 67 | 41.58 | |

*** $p < .001$, **** $p < .0001$.

TABLE 20 .

Analysis of Variance Summary Table for the Pre-
and Post-programme AGR Scale Scores for Group N,
Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|----------|
| Between Subjects | | | | |
| Group | 4869.41 | 2 | 2434.70 | 8.66*** |
| Error | 18827.56 | 67 | 281.01 | |
| Within Subjects | | | | |
| Time | 965.04 | 1 | 965.04 | 11.98*** |
| Group x Time | 1085.35 | 2 | 542.68 | 6.74** |
| Error | 5396.92 | 67 | 80.55 | |

** $p < .01$, *** $p < .001$.

($F(2,67) = 8.66, p < .001$).

Individual cell comparisons were carried out for all scales in which there was a significant group effect. Group N differed significantly from Group BP on 12 of the 17 scales of the PIC (i.e., F, ADJ, ACH, DVL, SOM, D, FAM, DLQ, WDL, PSY, SSK, and AGR) in the pre-programme evaluation. In the post-programme evaluation, Group N differed significantly from Group BP on 12 of the 17 scales (i.e., F, ADJ, ACH, IS, DVL, D, FAM, DLQ, WDL, PSY, SSK, and AGR). Group N differed from Group LP on 14 of the 17 scales (i.e., F, ADJ, ACH, IS, DVL, SOM, D, FAM, DLQ, WDL, ANX, PSY, SSK, and AGR) in the pre-programme evaluation. In the post-programme evaluation, Group N differed from Group LP on 13 of the 17 scales (i.e., F, ADJ, ACH, IS, DVL, SOM, D, FAM, DLQ, WDL, PSY, and SSK). Group LP on the IS, DVL and SOM scales in the pre-programme evaluation. In the post-programme evaluation, Group LP on the IS, DVL and ACH scales in the post-programme evaluation.

A significant time effect (i.e., difference from pre-programme to post programme evaluation) was found for the F scale ($F(1,67) = 16.37, p < .0001$), ADJ ($F(1,67) = 11.98, p < .001$), IS ($F(1,67) = 7.45, p < .01$), DVL ($F(1,67) = 4.04, p < .05$), SOM ($F(1,67) = 11.88, p < .001$) WDL ($F(1,67) = 8.14, p <$

TABLE 21

Results of the Individual Cell Comparisons for the
Pre-programme Personality Inventory for Children Mean
Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|-------|-----------|--------|----------|
| LIE | N (n=26) | 53.615 | a * |
| | BP (n=23) | 48.261 | a |
| | LP (n=21) | 51.238 | a |
| F | N | 53.387 | a |
| | BP | 76.000 | b |
| | LP | 79.667 | b |
| DEF | N | 50.962 | a |
| | BP | 45.000 | a |
| | LP | 47.190 | a |
| ADJ | N | 50.000 | a |
| | BP | 74.696 | b |
| | LP | 78.286 | b |
| ACH | N | 50.538 | a |
| | BP | 67.870 | b |
| | LP | 67.810 | b |
| IS | N | 57.538 | a |
| | BP | 67.480 | b |
| | LP | 81.381 | c |
| DVL | N | 50.538 | a |
| | BP | 65.522 | b |
| | LP | 72.619 | c |
| SOM | N | 51.423 | a |
| | BP | 61.391 | b |
| | LP | 69.286 | c |

* Means with the same letter beside them do not significantly differ.

(table continues)

Table 21 (continued)

| Scale | Group | Mean | Grouping |
|-------|-------|--------|----------|
| D | N | 48.231 | a |
| | BP | 63.609 | b |
| | LP | 64.143 | b |
| FAM | N | 46.000 | a |
| | BP | 60.087 | b |
| | LP | 57.952 | b |
| DLQ | N | 50.385 | a |
| | BP | 59.261 | b |
| | LP | 64.810 | b |
| WDL | N | 50.192 | a |
| | BP | 62.087 | b |
| | LP | 64.762 | b |
| ANX | N | 50.077 | a |
| | BP | 62.087 | b |
| | LP | 55.476 | ab |
| PSY | N | 54.192 | a |
| | BP | 83.913 | b |
| | LP | 82.857 | b |
| HPR | N | 50.269 | a |
| | BP | 53.783 | a |
| | LP | 48.810 | a |
| SSK | N | 50.192 | a |
| | BP | 65.130 | b |
| | LP | 56.429 | b |
| AGR | N | 46.038 | a |
| | BP | 65.957 | b |
| | LP | 60.476 | b |

* Means with the same letter beside them do not significantly differ.

TABLE 22

Results of the Individual Cell Comparisons for the
Post-programme Personality Inventory for Children Mean
Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|-------|-----------|--------|----------|
| LIE | N (n=26) | 53.077 | a * |
| | BP (n=23) | 48.391 | a |
| | LP (n=21) | 51.587 | a |
| F | N | 47.267 | a |
| | BP | 64.652 | b |
| | LP | 68.476 | b |
| DEF | N | 48.423 | a |
| | BP | 44.478 | a |
| | LP | 47.476 | a |
| ADJ | N | 48.885 | a |
| | BP | 60.043 | b |
| | LP | 70.619 | c |
| ACH | N | 46.731 | a |
| | BP | 61.739 | b |
| | LP | 70.667 | b |
| IS | N | 50.115 | a |
| | BP | 63.174 | b |
| | LP | 75.810 | c |
| DVL | N | 45.269 | a |
| | BP | 62.043 | b |
| | LP | 72.381 | c |
| SOM | N | 49.000 | a |
| | BP | 55.609 | b |
| | LP | 60.429 | c |

* Means with the same letter beside them do not significantly differ.

(table continues)

Table 22 (continued)

| Scale | Group | Mean | Grouping |
|-------|-------|--------|----------|
| D | N | 47.077 | a |
| | BP | 60.130 | b |
| | LP | 60.524 | b |
| FAM | N | 46.000 | a |
| | BP | 57.435 | b |
| | LP | 53.524 | b |
| DLQ | N | 48.808 | a |
| | BP | 57.000 | a |
| | LP | 57.180 | a |
| WDL | N | 47.115 | a |
| | BP | 56.969 | b |
| | LP | 58.048 | b |
| ANX | N | 48.269 | a |
| | BP | 56.565 | b |
| | LP | 56.714 | b |
| PSY | N | 46.231 | a |
| | BP | 67.783 | b |
| | LP | 74.619 | b |
| HPR | N | 51.500 | a |
| | BP | 47.696 | a |
| | LP | 54.095 | a |
| SSK | N | 48.038 | a |
| | BP | 58.565 | b |
| | LP | 62.476 | b |
| AGR | N | 48.385 | a |
| | BP | 56.130 | b |
| | LP | 52.143 | b |

* Means with the same letter beside them do not significantly differ.

01), PSY ($F(1,67) = 29.64, p < .0001$), SSK ($F(1,67) = 12.64, p < .001$), and AGR ($F(1,67) = 11.98, p < .001$). Inspection of the means indicates that the post-programme scores are all lower than the pre-preprogramme evaluation scores indicating that the parents reported improvement in their children after participating in the programme.

Examination of the within group differences in the pre- and post-programme evaluations revealed that for Group N, there was a significant main effect for time (Pillai's trace, approximate $F(1,25) = 7.86, p < .01$). Univariate analyses indicated that Group N was rated significantly improved on the F scale ($F(1,25) = 18.43, p < .0001$), ACH ($F(1,25) = 5.56, p < .05$), IS ($F(1,25) = 12.84, p < .001$) DVL ($F(1,25) = 8.36, p < .01$) and PSY ($F(1,25) = 22.76, p < .001$). A summary of the analyses is presented in Table 23. Figure 4 shows the pre- and post-programme PIC profiles for Group N.

There was also a significant time effect for Group BP (Pillai's trace, approximate $F(1,22) = 7.48, p < .01$). Univariate analyses indicated that Group BP was rated as significantly improved on the ADJ ($F(1,22) = 12.42, p < .01$), SOM ($F(1,22) = 4.34, p < .05$), PSY ($F(1,22) = 11.93, p < .01$), SSK ($F(1,22) = 9.48, p < .01$); and AGR ($F(1,22) = 8.44, p < .01$). A summary of the analyses is presented in

TABLE 23

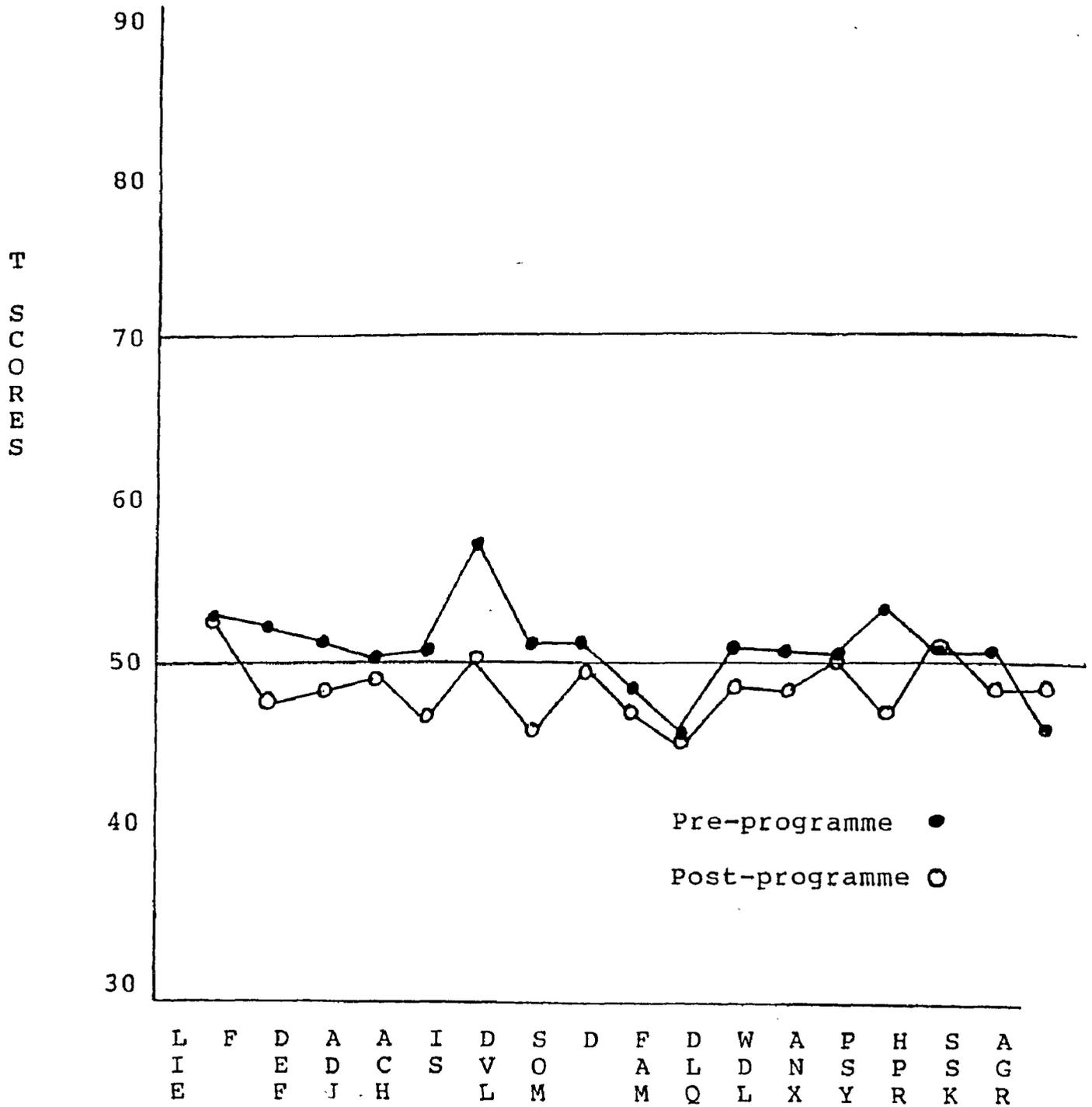
Summary of Analysis of Variance for Group N Pre-
and Post-programme PIC Scores with Time as a Source
of Variance

| Scale | SS | df | MS | F |
|-------|-------|----|-------|----------|
| F | 486.2 | 1 | 486.2 | 18.43*** |
| ACH | 188.5 | 1 | 188.2 | 5.56* |
| IS | 716.3 | 1 | 716.3 | 12.84*** |
| DVL | 360.9 | 1 | 360.9 | 8.36** |
| PSY | 880.7 | 1 | 880.7 | 22.76*** |

* $p < .05$, ** $p < .01$, *** $p < .0001$.

FIGURE 4

Pre- and Post-programme PIC Profiles for the Normative Children (Group N)



PIC SCALES

Table 24. Figure 5 shows the pre- and post-programme PIC profiles for Group BP.

There was also a significant time effect for Group LP (Pillai's trace, approximate $F(1,20) = 4.39, p < .05$). Univariate analyses indicated that Group LP was rated as significantly improved on F ($F(1,20) = 6.62, p < .05$), WDL ($F(1,20) = 7.20, p < .01$), PSY ($F(1,20) = 5.12, p < .05$), and AGR ($F(1,20) = 7.98, p < .01$). A summary of the analyses is presented in Table 25. Figure 6 shows the pre- and post-programme PIC profiles for Group LP.

In summary, the results of the analyses carried out on the PIC data, there were significant differences between groups on the PIC. When examining the differences on the individual scales of the PIC, there were significant differences between Group N and Group BP on 12 of the 17 PIC scales, Group N differed from Group LP on 14 of the 17 scales of the PIC, and Group BP differed from Group LP on 3 of the 17 PIC scales. There were significant overall positive changes from pre-programme assessment to post-programme assessment as seen by the parents. Along with the perception of general overall improvement, parents rated their children as significantly improved on several scales of the PIC. The parents perceived no significant changes in the negative direction on the individual scales of the PIC.

TABLE 24

Summary of the Significant Pre- to Post-programme PIC
Scores for Group BP

| Scale | SS | df | MS | <u>F</u> |
|-------|---------|----|---------|----------|
| ADJ | 2468.89 | 1 | 2468.89 | 12.42** |
| SOM | 384.54 | 1 | 384.54 | 4.34* |
| PSY | 2992.20 | 1 | 2992.20 | 11.93** |
| SSK | 495.67 | 1 | 495.67 | 9.48** |
| AGR | 1110.36 | 1 | 1100.36 | 8.44** |

* $p < .05$, ** $p < .01$.

FIGURE 5

Pre- and Post-programme PIC Profiles for the Children
with Behaviour Problems (Group BP)

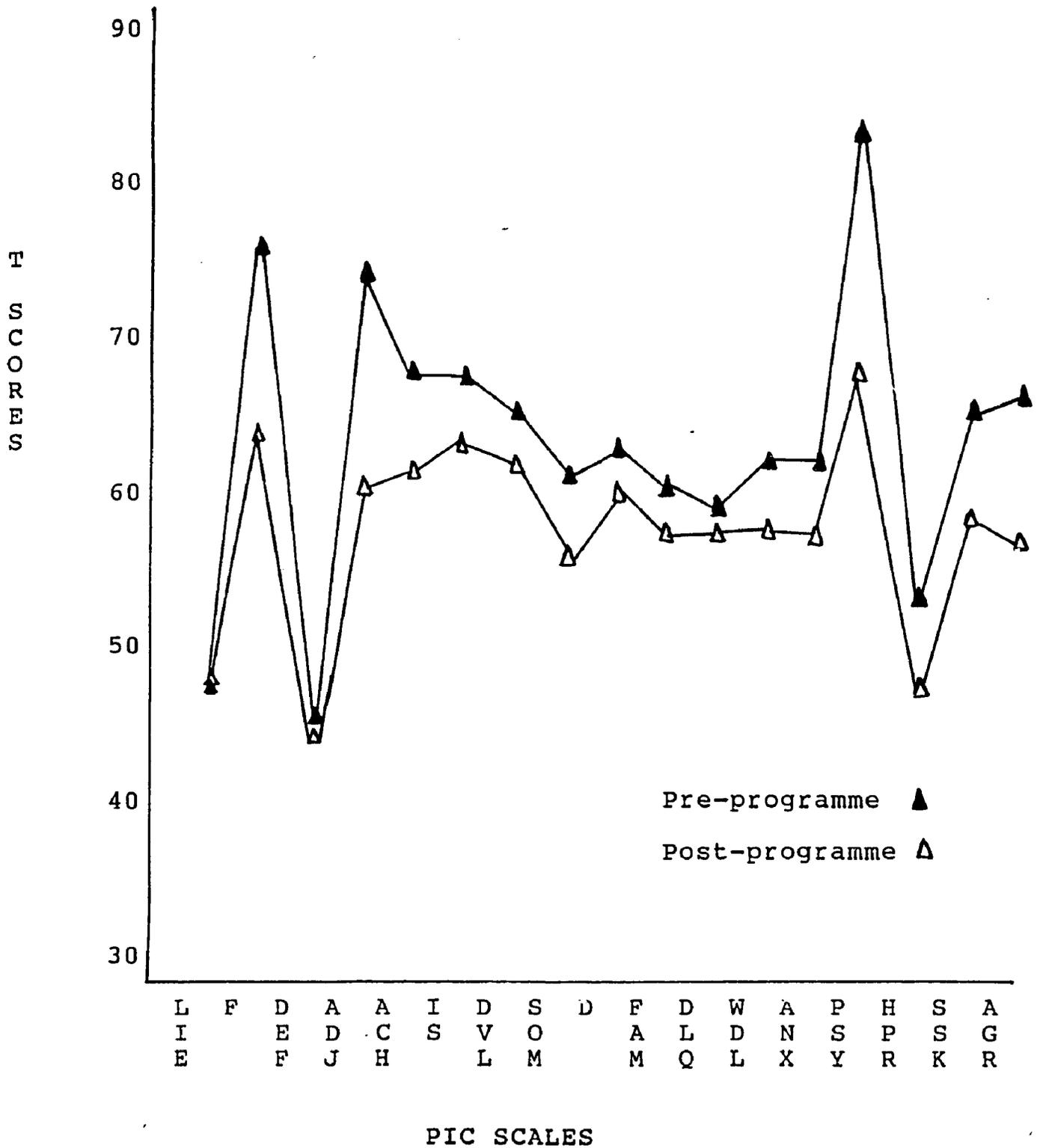


TABLE 25

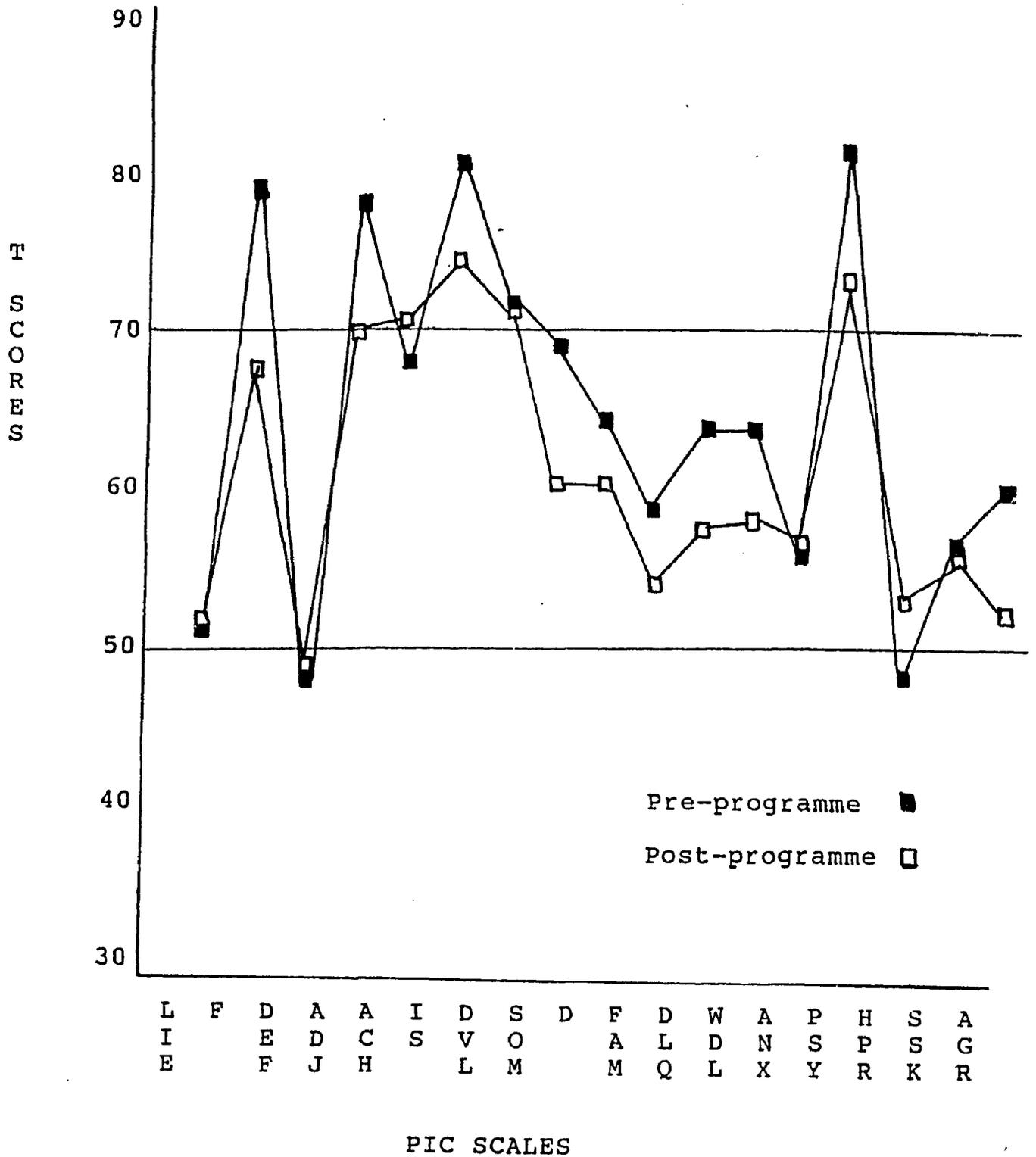
Summary of the Significant Pre- to Post-programme PIC
Scores for Group LP

| Scale | SS | df | MS | F |
|-------|---------|----|---------|--------|
| F | 1314.88 | 1 | 1314.88 | 6.62* |
| WDL | 473.36 | 1 | 473.36 | 7.20** |
| PSY | 712.60 | 1 | 712.60 | 5.12* |
| AGR | 729.16 | 1 | 729.16 | 7.98** |

* $p < .05$, ** $p < .01$.

FIGURE 6

Pre- and Post-programme PIC Profiles for the Children with Learning Problems (Group LP)



The Parent Rated Child Behavior Rating Scale (CBRS)

The mean scores and standard deviations for the parent rated CBRS for the three groups are presented in Table 26. A 3 (Group) by 2 (Time) MANOVA with 6 independent variables (i.e., the 6 subscales of the CBRS) was completed. It indicated a significant group effect ($F(1,27) = 12.83, p < .0001$). There was no significant time effect (Pillai's Trace, approximate $F(1,27) = 2.65, ns$). There was no significant interaction between group and time scores (approximate $F(2,27) = 0.91, ns$). Table 27 summarizes the univariate analyses derived from the MANOVA. Figures 7 and 8 show the CBRS profiles for all three groups in the pre- and post programme evaluations respectively. Figures 9 to 11 show the pre- and postprogramme profiles for each group.

A significant group effect was determined for the Self Adjustment Scale ($F(2,27) = 8.13, p < .01$) Home Adjustment ($F(2,27) = 3.81, p < .05$), School Adjustment ($F(2,27) = 24.54, p < .0001$) Physical Adjustment ($F(2,27) = 10.22, p < .001$) and Total Adjustment ($F(2,27) = 10.62, p < .001$). Tables 28 to 33 present the univariate ANOVA summaries for the individual subscales of the CBRS which contained significant group effects.

Individual cell comparisons were carried out for all scales in which there was a significant group effect.

TABLE 26

Mean Scores and Standard Deviations for the Pre- and Post-programme Parent Rated Child Behavior Rating Scale for Group N, Group BP, and Group LP

| Scale | Group | Mean | SD |
|------------------------------|----------|------|------|
| <u>Pre-programme Scores</u> | | | |
| Self Adjustment | N (n=15) | 51.7 | 6.5 |
| | BP (n=7) | 6.8 | 14.9 |
| | LP (n=8) | 42.1 | 10.6 |
| Home Adjustment | N | 57.7 | 8.9 |
| | BP | 47.7 | 18.5 |
| | LP | 56.5 | 6.3 |
| Social Adjustment | N | 54.8 | 7.6 |
| | BP | 46.7 | 17.6 |
| | LP | 51.1 | 9.7 |
| School Adjustment | N | 67.9 | 12.1 |
| | BP | 47.9 | 9.8 |
| | LP | 42.0 | 7.7 |
| Physical Adjustment | N | 72.9 | 10.1 |
| | BP | 60.1 | 16.1 |
| | LP | 52.6 | 16.3 |
| Total Adjustment | N | 56.0 | 6.1 |
| | BP | 46.5 | 20.4 |
| | LP | 40.0 | 6.1 |
| <u>Post-programme Scores</u> | | | |
| Self Adjustment | N (n=15) | 55.8 | 9.0 |
| | BP (n=7) | 36.4 | 14.2 |
| | LP (n=8) | 47.9 | 12.8 |
| Home Adjustment | N | 62.3 | 9.1 |
| | BP | 49.7 | 9.6 |
| | LP | 55.1 | 10.1 |

(table continues)

Table 26 (continued)

| Scale | Group | Mean | SD |
|---------------------|-------|------|------|
| Social Adjustment | N | 57.3 | 7.9 |
| | BP | 43.5 | 17.6 |
| | LP | 52.5 | 6.4 |
| School Adjustment | N | 73.9 | 9.7 |
| | BP | 49.0 | 17.2 |
| | LP | 40.0 | 11.4 |
| Physical Adjustment | N | 76.3 | 8.1 |
| | BP | 61.5 | 17.0 |
| | LP | 56.9 | 10.7 |
| Total Adjustment | N | 59.8 | 8.0 |
| | BP | 51.1 | 13.7 |
| | LP | 44.4 | 7.6 |

TABLE 27

Multivariate Analysis of Variance Summary Table for the
Pre- and Post-programme Parent Rated Child Behavior Rating
Scale Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 17410.20 | 2 | 8705.10 | 12.83**** |
| Error | 18318.45 | 27 | 678.46 | |
| Within Subjects | | | | |
| Time | 454.15 | 1 | 454.15 | 2.65 |
| Group x Time | 229.47 | 2 | 114.73 | 0.67 |
| Error | 4619.66 | 27 | 171.10 | |

**** $p < .0001$.

FIGURE 7

Post-programme Scores for the Parent Rated CBRS for the Normative Children (Group N), Children with Behaviour Problems (Group BP) and Children with Learning Problems (Group LP)

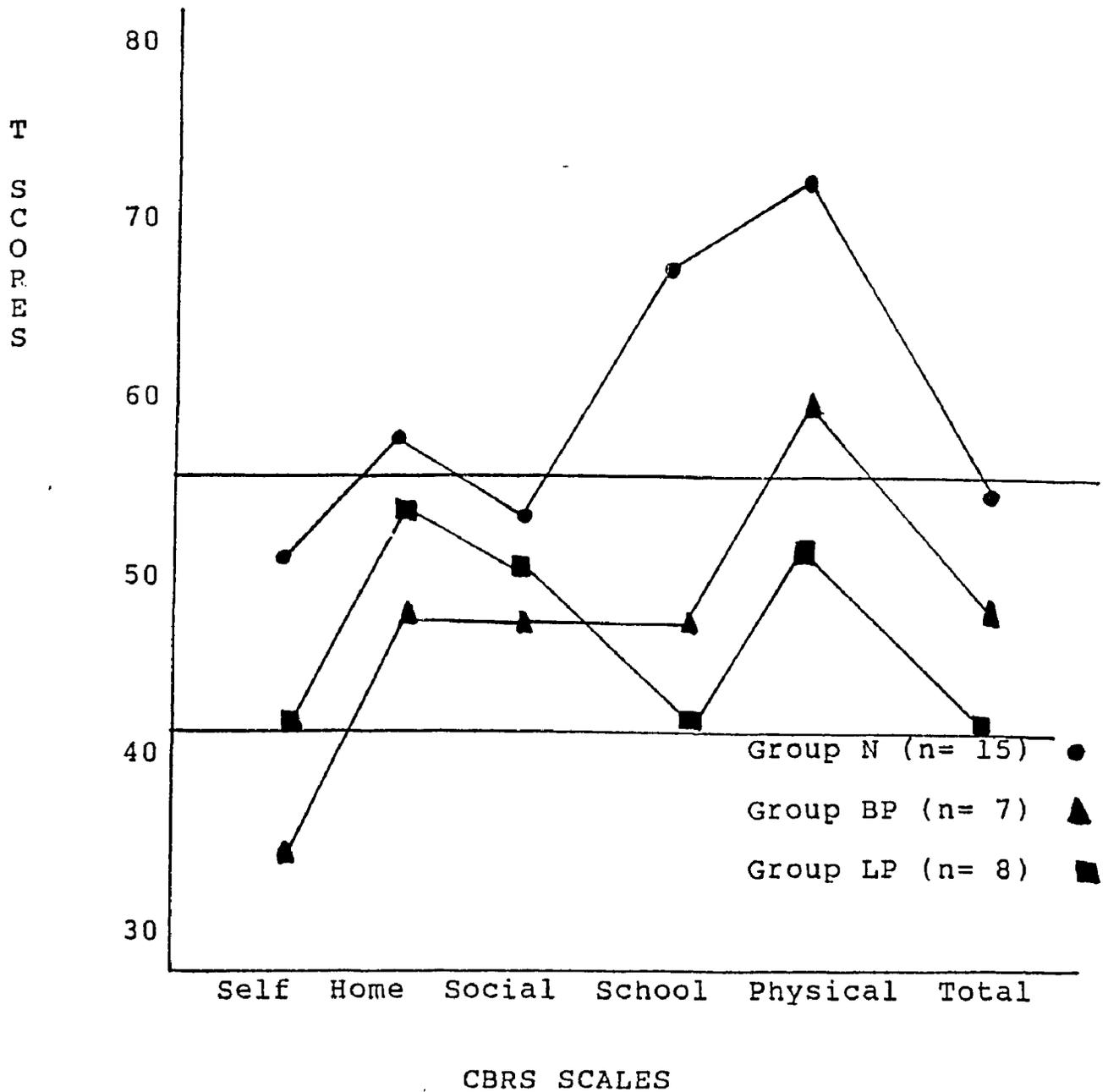


FIGURE 8

Post-programme Scores for the Parent Rated CBRS for the Normative Children (Group N), Children with Behaviour Problems (Group BP) and Children with Learning Problems (Group LP)

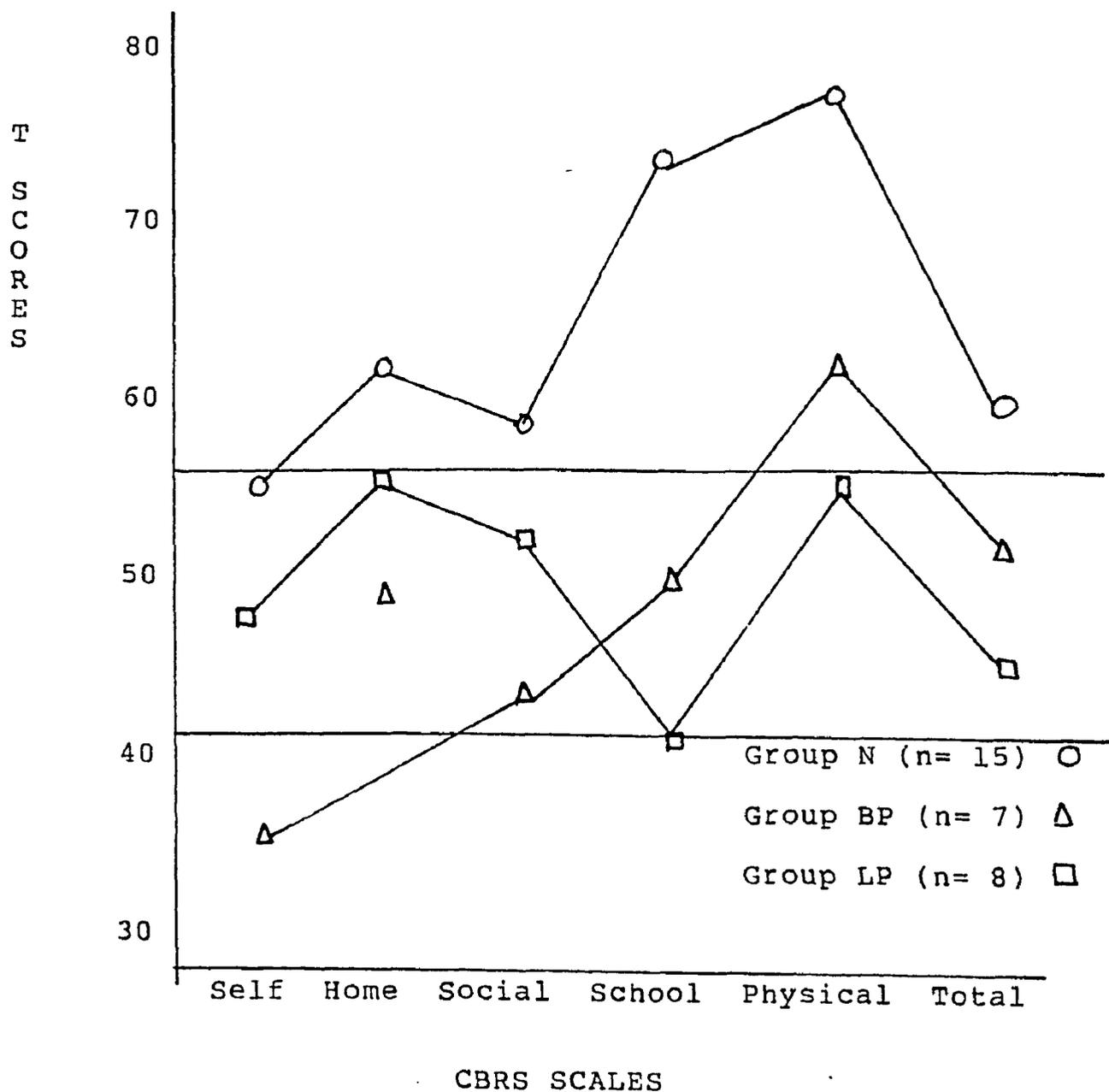


FIGURE 9

Pre- and Post-programme Scores for the Parent Rated CBRS for the Normative Children (Group N)

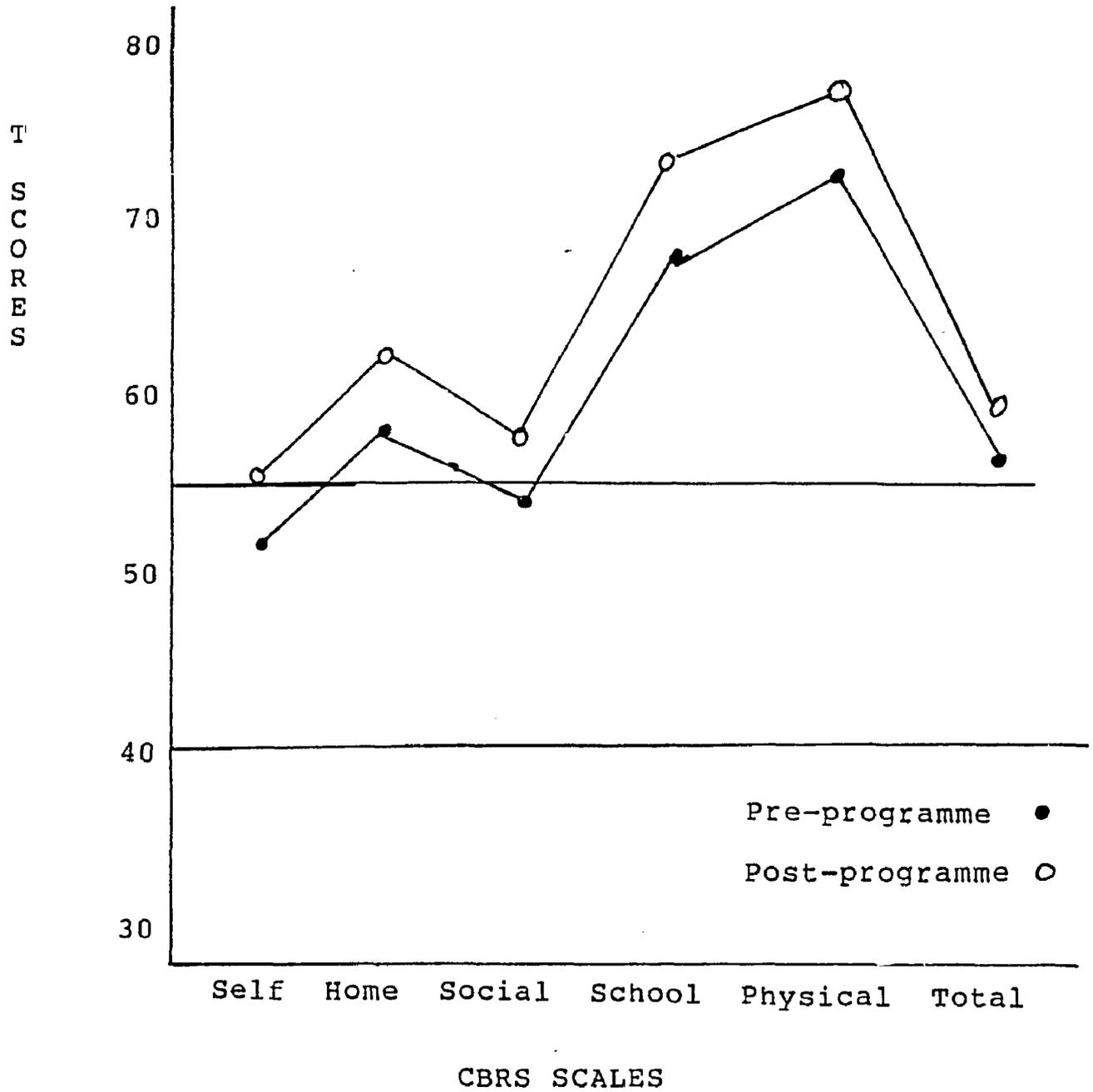


FIGURE 10

Pre- and Post-programme Scores for the Parent Rated CBRS
for the Children with Behaviour Problems (Group BP)

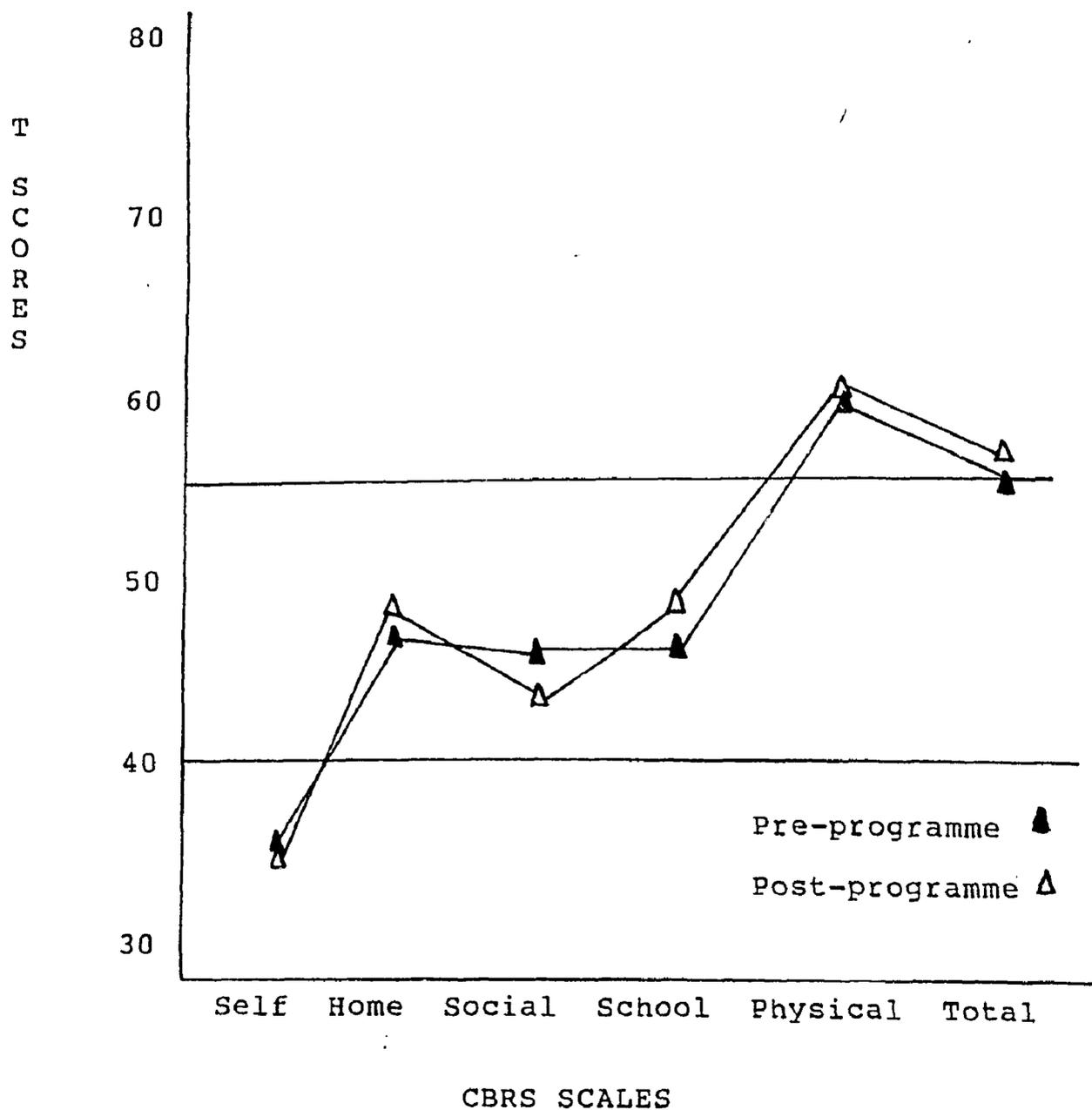


FIGURE 11

Pre- and Post-programme Scores Parent Rated CBRS
Profiles for the Children with Learning Problems
(Group LP)

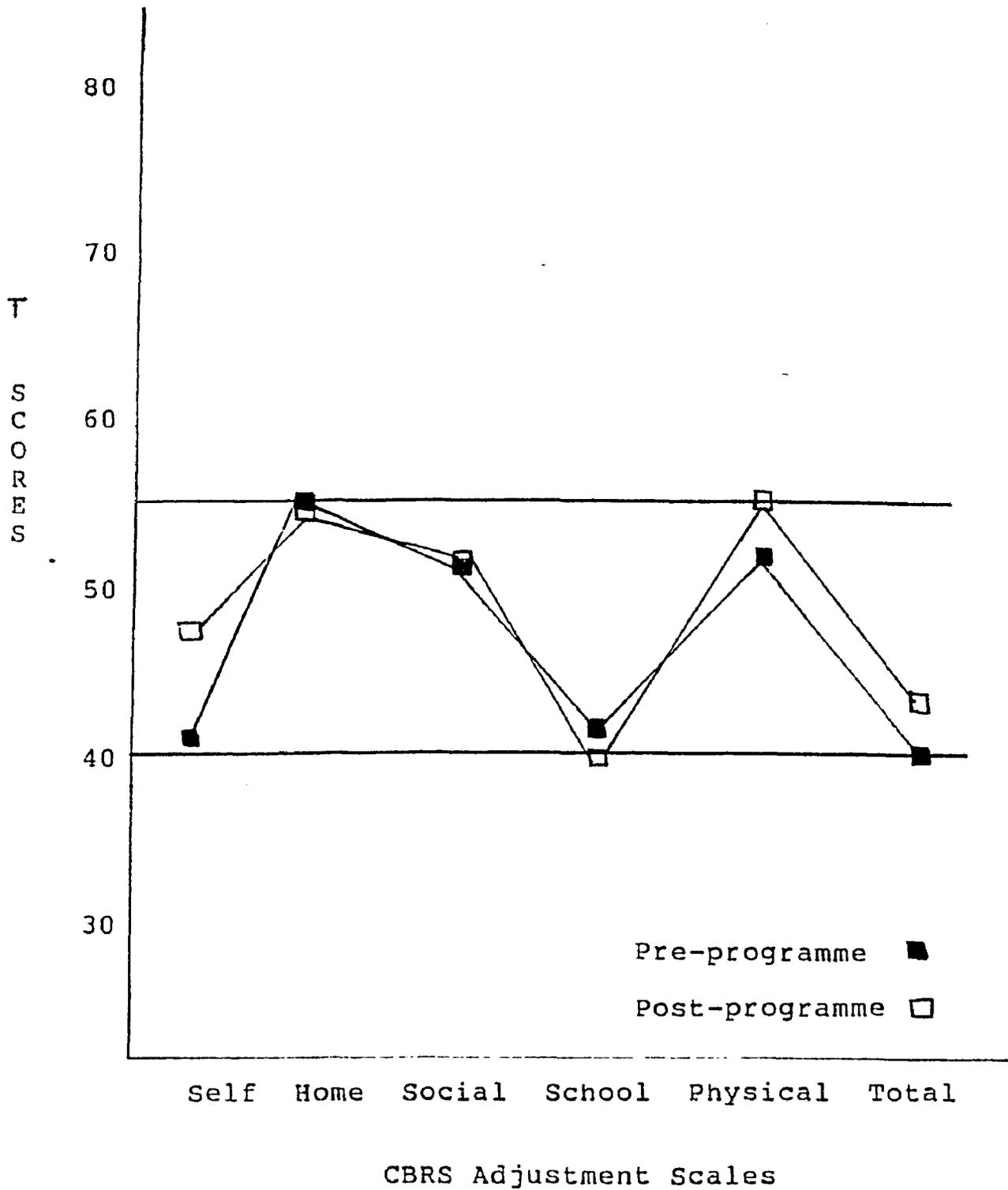


TABLE 28

Analysis of Variance Summary Table for the Pre-
and Post-programme Parent Rated Self Adjustment Subscale
Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|-------|
| Between Subjects | | | | |
| Group | 2940.84 | 2 | 1470.42 | 8.13* |
| Error | 4882.53 | 27 | 180.86 | |
| Within Subjects | | | | |
| Time | 133.61 | 1 | 133.61 | 3.07 |
| Group x Time | 77.27 | 2 | 38.63 | 0.89 |
| Error | 1174.47 | 27 | 43.49 | |

**p < .01.

TABLE 29

Analysis of Variance Summary Table for the Pre-
and Post-programme Parent Rated Home Adjustment Subscale
Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | <u>F</u> |
|---------------------|---------|----|--------|----------|
| Between Subjects | | | | |
| Group | 1227.47 | 2 | 613.73 | 3.81* |
| Error | 4351.26 | 27 | 161.16 | |
| Within Subjects | | | | |
| Time | 40.81 | 1 | 40.81 | 0.73 |
| Group x Time | 93.86 | 2 | 46.93 | 0.83 |
| Error | 1518.74 | 27 | 56.25 | |

* p < .05.

TABLE 30

Analysis of Variance Summary Table for the Pre-
and Post-programme Parent Rated School Adjustment Subscale
Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|---------|------------|
| Between Subjects | | | | |
| Group | 10919.30 | 2 | 5459.65 | 24.54***** |
| Error | 6007.30 | 27 | 222.49 | |
| Within Subjects | | | | |
| Time | 21.69 | 1 | 21.69 | 0.29 |
| Group x Time | 119.84 | 2 | 59.92 | 0.80 |
| Error | 2014.10 | 27 | 74.60 | |

**** $p < .0001$.

TABLE 31

Analysis of Variance Summary Table for the Pre-
and Post-programme Parent Rated Physical Adjustment
Subscale Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|----------|
| Between Subjects | | | | |
| Group | 4282.70 | 2 | 2141.35 | 10.22*** |
| Error | 5654.64 | 27 | 209.43 | |
| Within Subjects | | | | |
| Time | 118.9 | 1 | 118.99 | 0.90 |
| Group x Time | 276.11 | 2 | 138.06 | 1.04 |
| Error | 3580.82 | 27 | 132.62 | |

*** $p < .001$.

TABLE 32

Analysis of Variance Summary Table for the Pre-
and Post-programme Parent Rated Total Adjustment
Subscale Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|----------|
| Between Subjects | | | | |
| Group | 2545.49 | 2 | 1272.74 | 10.62*** |
| Error | 3234.99 | 27 | 119.81 | |
| Within Subjects | | | | |
| Time | 246.94 | 1 | 246.94 | 8.84** |
| Group x Time | 2.09 | 2 | 1.04 | 0.04 |
| Error | 753.99 | 27 | 27.93 | |

** $p < .01$, *** $p < .001$.

Scores for Group N, in the pre-programme evaluation differed significantly from Group BP on 2 of the 5 subscales (i.e., Self Adjustment, School Adjustment and on the Total Adjustment Scale). Scores for Group N in the post-evaluation differed significantly from Group BP on 4 of the 6 subscales (i.e., Self Adjustment, Home Adjustment, School Adjustment, Physical Adjustment and on the Total Adjustment Scale). Group N showed significant differences from Group LP on 4 of the 6 subscales (i.e., Self Adjustment, School Adjustment, Physical Adjustment and on the Total Adjustment scores) in the pre-programme evaluation. In the post-programme evaluation, Group N showed significant differences from Group LP on 4 of the 5 subscales (i.e., Self Adjustment, School Adjustment, Physical Adjustment and on the Total Adjustment scores). Group BP and Group LP did not differ significantly on any of the individual subscales of the Child Behavior Rating Scale. Tables 33 and 34 summarize the results of the individual cell comparisons.

In summary, the results of the analyses carried out on the parent rated CBRS data showed that there were significant differences between groups in both the pre- and post-programme evaluations. Group N differed significantly from Group BP on 3 of the 6 parent rated CBRS subscales of the CBRS. In the post programme evaluation, Group BP was

TABLE 33

Results of the Individual Cell Comparisons for the Pre-
Programme Parent Rated Child Behavior Rating Scale Mean
Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|------------------------|----------|--------|----------|
| Self Adjustment | 1 (n=15) | 51.733 | a * |
| | 2 (n=7) | 36.857 | b |
| | 3 (n=8) | 42.125 | b |
| Home Adjustment | 1 | 57.733 | a |
| | 2 | 47.714 | a |
| | 3 | 56.500 | a |
| Social Adjustment | 1 | 54.892 | a |
| | 2 | 46.714 | a |
| | 3 | 51.125 | a |
| School Adjustment | 1 | 67.882 | a |
| | 2 | 47.857 | b |
| | 3 | 42.000 | b |
| Physical Adjustment | 1 | 72.933 | a |
| | 2 | 60.143 | ab |
| | 3 | 52.625 | b |
| Total Adjustment | 1 | 56.000 | a |
| | 2 | 46.500 | b |
| | 3 | 40.000 | b |

* Means with the same letter beside them do not significantly differ.

TABLE 34

Results of the Individual Cell Comparisons for the Post-
Programme Parent Rated Child Behavior Rating Scale Mean
Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|------------------------|----------|--------|----------|
| Self Adjustment | 1 (n=15) | 55.867 | a * |
| | 2 (n=7) | 36.429 | b |
| | 3 (n=8) | 47.875 | b |
| Home Adjustment | 1 | 62.333 | a |
| | 2 | 49.714 | b |
| | 3 | 55.125 | ab |
| Social Adjustment | 1 | 57.333 | a |
| | 2 | 43.571 | a |
| | 3 | 52.500 | a |
| School Adjustment | 1 | 73.933 | a |
| | 2 | 49.000 | b |
| | 3 | 40.000 | b |
| Physical Adjustment | 1 | 76.267 | a |
| | 2 | 61.500 | b |
| | 3 | 56.857 | b |
| Total Adjustment | 1 | 59.800 | a |
| | 2 | 51.125 | b |
| | 3 | 44.429 | b |

* Means with the same letter beside them do not significantly differ.

significantly lower on all of the all 6 of the CBRS scales. Group N differed from Group LP on 4 of the 5 parent rated CBRS scales of the CBRS in the preprogramme evaluation. The same scales were different from Group N in the post-programme evaluation. There were no significant differences between pre- and post-programme scores for this measure.

The Teacher Rated CBRS

The data collected on the teacher rated CBRS are presented in Table 35. A 3 (Group) by 2 by (Time) MANOVA with 6 dependent variables (i.e., the 6 scales of the CBRS) was calculated. Results indicated a significant group effect ($F(2,22) = 25.46, p < .0001$) and a significant time effect (Pillai's trace, approximate $F(1,22) = 8.36, p < .01$). There was no significant interaction between group and time indicating that all three groups changed in a similar fashion. Table 36 summarizes the univariate analyses derived from the MANOVA. Figures 12 and 13 show the CBRS profiles for the 3 groups in the pre-programme evaluation and the post-programme evaluation respectively.

Tables 37 to 42 present the univariate ANOVA summaries for the individual scales of the CBRS which contained significant results. A significant group effect was determined for the Self Adjustment scale scale ($F(2,22) = 13.91, p < .0001$), Home Adjustment, ($F(2,22) = 15.53, p <$

TABLE 35

Mean Scores and Standard Deviations for the Pre- and Post-programme Teacher Rated Child Behavior Rating Scale for Group N, Group BP, and Group LP

| Scale | Group | Mean | SD |
|------------------------------|----------|------|------|
| <u>Pre-programme Scores</u> | | | |
| Self Adjustment | N (n=13) | 65.4 | 6.3 |
| | BP (n=7) | 44.4 | 11.3 |
| | LP (n=8) | 44.8 | 11.9 |
| Home Adjustment | N | 69.7 | 9.1 |
| | BP | 50.5 | 11.8 |
| | LP | 52.7 | 7.7 |
| Social Adjustment | N | 64.1 | 8.2 |
| | BP | 61.8 | 10.8 |
| | LP | 45.5 | 13.9 |
| School Adjustment | N | 71.9 | 8.1 |
| | BP | 55.7 | 14.5 |
| | LP | 47.5 | 16.5 |
| Physical Adjustment | N | 70.1 | 15.9 |
| | BP | 54.7 | 23.4 |
| | LP | 46.3 | 19.8 |
| Total Adjustment | N | 65.1 | 6.8 |
| | BP | 70.5 | 15.2 |
| | LP | 48.5 | 6.9 |
| <u>Post-programme Scores</u> | | | |
| Self Adjustment | N (n=15) | 68.7 | 9.6 |
| | BP (n=7) | 49.8 | 13.7 |
| | LP (n=8) | 54.0 | 8.0 |
| Home Adjustment | N | 74.2 | 7.5 |
| | BP | 46.7 | 14.3 |
| | LP | 57.6 | 20.3 |

(table continues)

Table 35 (continued)

| Scale | Group | Mean | SD |
|---------------------|-------|------|------|
| Social Adjustment | N | 68.8 | 9.1 |
| | BP | 50.2 | 11.1 |
| | LP | 52.7 | 9.5 |
| School Adjustment | N | 74.8 | 6.3 |
| | BP | 48.2 | 18.7 |
| | LP | 45.3 | 12.5 |
| Physical Adjustment | N | 77.1 | 5.8 |
| | BP | 53.5 | 23.4 |
| | LP | 48.3 | 20.4 |
| Total Adjustment | N | 71.8 | 7.2 |
| | BP | 48.3 | 10.5 |
| | LP | 52.0 | 10.2 |

TABLE 36

Multivariate Analysis of Variance Summary Table for the
Pre- and Post-programme Teacher Rated Child Behavior Rating
Scale Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|----------|----|----------|-----------|
| Between Subjects | | | | |
| Group | 25929.07 | 2 | 12964.53 | 25.46**** |
| Error | 11204.43 | 22 | 509.29 | |
| Within Subjects | | | | |
| Time | 2368.69 | 1 | 2368.69 | 8.36** |
| Group x time | 272.33 | 2 | 272.33 | 0.44 |
| Error | 6236.82 | 22 | 283.49 | |

** $p < .01$. **** $p < .0001$.

FIGURE 12

Pre-programme Scores for the Teacher Rated CBRS for the Normative Children (Group N), The Children with Behaviour Problems (Group BP) and the Children with Learning Problems (Group LP)

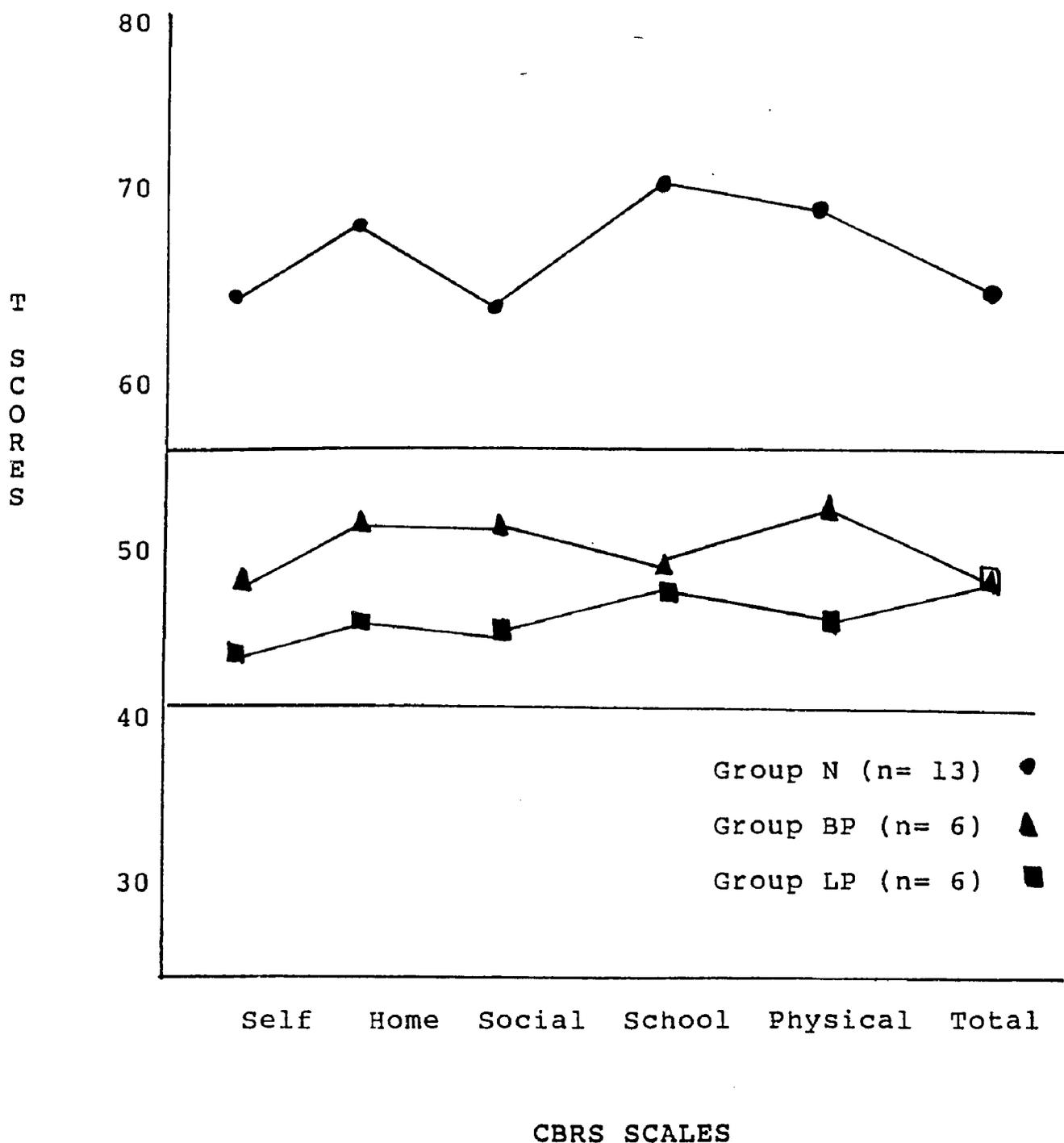


FIGURE 13

Post-programme Scores for the Teacher Rated CBRS for the Normative Children (Group N), The Children with Behaviour Problems (Group BP) and the Children with Learning Problems (Group LP)

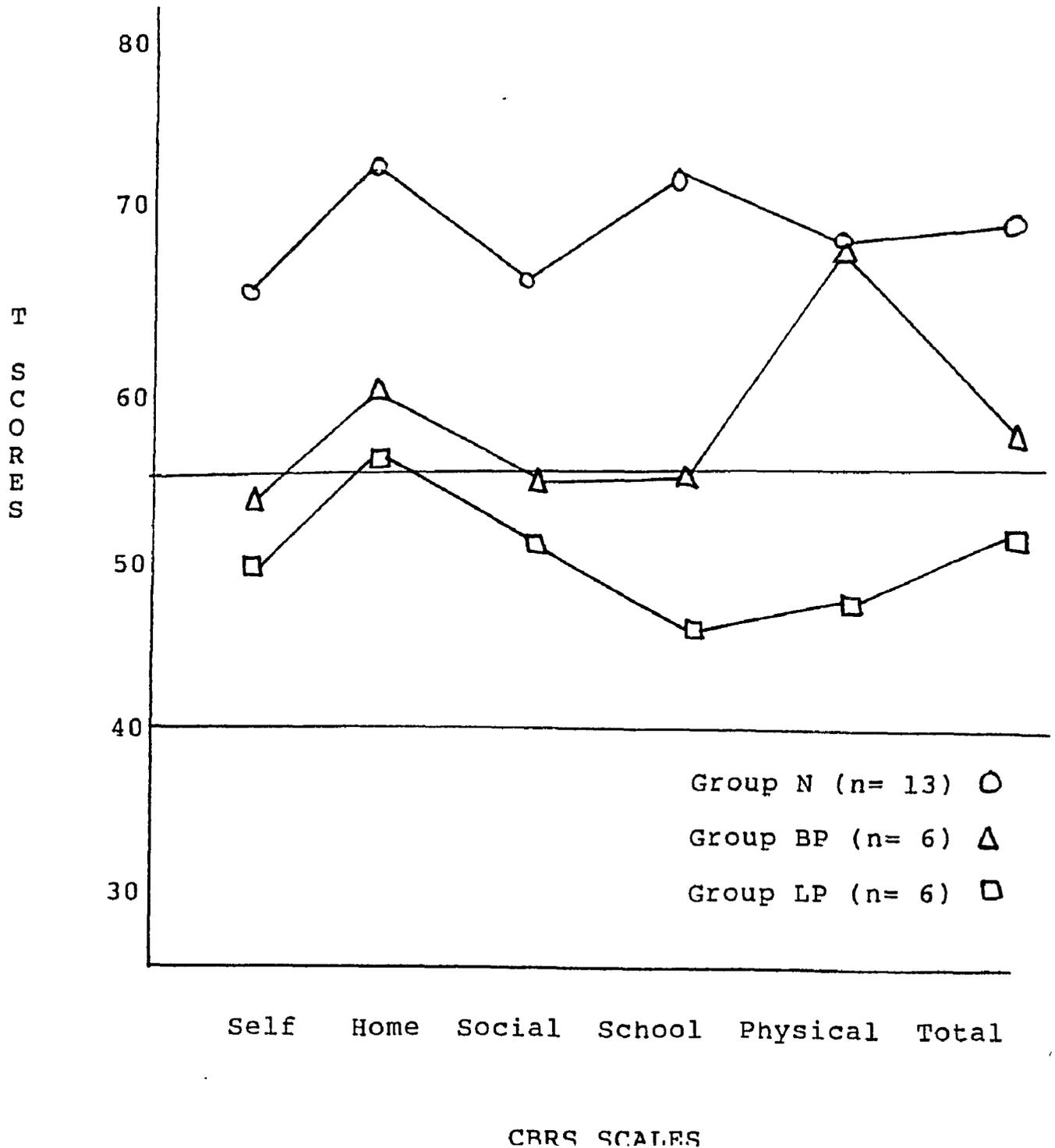


TABLE 37

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated Self Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | <u>F</u> |
|---------------------|---------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 3732.15 | 2 | 1866.07 | 13.91**** |
| Error | 2951.93 | 22 | 134.17 | |
| Within Subjects | | | | |
| Time | 208.01 | 1 | 208.01 | 3.58 |
| Group x Time | 117.24 | 2 | 58.62 | 1.01 |
| Error | 1277.24 | 22 | 58.06 | |

**** p < .0001.

TABLE 38

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated Home Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | <u>F</u> |
|---------------------|---------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 3720.00 | 2 | 1860.00 | 15.53**** |
| Error | 2634.88 | 22 | 119.77 | |
| Within Subjects | | | | |
| Time | 743.86 | 1 | 743.86 | 5.40* |
| Group x Time | 250.97 | 2 | 125.48 | 0.91 |
| Error | 3031.03 | 22 | 137.77 | |

* p < .05, ****p < .0001.

TABLE 39

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated Social Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|----------|
| Between Subjects | | | | |
| Group | 3071.63 | 2 | 1535.81 | 11.34*** |
| Error | 2978.29 | 22 | 135.38 | |
| Within Subjects | | | | |
| Time | 370.51 | 1 | 370.51 | 4.25* |
| Group x Time | 11.80 | 2 | 5.90 | 0.07 |
| Error | 1919.32 | 22 | 87.24 | |

* $p < .05$, *** $p < .001$.

TABLE 40

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated School Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 7598.06 | 2 | 3799.03 | 30.38**** |
| Error | 2751.22 | 22 | 125.06 | |
| Within Subjects | | | | |
| Time | 62.82 | 1 | 62.82 | 0.35 |
| Group x Time | 114.11 | 2 | 57.15 | 0.32 |
| Error | 3949.01 | 22 | 179.50 | |

**** $p < .0001$.

TABLE 41

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated Physical Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|--------|
| Between Subjects | | | | |
| Group | 5763.74 | 2 | 2881.87 | 7.84** |
| Error | 8088.18 | 22 | 367.64 | |
| Within Subjects | | | | |
| Time | 802.89 | 1 | 802.89 | 5.38* |
| Group x Time | 339.65 | 2 | 169.82 | 1.14 |
| Error | 3284.67 | 22 | 149.30 | |

* $p < .05$, ** $p < .01$.

TABLE 42

Analysis of Variance Summary Table for the Pre- and Post-programme Teacher Rated Total Adjustment Subscale for Group N, Group BP and Group LP

| Source of Variation | SS | df | MS | F |
|---------------------|---------|----|---------|-----------|
| Between Subjects | | | | |
| Group | 3553.80 | 2 | 1776.90 | 21.72**** |
| Error | 1799.88 | 22 | 81.81 | |
| Within Subjects | | | | |
| Time | 484.38 | 1 | 484.38 | 9.24** |
| Group x Time | 57.15 | 2 | 28.57 | 0.54 |
| Error | 1153.57 | 22 | 52.44 | |

** $\underline{p} < .01$, **** $\underline{p} < .0001$.

.0001), Social Adjustment ($F(2,22) = 11.34, p < .001$, School Adjustment, ($F(2,22) = 30.38, p < .0001$), Physical Adjustment ($F(2,22) = 7.84, p < .01$), and Total Adjustment ($F(2,22) = 21.72, p < .0001$).

Individual cell comparisons were carried out for all scales in which there was a significant group effect. Group N differed from Group BP on the Self Adjustment, Home Adjustment, Social Adjustment, School Adjustment and Total Adjustment subscales of the CBRS in the preprogramme evaluation. In the post-programme evaluation, group N differed from Group BP on the Self Adjustment, Social Adjustment, School Adjustment and the Total Adjustment subscales of the CBRS. Group N differed from Group LP on all of the subscales of the CBRS in both the pre-programme and post-programme evaluation. Group BP and Group LP did not differ on any of the subscales of the CBRS. (See Tables 43 and 44).

A significant time effect (i.e., difference from pre-programme to post programme evaluation) was found for the Home Adjustment subscale ($F(1,22) = 5.40, p < .05$), Social Adjustment ($F(1,22) = 4.25, p < .05$), Physical Adjustment ($F(1,22) = 5.38, p < .05$, and Total Adjustment ($F(1,22) = 9.24, p < .01$). Inspection of the means indicates that the post-programme scores are all higher than the pre-programme evaluation scores indicating that the teachers reported

TABLE 43

Results of the Individual Cell Comparisons for the
Preprogramme Teacher Rated Child Behavior Rating Scale
Mean Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|------------------------|----------|--------|----------|
| Self Adjustment | N (n=13) | 65.429 | a * |
| | BP (n=6) | 49.833 | b |
| | LP (n=6) | 44.833 | b |
| Home Adjustment | N | 69.692 | a |
| | BP | 52.667 | b |
| | LP | 46.667 | b |
| Social Adjustment | N | 64.500 | a |
| | BP | 50.165 | b |
| | LP | 45.500 | b |
| School Adjustment | N | 71.786 | a |
| | BP | 48.167 | b |
| | LP | 47.500 | b |
| Physical Adjustment | N | 70.429 | a |
| | BP | 53.500 | ab |
| | LP | 46.333 | b |
| Total Adjustment | N | 65.071 | a |
| | BP | 48.333 | b |
| | LP | 48.500 | b |

* Means with the same letter beside them do not significantly differ.

TABLE 44

Results of the Individual Cell Comparisons for the
Postprogramme Teacher Rated Child Behavior Rating Scale
Mean Scores for Group N, Group BP, and Group LP

| Scale | Group | Mean | Grouping |
|------------------------|----------|--------|----------|
| Self Adjustment | N (n=13) | 68.692 | a * |
| | BP (n=6) | 54.000 | b |
| | LP (n=6) | 50.500 | b |
| Home Adjustment | N | 74.231 | a |
| | BP | 61.833 | ab |
| | LP | 57.667 | b |
| Social Adjustment | N | 68.646 | a |
| | BP | 55.667 | b |
| | LP | 52.667 | b |
| School Adjustment | N | 74.769 | a |
| | BP | 54.667 | b |
| | LP | 45.333 | b |
| Physical Adjustment | N | 70.077 | a |
| | BP | 70.167 | a |
| | LP | 48.333 | b |
| Total Adjustment | N | 71.844 | a |
| | BP | 58.000 | b |
| | LP | 52.000 | b |

* Means with the same letter beside them do not significantly differ.

improvement in the children after participating in the programme.

Examination of the within group differences in the pre- and post-programme evaluation revealed that for Group N, there was a significant main effect for time (Pillai's trace, approximate $F(1,25) = 7.86, p < .01$). Univariate analyses indicated that Group N was rated significantly improved on the Total Adjustment Scale ($F(1,12) = 8.74, p < .01$). A summary of the analysis is presented in Table 45. Figure 14 shows the pre- and post-programme CBRS profiles for Group N.

There was no significant time effect for Group BP or Group LP. Figures 15 and 16 show the pre- and post-programme CBRS profiles for Group BP and Group LP respectively.

Summary of the significant Pre- to Post-Programme CBRS
Score for Group N

| <u>Scale</u> | <u>SS</u> | <u>df</u> | <u>MS</u> | <u>F</u> |
|------------------|-----------|-----------|-----------|----------|
| Total Adjustment | 297.8 | 2 | 297.8 | 8.79** |

** p < .01.

FIGURE 14

Pre- and Post-programme Scores Teacher Rated CBRS
Profiles for the Normative Children (Group N)

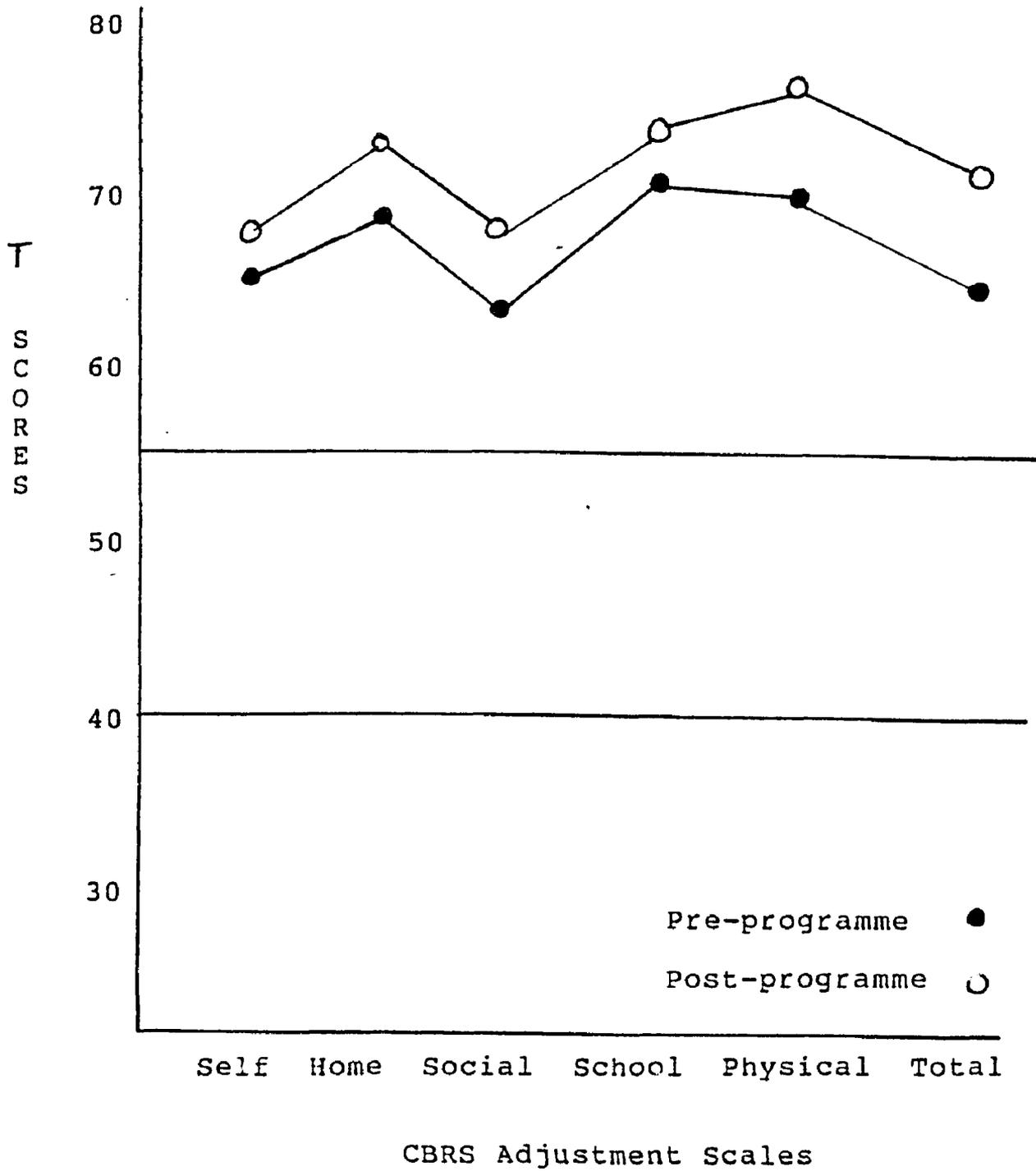


FIGURE 15

Pre- and Post-programme Scores for the Teacher Rated CBRS
for the Children with Behaviour Problems (Group BP)

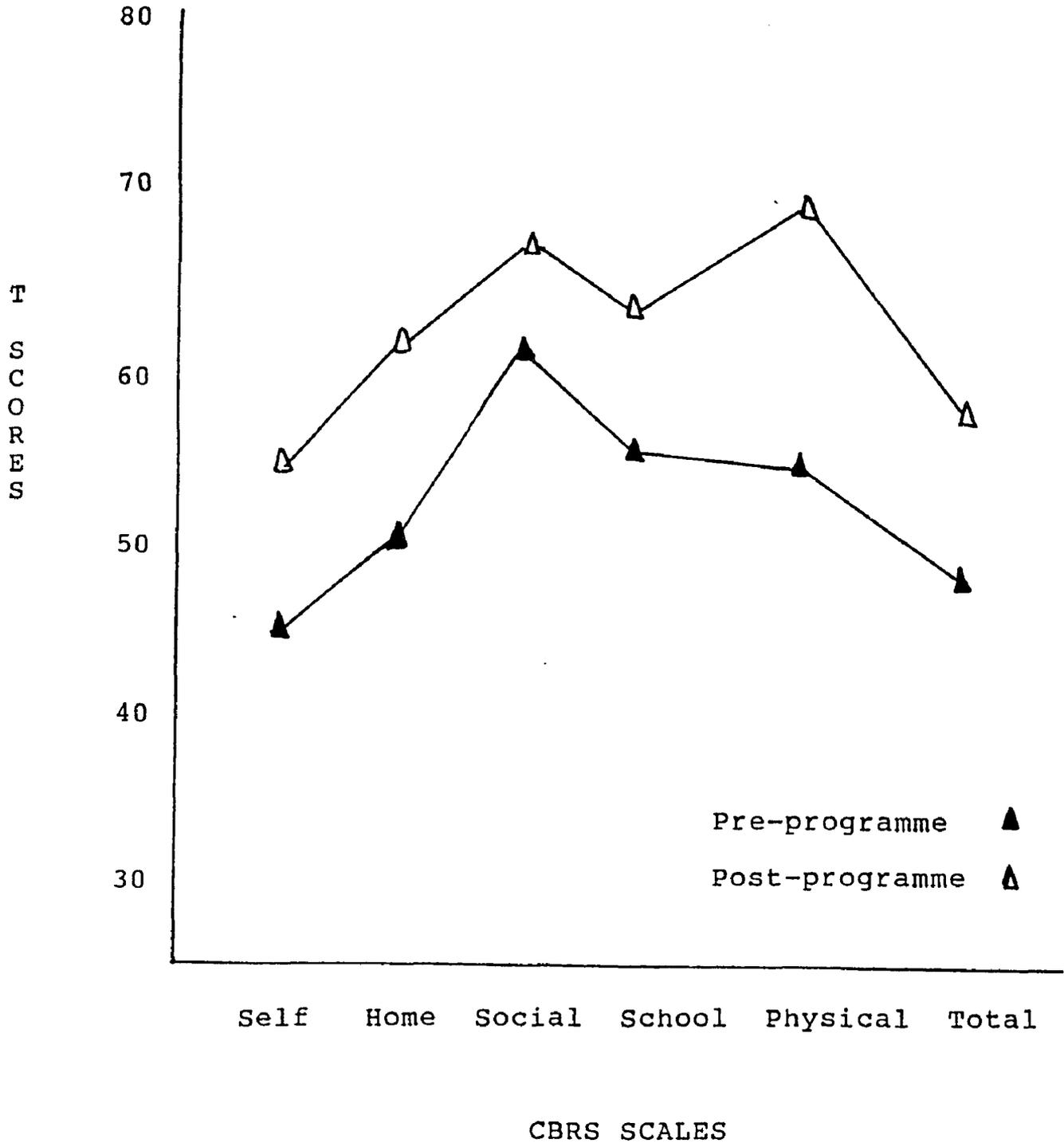
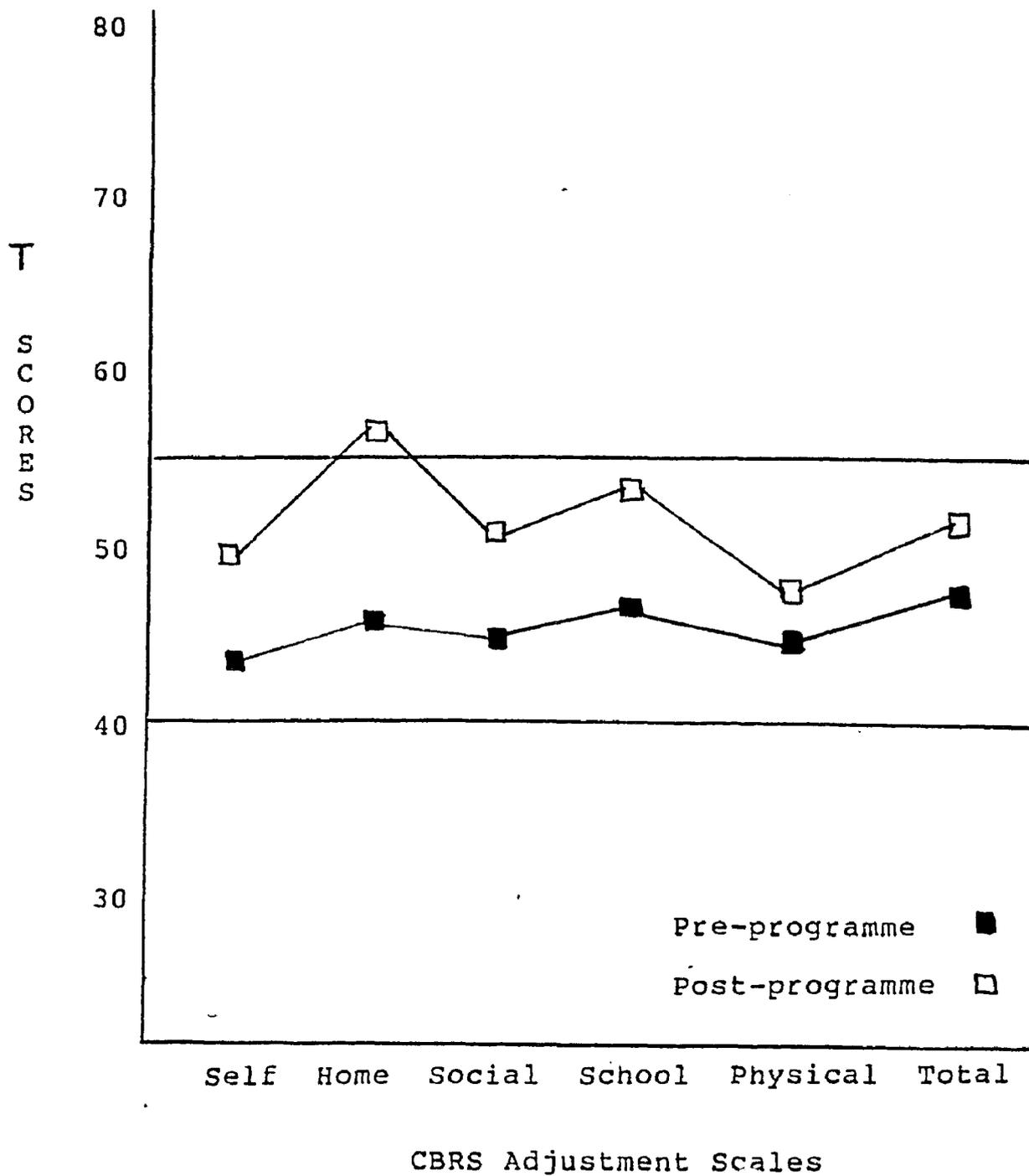


FIGURE 16

Pre- and Post-programme Scores Teacher Rated CBRS
Profiles for the Children with Learning Problems
(Group LP)



Chapter IV

DISCUSSION

In the past ten years, there has been a trend towards integrating children with a variety of identified problems with typical children (Odom and Speltz, 1983). The movement towards integration was derived from ideological and legal arguments rather than from an empirical basis (Peck and Cooke, 1983). Most arguments for integration have been raised in support of the children with identified problems. Scriven (1977) points out that even if integration benefits the children with problems, if the typical children in the classroom suffer deleterious effects, then integration is neither worthwhile nor ethical.

An extensive review of the literature (see Chapter I) indicates that most efficacy studies involving typical children in the integrated preschool have focused on children's cognitive development rather than on social development (e.g., Bricker and Bricker, 1978; and Bricker, Bruder and Bailey, 1983). Even though the effect of integration on cognitive development is important, a second theoretical rationale for integration at a preschool level is that the preschool years are considered critical for social development (Hartup, 1978). Further, with the exception of Bricker (1977), efficacy studies have focused on the child's performance within the preschool setting.

Consequently, the purpose of this study was to attempt to examine the changes in children as perceived by their mothers after discharge from an integrated preschool programme. Mothers whose children were categorized into one of three groups were asked to fill out a complete PIC (Personality Inventory for Children) and a CBRS (Child Behavior Rating Scale) for their children before admission and after discharge from the treatment programme. The children's teachers were also asked to fill out the CBRS.

Evaluation of Expectations

It was expected that the mothers' perceptions of their typical children (Group N) enrolled at the integrated treatment facility would either not change or improve. This expectation was clearly met. The average intelligence test score for this group remained the same from the evaluation carried out before admission to the evaluation carried out at discharge. All of the scales of the PIC with the exception of the supplemental scale (AGR) were lower in the discharge evaluation reflecting improvement. Scores were significantly improved on the F, ACH, IS, DVL and PSY scales.

The mothers reported that their children improved on three scales of the PIC which are related to cognitive development (ACH, IS and DVL). The pattern of improvement in cognitive development as noted by teachers and

researchers has been well documented elsewhere (i.e., Bricker, Bruder and Bailey, 1983). The results of this study indicate that parents also note the improvement.

The PSY scale was also significantly improved in the post-programme evaluation for the typical children. Keenon (1985) has observed that the PSY scale correlates highly with adjustment at the preschool level. If this is the case, mothers of the typical children saw their children as more adjusted after the programme. The AGR scale score increased slightly, but the change was not statistically significant. Furthermore, even though the AGR scale score increased indicating higher levels of pathology, the post-programme evaluation was still slightly below average. On the parent rated CBRS, the typical children were rated as the same in the post programme evaluation. The teachers rated the children in Group N as improved in the post-programme evaluation.

Thus, in general mothers rated their typical children better in the post-programme evaluation. They rated the children more positively in some areas (i.e., on some of the cognitive scales and adjustment scales of the PIC). They did not report any significant changes in their children's social skills on the scales of the PIC or the subscales of the CBRS.

It was also expected that the mothers of the children

with behaviour problems would report improvements in their children after discharge from the treatment centre. This expectation was also met. All of the scores of the PIC were lower in the discharge evaluation. The scores improved significantly from the pre-programme to post-programme evaluations on the ADJ, SOM, PSY, and AGR scales. The changes in these scores might be expected after effective treatment. In this regard, the treatment at the centre which included appropriate peer modeling was effective. There were no significant changes measured by the parent rated CBRS. The teachers rated the children higher on the CBRS (i.e., all of the subscale scores were higher at discharge). Thus, there was evidence that the mothers whose children were treated for behaviour problems perceived a general improvement in their children.

It was expected that the mothers of the children who were 'at risk' for learning problems would also report improvement in their children. The mothers reported significant improvement on the the SOM, WDL, PSY, and AGR scales fo the PIC. There were slight rises in scores on the ACH, ANX, and HPR (i.e., more pathological) although none of the changes were statistically significant. Interestingly, they did not report improvement on those scales which are related to cognitive development (i.e., ACH, IS, and DVL) even though the mean standard

intelligence test score for this group raised significantly in the post-programme evaluation. There were no significant changes as measured by the parent rated CBRS for this group. The teachers generally rated the children higher at discharge. Thus the children were seen as improved according to their teachers and their mothers. Mothers reported significant improvement on scales correlated with adjustment (i.e., PSY) and scales related to social skills (i.e., WDL and AGR).

Practical Implications

The results of the present study indicate that mothers of typical preschool children did not report any deterioration in their children's behaviour after being involved in an integrated preschool with a small teacher child ratio, in which the teachers were committed to integration and had access to consultations from various professionals. In fact, the mothers' responses as well as the mothers of children with problems, indicated that in general, their preschool children improved. This would suggest that integrated preschools such as the one in this study should not be discouraged on the grounds that the typical (i.e., children who have been screened as average or above average) might suffer.

The mothers of children with behaviour problems reported an improvement in their children on scales that

would indicate that their treatment was effective. However, the mothers of the children 'at risk' for learning problems did not note improvement in the cognitive areas even though their standard scores on intelligence tests significantly improved. This discrepancy might be explained in a variety of ways.

One explanation for the lack of improvement (according to mothers' reports) is that the treatment at the centre was not successful in terms of specifically remediating the learning problems. The staff at the centre might evaluate their current procedures to determine whether the individual programme plans are test specific, so that rather than remediating the child's general learning strategies, they are focussing specifically on the test items at which the child did not succeed. This would partially explain the rise in mean standard intelligence test scores which did not generalize to the home situation.

Another explanation for the discrepancy is that, by nature, learning problems are less transient than are behaviour problems and therefore more difficult to alleviate. The inclination may be to treat the observable behaviour problems associated with learning difficulties (such as inattentiveness) and ignore less tangible issues such as motivation or the acquisition of learning strategies.

Integration, as it applies to preschools similar to the one in this study appears to be worthwhile for all of the children involved. In fact, the preschool in this study may serve as an excellent model for others interested in developing an integration programme at the preschool level. The programme did not appear to harm the typical children, and the children with problems generally improved. The children with problems generalized improved social skills into their home environments. In this regard, the treatment which included integration with normative peers was successful.

Theoretical Implications

Social learning theory (Bandura, 1977) states that children learn by watching other children and adults. By placing children in a group, they learn new behaviours from other members of the group. Part of the rationale for integrating preschool children is that they will learn appropriate behaviours from their peers. However, social learning theory does not state that only appropriate behaviour will be learned. If children with problems are integrated with typical children, then they too act as models for the typical children. A social learning model would predict that by integrating children, the typical child would show some inappropriate behaviours modeled by the problem child.

In this study, the normative children did not appear to be negatively effected by the inappropriate behaviours of the integrated children. This might be attributed to a variety of factors. One is that the treatment centre in which this study took place emphasizes appropriate and prosocial behaviour. The student to teacher ratio is low (i.e., approximately 4:1) so that the teachers have more time to praise appropriate behaviour and discourage that which is inappropriate. Furthermore, the typical children in this study came from homes which were remarkably well adjusted. Most likely any inappropriate behaviour the normative children learned at school and tried at home was not reinforced. So any inappropriate behaviour that meight have been imitated likely did not change the parents' perceptions because it was unlikely to become a permanent problem.

Delimitiations and Limitations of the Study

As with all studies, part of the researcher's task is to decide exactly what sample will be measured. The delimitations are decisions chosen by the experimenter for various reasons. Some are theoretical, some are practical. In this study, the experimenter chose to delimit the study to one preschool with a programme staff who believe that integration is a worthwhile undertaking. It had a high teacher to student ratio and the teachers had access to a

variety of professionals who consult regularly with the teachers. The normative children in the preschool had been screened in order to ensure that they had no major problems cognitively, emotionally or with their families.

The criteria set out above enable one to study integration when the conditions are optimal. They rule out the confounding factors such as teachers' attitudes toward integration, accessibility of teachers' time for each child, and support and information networks provided by contact with other professionals. Further, because the normative children were screened before the programme, there was evidence that none of these children were experiencing significant unidentified problems.

These delimitations which help alleviate confounding variables in the study create limitations in terms of generalizability of the results. Because the conditions of this programme make it optimal for integration, the results must be generalized with caution. In many preschools, teachers do not have easy access to a number of professionals nor are the teacher to child ratios so favourable. Further, one cannot assume that all preschool teachers agree with the concept of integration. In the average preschool, typical children are not screened by several professionals before being admitted into a programme. This might mean that children in a more typical

preschool may be more vulnerable to adverse effects.

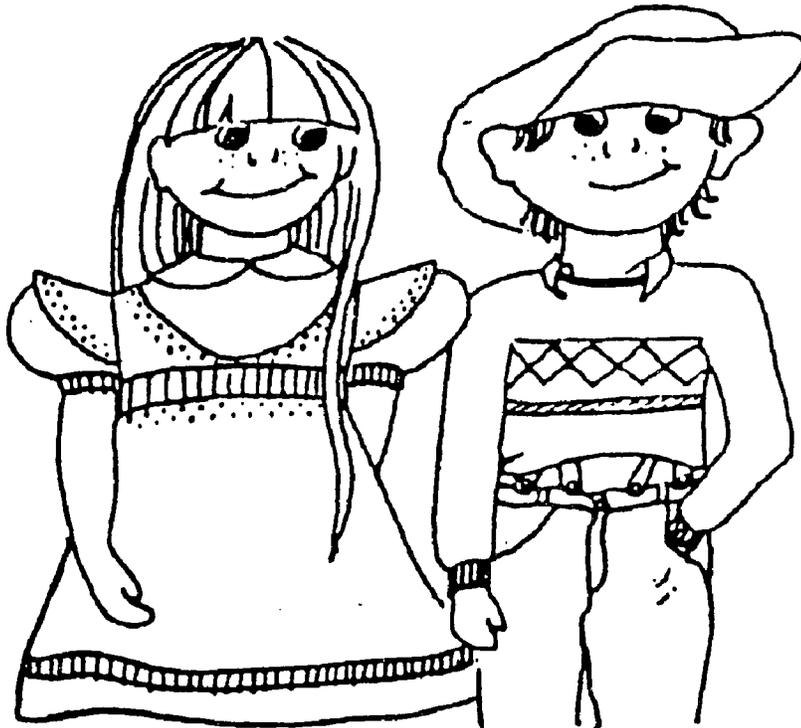
Suggestions for Further Research

The results of this study indicate that integrated preschools can be beneficial for all of the participants if the preschool is similar to the one in this study. In order to generalize these results to different types of preschool programmes, other factors should be investigated. Studies similar to the present one but using more typical preschools in which the classes are larger, the children are not screened for stability and teachers have less access to professional consultations will help to establish whether integration is a good concept for preschools in general. Another factor which should be investigated is whether the success of the preschool programme (in terms of its effects on the children) is effected by parent and teacher attitudes towards integration (in this study, the teachers and parents of the normative children believed that integration is a good concept).

APPENDIX A

THE CHILD'S PLACE INTEGRATION PROGRAMME

THE CHILD'S PLACE INTEGRATION PROGRAMME



Diagnostic and Treatment Centre for Preschool Children and Their Families

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THE CHILD'S PLACE

INTEGRATION CLASSROOM

The primary purpose of the Integration programme at The Child's Place is to facilitate the optimal growth, development and re-integration of troubled children into the community at large. The child's treatment is completed by entering a well-controlled normalizing programme with children who are progressing through all aspects of their development without difficulty. The Integration programme thereby eases the transition from intensive and comprehensive treatment programming to the expectations for independence and competence which will be placed upon the child upon discharge into the community.

The Integration classroom is staffed by two Teacher-Counsellors who work as a team with 10-11 children who are 3-5 years of age. Making up this total of (10-11) children are (3-4) Treatment status children, as well as (7-8) Normative status children. Two Integration groups meet daily, one each in the afternoon and in the morning.

The children which are the Treatment status children are referred to the Integration classroom when they have met the goals set out for them in their treatment groups. Often these children have grown in the area of academic skills and have gained a certain amount of self-control over their own behaviour. What these Treatment status children are lacking usually involves a need to develop the social skills, ability to attend, and ability to verbally express themselves within a larger group setting. Their treatment rooms with groups of (5-6) children in total are not suitable to assist these ongoing needs. Therefore, upon treatment conferencing, these children are referred to the Integration group for ongoing treatment in larger groups. The needs of the Treatment status children who are referred to the Integration room are identified and passed on to the Integration Teacher-Counsellors who, after observing these children, comment on the adjustment of these children to the new and larger Integration group and its routines. Once a Treatment status child is accepted into the Integration group that child's treatment programme will be written up in a treatment plan arrived at by consultation with our Clinical Team (i.e., Psychologists, Speech Pathologists, and Social Workers)

The Normative status children who make up the larger part of each of the Integration groups are first screened by the Social Workers (who screen both the family and child), the Speech Pathologist, and Psychologist, in order to establish that they score within the normative range of performance on an abridged group of standardized tests. These children are then referred to the Integration Teacher-Counsellors for a 2-5 day observation period. The observation period permits

the Teacher-Counsellors an opportunity to determine whether the Integration candidate would be an appropriate peer model for the Integration group. The behaviour of these children, their ability to readily adjust to a group setting, their ability to separate successfully from their parents, their willingness to interact with the other children, and their use of language in coping with their environment are all factors which are evaluated. Because some of our candidates are as young as 2½ years old, the Teacher-Counsellors often must rely on their accumulated experience with preschoolers to subjectively evaluate the suitability of our Integration program for them. Once a child is deemed acceptable and suitable by both the Clinical Team and the Integration Teacher-Counsellors, that child will be enrolled in either our morning or afternoon Integration group as a Normative-status child.

The Normative status children outnumber the Treatment status children and serve as positive peer models to encourage optimal growth for our Treatment status children. Our rationale for putting Treatment status children with Normative status peer models includes the following:

1. The ability of the Normative status children to appropriately respond to classroom routines and Teacher-Counsellors-led instruction in a group serves as an easily accepted model of these behaviours to our Treatment status children.
2. A very powerful force within our Integration groups is the emergence of an attitude within the Treatment status children that "If these other kids can do it, then so can I", or "If these other kids will try it, then maybe I should give it a try".
3. Our Normative status children model such things as sharing; waiting one's turn; listening while the Teacher-Counsellor or another child gets to talk; non-violent resolution of conflict situations; independent movement from one activity to another without Teacher-Counsellor's intervention; appropriate speech usage; free expression of self and imagination in play; cooperative group play and role play; a willingness to try something based on self-confidence and a faith in the Teacher-Counsellor as a caring adult who offers new and interesting tasks, events, and challenges as time goes on.

4. It is our experience that Treatment status children do not experience the Normative status models as a "slap in the face" but rather appear to vicariously acquire a positive motivation to try to do the same or as well as the other children.
5. Imperfect attempts at modelling the behaviour of the Normative status peer models are accepted by the peer group and are understood by the Teacher-Counsellors as achievements to be celebrated by all, simply because an honest and willing attempt was offered.
6. The Integration children, whether Treatment status or Normative status, appear to have little or no recognition, or understanding of their status differences. As children they have the exceptional gift of accepting strengths and weaknesses in each other as just the way life is!
7. The powerful modelling of appropriate grammatical usage; extensive use of vocabulary; use of verbal exchange to express themselves in their environment, to take from their environment, and to get from their environment; can significantly help open up the world to our Treatment status children as they pick up this power of language and conversational speech.

DAILY PROGRAMME

"SINGING TIME"

Perhaps the best way to understand what we do in the Integration group is to follow our daily routine as it begins with "Singing Time" with the entire school group.

During "Singing Time" the Treatment status children and Normative status children all participate in group sing-along songs and action songs. These songs and actions provide our children with an opportunity to experience and appreciate the joys and happy rhythms of music. At the same time, the children are given an opportunity to practice a wide variety of motor tasks which involve the following:

- motor coordination
- body awareness
- movement of body in space (i.e., spatial awareness)
- motor sequencing
- balance

In addition to group action songs, the children are given opportunities to perform in front of the others individually, in pairs, or in small groups. Although reluctant for the first while, the more shy and withdrawn children are pulled into the fun by the group's enthusiasm and support, by the tempo of the music, and by the encouragement of their Teacher-Counsellors. The spontaneous involvement of the Normative status children, as well as the open enjoyment and participation they model, acts as a positive pull on the Treatment status children. During singing the Teacher-Counsellors can place themselves next to the Treatment children in order to help them to imitate, to learn the appropriate actions and cues, and to participate more meaningfully and enjoyably with the group. When the moment comes when a Treatment child ventures out to perform independently in front of the group and lasts through his or her turn, the smile and sense of self-worth can be felt by all who are there to share the moment.

"CIRCLE TIME"

After "getting their motor running" the Integration children leave Singing Circle to come back to their own classroom and sit down in a circle together for a Teacher-Counsellor-led "Circle Time".

Circle Time is extremely important. It is a vehicle by which a Teacher-Counsellor can help each child feel important as an individual and important as an equal member of his or her own very special group. Circle becomes a safe place amongst friends where trying is rewarded independently of complete success. Spontaneous speech, role playing, likes and dislikes, and interests, all have a place in circle. Each is explored and celebrated.

Each day the Teacher-Counsellor can use the Circle to help each child begin to learn to shut out other stimuli in order to pay attention and to listen and contribute to a thought, an idea, a theme, a life event, or a concept presented to the whole group. Treatment status children often need assistance and practice at attending to one thing while having to ignore other stimuli in their environment. This is an essential skill to the learning process. With practice, the performance of a child improves considerably as attending skills improve. Without Teacher-Counsellor-led sit-down activities such as Circle Time a child has little opportunity to develop his or her attending skills.

Circle Time, with its structures of listening and watching with your eyes whomever is talking, of sitting relatively still and not bothering your neighbour, provides the correct situation in which to introduce concepts which the Teacher-Counsellor wants all the children to grasp. By clearly presenting methodology and

materials related to a specific concept in Circle Time the Teacher-Counsellor can be assured that each child has at least been exposed to the basic information necessary for grasping a concept and has been exposed to demonstrations or examples of that concept. Further Circles along with work at "Learning Centre Activities" can later reinforce the concepts. These are first introduced at Circle Time through individual performance responses, then are practiced and over-practiced incorporating related skills to that concept at Learning Centre Activities.

The content of Circle Time activities can both be directed toward the more outstanding specific needs of the Treatment status children, and also include the basic programming involved in an enriched preschool programme.

Concepts such as: "different shapes"; "understanding number concepts and recognizing them"; "the days of the week"; "changes in weather"; "seasons"; "favourite things"; "likes and dislikes"; "what is soft or hard"; "tall or short"; "same or different"; "colour identification and labelling"; "what is my name, address"; "in front of, behind, beside, on top of, under"; and "name recognition" are just some of the concepts introduced at Circle Time. Each child is given an opportunity to respond to questions and to demonstrate an attempt at correct response to individual questioning related to each concept presented. Review and repetition must be utilized to help those children who do not readily grasp concepts as presented.

When the children leave Circle Time to work at the Learning Centre Activities the Teacher-Counsellor must follow-up on the activities related to the concept introduced at Circle in order to evaluate and monitor whether each child has gotten the idea and to provide further one-to-one assistance where it is needed. If a child (usually a Treatment status child) demonstrates considerable difficulty with a task then that child's individual programming will be directed toward the remediation of that weak area, by providing greater opportunity to practice that task and by providing additional one-to-one instruction.

Integration children receive instruction from Teacher-Counsellor-led instruction making use of three different instructional kits: The "Peabody Language Development Kit", the "Duso (Developing Understanding of Self and Others) Kit", and the "My Friends and Me Kit". All three of these kits make use of puppets to lead the children's Circle discussions and they have proven to be quite effective in the integration classroom. Children appear much more relaxed and interested when a puppet is asking them questions and talking to them.

The Peabody Kit centres around "P. Mooney", an understanding man puppet who comes with interesting problems, games, stories, and ideas for the children to

discuss with him. The lessons led by P. Mooney provide experience in the development of readiness skills and concept acquisition. They provide structured opportunities in which to work on expanding the vocabularies of the children, and they also assist in their use of sentences and correct grammatical construction. Many activities involve records where sound discrimination and general and specific listening skills are exercised. P. Mooney's Kit comes equipped with additional puppet friends, records, flash cards, posters, and a wide variety of materials.

The Duso Kit-D-1 centres around the dolphin puppet, "Duso". Duso, along with underwater friends, presents life situations to the children at Circle Time by asking the children to think along with him and his friends in order to come up with the best solution to a life problem or situation. These problems are problems we all may face in every day life. Duso is readily accepted by the children as a role model of a compassionate and extremely understanding individual who wants to help others and understand others. The Teacher-Counsellor makes use of Duso's excellent stories, songs, role-play activities, and puppet activities in order to involve the children in problem-solving, thinking, questioning related to the unit theme, and particular problem solutions for that day. Our young children do carry inside them a wealth of information which often can be meaningfully woven together when contributed to the group brainstorming. This contributing process leads to a greater understanding of just who each child is for him/herself, a better understanding of others, and a better understanding of and ability to cope with life around him/her.

Our Treatment status children often benefit significantly from programmes such as Duso, or "My Friends and Me". Children learn to express their own personalities more openly; learn to be more respectful and understanding of others; learn to be more confident in and knowledgeable about themselves (i.e., what makes them happy or sad, relaxed or fearful). They also learn the coping skills which make life's new challenges more manageable when shared, taken one step at a time, and carefully thought out.

The "My Friends and Me" Kit is similar to the Duso Kit, but is designed for more direct application to preschool-age children. This kit centres around two puppet children "Candoo" and "Willdoo". These two puppets are easily identified with by the children in the group because Willdoo and Candoo are school children going to a preschool just like theirs. All the songs, posters, stories, and role-plays reinforce this identification. The children can easily identify with the setting of Candoo and Willdoo's life situations, as they are the same types of situations the children in Integration group face each day themselves.

The knowledge, sensitivity, and organizational ability of the Teacher-Counsellor when conducting Circle Time activities is critical to the success of these experiences for the children. A knowledge of readily available materials and their collection prior to delivering a Circle Time is an important Teacher-Counsellor responsibility. An ability to properly sequence the presentation of these materials and to patiently question and pull responses from the children are again critical skills in effective Circle Time teaching. Children must be strongly encouraged to contribute without disregarding the right of others to speak and to be heard. Finally, a Teacher-Counsellor must have the ability to meet all of these demands and to deliver them to the children in such a way that the circle activity flows well, incorporates all that the children can give, and results in an enriching and enjoyable learning process for the children who participated in it.

"LEARNING CENTRE ACTIVITIES:

After leaving "Circle Time" activities the children move on to "Learning Centre Activities" which are performed at individual stations while seated in a chair at a table. As a child completes one activity he or she may move on to whichever unoccupied activity station they wish to choose.

Such independence of movement and self-imposed attentional discipline are not, as many adults might think, beyond the capabilities or interest of preschool children. Preliminary Learning Centre-time Activities require considerable directing, re-directing, instruction, and explaining by the teaching staff. However, with practice and from observing other children picking up the structural routines at activity centres, all the children develop an ability to move from one station to another without daily repeated reminders. They progressively develop greater ability at attending to each task presented at each station.

Willingness to experiment and to risk failure are all behaviours strongly encouraged and positively reinforced by the Teacher-Counsellors at Learning Centre Activities. Unsuccessful perfect completion of a task is met with additional one-to-one instruction from the Teacher-Counsellor and often results in scaling down the task into incrementally more manageable performance steps for that child in order that honest effort is rewarded by more frequent success. With over-practicing of prescribed tasks children climb the learning ladder at each skill step-by-step until what appeared an unmanageable and impossible task at first is triumphantly conquered in the end.

As the Teacher-Counsellor observes and evaluates the progress of the group and the individual children at a given set of Learning Centre Activities, these activities are changed to slightly more difficult or complex tasks which further challenge each child in their particular skill areas. If, for example, a Treatment status child is working at a much simpler level of a given skill area than is the majority of the group, then an individualized group of skill tasks in that area will be organized and presented to that Treatment status child for completion at Learning Centre Activity time. In this way positive and challenging tasks are assured for both the group and the individual Treatment status child. With daily observation and evaluation by the teaching staff Learning Centre Activities can provide enriching learning programs for all our Integration children from the weakest to the strongest performer in any given skill area.

A wide variety of Learning Centre Activities and related instructional materials are provided at their appropriate stations in order to promote skills as follows:

Learning Centre Activities (19) promote the following skills:

Motor Skills:

- (1) Fine Motor
- (2) Eye-Hand Coordination
- (3) Pre-writing Skills

Perceptual Skills:

- (1) Colour, Shape, Size, Discrimination
- (2) Figure-Ground, Discrimination
- (3) Perception of Spatial Relationships
- (4) Parts-to-Whole Relationships
- (5) Perception of Sequence
- (6) Auditory Perception of Environmental Sounds

Cognitive Skills:

- (1) Classification
- (2) Organization
- (3) Association
- (4) Generalization

Memory Skills:

- (1) Short-Term Memory which is required in communication and conceptualization.
- (2) Following Instructions.
- (3) Visual Auditory Memory which is required in reading and spelling.

Language & Pre-reading Skills:

- (1) Language
 - a) Communication - oral - written.
 - b) Concept Development.
- (2) Receptive Language Skills
 - a) Following directions.
 - b) Vocabulary acquisition.
 - c) Comprehension.

Math Skills:

- (1) Number & quantity & how they relate.
- (2) Counting, measuring, calculating.

For each skill area, the Integration Teacher-Counsellors programme appropriate activities to help exercise and develop each child's skill in that area. These activities are initially introduced in a basically simple or "beginner level" format. Then, as success is demonstrated by each child, similar "middle level" and then "advanced level" tasks are presented in that skill area.

The list of related Learning Centre Activities to each skill which the Teacher-Counsellors want to develop in each child is too exhausting in its length for our purposes here. However, by way of example, the activities to which an Integration child would be exposed to assist their development of the Perceptual Skills of Colour, Shape, and Size Discrimination, would include the following:

Perceptual Skills:

Colour, Shape, and Size Discrimination.

Related Activities:

- (1) Bead colour, shape and size sequencing cards - where the correct shape, colour and size of bead must be matched to card.

- (2) Parquetry Pattern Cards - where the correct colour and shape of parquetry piece must be chosen to complete pattern on card.
- (3) Shape Sorting Box - where correct tile bearing the correct shape on it must be placed in the appropriate slot to match with coloured shape on shape box matching strips.
- (4) Shape Matching Board - where the correct shape tile must be chosen to match with the corresponding shape on master tile strips; only the correct tile will match the teeth in the correct slot in master tile.
- (5) Sorting Boxes - where beads of similar sizes or colours or shapes are sorted in corresponding boxes.
- (6) Pegboard, Beadboard, and Elastic Board Activities - where the appropriately coloured pegs, beads, and elastics must be chosen and appropriately placed on their boards to match the pattern shown on accompanying pattern cards.
- (7) Craft Activities - where a variety of shapes in a variety of sizes and colours are manipulated into other shapes, groups etc. and pasted on to a piece of paper.

Many of the Learning Centre Activities involve the exercising of more than one skill at one time because the skill areas listed overlap each other. For example when a child is working at a nailboard choosing the correct elastic to match the Nailboard Pattern Card, he is exercising in one task the following:

- (1) perception of spatial relationships
- (2) eye-hand coordination
- (3) colour, shape, and size discrimination

TREATMENT PROGRAMMING

A Treatment status child's treatment plan is arrived at after consultation between the Teacher-Counsellors and the Clinical Team at a goal session. The Clinical Team interprets standardized test results to emphasize each Treatment status child's skill areas of strength and weakness.

Once areas of weakness are identified then the Teacher-Counsellors can draft and put into effect a treatment plan which involves the remediating of these specific weaknesses. This is often done by utilizing Learning Centre and Circle Time activities which use a child's stronger skills to assist in grasping and practising weaker skills.

It is the responsibility of the Teacher-Counsellors to monitor the progress of the children at specific types of tasks on a daily basis. At least every six months each Treatment status child is also given a battery of standardized assessment procedures by the Speech Pathologist and Psychologist in order to clearly determine and measure progress.

Information gained by Teacher-Counsellor observation and testing, and by independent assessment outside the classroom, is used to improve on each Treatment status child's specific treatment program.

FREE PLAY

After Learning Centre Activities the Integration children gradually move off into "Free Play" activities. At this time there is little direct intervention from the Teacher-Counsellors. Usually after an initial few days of playing together, our Integration children explore the considerable diversity of play materials provided for their discovery on shelves and in the role play centre in the immediate area.

Those children (usually Treatment status children) who have not yet developed age-appropriate social and communicational skills may need some initial coaching and intervention from their Integration Teacher-Counsellors. This intervention may in some cases simply be helping that child choose an interesting play thing from amongst the many play things. At other times, a Teacher-Counsellor may help pair off a Treatment status child with a cooperative and accepting Normative status child to pursue together some game. In other cases the Teacher-Counsellor may appeal to the group to include that Treatment status child in their game. When a child demonstrates considerable difficulty in getting into any form of meaningful play, then the Teacher-Counsellor may have to enter into play with that child on a one-to-one basis in order to kindle appreciation for manipulation of toys for fun; to encourage use of imagination in play; and/or to encourage relaxed sharing and verbal exchange between play partners.

As the school year progresses, the power of an increasing "group" consciousness amongst the children, along with greater utilization of recently enriched expressive language and vocabulary skill amongst the entire group, leads to more imaginative,

cooperative, and meaningful group play. The energy and complexity of the Normative status peer children more and more draws the Treatment status children into group play. Progress in the area of social skills for the Treatment status children is evidenced by their increased acceptance by the group and in group games. Also, the energy and degree of verbal expression within the group games demonstrated by the Treatment status children indicates progress in the area of social communication.

A Teacher-Counsellor may have to intervene in free play situations where conflicts have led to physical exchanges. However, after assisting the children in seeing other ways of showing their anger and resolving conflict, the Teacher-Counsellor will fade out of the group play situation. Positive social movement for many Treatment status children is evidenced by their increasing ability to resolve conflicts experienced in group play without resorting to physical violence; rather, they use language and compromise to resolve their conflicts.

Free play is looked forward to by all Integration children. It is considered a guaranteed play time for the children as well as a suitable contractual reward for attending at and participating in our Circle Time and Learning Centre Activities.

GROSS MOTOR EXERCISE TIME

During part of the time when the children are at Free Play, the Treatment status children who are in need of gross motor programming move off to the gym (sometimes with one or two Normative status children who model appropriate responses to Teacher-Counsellor commands) where they are exposed daily to a Teacher-Counsellor led group of motor activities.

The daily Gross Motor Programme incorporates activities which exercise the children in essentially 3 skill areas: Balance, Coordination, and Locomotion. Activities involving Balance incorporate both static and dynamic balance postures. Examples of static balance activities would include balancing on different body parts with eyes open and then eyes closed; imitating animal positions or positions of stick people on drawing board; or imitating Teacher-Counsellor-modelled body positions. Examples of dynamic balance activities would include walking on lines forward and backward; balance walking on benches and beams; and trampoline work.

Examples of Coordination-building activities would include: work on rolling on catching and dribbling various sized balls; use of a target board to teach proper cross-lateral movements for underhand toss; and use of hoops for skipping, rolling, and fitting the body through them.

Examples of activities exercising Locomotion include: mat work - doing front rolls, back rolls, and log rolls; activities which involve rolling, crawling, creeping, walking, and running; travelling through an obstacle course; and exploring heights and distances using climbing apparatus, ladders, and stairs.

The Teacher-Counsellor will either demonstrate each motor task or will use a capable child to model the appropriate motor behaviour for each task. One-to-one assistance is required when a child is fearful of attempting a task or is experiencing great difficulty. "Taking turns" and "waiting one's turn" to try a task are important Gross Motor time structures. With practice each child gains self-confidence and facility across the 3 major gross motor skill areas. Reluctance to perform gives way to an eagerness to show the other children and the Teacher-Counsellor what he or she can do.

As gross motor skills improve so does that child's ability to attend at Circle Time and at Learning Centre Activities. Out of successful gross motor performance often comes the self-confidence to venture more participation in all facets of the daily programme. Also, once gross motor or large muscle skills improve then a greater success or quickened rate of learning at fine-motor and eye-hand coordination skill performance comes about. Included in this package is a sheet outlining the gross motor plan used in the Integration classroom (subject to additions and deletions as equipment and time permits).

SNACK TIME

Following Free Play and Gross Motor activities the children have a Snack Time during which they all sit at a table together to share in a small snack of nutritious or health-promoting food (e.g., cheese, peanuts and raisins, granola bars, fruit, etc.). Snack Time provides a quiet moment in the day when the children can freely talk with their peers or Teacher-Counsellors without competing with other classroom noise. Often one child will make a comment regarding something imagined or something that happened at home or at school, and the other children will jump into the discussion. This is another occasion when the enriched vocabulary and life experiences of the Normative status children will present themselves in their spontaneously offered comments. The comments of the Normative status children act as a catalyst to spontaneous offerings from the Treatment status children. Any occasion when the Treatment status children offer relevant material orally in class helps to enhance their use of vocabulary, sentence structure, thought organization, association, and generalization. If the group at Snack Time appears to lack anything interesting to say, then the Teacher-Counsellors can offer

comments on a particular topic to get conversation going and will monitor the flow of the conversation to keep it going.

OUTSIDE PLAY OR PLAY IN GYM

After Snack Time (weather permitting) the group will go outside to take advantage of our adventure and discovery playground apparatus. At free play in the playground all children have an opportunity to use sand play (in the sandbox), to climb a variety of obstacles (stairs, ladders, tires), to slide, to swing, to ride bikes and to run and play with their peers. Whether at play outside in the playground or in the gym using our inside apparatus (tumbling mats, slides, monkey bars, hoops, bean bags, balls, trampoline) the children's play encourages gross motor skill development and provides opportunity for fun group play. The Teacher-Counsellors can take these opportunities to monitor the safety of this free play and to work on a one-to-one or small-group basis with those children who need assistance or encouragement (e.g., Treatment status children who are reluctant to try new gross motor tasks and those who avoid motor tasks and therefore are in need of gross motor skill development).

STORY TIME

On some occasions, especially days of inclement weather, the last 10-15 minutes of our Integration half-day programme may constitute a "Story Time". At Story Time the entire group will be read to by the Teacher-Counsellor. As the story progresses, or at its conclusion, the Teacher-Counsellor will encourage questions and will question the children on story content and comprehension.

PARENT INVOLVEMENT

Parents of both Normative status and Treatment status children are welcome and encouraged to come and observe their children pursuing their daily school programme. Parents are able to observe, unbeknownst to their child, through a one way mirror/window from our observation room.

Any parent interested in observing needs only to make arrangements with their child's Teacher-Counsellor or Case Manager. When parents are observing in the observation room one of the Teacher-Counsellors and/or Social Workers can utilize this opportunity to join the parents and point out behaviours, explain classroom routines and objectives, and to answer any questions and concerns the visiting parents may have.

Treatment goals for those Treatment status children whose parents come to visit are shared and explained to the parents. It is important that parents

share an understanding with their Teacher-Counsellors about what the objectives of their child's treatment programme are and how these objectives are being operationalized in the classroom.

Often work on a specific skill, or the managing of a specific behaviour can be greatly enhanced by sharing information between Teacher-Counsellors and parents. Parents may be asked to assist in helping develop a child's ability in a specific skill area by structuring practice for that child at home. In the case of behaviour management, a consistent set of expectations, consequences, and rewards must be used by both Teacher-Counsellor and parent in order to readily bring about a specific behavioural adjustment. This sharing may take place during parental observation of a child or may come about from a feedback interview with the parents attended by Teacher-Counsellors, Social Worker, Speech Pathologists, and Psychologists.

Every opportunity for Teacher-Counsellors and other Child's Place personnel to confirm to our parents our genuine desire to work with them to foster the ultimate potential of their child's growth and happiness is utilized.

SOME LESSONS LEARNED

In conclusion, the following outlines of some of the lessons learned to date from our past years of experience running an Integration group:

1. The Integration group is not just the right programme for every "Normative status child" we may screen.
The Integration Programme with both Treatment status and Normative status peers is sometimes too demanding for some children and therefore would not be the right programme for those children.
2. The parents of Normative status children need reassurance that just because we have screened their children and their families as "Normative", this does not mean we expect them to be problem-free. A "Normative child" or "Normative family" does have problems as we all do. Perhaps what distinguishes some Normative status families from some Treatment status families is the repertoire of skills each family has to cope with these problems when they occur.
3. Not every child who appears ready to move to the Integration group because of successes in their Treatment groups will successfully adjust to treatment in the structures of a larger group programme in the Integration Group. This would necessitate on occasion a child not remaining in the Integration Group but rather returning to a treatment group.

4. Our experience indicates that no regressive pull on Normative status children's behaviour will result from their daily exposure to a number of Treatment status children's behaviours in the Integration programme.
5. Our experiences do suggest that a significant upward or progressive pull on the behaviours of our Treatment status children results from their daily inclusion and participation in our Integration group, which is over-balanced with Normative status peers. The following are examples of this positive pull effect:
 - a) more appropriate peer play
 - b) more positive and age-appropriate ways of resolving conflict and of expressing oneself in a group
 - c) better grammatical usage in conversational speech, as well as a more extensive vocabulary usage
 - d) a greater sense of self-confidence and self-esteem which comes from acceptance by and inclusion in the activities of one's peers.

Robert L. Thompson, B.A., B.Ed.
Teacher-Counsellor.

APPENDIX B
THE CHILD'S PLACE OBJECTIVES AND PROCEDURES

The Child's Place

Diagnostic and Treatment Centre for Preschool Children and Their Families

2611 Labelle Street, Windsor, N9E 4G4

966-2211



OBJECTIVES & PROCEDURES

Dr. W.V. McDermott, Psychologist
Executive Director

THE CHILD'S PLACE

2611 Labelle Street, Windsor, N9E 4G4

966-2211

PROGRAMME AND GOALS

GENERAL OUTLINE

The Child's Place is an assessment and day treatment centre for Preschool children and their families. A maximum of forty children from the City of Windsor attend half-day sessions with us, five days a week, from September through July. Approximately 14 of our children are normative in all aspects of their development, ("Integration" children), while the remaining 26 require therapeutic intervention, ("Treatment" children). Each half-day session is structured around two Treatment groups, (5-6 children each), and one Integration group, (usually 7 Integration children and 3 Treatment children).

Referrals for Treatment children are accepted directly from parents as well as from Windsor's medical, educational, nursery, psychological and social service sectors. The Treatment children who are eventually admitted manifest a variety of difficulties including learning disabilities in specific areas, behavioural disorders, family disturbances, radical deprivation, speech and language disorders, developmental delay, emotional disturbance, autism and the psychoses.

The primary concern of the programme is to facilitate each child's optimal growth, development and integration within the family and into the community at large. As a result, each aspect and procedure of the programme evolves in one way or another from this central purpose. For example, the Integration group is the first step in a former Treatment child's return to a regular nursery, Kindergarten or school programme.

The programme's major objectives are:

1. To help identify and verify those children (and their families) who are experiencing true developmental, learning, emotional, and/or social difficulties as early in the child's development as is possible, while preventing normatively developing children from becoming misperceived as deviant and thereby being ascribed a pathogenic set of role expectations, by:
 - a) Comprehensive screening procedures, including investigation of the child's cognitive, perceptual, motor, speech and language, interpersonal and intrafamilial development.
 - b) Preventing premature admission by "Re-Routing" children and families to community resources and programmes, (e.g., parent education groups, nursery schools, community action centres, outpatient clinics, etc.) in lieu of premature admission, where feasible.
 - c) Brief educative counselling of parents, (usually first parents) to normalize expectations of their children at different levels of development, (i.e., "Exclusion" from the day treatment).
2. To diagnose the specific nature of the child's (and family's) difficulties in a comprehensive fashion.
3. To provide a general growth-and competence enhancing environment within which each child's specific deficiencies are treated via individualized programming in the areas of:
 - a) general cognitive and readiness skills.
 - b) speech and language abilities.
 - c) perceptual abilities.
 - d) motor abilities.
 - e) interpersonal and behavioural competence.

4. To involve the child's parents and siblings as much as possible in the therapeutic programming by:
 - a) Parent groups which are designed to facilitate parent education and to foster a parent-peer support network.
 - b) Parent observation, classroom participation and teacher-counsellor sessions designed to modify parental perceptions of their children, to involve parents in direct learning of differential interactional styles, and to coordinate classroom home programming.
 - c) Home management programming designed to assist parents in managing behavioural difficulties where and when they occur.
 - d) Specialized behavioural management programmes (e.g. Directive Parental Counselling; S.T.E.P.)
 - e) Specialized couples' and parents' groups.
 - f) Conjoint family therapies; Multiple family therapies.
 - g) Hanen Early Language Parent Programme.
 - h) Parent advocacy coaching.
5. To facilitate, direct, and organize the child's integration into the community-at-large via the Integration Programme and planned placement procedures.
6. To follow-up and ensure the success of reintegration by 1 week, 1 month, 1 year, and yearly contacts for a 5 year period.

STAFFING

The eleven Child's Place staff members include teachers, child care workers, early childhood education specialists, social workers, psychologists, a speech and language pathologist, and outside consultants as required.

ADMISSION CRITERIA

1. Children between 2 yrs-0 months through 6 yrs-0 months are accepted, although children who are between 5 and 6 years are frequently re-

ferred to another agency, if possible, to ensure continuity of treatment. This is especially true if it is likely that the child will require treatment beyond 6 years of age.

2. Any child who is not retarded is eligible for treatment at The Child's Place. From time to time, however, children are admitted for extended assessment periods until a differential diagnosis between retardation and specific learning disability can be made.
3. Referring parties are informed at each stage of the process and are actively encouraged to contribute to the assessment procedures.
4. The Child's Place accepts children and families into the day treatment programme under the general rubric of "troubled". Learning disabilities, speech and language disorders, emotional disturbance, behavioural disturbance, developmental deviance, radical deprivation, psychoses, and/or autism are acceptable presenting difficulties.
5. The Child's Place does not presently offer an outpatient treatment programme. Assessment procedures, referral, and follow-up, however, are provided for all presenting families.

REFERRAL PROCEDURES

1. Referrals are accepted directly from families and from third parties.
2. Families are contacted within one working day for a preliminary screening and appointment for assessment (usually within 4-8 weeks).
3. Intake Officer at The Child's Place is Mrs. Deborah Hotchkiss, M.S.W. Mrs. Hotchkiss will obtain the admission information, schedule an initial appointment if the referral appears to be appropriate, and will facilitate the information-sharing process between the referring agent, the child and family, and The Child's Place.

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VITA AUCTORUS

Mary Kanold Morrison was born in Port Colborne, Ontario on December 26, 1955. She graduated from Port Colborne High School in 1974. She graduated from Wilfrid Laurier University with a general Bachelor of Arts degree in psychology and geography in 1977. She received an Honours Bachelor of Arts degree from the University of Windsor in 1978 and began her graduate training there in the same year. She received her Master of Arts degree in 1982. She married William S. Morrison in 1977 and they are the proud parents of Kathleen Ruth, born in 1985.