THE EFFECTIVENESS OF GROUP PLAY THERAPY AS ASSESSED BY SPECIFIC CHANGES IN A CHILD'S PEER RELATIONS

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ABSTRACT

THE EFFECTIVENESS OF GROUP PLAY THERAPY AS ASSESSED BY SPECIFIC CHANGES IN A CHILD'S PEER RELATIONS

by Allan L. Schiffer

Essentially, the focus of this study has been on exploring the benefits of group play therapy. The need for objective evidence supporting this relatively new treatment method is great if it is to take its place among other acceptable child therapy techniques.

We have measured several specific behavioral variables, using the Peer Nomination Inventory, and observed changes that occurred in classroom peer relations.

Specifically we have attempted to demonstrate:

1. Desirable results and changes in behavior and peer relations come about concomitantly with group play therapy, and

2. Such changes would not have occurred in the absence of therapy.

We were also interested in examining the often used but rarely tested statement,

3. "Treatment of the parent is essential for the treatment of the child."

Thirty-three boys between nine and eleven years of age were randomly selected from the treatment waiting list of a community child guidance clinic and assigned to one of five groups. Two groups consisted of children who received group play therapy, while their respective parents participated in a parent's therapy group. The third group of children also received group play therapy, but their parents were not treated. The fourth group was a placebo group. Instead of a therapist, the children in this group met with a recreation leader. Their parents met together in a "leaderless" session, i.e., without a therapist or clinic staff member in attendance. Parents and children in the placebo group participated in activities similar to the therapy groups, but received no therapy in the traditional sense. Children assigned to the fifth, the control, group were held on the treatment waiting list.

"Treatment" commenced in December, 1964, and terminated for the summer in June, 1965. Trained examiners administered the PNI to the classrooms these children attended in January and May, 1965.

Scores on the following behavioral dimensions were obtained: Likability, Impulsivity, Social Isolation, Pure Aggression, Aggressive Dependency, Immature Dependency, Depression, Rejection, and Total Deviance.

Thirty "Normal" subjects were chosen at random from the total number of classroom peers. Data on these children were used for comparative and psychometric purposes.

The findings support in principal the thesis that group play therapy is effective. While the treated subjects, including the Placebo group, did not show a desirable change for the better, their peer relations were stabilized over the treatment period. While during this same period, it was shown, the untreated subjects in the Control group exhibited increased maladjustment on all the socially deviant scales, except for Pure Aggression. No differences were found in this scale "before-" or "after-treatment."

We discussed the limitations of this study's applicability and the conclusions that could be drawn. Specific characteristics of the treatment program and instrument were noted.

Nevertheless, there are indications that a recreation leader may be as effective as a therapist and parents may not necessarily have to be treated in order to help the child. The significance of these results may have an effect on future Mental Health programs, in that treatment waiting lists may be reduced, thereby enabling the community clinic to offer help sooner and to many more children who would not otherwise be treated.

Approved Norma Abeles
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By

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To Eric and Steven

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INTRODUCTION

Today, the value and effectiveness of play therapy are supported mostly by the enthusiasm and beliefs of the child therapist and not by objective, unbiased evidence. This state of affairs is especially applicable in the practice of group play therapy. In the past, articles concerning group play therapy have generated more heat than light on the subject. There are extremely few published, objective studies related to group therapy with children.

And yet, as Lebo comments,

> . . . to be admitted to the ranks of approved therapeutic methods . . . play therapy (and group therapy) needs more than the shibboleth 'It works if you only try it.' (Lebo, 1964)

For until (group) play therapy has been established by objective means, there is no evidence to indicate its superiority over dancing lessons in the treatment of shyness or its superiority over boxing lessons in the treatment of aggressiveness (Ginott, 1964).

Moreover, with the increasing demand for treatment throughout this country, group therapy is becoming a popular alternative to the traditional one-to-one therapeutic relationship. Whether the clinician agrees that the age of individual has passed and we have entered the corporate era of existence; or, he simply seeks a practical solution to

the chronic waiting list problem, the "emphasis in therapeutic practice is shifting from the individual to the group" (Reusch, 1961).

Previous Research in Individual and Group Play Therapy

Several authors (including Axline, 1948; Bloomberg, 1948; Cowen and Cruickshank, 1948; Graf, 1958, 1959; and Scheidlinger, 1959, 1960) have published articles discussing the merits of group play therapy but offering no quantitative evidence of their claims. A few studies have included objective evidence. Among these, Axline (1947a) and Bills (1950) report that group play therapy facilitated a remedial reading program for retarded readers. Although at times lacking in experimental sophistication, both agree that group therapy helped alleviate some of the children's emotional problems, rather than directly improving reading ability.

A study that has served as a model, in part, for the present investigation is Fleming and Snyder's (1947) research with groups of emotionally disturbed children. To this author's knowledge, this study was the first and is the only other investigation primarily interested in evaluating the effectiveness of group play therapy. Fleming and Snyder chose a "guess who" test, a sociometric technique and a personality test to objectively measure therapy outcome. Using a test-retest method, these authors found improvement in personal adjustment but little social change. They concluded that group play therapy is effective but that

personality changes may precede social adjustment.

In reviewing their study, Lebo (1964) noted certain findings contradicting Axline's (1947b) classic text on play therapy. Axline said, "Nor does the sex of the therapist seem to be important (for successful therapy)." Fleming and Snyder found that the therapist's sex was an important factor in establishing rapport. Ten-year-old boys particularly respond better to male therapists.

Similarly, Axline claimed, "It is necessary for the adults to be helped in order to insure successful play therapy results." Fleming and Snyder observed that a house mother who was antagonistic towards therapy may have prevented successful treatment. We will attempt to explore these issues in the present study.

Although it is not within the province of this paper to discuss research in individual therapy, methodological problems encountered in this area are closely related to the present study.

Of particular interest are Hood-Williams' (1960) and Leavitt's (1957) conclusions that primarily due to methodological weaknesses in child therapy research, one cannot state that treatment works. Inadequate and unequated control groups, vague and subjective criteria of success, as well as the inability to compare many studies because of wide divergence, compel these authors to infer that the effectiveness of play therapy is questionable and remains unanswered.

However, equally as important as adequate control groups and objective criteria are, Ginott (1964) has recommended another experimental refinement. He says,

> on the basis of available research, it is impossible to know whether or not the beneficial outcomes of play therapy are directly related to its practical procedures and theoretical rationales.

Ginott suggests that the expectation of a beneficial effect as well as increased attention (sans therapy) may often be in itself sufficient to cause improvement in treatment. He feels that a truly vigorous study should include a placebo group, as well as a no-therapy group.

While Heinicke and Goldman (1960) agree that findings are inconsistent and methodologies are weak, they conclude there is "enough" evidence that treatment results in a higher percentage of "successful adjustment."

Problem

It is clear that the need for research in child therapy, especially in group play therapy, is great. Of utmost importance in proving the benefits of group play therapy is adequate scientific design. The present study will attempt to incorporate several experimental refinements in order to demonstrate:

1. Changes in behavior come about concomitantly with group play therapy, and

2. Such changes would not have occurred in the absence of treatment.

We are also interested in examining the statement,

3. Treatment of the parent is essential for the treatment of the child.

Group play therapy, as a treatment method, is still in its infancy. Despite the improved experimental design, this study is exploratory in nature because of the complexity of theoretical and treatment unknowns.

The instrument used to determine the effectiveness of group play therapy is the Peer Nomination Inventory (PNI). The rationale for measuring a child's peer relations, in order to determine the worth of group treatment, is threefold:

1. The child's experience in the classroom and the "treatment group" is quite similar. If group play therapy has an effect, change should be perceived as a result of the principle of generalization or transfer of response from the therapeutic group to the classroom milieu.

2. Peer relations are a significant factor in the pre-adolescent's world. Disturbed peer relations can be extremely painful and stultifying.

3. The PNI is an objective, powerful instrument, not subject to the bias of a therapist or parent. Peers have no reason to look for change and thus their evaluations are especially meaningful.

The Instrument: Peer Nomination Inventory

The Peer Nomination Inventory (PNI) (Wiggins and Winder, 1961) is a version of Hartshorne and May's (1929) original "guess who" technique. Hartshorne and May developed this technique as a means of discovering a child's general reputation among his classmates. The "guess who" method or reputation test presents a group with a number of positive and negative behavior descriptions. It requests each individual to indicate or "guess who" of the group members best fits each description or short word picture.

Tuddenham (1952) discusses several advantages in using this type of measurement. Primarily, studies dependent upon the impression of adults or professionals in observing a child's behavior disregard the importance of the social milieu. First, the child may exhibit different types of behavior in different groups with peers as well as with different adult groups. Secondly, the presence of an adult observer may affect the child's behavior and bias the intended observation.

The PNI, however, permits entrance into a profoundly vital area of a child's world, namely, the school room. This test enables the investigator to view the social relationships among children and examines their attitudes towards one another.

The present study assumes that emotionally disturbed children will have disturbed peer relations. Of all the

areas of conflict he must deal with, this may be one of the most painful for the child. Similarly, one can reasonably surmise that changes in social behavior are a more powerful test of treatment effectiveness than are parents or therapists' evaluations, because the child's peers have no reason to look for change.

The PNI is adapted to the child's capacity to respond. The items are made up of words typically used by children of the same age. This method also minimizes provoking undesirable attitudes associated with "tattling" and thereby reduces defensiveness and anxiety related to making judgments. And finally, the PNI meets the practical criteria of ease of administration, producing quantifiable measurements of specific forms of behavior.

Unfortunately, only a few studies have grown out of the original "guess who" tradition of assessing reputation through the use of peers. No particular study, though, is of special relevance to this investigation.

However, several authors, including Symonds and Jackson (1935), Jones (1935), Tuddenham (1952) and Winder and Rau (1962), have used the reputation test as a means of assessing social adjustment and for determining specific areas of deviance. It appears to be an appropriate measure for therapy outcome, although the PNI itself has never been used for the purpose.

Essentially, the aim of this study is to demonstrate the effectiveness of group play therapy. The subjects will be evaluated by their classroom peers on several behavioral dimensions, "before-" and "after-treatment." This study is also concerned with exploring some of the traditional issues raised regarding child therapy. We have incorporated various experimental variables gleaned from related literature in order to build upon and advance the body of knowledge in this relatively new field of therapeutic endeavor.

METHOD

Subjects

Clinic Sample: Thirty-three[1] subjects in this study were selected from the treatment waiting list (TWL) of the Lansing Child Guidance Clinic, to form the Clinic sample. While the children come from predominantly working- and middle-class families, both lower- and upper-middle class families were represented. The majority of children come from the city and suburbs of Lansing, Michigan. A few subjects come from rural areas surrounding the city. All of the children were Caucasian.

Parents are required to make the referral to the clinic for their child. Often, this is only after the school authorities point out the need for such action. Detailed information is unavailable regarding the number of subjects in this sample initially referred to the clinic at the request of the schools because the child's peer relations were deviant.

The major referral problems for the subjects in this sample vary, but they generally include one or more of the following broad categories: neurotic symptoms, school or

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[1]One family terminated treatment after a few weeks and reduced the clinic sample from 34 to 33.

learning problems, and social maladjustment in family or peer relations. Psychotic, borderline psychotic, mentally retarded and brain injured children are not included in this study.

The subjects are all boys, between the ages of nine and eleven, and in the third, fourth, fifth, or sixth grade[2] (see Appendix A:1). All subjects were diagnosed "treatable" by the clinic staff, on an out-patient basis, and placed on the treatment waiting list. At the time of this study subjects have been on the treatment waiting list from one month to approximately one- and one-half years.

Normal Sample: From a total of 406 classroom male peers, 30 subjects were randomly selected to form the Normal sample (Nc).

Normal as defined in this case simply means the children have not been referred to the clinic. This sample provides comparative and psychometric data for the present study (see Appendix A:2).

Procedure

After being randomly selected from the TWL, the Clinic sample subjects were "randomly" assigned to one of three experimental groups (EI, EII, EIII), the Control-placebo group (Cp), or the Control group (C) (see Table 1).

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[2]Some children have been retained a grade; one subject was still in the second grade.

Some adjustments and reselection were necessary to provide "balanced" or heterogeneous groups. That is, if one of the groups consisted of an overwhelming number of "acting-out, aggressive children," for example, some of these subjects were replaced and reassigned to another group. Usually, the subject was replaced with one from the Control group or TWL.

The prospective subjects' names were given to the respective therapist (or leader) to contact and begin "treatment." A few parents declined the offer for "treatment" for their children. These subjects were omitted from the study and replaced with subjects from the Control group or TWL. Once "treatment" began, all groups were held constant. One family in EII prematurely terminated after a few weeks, was omitted from the analysis, and was not replaced. Parents and children were unaware of the research aspects of their "treatment."

Table 1 (on the following page) represents a paradigm of the study, including subjects and "treatment."

Treatment for children in EI and EII consisted of group play therapy. Their respective parents met for group therapy with a group therapist. Both mothers and fathers were advised that they were expected to participate in the treatment program, as a general policy of the clinic.

Children in EIII also received group play therapy, but their parents were not seen in treatment, nor did they have any significant contact with the clinic.

Table 1. The Experimental Design: Summary Paradigm of Subjects and Treatment Program

Sample	N	Treatment	
		Children	Parents
EI	6	Group play therapy	Group therapy
EII	5	Group play therapy	Group therapy
EIII	6	Group play therapy	Not treated
Cp	6	Recreation group	"Leaderless" group
C	10	Not treated	Not treated
Nc	30	Not treated	Not treated

The process of group play therapy is a unique experience for both child and therapist. Moreover, the therapist's activities were not uniform nor were attempts made to control the differences among group processes in this study. Consequently, group play therapy can be defined only in general terms, as follows: For the most part, the sessions were child- or group-centered, with an emphasis on encouraging the child, via the group, to express and explore his feelings and behavior with respect to the group, the therapist, and the outside world.

Group activity and play were emphasized, but individual activity and preferences were also acknowledged. Typical activities included arts and crafts, sports (indoors and outdoors), games, reading, refreshments (pop, potato chips, ice cream, etc.), and group discussion. Limits and controls were set as seen necessary by the respective therapist.

Discussions within the parents' groups usually focused on parent-child relationships and problems as well as marital and personal conflicts.

Groups EI, EII, and EIII met in the clinic once a week for one-and-one-half hours after school. The respective parents' groups met while the children were in their group therapy sessions.

Children in the Placebo group were supervised in activities similar to those of the experimental groups. A recreation leader was in charge. Parents of these subjects met in a "leaderless" group. The subjects in the Placebo group conducted themselves in essentially the same manner as the experimental groups, with the exception that they were without a professional therapist.

The parents of the subjects in the Placebo group were told,

> The clinic has set aside a room for you to meet. Having something in common, your child's referral to the clinic, you may discuss anything you wish, without a staff member in attendance. The clinic expects both parents to attend these sessions as part of the child's association with the clinic.

Both parents and children in the Placebo group met on Saturday mornings because of the clinic's limited facilities. They also met for one-and-one-half hours.

Groups EI, EII, EIII, and the Placebo group commenced "treatment" by December, 1964, and terminated for the summer during June, 1965. During this six-and-one-half months of "treatment" the subjects in the Control group were held on

the treatment waiting list and had no contact with the clinic. Children in the Normal sample were, of course, unaffected by the present research.

Therapists and Recreation Leader

The therapists participating in the present study are employed by the clinic and volunteered to take on these groups as part of their normal caseload. Children in EI were treated by a female social worker who has had experience with children and adults in individual therapy. She was inexperienced as far as group play therapy is concerned. Parents of these children met with a male staff psychologist (the author), who has had experience with adult group therapy as a psychology intern. This same psychologist was experienced with children on an individual basis but inexperienced with children's groups. He met with the children in EII. The parents' therapist in this group was a male social worker, experienced in adult group therapy.

The child therapist in EIII was an advanced psychology graduate intern. He, similarly, had experience with children on an individual basis but not in groups.

The recreation leader in the Placebo group was a female college student majoring in recreation work. She had little or no psychological training and was not expected to counsel or "treat" the subjects. She had worked with groups of boys, though not emotionally disturbed children, in the past.

Administration of the PNI

The Peer Nomination Inventory (PNI) was administered by trained graduate psychology students. Both male and female examiners gave directions (see Appendix B) and supervised the class during the administration. The first, or "before-treatment," testing occurred in January, 1965, approximately one month after "treatment" began. The second, or "after-treatment," evaluations were obtained five months later by a different group of equally trained examiners. Otherwise, both testing procedures were basically identical.

Judges: The Classroom Peers: While the PNI was administered to both boys and girls, only the judgment of boys who were present during both test sessions were used in the analysis. These boys are considered to be the judges as well as the peer group from which the thirty Normal subjects were selected. Moreover, the children were asked only to evaluate the boys in the class. Girls' names were omitted on the test (see Appendix C).

Because the Normal sample was randomly drawn from the total number of classroom peers making judgments (about subjects in the Clinic sample), individual classrooms are not equally represented in the two samples. The PNI was administered to thirty classrooms in order to obtain peer evaluations of the thirty-three Clinic subjects. A total of 406 peers made these judgments, during both testing sessions. However, the thirty subjects in the Normal sample

were distributed among twenty-two of these same classrooms. Nevertheless, the frequency distribution of the number of boys in each class, in each sample, are quite similar. The distributions have medians of 12 and 12.5 judges in each class, for the Clinic and Normal sample, respectively. The number of peers in each class ranges from two to twenty-two boys for the Clinic sample, and from two to twenty-nine boys for the Normal sample.

Instrument

The instrument used for assessing interpersonal relationships in the classroom is a modification of the Peer Nomination Inventory (Wiggins and Winder, 1961). Based on Hartshorne and May's (1929) original "guess-who" technique, this instrument is a multiphasic reputation test. Essentially, it presents to a group of children a number of positive and negative behavioral descriptions or short word pictures. It requests each child to indicate or "guess who" of their peers is most nearly like the person described. Each item refers to a fairly specific aspect of behavior, written in terms used by children to describe themselves. A group of highly related items form a scale or behavioral dimension.

Factor analysis of Wiggins and Winder's (1961) original data yielded a score for each child on five dimensions: aggression, dependency, withdrawal, depression, and likability.

Wiggins and Winder found two "relatively independent" (r = .294) clusters of variables.

> . . . aggression and dependency formed one such cluster (r = .743), while withdrawal and depression formed the other (r = .620). Likability was negatively correlated (r = -.234 and -.327) with aggression and dependency, and (r = -.539 and -.412) with withdrawal and depression."

However, Crego's (1962) pattern analysis of the same data has resulted in a further subdivision or differentiation of the items. Crego concludes that by considering these additional dimensions, the scales are more meaningful and homogeneously pure. Six basic dimensions, or scales, emerge from this pattern analysis: Social Isolation (SI), Pure Aggression (PA), Aggressive Dependency (AD), Immature Dependency (ID), Depression (D), and Rejection (R). Basically, however, results are quite comparable to the factor analytic findings. Only now, the relationship between aggression and dependency categories depends upon whether the items are reflecting "pure aggression" or "disruptive aggression." Similarly, a relationship still exists between withdrawal and depression items, but now one can consider them in a more unitary manner as "Social Isolation, Depression, or Rejection."

An additional behavioral dimension, Impulsivity (I), is included in the present study. Items reflecting this behavior were obtained from Rau, Mlodnosky, and Anastasiow's (1964) research regarding child rearing antecedants of

achievement behavior. These authors also modified the original PNI in their research.

Consequently, the instrument used in the present study is composed of nine behavioral dimensions reflecting various aspects of a child's peer relations. They are listed and defined as follows:

Impulsivity: includes interpersonal bothersomeness, behavior which is a nuisance or a distraction to others, hyperactivity, and an inappropriately high level of physical mobility in the classroom (Rau, Mlodnosky, and Anastasiow, 1964).

Social Isolation: a condition of being alone, unhappy, rejected by peers, self-isolated, with low self-esteem; involves withdrawal type behavior, rejection and bad feelings about one's self to the extent that one isolates oneself (Crego, 1962).

Pure Aggression: openly hostile, belligerant, bullying attitudes and behavior (Crego, 1962). The boy, by implication or act, is hurtful and destructive (Wiggins and Winder, 1961).

Aggressive Dependency: disruptive aggression and attention getting dependency, suggestion of motives for secondary gain (Crego, 1962).

Immature Dependency: clinging type dependency, baby-like behavior and demanding help (Crego, 1962).

Depression: characterized by hurt feelings, sensitivity and low self-esteem exhibited through crying (Crego, 1962).

Rejection: rejection by peers and a feeling of having been rejected (Crego, 1962).

Likability: friendly, likable, socially acceptable as a good sport or nice guy.

Total Deviance: the sum of the deviant scales, excluding likability.

For the purpose of this study, no presumptions are made for the global representativeness or inclusiveness of these dimensions. The scales described above are limited and reflect only those specific aspects of behavior subsumed in the scale or group of items.

The modified version of the PNI used in this study contains sixty items. The first four items are warm-up items, included to establish the group's attention and comprehension of the task. Remaining items were presented in a randomized order (see Appendix D).

Scoring and Treatment of Data: The present study was a cumulative or "intensity" scoring model as suggested by Wiggins and Winder (1961). This system of scoring considers a child's "social stimulus value" or "impact" as being cumulative rather than normative in nature. Consequently, an accurate characterization of a child's behavior is measured by the number of nominations he receives. It may reasonably be assumed, then, that the larger the number of peers who observe such behavior, the greater is the "intensity" of the behavior and the more "powerful" the child's "social impact." Thus, the higher the score on the deviance scale, the more socially maladjusted a child is considered. Accordingly, the higher the score a child receives on the Likability scale, the more socially adjusted or likable he is considered.

A subject's raw score on each scale is the number of nominations he receives from his classroom peers, the judges.

This raw score may range from zero to (N - 1) x (the number of items in the scale). N equals the number of boys in the class making judgments on both testing occasions. The subject does not rate himself.

Several authors (Tuddenham, 1952; Wiggins and Winder, 1961; Winder and Rau, 1962; and Raw, Mlodnosky and Anastasiow, 1964) have corrected these raw scores to insure comparability of data in different-sized classrooms.

The relation between the number of nominations a child received on each scale (first testing session) and the number of judges in his classroom was analyzed, using Spearman rank correlation coefficients (see Appendix E).

Two scales, Likability and Impulsivity, yield significant ($p < .05$) coefficients within the Normal sample. The range of remaining r's was from .08 to .29, suggesting a positive relation between the number of nominations and the number of judges in the classroom. Consequently, it was decided to convert the raw scores into corrected scores $(\frac{\text{raw score}}{\text{number judges}})$ to insure comparability.

The following analysis or treatment of the data includes, in addition to the individual Clinic groups, a combined Clinic experimental group composed of EI, EII, EIII, and the Placebo group. These four groups have two very important factors in common, distinguishing them from the Clinic Control group: essentially, they were "treated," as far as they were concerned, at the clinic, and they all

participated in a group process and activity. In addition, these experimental groups were combined to partially circumvent the psychometric problem of their small N's when analyzed individually. The combined experimental groups are hereafter referred to as the "treatment groups."

Temporal Stability of Scales: Tryon (1939) examined the stability of her "guess who" type of reputation test and found that after ten days reputations tend to remain constant. Wiggins and Winder (1961) also found "generally encouraging" test-retest coefficients after one year. In the present study, the temporal stability of our scales was assessed and the coefficients are represented in Appendix F.

It would appear that the scales used in the present study are highly stable, usually with $p < .01$ over a five-month period. One exception involves the Control group on the Likability scale. The characteristics of this group are examined in the discussion.

According to Tryon (1939), the most important factors contributing to instability in her reputation test were: (1) the extent to which each (item) enters into the spontaneous thinking of the judges, and (2) the degree to which the behavior could be observed and evaluated. It would appear, then, that the scales in the present version of the PNI are not subject to spontaneous associations or distraction. Also, the items chosen reflect real and observable behavioral variables.

RESULTS

Relevant information and corrected raw scores for each subject are indicated in Appendix A.

Median scores for all Clinic groups, on each PNI scale, of the test-retest data are shown in Appendix G.

Appendix H presents the test-retest median scores for the Normal subjects and "treatment groups," as well as the Control group.

From observation of Appendices G and H, some patterns begin to emerge. For instance, there is a tendency for groups EII, EIII, and the Placebo group, initially as well as "after-treatment," to be perceived as less deviant and more likable than either EI or C. Moreover, their test-retest medians imply that when the experimental groups (EI, EII, EIII, and the Placebo group) are combined, the Control group appears the most deviant and the least likable; the Normals appear the most socially adjusted; and the "treatment groups" are judged somewhere in between, "before-" and, especially, "after-treatment." One interesting exception to this development is the Control group's Pure Aggression scale scores. In spite of the Control group's over-all higher deviant scores, they appear to be less openly hostile, aggressive, or destructive. On the other hand,

they appear especially to manifest immature dependency, depression, and rejection.

Differences Among Groups

Submitting these scores to statistical analysis, overall differences among all Clinic groups on test-retest scale scores are indicated in Table 2.

Table 2. Summary of Kruskal-Wallis Analyses: Test-Retest Differences Among Clinic Groups (EI, EII, EIII, Cp, and C) for Each PNI Scale

PNI Scale	Before		After	
	H	P	H	P
Likability	8.34	N.S.	9.75	.05
Impulsivity	5.73	N.S.	4.50	N.S.
Social Isolation	8.00	N.S.	9.87	.05
Pure Aggression	7.57	N.S.	4.26	N.S.
Aggressive Dependency	3.68	N.S.	4.10	N.S.
Immature Dependency	7.10	N.S.	7.78	N.S.
Depression	6.53	N.S.	6.37	N.S.
Rejection	12.38	.02	10.64	.05
Total Deviance	5.35	N.S.	6.41	N.S.

With one exception, the "before-treatment" Rejection scale scores, the initial differences among the Clinic groups, represents chance variations. The analysis summarized above indicates that the Clinic groups come from the same

population and are, for all intents and purposes, comparable "before-treatment."

Mann-Whitney "U-tests" to locate specific differences between groups when the "H-value" is statistically significant, are represented in Appendix I.

The initial differences among the Clinic groups on the Rejection scale occur between the Control group and EII, and between the Control group and the Placebo group, with $p < .05$ in each case. Referring to Appendix G, it appears that subjects in the Control group were judged as being and feeling more rejected than subjects in either EII or the Placebo group "before-treatment" began.

Analysis of "after-treatment" scores (Table 2) indicates differences among groups on Likability, Social Isolation, and Rejection scales. Individual "U-tests" now locate the differences between specific groups on the Likability scale in the following manner: subjects in EII are perceived as more likable ($p < .05$) than subjects in EI, and "tend" to be more likable than the subjects in the Control group ($.10 > p > .05$). EIII also tends to be more likable than the Control group ($p = .10$).

In addition, classroom peers tend to perceive subjects in EII, EIII, and the Placebo group as less socially isolated and rejected than subjects in Control group "after-treatment" (with $p = .10$, or $.10 > p > .05$).

Generally, the "treated" subjects tend to improve on the Social Isolation scale when compared with the Control group. Rejection scale scores remain a rather complex phenomenon. While the Control group manifests an increased score on the Rejection scale, so do groups EII and the Placebo, although now the differences tend to diminish slightly. EIII drops on this scale and now tends to be lower than the Control group, "after-treatment."

Table 3 represents the differences among groups, on test-retest data, when the experimental groups (EI, EII, EIII and Cp) are combined ("treatment groups") and compared with the Control group and Normal sample.

Initial differences "before-treatment" are found among the "treatment groups" (EI, EII, EIII and Cp), the Controls, and Normal group on Likability, Dependency, and Rejection scales.

Individual comparisons "before-treatment" (see Appendix J) indicate that the Control group is perceived less likable ($p < .01$) and more deviant ($p < .01$) on Depression and Rejection, then the Normal sample. Subjects in the "treatment groups" tend to be less likable than the Normals but more likable than the Controls ($.10 > p > .05$). "Treatment group" subjects tend to be more depressed ($.10 > p > .05$) and rejected ($p < .05$) than the Normals and Controls respectively.

Table 3. Summary of Kruskal-Wallis Analyses; Test-Retest Differences among "Treatment Groups" (EI, EII, EIII and Cp), Control Group and Normal Sample for each PNI Scale

PNI Scale	Before		After	
	H	P	H	P
Likability	9.81	.02	7.20	.05
Impulsivity	2.22	N.S.	3.01	N.S.
Social Isolation	4.00	N.S.	5.54	N.S.*
Pure Aggression	2.25	N.S.	3.26	N.S.
Aggressive Dependency	2.00	N.S.	3.84	N.S.
Immature Dependency	4.21	N.S.	5.27	N.S.*
Depression	7.53	.05	6.18	.05
Rejection	7.48	.05	11.12	.01
Total Deviance	2.47	N.S.	6.34	.05

*Significant at .10 level.

"After-treatment" scores on the Likability, Depression and Rejection scales remain relatively stable. However, the Control group now exhibits increased social isolation, immature dependency and total deviancy ($p < .05$, in each case) when compared with the Normal sample.

Difference Within Groups

Another approach to the analysis of the data is to compare the test-retest difference within groups.

Significant differences were found only within the Control group. These subjects were perceived by their peers as more impulsive ($p < .01$) and aggressively dependent ($p < .05$) during the retest phase. While only two scales indicate significant change, the over-all increase in nominations on each scale is reflected in the significant difference found in the test-retest scores of the Total Deviance scale ($p < .05$). No other group or combination of groups reflected change greater than chance. This appears to support the general pattern: the Control group's behavior tends to "worsen" or become increasingly more maladjusted on most scales, while the "treatment groups" tend to remain comparatively stable in comparison.

A further analysis utilizing the corrected raw scores was done. Here the differences between "before-" and "after-treatment" scores were studied. Comparisons were made between the "treatment groups" (EI, EII, EIII and Cp), the Control group and the Normal sample. No significant differences were found for the Likability and Total Deviance scales (see Appendix K). Although the remaining scales were not statistically analyzed, observation of the data confirms the position that no group exhibited a significant difference between "before-" and "after-treatment" scores, regardless of direction, on any other scale, as a result of the treatment program.

DISCUSSION

Essentially, the focus of this study has been on exploring the benefits of group play therapy. Experimental evidence must be provided before group play therapy can become an acceptable treatment method. In this regard, we have measured several specific behavioral variables and observed changes that occurred in classroom peer relations as a result of group "treatment." Specifically, we have attempted to demonstrate:

1. Desirable results and changes in behavior and peer relations come about concomitantly with group play therapy.

2. Such changes would not have occurred in the absence of therapy.

We are also concerned with examining the often used but rarely tested statement,

3. "Treatment of the parent is essential for the treatment of the child."

The present study is exploratory in nature. We are interested in evaluating a relatively new treatment method with an instrument hitherto unused in its present form, or in assessing therapy. We are also interested in examining some traditional issues regarding child therapy. Therefore, our major concern will be with the emerging trends and patterns in our results as well as their implication.

Actually, our findings support in principle the thesis that group play therapy is beneficial. However, rather than demonstrating "desirable changes" in the treatment groups and "no change" within the untreated subjects, our results indicate that subjects in the treatment group generally remain stable, while during this same period equated subjects who were not in treatment exhibited increased social maladjustment. With one exception, behavior represented by the Pure Aggression scale, the Control group consistently exhibited increasingly greater socially deviant behavior in the classroom at a significant or nearly statistically significant level. These increases were found in seven out of eight deviant behavioral dimensions we examined: Impulsivity, Social Isolation, Aggressive Dependency, Immature Dependency, Depression, Rejection, and Total Deviance.

While the treated subjects did not show a desirable change for the better, group treatment has shown itself to be a potentially effective treatment method. With five or six months of treatment, these children stabilized or halted further deterioration of their peer relations. However, we will have to await additional evidence and demonstrations before this form of therapy can take its place as a proven treatment method.

It is interesting to note, in this regard, the behavioral stability also observed within the Placebo group. Basically, no difference was found between the Placebo group

and the groups receiving traditional group play therapy. On the basis of our research, therefore, it is impossible to determine what the beneficial or stabilizing effect is due to. Experience and studies in the past have shown that patients show improvement as a result of several factors other than therapy per se. Interaction with an accepting, benevolent adult, participation in a group activity, no matter what its theoretical orientation, or simply increased attention paid by the parents via a weekly ride to the clinic, to name a few, may have been the factors responsible in this research. It is not possible, at this time, to say that a recreation leader cannot be as effective as a therpist with a group of emotionally disturbed children.

In addition, this study offers no support for the statement, "Treatment of the parent is essential for the treatment of the child." Children in EIII, whose parents were not in treatment, exhibited similar stabilizing patterns in their peer relations as children whose parents were in treatment. Similarly, no differences were found in groups of boys whose therapist was a male or female.

However, before we draw any further conclusions we must make note of certain factors that affect the applicability and implications of our study. These factors can be characterized as aspects of the treatment and aspects of the instrument.

For example, our interpretation of the effectiveness of "treatment," therapy and recreation is limited by the fact that "treatment" extended over a period of only five months (i.e., between tests). This is a short period, indeed, for assessing the outcome of therapy. Given a longer treatment period, the results might well have been different. Under normal circumstances, treatment usually lasts for at least a year. In that time, our groups might have shown changes that more clearly confirm our tentative findings. On the other hand, differences might have developed between the therapy groups, with and without parents being treated, as well as between the therapy and Placebo group.

Another factor of apparently great influence is the therapist's level of experience. Our findings can apply only to situations involving inexperienced therapists. While they were competent child therapists on an individual basis, the requirements of a group proved to be a unique experience for all three. Similarly, all three therapists agreed that experience was necessary to deal effectively with the groups. Each therapist felt "more able to cope with the group nuances and problems" after the first few months. It was also generally conceded that with experience many problems would have been anticipated and eliminated before they developed. The types of problems encountered were not atypical, usually consisting of setting limits, handling the overly-aggressive or withdrawn child, establishing a

therapeutic rapport within the group, etc. Each therapist felt his effectiveness increased over time but that in each group there were still one or two children who were not responding to the group. Each child in the Clinic sample was recommended for additional treatment.

Additional research, over an extended period of time and with experienced group play therapists, is required to deal with these questions. However, if it is found that a recreation leader continues to be as effective as a therapist with children's groups an important contribution to the field of Mental Health may be made. The use of such personnel, along with the idea that parents do not necessarily have to always be treated along with their children, may enable clinics to see many more children without having them wait a year or more on a "treatment waiting list."

This study has attempted to improve the quality of experimental methodology found in several previous therapy studies. The design includes an equated Control group as well as a Placebo group. Nevertheless, what is often desirable regarding research procedures is not always in the best interest of the immediate patient. With few exceptions, this study was able to adhere to a high level of scientific rigor and objectivity. But it was understood that the patient's welfare was basic and all decisions had to conform to this policy.

Often the problems encountered added to the realism of the investigation. For example, attendance and motivation are difficult to control in an average clinic setting. While both parents were requested to attend the parents' group, usually only the mother participated. All treatment groups were similar in this respect, and the comparative results remain unaffected. It is likely that any future groups requiring parent participation will find the same characteristics as those in the present study. Usually the husband's job prevents his attendance, as well as masking the families' true motivation.

There are several variables regarding the instrument that may have also influenced our findings. "Before" the intervention of "treatment," only two scales (Likability and Depression) could distinguish the Normal subjects from the Clinic children. "After" treatment the PNI was able to detect differences on several scales, primarily between the Control group and the other subjects.

There are two plausible explanations. Either the PNI is a sensitive instrument and the children in January were really comparable on all deviant scales but one, or the test is insensitive and only extreme deviance, as exhibited by the Control group in May, can be detected.

The first alternative is closely related to a basic assumption in this study. We have assumed that a child with emotional problems, severe enough to be put on the Treatment

Waiting List, would also have disturbed peer relations. Trends in the median scores found in Appendices G and F would support this assumption, although the group differences are not statistically significant. On the other hand, if there were differences, and they were not detected, we might conclude that the test itself is not very sensitive. We could therefore conclude that the PNI can only assess differences between extreme levels of social adjustment, as it did during the retest phase. Only additional research and test refinement can solve this question.

However, in addition to these alternatives, several other factors are also involved in our findings. We cannot compare the PNI scores with other judgments because it is generally conceded that peer evaluations and adult observations are not equivalent. Due to the differences in frames of reference, social context, or opportunities for observing behavior, it may be the peers who are not accurately making the judgments and not the sensitivity of the instrument. As with a microscope, detection of pathological cells is also very dependent upon the observer.

In this regard, set and the child's unwillingness to make a negative judgment may be of great influence. Tryon (1939) has noted, "These (children's) opinions are not formulations made at the hour of testing; rather it seems we are tapping a reservoir of information." Perhaps it is this "reservoir" of opinions or experience with the subjects

that inhibits perceptions of improvement while facilitating observations of deteriorating behavior. That is, they can observe a "bad" child getting worse but not better. This would explain the higher temporal stability coefficients (Appendix F) found among the clinic subjects. That is, a socially deviant child has more "social impact," and thus maintains a more consistent rank within the class. While, on the other hand, a child who shows less social deviance fluctuates slightly in comparison to his peers; he is less noticeable. In other words, set may have inhibited the judges' perceptions of desirable change.

In addition, some children may have been "unwilling to nominate peers on socially undesirable items," despite Tuddenham's (1952) opinions about the advantages of a reputation test. This may especially be true when an adult authority asks them to make such a decision. The fact that the Pure Aggression scale was the only scale that did not detect any differences among any of the groups lends support to this issue. Children are taught very clearly and early in life that hostility and destructiveness are socially unacceptable. Perhaps, between the ages of nine and eleven, they are not as aware of the undesirability of other forms of deviant behavior. Consequently, their naivete may facilitate test sensitivity on some items, while their youthful experience already has an effect on others.

This study is primarily not an attempt to assess the PNI, although it was necessary to raise some issues when they appeared to have an influence upon our results. Additional research is required to answer these questions.

We have demonstrated that "group treatment" is effective, at least in stabilizing disturbed peer relationships. Because of the short "treatment" period we are, however, unable to say that we have proven the worth of this form of treatment. Similarly we have been able to offer tentative evidence questioning the value of some traditional beliefs in child therapy. This study has also shown that objective investigations may be conducted within a service-oriented clinic. We have made note of various aspects of design needed in future research.

SUMMARY

Essentially, the focus of this study has been on exploring the benefits of group play therapy. The need for objective evidence supporting this relatively new treatment method is great if it is to take its place among other acceptable child therapy techniques.

We have measured several specific behavioral variables, using the Peer Nomination Inventory, and observed changes that occurred in classroom peer relations.

Specifically we have attempted to demonstrate:

1. Desirable results and changes in behavior and peer relations come about concomitantly with group play therapy, and

2. Such changes would not have occurred in the absence of therapy.

We were also interested in examining the often used but rarely tested statement,

3. "Treatment of the parent is essential for the treatment of the child."

Thirty-three boys between nine and eleven years of age were randomly selected from the treatment waiting list of a community child guidance clinic and assigned to one of five groups. Two groups consisted of children who received

group play therapy, while their respective parents participated in a parents' therapy group. The third group of children also received group play therapy, but their parents were not treated. The fourth group was a Placebo group. Instead of a therapist, the children in this group met with a recreation leader. Their parents met together in a "leaderless" session, i.e., without a therapist or clinic staff member in attendance. Parents and children in the Placebo group participated in activities similar to the therapy groups but received no therapy in the traditional sense. Children assigned to the fifth, the control, group were held on the treatment waiting list.

"Treatment" commenced in December, 1964, and terminated for the summer in June, 1965. Trained examiners administered the PNI to the classrooms these children attended in January and May, 1965.

Scores on the following behavioral dimensions were obtained: Likability, Impulsivity, Social Isolation, Pure Aggression, Aggressive Dependency, Immature Dependency, Depression, Rejection, and Total Deviance.

Thirty "Normal" subjects were chosen at random from the total number of classroom peers. Data on these children were used for comparative and psychometric purposes.

The findings support in principal the thesis that group play therapy is effective. While the treated subjects, including the Placebo group, did not show a desirable change

for the better, their peer relations were stabilized over the treatment period; while during this same period, it was shown, the untreated subjects in the Control group exhibited increased maladjustment on all the socially deviant scales, except for Pure Aggression. No differences were found in this scale "before-" or "after-treatment."

We discussed the limitations of this study's applicability and the conclusion that could be drawn. Specific characteristics of the treatment program and the instrument were noted.

Nevertheless, there are indications that a recreation leader may be as effective as a therapist and parents may not necessarily have to be treated in order to help the child. The significance of these results may have an effect on future Mental Health programs, in that treatment waiting lists may be reduced, thereby enabling the community clinic to offer help sooner and to many more children who would not otherwise be treated.

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APPENDICES

PPENDIX A:1. Subjects' in the Clinic Sample Age, Grade, Class Size and Test-Retest Corrected Scores on Each PNI Scale

roup	Ss	B.D.	Gr.	Class Size	PNI Scales L B*	L A**	I B	I A	SI B	SI A	PA B	PA A	AD B	AD A	ID B	ID A	D B	D A	R B	R A	ED B	ED A
	1	7/54	5	9	1.00	.88	6.66	6.33	3.55	2.33	5.33	4.88	4.77	4.33	2.88	2.33	.66	.88	2.55	1.44	26.44	22.55
	2	1/54	4	9	2.66	2.11	4.55	5.11	2.33	4.11	3.00	3.33	3.66	4.88	1.88	2.33	1.44	1.88	2.33	2.77	19.22	24.44
I	3	6/54	5	12	2.16	1.75	3.16	2.16	2.08	3.33	.66	1.00	3.08	1.59	1.41	1.25	.50	1.33	.66	.75	11.58	10.58
	4	9/55	3	21	.80	1.00	1.38	.33	.52	.09	.42	.33	.42	.23	.28	.04	.33	.19	.33	.23	3.66	1.47
	5	2/55	4	11	3.00	2.36	1.90	1.90	1.27	1.45	.45	.90	.63	1.90	.63	1.09	.54	1.09	.18	.72	5.63	9.09
	6	1/53	5	13	.42	1.23	6.07	5.76	4.07	3.30	6.53	5.46	6.76	4.53	3.38	2.61	1.69	1.30	3.00	2.07	31.53	25.07
	7	3/55	4	7	1.71	3.14	4.85	5.71	.71	.57	6.00	6.00	5.14	5.14	1.85	1.85	.71	.71	.85	.85	20.14	20.85
	8	2/54	5	22	1.18	1.54	.31	1.27	.13	.50	.75	.68	.54	1.13	.13	.63	.04	.13	.00	.18	1.95	4.54
II	9	5/55	4	9	4.00	4.11	2.00	1.88	.00	.00	1.22	1.11	1.77	1.23	.44	.33	.00	.33	.22	.11	5.66	5.00
	10	12/54	4	11	3.54	2.81	4.09	3.09	2.09	1.36	3.54	1.63	4.45	3.18	1.81	1.45	.63	1.00	.63	.72	17.27	12.45
	11	4/55	3	12	.92	2.16	1.83	1.75	1.83	2.75	2.90	3.75	1.58	2.33	.91	1.83	.91	2.16	.33	1.41	10.33	16.00
	12	6/52	6	9	3.22	2.23	2.44	4.88	1.11	1.66	4.44	3.88	3.77	4.00	1.22	.88	.22	1.44	.44	.77	13.66	17.66
	13	9/54	5	9	1.33	2.77	.00	.44	.66	.11	.11	.11	.00	.33	.33	.11	.00	.00	.11	.22	1.22	1.44
	14	11/55	3	9	1.00	1.22	2.55	3.00	1.44	.55	1.44	1.77	1.33	1.77	.88	.77	.77	.33	.44	.33	8.88	8.55
III	15	1/55	4	13	3.07	3.07	1.23	.46	.92	.07	1.69	.69	1.53	1.07	.69	.15	.61	.15	.46	.00	7.15	2.61
	16	6/54	5	11	3.36	3.18	1.00	.45	.09	.09	1.45	1.27	.81	.45	.00	.09	.09	.09	.00	.09	3.45	2.54
	17	6/55	4	14	1.50	1.21	5.07	4.78	3.14	3.57	2.92	3.35	5.21	5.21	2.57	2.85	1.64	2.21	1.71	2.35	22.28	24.35
	18	1/55	4	16	.81	1.18	2.43	4.06	1.31	1.25	1.06	2.43	1.12	3.81	1.25	1.81	.18	.43	.56	1.00	7.93	14.81
	19	5/54	4	15	.53	.33	2.53	3.40	1.80	3.26	3.13	3.93	2.46	3.53	1.40	.93	.40	.53	.80	1.33	12.53	16.93
	20	7/53	6	12	2.58	3.00	1.58	2.16	.41	.83	1.33	1.33	1.50	1.33	.58	.66	1.25	1.16	.25	.33	6.91	7.83
p	21	12/52	6	18	4.50	4.05	.83	.94	.05	.11	1.72	1.66	.72	.61	.05	.16	.00	.05	.00	.00	3.38	3.55
	22	12/55	2	11	.63	.81	2.00	2.36	2.45	1.36	2.18	2.09	4.09	1.45	1.54	.81	1.36	.90	1.00	.72	15.63	9.72
	23	6/53	5	9	2.33	1.55	1.66	2.55	.22	.22	2.66	4.22	1.44	2.00	.22	1.00	.55	.11	.00	.55	6.77	10.66
	24	9/55	3	6	2.00	2.00	.16	.50	1.16	.66	.33	.83	.33	1.66	.83	.50	.16	.16	.33	.66	3.00	5.00
	25	3/53	6	2	.00	2.50	7.00	9.00	.00	1.00	7.50	8.00	7.00	7.50	1.50	1.50	.50	.50	1.50	2.00	25.00	32.00
	26	6/54	5	4	1.25	3.00	2.00	4.50	1.25	3.50	1.75	1.75	1.75	1.25	1.50	1.50	1.25	2.50	1.50	1.75	11.00	16.75
	27	8/55	3	21	.76	.47	1.57	1.47	.66	.52	.71	.90	.71	.95	.28	.61	.14	.38	.33	.38	4.71	5.23
	28	11/55	4	13	1.15	1.07	3.00	3.15	3.38	3.61	3.00	2.61	3.00	3.38	2.38	2.23	2.00	2.53	1.38	1.53	17.84	19.07
	29	6/55	4	13	.76	.38	8.00	8.38	2.61	5.00	7.00	7.38	7.00	7.46	3.23	4.00	1.69	3.15	2.92	3.07	31.00	38.46
	30	9/53	5	14	.21	.64	6.14	6.14	3.64	2.28	5.00	3.00	5.00	5.71	2.92	2.57	2.14	1.14	3.28	1.92	26.78	22.78
	31	11/54	4	16	2.81	1.81	1.06	1.12	5.50	4.62	1.25	1.18	1.25	1.25	2.00	2.31	1.25	2.18	1.62	2.68	11.12	15.37
	32	12/55	4	16	.93	.50	.68	.87	.56	.25	.68	1.06	.68	.68	.31	.12	.43	.06	.25	.12	3.68	3.18
	33	4/55	4	13	2.30	2.46	1.61	2.07	3.00	4.07	1.46	.61	1.46	2.00	2.00	1.92	1.23	1.23	1.84	1.84	11.76	13.76

*
**before
after

APPENDIX A:2. Subject's in the Normal Sample Grade, Class Size and Test-Retest Corrected Scores on Each PNI Scale

SS	Gr	Class Size	PNI Scales L B	L A	I B	I A	PA B	PA A	SI B	SI A	AD B	AD A	ID B	ID A	D B	D A	R B	R A	ED B	ED A
1	4	11	.81	1.63	6.18	2.45	5.27	2.90	3.36	.36	5.00	1.45	2.54	.54	1.63	.27	1.72	.72	25.72	8.72
2	4	11	3.72	2.27	2.63	3.36	3.81	5.54	2.00	1.63	3.18	3.00	1.09	1.45	1.00	.90	.54	.81	14.27	16.72
3	4	14	1.14	3.50	.57	1.00	.42	.35	.78	.85	.71	.64	.57	.50	.21	.07	.78	.28	4.07	3.71
4	4	14	3.00	3.28	1.42	2.50	1.00	1.71	.35	.14	1.50	2.64	.35	.71	.00	.14	.00	.07	4.64	7.92
5	6	9	4.66	3.88	1.00	2.11	.22	1.55	.00	1.22	1.11	1.77	.66	1.11	.00	.77	.33	.55	3.33	9.11
6	6	2	5.50	6.50	.50	2.00	1.00	1.00	.00	.00	2.00	1.50	.00	.00	.00	.00	.50	.00	4.00	4.50
7	4	7	1.71	1.57	1.42	3.00	.42	1.71	1.00	2.42	.57	2.28	.85	2.14	.14	1.00	.28	1.57	4.71	14.14
8	5	4	2.75	6.25	7.25	8.50	6.75	5.75	1.25	1.75	5.50	4.50	2.25	2.75	.50	.75	1.00	.25	19.50	24.25
9	5	4	4.75	4.75	1.00	3.00	1.75	4.00	.25	.75	.75	1.25	1.00	1.00	.00	.00	.25	.00	5.00	10.00
10	4	9	3.00	1.88	3.22	3.11	1.33	1.11	3.44	3.55	3.55	3.22	2.55	3.22	2.22	1.66	2.88	2.66	19.22	18.55
11	5	12	1.50	.00	5.83	4.58	3.83	3.00	2.08	1.50	4.41	4.00	2.58	2.75	2.00	3.08	1.75	1.58	22.50	20.50
12	5	12	4.58	3.91	.16	.16	.00	.16	.41	.25	.25	.16	.08	.08	.00	.00	.16	.00	1.08	.83
13	3	12	1.25	2.00	.42	1.83	1.08	1.41	.83	.91	1.16	1.83	.33	.58	.25	.83	.41	.16	4.50	7.58
14	3	12	1.00	1.75	1.50	.83	1.25	.91	.91	.50	.66	.75	.41	.41	.16	.58	.16	.16	5.08	4.16
15	3	12	2.16	4.33	.41	.91	.83	1.00	.50	.50	.83	1.16	.41	.41	.08	.75	.08	.25	3.16	5.00
16	3	21	2.61	2.09	1.61	.71	2.23	.23	.47	.23	.71	.85	.38	.14	.23	.09	.28	.14	5.95	2.43
17	5	9	1.44	1.77	.44	1.11	.55	2.66	.44	.22	.11	.44	.11	.33	1.00	.00	.66	.33	3.33	5.11
18	4	13	3.61	3.15	1.00	.15	.15	.00	.23	.30	.30	.15	.07	.07	.00	.07	.23	.00	1.92	.76
19	4	13	2.30	2.23	4.30	3.61	2.00	1.53	.46	.38	3.84	3.46	1.61	1.46	.15	.15	.23	.23	12.61	10.84
20	6	12	2.16	4.00	4.41	4.00	3.00	2.58	.75	1.16	3.83	3.58	1.41	1.25	.33	.25	.25	.25	14.00	13.08
21	6	12	1.75	2.91	5.25	5.66	2.00	1.58	2.08	1.75	4.58	3.75	2.75	1.50	.75	1.33	.66	.50	18.08	16.08
22	4	13	2.92	2.92	.30	.23	.23	.07	1.46	1.30	.23	.92	.69	.30	.30	.38	.61	.84	3.84	4.07
23	5	14	1.14	.85	1.07	1.14	1.28	.50	1.07	.57	1.21	.64	.42	.07	.28	.07	.42	.42	5.78	3.42
24	4	16	1.93	.93	.87	1.50	.18	.18	1.18	1.93	.56	1.18	.43	1.00	.37	.81	.43	1.18	4.06	7.81
25	6	18	2.83	1.61	3.38	3.44	2.72	4.00	.33	.77	2.77	2.38	1.11	1.16	.22	1.11	.11	.44	10.66	13.33
26	4	13	2.23	1.84	1.46	1.69	3.53	3.00	.61	.53	2.00	1.76	.76	.38	.23	.46	.30	.15	8.92	8.00
27	5	11	3.36	2.90	.36	.18	.36	.09	.72	.45	.27	.27	.54	.27	.00	.00	.00	.27	2.27	1.54
28	4	16	1.06	1.12	.93	.12	.87	.06	1.93	1.00	.31	.06	.37	.31	.68	.25	1.25	.68	6.37	2.50
29	4	13	2.69	3.92	4.23	1.15	1.61	.76	1.00	1.00	3.15	1.15	1.07	.15	.30	.53	.23	.15	11.61	4.92
30	5	13	4.76	5.00	2.76	.92	3.15	1.07	.69	.61	2.30	.76	.61	.53	.30	.23	.30	.30	10.15	4.46

APPENDIX B. Instructions Read to the Class by the Test Administrator.

Directions to be read to the class:

Do not open the booklet until I tell you about it. Some people are interested in what boys do and they want to know how many boys here do the same sorts of things. So they have written down lots of things that boys do. You can check which boys in your class do these things. You just guess the best you can.

Now turn to the 1st page, see the names in the columns at top. The girls will not find their names because this is to find out about what boys do. Now, boys draw a line through your name. You need not describe yourself.

Now see the number 1. After the number 1 it says, "He is absent from school a lot." Now look across the names, who is absent from school a lot? Put a check mark under his name. Who else is absent from school a lot? Put a check mark under his name.

Now look to number 2. He is pretty short. Put a check mark under the name of every boy who is pretty short. If a boy is pretty short put a check mark under his name, on line two.

Are there any questions. Go on to the next line (the item is read aloud by administrator). Check all the names you think fit. Try to fill in at least one name for each sentence. Guess Who. Now let's go on to the next (items are read aloud from here on).

APPENDIX C: A Sample Page of the PNI

	Tom Smith	Dick Brown	Harry Black	John Jones	James Doe	David White	Bob Burns	
1. He's absent from school a lot.								
2. He's pretty short.								
3. He's always losing things.								
4. He's a fast runner.								
5. He pushes when he's in line.								
6. When he doesn't play, he gets real mad.								

APPENDIX D: The PNI Items: Their Randomized Order and the Scales They Belong To.

1. He's absent from school a lot. } Warm Up
2. He's pretty short. } Warm Up
3. He's always losing things. } Warm Up
4. He's a fast runner. } Warm Up
5. He pushes when he's in line. (I)
6. When he doesn't get his way, he gets real mad. (PA)
7. He doesn't play. (SI)
8. He has lots of friends. (L)
9. He's a nice guy. (L)
10. He tries to get other people in trouble. (PA)
11. He makes fun of people. (PA)
12. He's a good sport. (L)
13. Someone makes fun of him and he starts crying. (D)
14. He says he can't do things. (SI)
15. He can't seem to sit still. (I)
16. He's always playing the clown and wants everybody to laugh at him. (AD)
17. He's sort of trouble. (I)
18. He seems to think he's nobody. (SI)
19. He's the last person picked. (SI)
20. He always messes around and gets in trouble. (AD)
21. Hardly any boy likes to play with him. (R)
22. He wants to show off in front of kids. (AD)
23. I'm one of his friends. (L)
24. He says he can beat anybody up. (PA)
25. He wiggles around. (I)
26. On the playground he just stands around. (SI)
27. He needs attention very badly. (ID)
28. He talks all the time. (I)
29. He cries when he doesn't do something right. (D)
30. He makes a lot of noise. (I)
31. He is one of the kids I like. (L)
32. He just can't stand anybody laughing at him. (AD)
33. He just acts sort of babyish all the time. (ID)
34. He's a good friend of mine. (L)
35. He cries if you hurt his feelings. (D)
36. He's sort of unhappy. (SI)
37. He likes to pick on little kids. (PA)
38. He's real wild. (PA)
39. He's always playing by himself. (SI)
40. He feels left out. (R)
41. He tries hard to be popular. (AD)
42. He tries to get attention. (AD)
43. He acts as if he's sort of a baby. (ID)
44. He's always acting up. (AD)
45. He's goofing off all the time. (I)
46. He's plain mean. (PA)
47. He talks to the teacher all the time. (ID)

48. He doesn't have very many friends. (R)
49. He's always calling people names. (I)
50. He's sort of ignored. (R)
51. He just seems sort of lost. (SI)
52. He cries when he doesn't know how to play. (D)
53. He feels a lack of attention. (ID)
54. He doesn't pay attention to the teacher. (AD)
55. No matter what he does it's wrong. (D)
56. If someone gets in his way he shoves them out of the way. (PA)
57. All the kids like him. (L)
58. He is not interested in anything. (SI)
59. He seems to have a chip on his shoulder. (PA)
60. He makes it so other people can't think. (I)

APPENDIX E: Relation Between Number of Judges and Number of Nominations Received on Each PNI Scale

PNI Scales	Sample	
	Clinic (N=33)	Normal (N=30)
	r	r
Likability	.21	.43*
Impulsivity	.26	.31*
Social Isolation	.29	.27
Pure Aggression	.10	.24
Aggressive Dependency	.08	.16
Immature Dependency	.16	.11
Depression	.21	.15
Rejection	.19	.19
Total Deviance	.20	.28

*Significant at .05 level.

APPENDIX F: Temporal Stability Coefficients Over a Five-Month Period for the Total Clinic Sample, the Treatment Groups (EI,EII,EIII and Cp), Control Groups, and Normal Sample for Each PNI Scale

PNI Scales	Sample: Total Clinic (N=33)	Treatment Groups (N=23)	Control Group (N=10)	Normal Sample (N=30)
	r	r	r	r
Likability	.75**	.85	.36***	.65
Impulsivity	.92	.88	.98	.68
Social Isolation	.81	.72	.66*	.59
Pure Aggression	.87	.87	.77	.68
Aggressive Dependency	.82	.78	.82	.77
Immature Dependency	.89	.84	.93	.72
Depression	.75	.68	.74	.39*
Rejection	.86	.75	.83	.55
Total Deviance	.91	.89	.93	.68

*Significant at .05 level, one-tailed.
**Significant at .01 level, one-tailed (all cells except otherwise noted).
***Nonsignificant.

APPENDIX G: Test-Retest Median Scores for Each Clinic Group on Each PNI Scale

PNI Scales		Clinic Groups EI	EII	EIII	Cp	C
Likability	Before	1.58	1.71	2.28	1.57	1.04
	After	1.49	2.81	2.50	1.36	1.44
Impulsivity	Before	3.85	2.00	1.83	2.04	1.80
	After	3.63	1.88	1.73	2.45	2.61
Social Isolation	Before	2.20	.71	1.01	.86	1.93
	After	2.81	.57	.33	1.04	2.89
Pure Aggression	Before	1.83	2.90	1.57	1.95	.92
	After	2.16	1.63	1.52	2.26	1.46
Aggressive Dependency	Before	3.37	1.77	1.43	1.47	1.60
	After	3.11	2.33	1.42	1.72	1.83
Immature Dependency	Before	1.64	.91	.78	.91	1.75
	After	1.79	1.45	.46	.87	1.71
Depression	Before	.60	.63	.41	.47	1.24
	After	1.19	.71	.24	.48	1.18
Rejection	Before	1.49	.33	.44	.40	1.50
	After	1.09	.72	.27	.63	1.79
Total Deviance	Before	15.40	10.33	8.01	7.42	11.44
	After	16.56	12.45	5.58	10.19	16.06

APPENDIX H. Test-Retest Median Scores for "Treatment Group," Control Group and Normal Sample

PNI Scales		Clinic Groups: Treatment Groups	Control Groups	Normal Sample
Likability	Before	1.71	1.04	2.46
	After	2.11	1.44	2.58
Impulsivity	Before	2.43	1.80	1.42
	After	2.36	2.61	1.76
Social Isolation	Before	1.27	1.93	.76
	After	1.25	2.89	.76
Pure Aggression	Before	1.72	.92	1.26
	After	1.77	1.46	1.26
Aggressive Dependency	Before	1.58	1.60	1.18
	After	1.90	1.83	1.35
Immature Dependency	Before	.91	1.75	.24
	After	.93	1.71	.54
Depression	Before	.55	1.24	.24
	After	.71	1.18	.32
Rejection	Before	.44	1.50	.32
	After	.72	1.79	.28
Total Deviance	Before	8.88	11.44	5.43
	After	10.58	16.06	7.74

APPENDIX I: Mann-Whitney U-tests: Individual Comparisons to Determine Significant Differences Among Clinic Sample Groups, When H-test was Significant

Likability - After

	EII		EIII		Cp		C	
	U	P	U	P	U	P	U	P
EI	4	.05	9	NS	17	NS	28	NS
EII			11	NS	8	NS	9	.10-.05
EIII					12	NS	4	.10
Cp							26.5	NS

Social Isolation - After

	EII		EIII		Cp		C	
	U	P	U	P	U	P	U	P
EI	6	NS	9.5	NS	8	NS	25	NS
EII			13.5	NS	13.5	NS	11	.10
EIII					12.5	NS	12	.10-.05
Cp							16	.10

Rejection - Before

	EII		EIII		Cp		C	
	U	P	U	P	U	P	U	P
EI	7.5	NS	9	NS	9	NS	30	NS
EII			14.5	NS	15	NS	8	<.05
EIII					18	NS	31	NS
Cp							9.5	<.05

Rejection - After

	EII		EIII		Cp		C	
	U	P	U	P	U	P	U	P
EI	7.5	NS	9	NS	9	NS	27	NS
EII			12	NS	15.5	NS	10	.10-.05
EIII					14	NS	13	.10-.05
Cp							12	.10-.05

APPENDIX J: Mann-Whitney U-Tests: Individual Comparisons to Determine Significant Differences Among the "Treatment Groups," Control Group and Normals, When H-Test was Significant

Likability - Before

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.6876	.10-.05	2.968	< .01
Treatment Groups			1.8400	.10-.05

Likability - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.809	.10-.05	2.234	< .02
Treatment Groups			1.470	NS

Social Isolation - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	.6014	NS	2.1875	< .05
Treatment Groups			1.882	.10-.05

Immature Dependency - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.184	NS	2.267	< .05
Treatment Groups			1.294	NS

Depression - Before

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.706	.10-.05	2.500	< .01
Treatment Groups			1.450	NS

Depression - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.766	.10-.05	2.171	< .05
Treatment Groups			1.411	NS

Rejection - Before

	Treatment Groups		Control	
	Z	P	Z	P
Normals	.5206	NS	2.7500	< .01
Treatment Groups			2.019	< .05

Rejection - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.6600	.10-.05	3.062	< .01
Treatment Groups			2.0780	< .05

Deviance - After

	Treatment Groups		Control	
	Z	P	Z	P
Normals	1.5710	NS	2.2970	< .05
Treatment Groups			.8870	NS

APPENDIX K: Summary of Kruskal-Wallis Analyses: Comparison of Test-Retest Change Among the "Treatment Groups" (EI,EII,EIII,Cp), Control Group and Normal Sample* for Likability and Total Deviance Scales

PNI Scale	H	P
Likability	3.30	N.S.
Total Deviance	1.18	N.S.