

The Efficacy of Play Therapy and Filial Therapy with Children: Summary of the Meta-Analytic Findings

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Child therapists are ethically-bound and accountable to their clients to provide treatments that are most effective; however they have received little help from the scientific community to guide their efforts. Historically, the efficacy of psychological interventions for children has been a basis for controversy and debate among mental health professionals. Not until recently has this issue received national attention, with the U. S. Public Health Service (2000) emphasizing the critical need for early intervention and empirically-validated treatments that are designed specifically to meet children's unique needs.

Play therapy is a developmentally responsive modality uniquely suited for children to help prevent or resolve psychosocial difficulties and achieve optimal growth and development. Developmentally, children lack the cognitive ability to meaningfully communicate their thoughts, feelings, and experiences through the abstract means of verbal language. The concrete objects (toys, art, etc.) and other play-based experiences provided in play therapy afford children an age-appropriate and emotionally safe means to express their difficult experiences. For these reasons, play therapy is currently practiced by thousands of clinicians to treat their young clients; however the scientific community has been less enamored, criticizing this modality's lack of an adequate research base to support its practice. Proving the effectiveness of play therapy to third party payors, the legal community, mental health professionals, school administrators, parents, and critics of play therapy is necessary for the acceptance of play therapy as a viable intervention for the growing number of children experiencing social-emotional and/or behavioral difficulties that need responsive services.

Meta-analytic methodology allows the researcher to analyze the effects of a treatment, in this case play therapy, by combining the results of individual studies, thus overcoming the limitations of small sample sizes often found in outcome research in the mental health field. The authors conducted a meta-analysis of 93 controlled outcome studies, published 1953 to 2000, to assess the overall efficacy of play therapy and to determine factors that might impact its effectiveness. The overall mean treatment effect was 0.80 standard deviations, considered a large treatment effect. Further analysis revealed that effects were more positive for humanistic than for non-humanistic treatments, and that utilizing parents in their child's play therapy produced larger overall treatment effects than play therapy conducted by a professional. Play therapy appeared equally effective across age, gender, presenting issue, and clinical vs. psychotherapy, and further suggest that doubts about the efficacy of play therapy can be laid to rest.

Definitions:

Play Therapy: a developmentally sensitive therapeutic modality in which a trained play therapist uses the therapeutic powers of play to help clients prevent or resolve psychosocial difficulties and achieve optimal growth and development (Association for Play Therapy, 2003)

Filial Therapy: a therapeutic intervention that can help children by teaching parents (and other paraprofessionals such as teachers) basic child-centered play therapy principles and methods to use with their children (Guerney, B., Guerney, L., & Adronico, 1966; Landreth, 1991/2002; Landreth & Bratton, 2006). Parents learn to become a constructive force for change in their children's behaviors and attitudes by utilizing basic play therapy skills in once-a-week 30-minute play sessions with their children. Throughout the process, parents receive on-going training and direct supervision from a trained play therapist.

Meta-Analysis: combines the results of individual studies by determining the amount of change of individuals in the treatment group versus those in the control or comparison group and then determining the average amount of change in a set of efficacy studies (Prout & Prout, 1998). Meta-analysis overcomes the limitations of small sample sizes and conflicting findings that may be attributed to small samples and allows broader reaching scientific discovery and more generalized conclusions. An effect size is calculated and reported in a d score which is essentially the average amount of change in standard deviation units achieved by individuals in a treated group versus the change achieved by members of a control/comparison group for a particular study. An effect size of $d + 1.0$ represents 1 standard deviation.

Descriptive Data

Total Studies	93
Total Subjects	3263
Mean # of Sessions	16
Mean Age	7.0
Gender of Subjects	2/3 male, 1/3 female

Results

EFFECT SIZE FOR THE TOTAL (93 STUDIES)	ES=.80 P<.001
* Effect Size for Play Therapy by Professional (n=67)	ES=.72 p<.05
* Effect Size for Play Therapy by Paraprofessionals (n=26)	ES=1.05 p<.05
* (Filial therapy studies conducted by parents, teachers, mentors – mostly parents)	
* Effect Size for the <u>Parent only</u> Filial Therapy (n=22)	ES=1.15 p<.05

Interpretation of Effect Size

According to Cohen (1977), $d = .2$ represents a small effect size; $d = .5$ represents a medium effect size; and $d = .8$ represents a large effect size; therefore, the results of the meta-analysis of play therapy outcome research studies (n=94) reveal a large treatment effect for children receiving play therapy intervention when compared to children receiving no treatment or a non-play therapy intervention.

Implications for Practice and Further Research

- Play therapy is an effective intervention for a broad range of children's problems – across both behavioral and humanistic schools of thought, in various settings, across modalities, across age and gender. However, better designed studies are needed that examine the questions of, is play therapy more or less effective with regard to gender, age, and presenting issue? In addition, an investigation of different theoretical and technical approaches to play therapy and effect on children's outcome related to the above factors would better address the age-old question, which treatment is most effective with which clients, under what circumstances?
- These results strongly point to a greater utilization of Filial Therapy over Play Therapy: Training parents and involving them in their child's play therapy is highly effective, and also has the potential benefit of preventing more severe and costly problems across the lifespan. However, is filial therapy the treatment of choice for all children presenting for play therapy? Studies comparing filial therapy to play therapy by a professional with the same populations are needed to determine if the factors of presenting issue and child's age influence outcome.
- The identified crises in children's mental health services, including the need for more developmentally-responsive interventions that involve the family, provides a sense of urgency for play therapists to utilize these research findings to educate other mental health professionals, third party payors, the legal community, school administrators/teachers and parents to ensure that more children and families receive the help they need.

Note: This information provides a brief summary of the following publication:

Bratton, S., Ray, D., Rhine, T., & Jones, L. (2005). The efficacy of play therapy with children: A Meta-analytic review of the outcome research. *Professional Psychology: Research and Practice*, 36(4), 376-390.

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What the Research Shows about Play Therapy

The following information was presented at the Annual Conference of the Association for Play Therapy (APT) in October, 1999 in a sectional titled, "Update: What the Research Shows about Play Therapy." The workshop intended to present a synopsis of outcome studies regarding play therapy and filial therapy. This particular presentation is part of an on-going process to analyze the effectiveness of play therapy. Hence, the authors have not developed any final conclusions regarding the research. As part of the presentation, the authors focused on significant findings regarding play therapy effectiveness. Over the past two years, the authors searched many databases to find the 82 studies included in this summary.

A word of caution is offered when reviewing the following summaries. Some studies may have noted a significant change on a particular variable, but did not find any differences on another variable. In this case, the authors reported only the statistics that were significant. For example, in a study that found significant decreases in social maladjustment after play therapy treatment but no statistical differences in anxiety, the authors may have reported only the significance of the social maladjustment. We used this method due to space limitations and a focus on the effectiveness of play therapy treatments.

We are committed to the dissemination of play therapy research and quite enthusiastic about being able to publish our findings on the APT website. However, this information is copyrighted and should be used for educational purposes only. We encourage you to access this information to educate parents, schools, judicial systems, mental health professionals, and any other populations with whom you might work.

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Summary Table of Research Issues (included 8 or more studies)

Social Maladjustment	12 of 14 studies measured some change
Conduct Disorder/Aggression/Oppositional	8 of 8 studies noted decrease in aggression or increased expression
School Behavior	6 of 8 noted decrease in behavioral disturbances, 1 increase in social maturity, 1 increase in IQ
Emotional Maladjustment	9 studies – 2 increased reading, 1 increased IQ, 2 had low success, 4 improved personality adjustment
Anxiety/Fear	9 studies – 7 of 9 studies showed decrease in anxiety
Self-Concept	9 studies – 8 of 9 showed significant improvement – 3 of 9 showed significant decrease in control group
Intelligence	10 studies – 3 increased IQ, 3 increased on other related measures, 4 found no significant changes
Mentally Challenged	8 of 8 studies showed improvement in some area
Physical/Learning Disability	8 of 8 studies showed improvement in some area

Summary of Outcome Studies on the Effectiveness of Play Therapy (1942 to Present)

<u>Research Issues</u>	<u>Page</u>
Social Maladjustment	4
Withdrawn Behavior	5
Conduct Disorder/Aggression/Oppositional Behavior	6
Maladaptive School Behavior	7
Emotional Maladjustment	8
Anxiety/Fear	9
Autism/Schizophrenia/Psychoticism	10
Multiculturalism	11
Self-Concept	11
Intelligence	13
Reading Difficulties	14
Mentally Challenged	15
Physical/Learning Disability	16
Speech/Language Problems	17
Sexual Abuse/Domestic Violence	18
Depression	18
Post-Traumatic Stress Disorder	19
ADHD/Locus of Control	19
Divorce	20
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AUTHORS	PARTICIPANTS	FINDINGS
	78 - Ages 5 to 9	Author found that eight weeks of group play therapy resulted in a significant increase in willingness to try new tasks as measured by the Classroom Behavior Rating Scale in comparison to an Adlerian teaching intervention.
Cox (1953)	52 – Ages 5 to 13	Author found that after 10 weeks of individual play therapy and a 13 week follow-up period that young children (3 yrs.) showed significant improvement in social adjustment on TAT. Older children (13 yrs.) showed significant improvement on sociometric measure, as compared to control group.
Elliott & Pumfrey (1972)	28 – Ages 7 to 9	Authors found that after 9 sessions of non-directive group play therapy, boys rated no differences on social adjustment or reading attainment, as measured by Bristol Social-Adjustment Guide Burt Word Reading Test, and Ballard One-Minute Reading Test, than a control group receiving no intervention. However, interaction was demonstrated between improvement and selection criteria such as IQ, emotional disturbance which improved on social adjustment with therapy, and restlessness which deteriorated in social adjustment with therapy.
Fleming & Snyder (1947)	46 – Ages 8 to 11	Authors found that after 12 nondirective group play therapy sessions, girls' group showed significant improvement in personality adjustment according to the Rogers Personality Test, as compared to control group.
House (1970)	36 - 2 nd graders	Author found that after 20 sessions of child-centered group play therapy, socially maladjusted children significantly increased their self-concept according to the Scamin Self-Concept Scale, while members of the control group decreased in self-concept.
Hume (1967)	20 – 1 st to 4 th graders	Author found that after 6 months of weekly child-centered individual and group play therapy sessions with or without teacher in-service focusing on creating growth conditions in the classroom, play therapy participants showed considerable improvement in their behavior in school, at home and in play therapy by end of school year and at follow-up. Play therapy appeared to be most effective when combined with teacher in-service yet in-service appeared to be only partially helpful without play therapy.
LeCroy (1987)	11 – Ages 8 to 11	Author compared using a social skills board game, "Social Skills Game" in group counseling with social skills group counseling without the game. Both treatment groups were effective with no significant difference between the groups in assertiveness and aggression as measured by the Children's Action Tendency Scale.
Pelham (1972)	52 – Kindergartners	Author found both 6-8 individual self-directive play therapy sessions and 6-8 self-directive group play therapy sessions resulted in positive gains in social maturity of kindergartners as measured by Missouri Children's Picture Services and Children's Self-Social Constructs Tests. In addition, teacher ratings of behavior indicated that children participating in play therapy improved significantly in classroom behavior as compared to control group.
Schiffer (1966)	63 – Ages 9 to 11	Author found that after six and one-half months of weekly sessions comparing child-centered group play therapy combined with parent group therapy with group play therapy without parent therapy, recreation play group with parent group, and control groups, children in the treatment group generally remain stable, while during the same period equated subjects who were not in treatment exhibited significantly increased social maladjustment as measured by the Peer Nomination Inventory and Hartshorne and May's Guess-who technique. Children who participated in play therapy without parent involvement exhibited similar stabilizing patterns in their peer relations as children whose parents were in treatment.
Schmidtchen & Hobrucker (1978)	50 – Ages 9 to 13	Authors found that after receiving client-centered play therapy, children made significant improvement in social and intellectual flexibility as well as decreased in anxiety and behavior disorders as compared to two untreated control groups.
Shmukler & Naveh (1985)	116 – Ages 2 to 6	Authors found that economically disadvantaged children who participated in structured and unstructured play training demonstrated significant increases in the areas of imaginative play behavior, positive emotionality, concentration, social interaction, cooperation, verbal fluency, flexibility and originality, imaginativeness of stories, and verbal IQ. No differences were found for the placebo control group and the non-intervention control group.

Thombs & Muro (1973)	36 - 2 nd graders	Authors found that after 15 sessions of relationship theory-based group play therapy, children showed a greater positive change in social position than those who participated in the alternate verbal group counseling experimental group. Both experimental groups made significant gains in sociometric status as compared to control group.
Trostle (1988)	48 – Ages 3 to 6	Author found that after 10 sessions of non-directive group play therapy, bilingual Puerto Rican children showed significant improvement compared to control group on self-control, and the higher developmental level play behaviors of make-believe and reality as measured by Self-Control Rating Scale and Play Observation Scale. Boys who participated in the experimental group became more accepting of others than boys or girls in the control group as measured by Peer Rating Scale. The control group participated in unstructured free play sessions as opposed to group play therapy sessions.
Yates (1976)	53 - 2 nd graders	Authors found that when comparing children who participated in 8 weeks of a nondirective play therapy experimental group, structured teacher consultation experimental group, or control group, there were no statistically significant differences between experimental groups or control group. An overall trend toward gain in socio-metric status was apparent in all groups.

RESEARCH ISSUE: WITHDRAWN BEHAVIOR		
AUTHORS	PARTICIPANTS	FINDINGS
Clement, Fazzone, & Goldstein (1970)	16 - 2 nd and 3 rd graders	Authors compared boys who were socially withdrawn and maladjusted in 4 groups of token play group receiving tangible reinforcements when social-approach behavior occurred, verbal play group receiving verbal reinforcements by therapist for social-approach behavior, Control Group A placed as group in play room with no therapist and Control Group B placed in individual play rooms by themselves for 20 sessions in all groups. The token group changed more than the verbal group; the verbal group changed more than Control Group A; Control Group A changed more than Control Group B; and Control Group B showed no change on the objective measures of California Test of Personality and Devereux Child Behavior Rating Scale. At 1 year follow-up, token group continued to be better adjusted than the verbal and control groups.
Clement & Milne (1967)	11 - 3 rd graders	Authors compared boys who were socially withdrawn and maladjusted in 3 groups of token nondirective play therapy group, verbal nondirective play therapy group, and control group (play without therapist). Mothers of all 3 groups were in guidance simultaneously with play sessions. Both treatment groups achieved statistical significance in area of social adjustment as measured by Bender-Gestalt, California Test of Mental Maturity, and Rorschach. Token group improved in verbal communication, time spent in social play, and proximity; and also improved in problem behaviors. Verbal group showed less dependence on therapist and increased verbal communication with peers, increase in proximity, while social play decreased. No change was shown in grades or anxiety but they were not identified as problems prior to therapy.
Seeman, Barry, & Ellinwood (1964)	16 - 2 nd and 3 rd graders	Authors found that children maladjusted on aggression and withdrawal who participated in a median length of 37 nondirective play therapy sessions showed marginally significant improvement on teacher rating scale and by follow-up, all children in aggressive group rated below the average child, as compared to a control group. On the Tuddenham Reputation Test, experimental group showed favorable changes in socio-metric gains.

RESEARCH ISSUE: CONDUCT DISORDER/AGGRESSION/OPPOSITIONAL BEHAVIOR		
AUTHORS	PARTICIPANTS	FINDINGS
Beers (1985)	20 – Ages 4 to 9	Author found that in comparing intact families, with at least one child diagnosed as oppositionally defiant, participating in play therapy and parent counseling, focused videotape feedback group (children play with parents then reviewed by therapist), or control group, all groups demonstrated decrease in perceived problems and intensity of problems. According to the Eyberg Child Behavior Inventory and Interpersonal Behavior Constructs Scale, non-acceptance behavior in parent-child interactions decreased significantly for play therapy groups after 8 weeks of treatment but some positive gain was lost at follow-up. Videotape feedback group had a statistically significant increase in non-acceptance behavior at both mid-treatment and follow-up. Play therapy group increased at statistically significant levels in the amount of time a parent and child worked together as compared to a video group. Shared conversations significantly increased in the videotaped feedback group while play therapy group showed a slight decrease.
Dogra & Veeraraghavan (1994)	20 - Ages 8 to 12	Authors found that children diagnosed with aggressive conduct disorder and their parents who received 16 sessions of nondirective play therapy and parental counseling showed significantly lesser extra punitive responses and significantly higher impunitive and need-persistence responses as compared to the control group. According to the Picture-Frustration Test and Child Behavior Rating Scale, the treatment group showed significant positive change on adjustment to self, home, school, social, physical and personality total adjustment. Aggression in experimental group was reduced in fighting and bullying, violence against adults, obedience, temper tantrums, parental use of corporal punishment, parental neglect, and child's strong dislike for school.
Hannah (1986)	10 - Ages 4 to 6	Author found in a time-series experimental design that eight of nine children receiving play therapy over an 11 week period, exhibited a significant and positive change in their targeted behavior, such as verbal social interactions, off-task behavior, aggressive acts. One subject acted as a nonintervention comparison subject and showed a significant increase in undesirable behavior.
Johnson & Nelson (1978)	14 – Ages 12 to 15	Authors found that male juvenile delinquents who participated in counseling involving the use of the role-playing simulation game, as opposed to counseling sessions without the game, demonstrated an increased willingness to communicate in general, as well as with their counselor. Communication with control group worsened with a decreased willingness to communicate.
Kaczmarek (1983)	38 - mother-child dyads	Author found that of children exhibiting behavioral excesses who participated in play technology (training for mothers via a group setting to act as play facilitators for their own children), individual play therapy, or unstructured play, individual play therapy and unstructured play significantly reduced the daily group total behavioral counts. Play technology reduced the daily group total behavioral counts but not at a significant level. Individual play therapy appeared to produce positive results when the child needed to release anger and negative emotions. Play technology helped to resolved power struggles between mothers and children. Unstructured play aided minor developmental issues.
Nahme-Huang, Singer, Singer, & Wheaton (1977)	36 – Ages 7 to 14	Authors compared three groups of aggressive, destructive children over six weeks; movement workshop group, clown group, and control group. Training in either treatment group resulted in statistically reliable increments in the spontaneous imaginativeness, liveliness and positive affect, and cooperativeness. However, statistical significance waned at post-training testing.
Seeman, Barry, & Ellinwood (1964)	16 - 2 nd and 3 rd graders	Authors found that children maladjusted on aggression and withdrawal who participated in a median length of 37 nondirective play therapy sessions showed marginal significant improvement on teacher rating scale and by follow-up, all children in aggressive group rated below the average child, as compared to a control group. On the Tuddenham Reputation Test, experimental group showed favorable changes in socio-metric gains.

Wong, Morgan, Crowley, & Baker (1996)	3 – Ages 16 to 17	Authors found in using a table game “Stacking the Deck” to teach social skills to conduct disordered, mildly retarded boys that when deficient skills were successively trained with game, responding increased up to or beyond the criterion level within 8 sessions or less. All three males showed clear improvements after unit training. Yet, there was no generalization of trained skills to extra-therapy settings with people not involved in training.
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RESEARCH ISSUE: MALADAPTIVE SCHOOL BEHAVIOR		
AUTHORS	PARTICIPANTS	FINDINGS
Axline (1949)	15 - Ages 6 to 7	Author found that children receiving 8 to 20 individual non-directive play therapy sessions demonstrated higher IQ scores. She concluded that the child was freed from emotional constraint and could thus express his/her capacities more adequately.
Constantino, Malgady, & Rogler (1986)	210 - K to 3 rd graders	Authors compared three intervention groups meeting for 20 sessions with a control group for Puerto Rican children. Two of the therapies; original cuento therapy and adapted cuento therapy were based on the discussion of original Puerto Rican folktales or American-adapted folktales between children, mothers and therapists. These two groups were compared to an art/play therapy group. All treatment groups showed significant improvement according to the Constantino’s Behavior Rating Scale and Trait Anxiety Scale of State-Trait Anxiety Inventory as compared to the control group. The adapted cuento group reported significantly less trait anxiety than the other groups. However the original cuento group and art/play therapy group reported less anxiety than the control group. The effects of adapted cuento therapy were moderate with respect to the art/play treatment and quite large relative to the no-intervention group. By contrast, the original cuento therapy group differed by a small to moderate effect from the no-intervention group. Both cuento groups significantly increased Comprehension (WISC-R) relative to art/play group therapy and no intervention.
Gaulden (1975)	56 - 2 nd graders	Author found when comparing 14 sessions of developmental play group (discussion combined with play group counseling), 14 sessions of play group counseling, and a non-intervention control group, children in the play therapy group scored significantly with one or more standard deviations in reduction of classroom disturbance, as measured by Devereux Elementary School Behavior Rating Scale. At an eight-week follow-up, the play therapy group had maintained the behavioral change. The developmental play group and control group showed no changes.
Hannah (1986)	10 - Ages 4 to 6	Author found that in a time-series experimental design that eight of nine children receiving play therapy over an 11 week period, exhibited a significant and positive change in their targeted behavior, such as verbal social interactions, off-task behavior, aggressive acts. One subject acted as a nonintervention comparison subject and showed a significant increase in undesirable behavior.
Leland, Walker, & Taboada (1959)	8 – Ages 4 to 9	Authors found that mildly retarded boys with behavioral problems who participated in 90 group play therapy hours over a month indicated a significant improvement on the Verbal scale of WISC but not Full Scale and 6 of the boys were better adjusted and were no longer considered behavior problems.
Oualline (1975)	24 - Ages 4 to 6	Author found that deaf children participating in 10 individual nondirective play therapy sessions demonstrated a significant increase in mature behavior patterns as measured by the Vineland Social Maturity Scale, compared to children participating in 10 sessions of free individual play. No differences were demonstrated according to the Child Behavior Rating Scale and Behavior Problem Checklist.
Quayle (1991)	54 - Ages 5 to 9	Author found that children participating in 20 sessions of individual child-centered play therapy and those participating in 20 sessions of individual tutoring showed improvement on the Child Rating Scale for Teachers, Associate, and Child as compared to the control group. Children in play therapy showed more positive growth in a greater number of areas, 6 of 15, while tutoring group showed gains in 4 of 15. Control group experienced negative results in 7 of 11 areas. Teachers rated children receiving play therapy as improving learning skills, assertive social skills, task orientation and peer social skills.

Schmidtchen, Hennies, & Acke (1993)	28 – Ages 5 to 8	Authors found that in comparing a treatment group of children with behavioral disturbances who participated in 30 sessions of nondirective play therapy with a non-play therapy control group receiving social education welfare in a large group, the treatment group showed a decrease in behavioral disturbance and increase in person-centered competencies.
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RESEARCH ISSUE: EMOTIONAL MALADJUSTMENT		
AUTHORS	PARTICIPANTS	FINDINGS
Axline (1949)	15 - Ages 6 to 7	Author found that emotionally disturbed children receiving 8 to 20 individual non-directive play therapy sessions demonstrated higher IQ scores. She concluded that the child was freed from emotional constraint and could thus express his/her capacities more adequately.
Bills (1950a)	18 - 3 rd graders	Author found that emotionally maladjusted children receiving 6 individual child-centered play therapy sessions and 3 group play therapy sessions showed significant improvement on reading ability and maintained improvement 30 days after intervention as compared to a control group.
Bills (1950b)	8 - 3 rd graders	Author also found that well-adjusted children that received non-directive individual and group play therapy failed to make statistically significant gains in reading ability following nondirective play therapy. He concluded from these two studies that reading gains noted in maladjusted slow readers followed a nondirective treatment of the maladjustment present in the children
Brandt (1999)	26 – Age 5	Author found that young children with behavioral adjustment difficulties who participated in 7 to 10 play therapy sessions improved significantly on internalizing behaviors as measured by the Child Behavior Checklist, in comparison to a matched control group. Internalizing symptoms included withdrawn behavior, somatic complaints, and anxiety/depression. Improvement in parental stress approached significance for the experimental group. No differences were found between experimental group and control group on self-concept.
Dorfman (1958)	17 - Ages 9 to 12	Author found that maladjusted children who received an average of 19 client-centered play therapy sessions showed improvement, as compared to a control group, on Rogers Test of Personality Adjustment and maintained the improvement at follow-up. They also scored a significant improvement on Mean Adjustment Rating on Sentence Completion Test during therapy and at follow up.
Dulsky (1942)	13 – Ages 4 to 15	Author found children who received play therapy once a week for one hour with a mean of 46 hours had improved emotional adjustments as a result of the therapy. Only 4 children revealed significant changes in IQ.
Fleming & Snyder (1947)	7 - Ages 8 to 11	Authors found that after 12 nondirective group play therapy sessions, girls' group showed significant improvement in personality adjustment according to the Rogers Personality Test, as compared to control group.
Gibbs (1945)	63	Author found after compiling the data on emotionally-disturbed children, group play therapy is suitable for ages 4 to 12 years, suitable for educational difficulties, nervous disorders, and behavior disorders, and can be a valuable means of providing observation for diagnosis. However, group play therapy is less successful than individual psychotherapy, unsuitable for habit disorders, and unsuitable for psychotic symptoms.
Seeman & Edwards (1954)	38 - 5 th and 6 th graders	Authors found that personally maladjusted children who received an average of 67 sessions of play groups led by a "teacher-therapist" maintaining a child-centered atmosphere made a significant reading gain of 7/10 of a year in 4 months as measured by Gates Reading Survey in comparison to a control group.
Wall (1979)	33 – Ages 3 to 9	Author found that in dividing emotionally maladjusted children with one parent each into 3 treatments of traditional nondirective play therapy, guided play therapy (parent guided by therapist to provide play therapy), and free play condition of parent-child dyad, there were no significant improvement except in one area. After 8 weekly sessions, children in guided play therapy improved adjustment by increasing their ability to acknowledge negative feelings in their families.
Winn (1959)	26 – Ages 7 to 10	Author found that low readers of average intelligence who participated in 16 sessions of nondirective/relationship play therapy showed a significantly greater improvement in personality than a control group. Children with lowest personality scores made the greatest improvements in personality. Experimental group did not show significantly greater improvement in reading than the control group.

RESEARCH ISSUE: ANXIETY/FEAR		
AUTHORS	PARTICIPANTS	FINDINGS
Burroughs, Wagner, & Johnson (1997)	21 – Ages 7 to 17	Authors found that when comparing a treatment group of 5 counseling sessions using the board game “My Two Homes” with 5 conventional play therapy sessions of children whose parents were divorced or divorcing, both groups experienced a decline in parents’ scores on the Internalizing Scale of the Child Behavior Checklist and the parent form for the Children’s Depression Inventory. State and trait anxiety decreased for both groups. No differences were found in the child self-report inventories.
Cassell (1965)	40 - Ages 3 to 11	Author found that children participating in 2 sessions of puppet therapy directly before and after a catheterization procedure showed significantly less emotional disturbance during the procedure and expressed greater willingness to return to hospital for further treatment as compared to non-intervention control group.
Clatworthy (1981)	114 - Ages 5 to 12	Author found that children who received daily individual self-directive play therapy during hospitalization exhibited significantly less anxiety than control group as measured by the Missouri Children’s Picture Series.
Johnson & Stockdale (1975)	43 - Ages 5 to 8	Authors found that children admitted to hospital for operative procedures presented with a puppet show and allowed to interact with puppets demonstrated a significant reduction in anxiety, even after the operation, as compared with non-intervention control group, measured by Palmar Sweat Index.
Kelley (1976)	40 - Ages 4 to 5	Author found that when comparing play desensitization treatments with and without contingencies, play placebo and no treatment control groups of children who fear the dark, none of the treatment conditions resulted in significant decreases in fear of darkness on either behavioral or self-report measures
Milos & Reiss (1982)	64 - Ages 2 to 6	Authors found that when comparing three treatment groups of free play, directed play, and modeling, children suffering from separation anxiety demonstrated a dramatic reduction in anxiety as measured by Hall Inventory by Teachers and speech disturbance measure. Each treatment group receiving 3 individual sessions significantly reduced anxiety as compared to the non-intervention control group.
Post (1988)	168 - Ages 10 to 12	Authors found that at-risk children who participated in 4 nondirective play therapy session showed no change in anxiety as compared to the control group, as measured by State-Trait Anxiety Inventory.
Rae, Worchel, Upchurch, Sanner, & Daniel (1989)	61 - Ages 5 to 10	Authors found that hospitalized children receiving two nondirective, child-centered play therapy sessions showed a significant reduction in hospital fears as measured by Fear Thermometer. The play therapy treatment group was compared to a verbally oriented support condition, diversionary play condition (allowed to play with toys), and control group. A reduction in fears was not evidenced in any other group.
Schmidtchen & Hobrucker (1978)	50 - Ages 9 to 13	Authors found that after receiving client-centered play therapy, children made significant improvement in social and intellectual flexibility as well as decrease in anxiety and behavior disorders as compared to two untreated control groups.

RESEARCH ISSUE: AUTISM/SCHIZOPHRENIA/PSYCHOTICISM		
AUTHORS	PARTICIPANTS	FINDINGS
Ney, Palveskey, & Markely (1971)	20 - Ages 5 to 13	Authors found that boys diagnosed with childhood schizophrenia who participated in 50 sessions of operant conditioning followed by 50 sessions of sand tray play therapy (Group A) over 6 months or participated in 50 sessions of play therapy followed by 50 sessions of operant conditioning (Group B) over 6 months showed a statistically significant total increase in mental age as measured by Griffiths Mental Development Scale and Woodlands Mental Development Scale. Operant conditioning was determined to be more effective due to a non-significant increase for the experimental group A and a significant increase in group B. Operant conditioning was more effective following play therapy than prior to play therapy.
Schopler, Brehm, Kinsbourne, & Reichler (1971)	5 - Ages 4 to 8	Authors found that children diagnosed with autism or psychoticism who participated in alternating play sessions of 2 weeks structured then 2 weeks unstructured for 8 weeks showed more appropriate behaviors under structured conditions, especially in the initial structured situation than under unstructured. Regression toward the mean occurred through cycle disclaiming the hypothesis that structured was more effective treatment.

RESEARCH ISSUE: MULTICULTURALISM		
AUTHORS	PARTICIPANTS	FINDINGS
Constantino, Malgady, & Rogler (1986)	210 - K to 3 rd graders	Authors compared three intervention groups meeting for 20 sessions with a control group for Puerto Rican children. Two of the therapies; original cuento therapy and adapted cuento therapy were based on the discussion of original Puerto Rican folktales or American-adapted folktales between children, mothers and therapists. These two groups were compared to an art/play therapy group. All treatment groups showed significant improvement according to the Constantino's Behavior Rating Scale and Trait Anxiety Scale of State-Trait Anxiety Inventory as compared to the control group. The adapted cuento group reported significantly less trait anxiety than the other groups. However the original cuento group and art/play therapy group reported less anxiety than the control group. The effects of adapted cuento therapy were moderate with respect to the art/play treatment and quite large relative to the no-intervention group. By contrast, the original cuento therapy group differed by a small to moderate effect from the no-intervention group. Both cuento groups significantly increased Comprehension (WISC-R) relative to art/play group therapy and no intervention.
Post (1998)	168 - Ages 10 to 12	Author found at-risk children (82% were African-American) who participated in a mean of 4 nondirective play therapy sessions maintained same level of self-esteem, and internal locus of control while control group dropped at a statistically significant level as measured by the Coopersmith Self-Esteem Inventory and Intellectual Achievement Responsibility Scale-Revised.
Trostle (1988)	48 - Ages 3 to 6	Author found after 10 sessions of non-directive group play therapy, bilingual Puerto Rican children showed significant improvement compared to control group on self-control, and the higher developmental level play behaviors of make-believe and reality as measured by Self-Control Rating Scale and Play Observation Scale. Boys who participated in the experimental group became more acceptant of others than boys or girls in the control group as measured by Peer Rating Scale. The control group participated in unstructured free play sessions as opposed to group play therapy sessions.
Wakaba (1983)	3 - Ages 4 to 5	Author found that 3 Japanese boys who stuttered and participated in one hour of nondirective group play therapy once a week for five months improved their stuttering symptoms.

RESEARCH ISSUE: SELF-CONCEPT		
AUTHORS	PARTICIPANTS	FINDINGS
Crow (1990)	22 - 1 st graders	Author found that poor readers who received 10 nondirective individual play therapy sessions improved significantly in their self-concept as measured by the Piers-Harris Children's Self-Concept Scale and also improved their internal locus of control as measured by Intellectual Achievement Responsibility Questionnaire in comparison with a nonintervention control group. Both the experimental and control groups made gains in reading ability as measured by Gates-MacGinitie Reading Test.
George, Braun, & Walker (1982)	58 - 3 to 6	Authors found that disadvantaged children with developmental delays who participated in individual and group developmental therapy as well as play therapy for those who scored below standard on self-concept surpassed the control group in accomplishing the developmental tasks measured by the Cooperative Preschool Inventory. The experimental group demonstrated a significantly higher score on how a child viewed his mothers' thoughts about himself as opposed to his own views about himself. Teachers viewed only fifty percent of the experimental group children as having improved.
Gould (1980)	84 - Elementary school	Author found that when comparing children identified as having a low self-image who participated in 12 sessions of nondirective group play therapy and those who participated in a placebo of 12 discussion groups showed positive change on the Piers-Harris Children's Self-Concept Scale as compared to no change in the non-intervention control group. The strongest positive change was noted for the group play therapy participants.
House (1970)	36 - 2 nd graders	Author found after 20 sessions of child-centered group play therapy, socially maladjusted children significantly increased their self-concept according to the Scamin Self-Concept Scale, while members of the control group decreased in self-concept.
Kot (1995)	22 - Ages 3 to 10	Author found that after 12 non-directive play therapy sessions over 2 weeks, child witnesses of domestic violence, in comparison with a control group, demonstrated significant improvement in their self-concept as measured by the Joseph Pre-School and Primary Self-Concept Screening Test, significant reduction in their externalizing behavior problems and significant reduction in their total behavior problems as measured by the Child Behavior Checklist, and significant improvement in the play behaviors of physical proximity and play themes as measured by Children's Play Session Behavior Rating Scale.
Pelham (1972)	52 - Kindergartners	Author found that in comparing socially immature kindergartners participating in 6-8 individual self-directive play therapy sessions, 6-8 group self-directive play therapy sessions, or a control group, children in both treatment groups made positive gains in social maturity when compared to control group as measured by Missouri Children's Picture Services and Children's Self-Social Constructs Tests. Teacher ratings on the Behavior Problem Checklist indicated that children participating in play therapy improved significantly in classroom behavior when compared to control group.
Perez (1987)	55 - Ages 4 to 9	Author found that in comparing sexually abused children participating in 12 sessions of individual relationship play therapy, 12 sessions of group relationship play therapy, or a control group, self-concepts of children in treatment groups increased at a significant level while those in control group actually scored lower at posttest as measured by the Primary Self-Concept Inventory. The self-mastery scores of children in play therapy rose significantly while those in control group dropped as measured by Locus of Control Scale. No differences occurred between individual and group play therapy.
Post (1998)	168 - Ages 10 to 12	Author found at-risk children who participated in a mean of 4 nondirective play therapy sessions maintained same level of self-esteem, and internal locus of control while control group dropped at a statistically significant level as measured by the Coopersmith Self-Esteem Inventory and Intellectual Achievement Responsibility Scale-Revised.

Tyndall-Lind (1999)	21 – Ages 4 to 9	Author found that in comparing child-centered group play therapy, child-centered individual play therapy, and a control group, child witnesses of domestic violence who participated in either treatment model exhibited a significant improvement in their self-concept, a significant reduction in total behavior problems, significant reduction in externalizing behavior problems, significant reduction in internalizing behavior problems and a significant reduction in aggression and a significant reduction in anxiety and depression.
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RESEARCH ISSUE: INTELLIGENCE		
AUTHORS	PARTICIPANTS	FINDINGS
Axline (1947)	37 - 2 nd graders	Author found that subjects placed in a classroom led by child-centered trained teacher and receiving 8 non-directive play therapy sessions showed a noteworthy IQ increase as measured by the Stanford Binet.
Axline (1949)	15 - Ages 6 to 7	Author found that children receiving 8 to 20 individual non-directive play therapy sessions demonstrated higher IQ scores. She concluded that the child was freed from emotional constraint and could thus express his/her capacities more adequately.
Dulsky (1942)	13 – Ages 4 to 15	Author found children who received play therapy once a week for one hour with a mean of 46 hours had improved emotional adjustments as a result of the therapy. Only 4 children revealed significant changes in IQ.
Mehlman (1953)	32 - Ages 86 to 140 mos.	Author found that when comparing 29 sessions of group play therapy, movie group, and non-intervention group, mentally challenged children showed no changes in intelligence among any group as measured by Stanford Binet.
Newcomer & Morrison (1974)	12 - Ages 5 to 11	Author found that when comparing individual play therapy with directive and non-directive leadership to group play therapy with directive and non-directive leadership, the mean scores of both treatment groups comprised of mentally challenged children increased continuously over 30 weeks as measured by the Denver Developmental Screening Test. A beneficial effect on social and intellectual functioning was shown as compared to the control group. There were no differences between group versus individual or directive versus non-directive.
Morrison & Newcomer (1975)	18 - Ages less than 11	Authors found that when comparing 11 sessions of directive play therapy, 11 sessions of non-directive play therapy, and non-intervention control group, mentally challenged children in both treatment groups made greater gains on Fine Motor-Adaptive and Personal-Social scales on the Denver Developmental Screening Test than the control group. No evidence that directive or non-directive was more effective.
Moulin (1970)	126 - 1 st to 3 rd graders	Author found after 12 sessions of client-centered group play therapy, underachieving students made significantly greater gains in non-language intelligence than the control group, as measured by the California Short-Form Test of Mental Maturity and Illinois Test of Psycholinguistic Abilities. Treatment was effective in significantly increasing meaningful language usage, not automatic language. There was no effect on academic achievement.
Mundy (1957)	23 - Ages 5 to 12	Author found that after 9 to 13 months of play therapy, the mean IQ of mentally challenged children increased 9 points while only 2 points for the non-intervention control group.
Myers (1970)	48 – Ages 7 to 15	Author found that mentally retarded children who participated in two puppet therapy sessions per week for 15 weeks as compared to a group activity group, and control group significantly improved emotional adjustment as measured by the California Test of Personality. Other conclusions were there was no evidence that puppet therapy affected intelligence, puppet therapy significantly improved overall adaptation of mentally retarded subjects and the characteristics of individual therapists had no significant effects on the outcome of therapy.
Sokoloff (1959)	24 - Age 5	Author found that when comparing 30 sessions of group play therapy to 30 sessions of individual speech therapy for children with cerebral-palsy, there was no statistical difference in IQ between the two groups but the play therapy group did show a 4 point increase while the speech therapy group actually lost 2 points.

RESEARCH ISSUE: READING DIFFICULTIES		
AUTHORS	PARTICIPANTS	FINDINGS
Axline (1947)	37 - 2 nd graders	Author found that 37 children identified as poor readers placed in a classroom led by child-centered trained teacher, 22 of the children improved reading ability over expected level as measured by the Gray Oral Reading Test and Gray Primary Reading Test. Of the children participating, 4 subjects also received 8 nondirective play therapy sessions and showed a noteworthy IQ increase as measured by the Stanford Binet. In a 5 year follow-up, Axline (1950) found that 5 of the original students were honor roll students and all others attained reading skill adequate for grade placement.
Bills (1950a)	18 - 3 rd graders	Author found that emotionally maladjusted poor readers receiving 6 individual child-centered play therapy sessions and 3 group play therapy sessions showed significant improvement on reading ability and maintained improvement 30 days after intervention as compared to a control group.
Bills (1950b)	8 - 3 rd graders	Author also found that well-adjusted children that received non-directive individual and group play therapy failed to make statistically significant gains in reading ability following nondirective play therapy. He concluded from these two studies that reading gains noted in maladjusted slow readers followed a nondirective treatment of the maladjustment present in the children.
Crow (1990)	22 - 1 st graders	Author found that poor readers who received 10 nondirective individual play therapy sessions improved significantly in their self-concept as measured by the Piers-Harris Children's Self-Concept Scale and also improved their internal locus of control as measured by Intellectual Achievement Responsibility Questionnaire in comparison with a nonintervention control group. Both the experimental and control groups made gains in reading ability as measured by Gates-MacGinite Reading Test.
Elliott & Pumfrey (1972)	28 - Ages 7 to 9	Author found that after 9 sessions of non-directive group play therapy, boys rated no differences on social adjustment or reading attainment, as measured by Bristol Social-Adjustment Guide Burt Word Reading Test, and Ballard One-Minute Reading Test, than a control group receiving no intervention. However, interaction was demonstrated between improvement and selection criteria such as IQ, emotional disturbance that improved on social adjustment with therapy, and restlessness which deteriorated in social adjustment.
Seeman & Edwards (1954)	38 - 5 th and 6 th graders	Author found that personally maladjusted, low reading level children who received an average of 67 sessions of play groups led by a "teacher-therapist" maintaining a child-centered atmosphere made a significant reading gain of 7/10 of a year in 4 months as measured by Gates Reading Survey in comparison to a non-intervention control group.
Winn (1959)	26 - Ages 7 to 10	Author found that low readers of average intelligence who participated in 16 session of nondirective/relationship play therapy showed a significantly greater improvement in personality than a control group. Children with lowest personality scores made the greatest improvements in personality. Experimental group did not show significantly greater improvement in reading than the control group.
Wishon (1975)	30 - 1 st graders	Author found that delayed readers of average IQs who participated in 32 nondirective play therapy sessions over 16 weeks did score significantly higher on achievement, self concept, and self-constructs as did the matched control group. Treatment group girls did perform significantly better than control group girls on the Identification/Friend sub-test of the Long-Henderson Children's Self-Social Constructs Test.

RESEARCH ISSUE: MENTALLY CHALLENGED		
AUTHORS	PARTICIPANTS	FINDINGS
George, Braun, & Walker (1982)	58 – 3 to 6	Authors found that disadvantaged children with developmental delays who participated in individual and group developmental therapy as well as play therapy for those who scored below standard on self-concept surpassed the control group in accomplishing the developmental tasks measured by the Cooperative Preschool Inventory. The experimental group demonstrated a significantly higher score on how a child viewed his mothers' thoughts about himself as opposed to his own views about himself. Teachers viewed only fifty percent of the experimental group children as having improved.
Leland, Walker, & Taboada (1959)	8 – Ages 4 to 9	Authors found that mildly retarded boys with behavioral problems who participated in 90 group play therapy hours over a month indicated a significant improvement on the Verbal scale of WISC but not Full Scale and 6 of the boys were better adjusted and were no longer considered behavior problems.
Newcomer & Morrison (1974)	12 - Ages 5 to 11	Author found that when comparing individual play therapy with directive and non-directive leadership to group play therapy with directive and non-directive leadership, the mean scores of both treatment groups comprised of mentally challenged children increased continuously over 30 weeks as measured by the Denver Developmental Screening Test. A beneficial effect on social and intellectual functioning was shown as compared to the control group. There were no differences between group versus individual or directive versus non-directive.
Morrison & Newcomer (1975)	18 - Less than 11 years	Author found when comparing 11 sessions of directive play therapy, 11 sessions of non-directive play therapy, and non-intervention control group, mentally challenged children in both treatment groups made greater gains on Fine Motor-Adaptive and Personal-Social scales on the Denver Developmental Screening Test than the control group. No evidence that directive or non-directive was more effective.
Mundy (1957)	23 - Ages 5 to 12	Author found that after 9 to 13 months of play therapy, the mean IQ of mentally challenged children significantly increased 9 points while only 2 points for the non-intervention control group. Also, the experimental group showed increase in social cooperation and constructive behavior while decreasing in temper tantrums and development of verbal ability as measured by a qualitative measure for social adjustment change.
Mehlman (1953)	32 - Ages 86 to 140 mos.	Author found when comparing 29 sessions of group play therapy, movie group, and non-intervention group, mentally challenged children showed no changes in intelligence among any group as measured by Stanford Binet. However, group play therapy showed positive behavioral and personality changes as compared to other two groups on the Haggerty-Olson-Wickman Behavior Rating Scale and on F-percent of Rorschach.
Myers (1970)	48 – Ages 7 to 15	Author found that mentally retarded children who participated in two puppet therapy sessions per week for 15 weeks as compared to a group activity group, and control group significantly improved emotional adjustment as measured by the California Test of Personality. Other conclusions were there was no evidence that puppet therapy affected intelligence, puppet therapy significantly improved overall adaptation of mentally retarded subjects and the characteristics of individual therapists had no significant effects on the outcome of therapy.
Wong, Morgan, Crowley, & Baker (1996)	3 – Ages 16 to 17	Authors found in using a table game "Stacking the Deck" to teach social skills to conduct disordered, mildly retarded boys that when deficient skills were successively trained with game, responding increased up to or beyond the criterion level within 8 sessions or less. All three males showed clear improvements after unit training. Yet, there was no generalization of trained skills to extra-therapy settings with people not involved in training.

RESEARCH ISSUE: PHYSICAL/LEARNING DISABILITY		
AUTHORS	PARTICIPANTS	FINDINGS
Cruickshank & Cowen (1948) and Cowen & Cruickshank (1948)	5 - Ages 7 to 9	Authors found that of 5 physically handicapped children identified as having emotional problems in school who received 13 nondirective group play therapy sessions, three children showed considerable improvement in behavior at home and at school, one showed some slight evidences of gain, while the fifth gave no indication of any improvement. All five reported positive feelings toward experience.
DeGangi, Wietlisbach, Goodin, & Scheiner (1993)	12 – 36 to 71 months	Authors found that in comparing a child-centered activity therapy to structured therapy for children with sensor motor dysfunction structured sensor motor therapy was more useful in promoting gross motor skills and functional skills, as well as sensory integrative skills. Child-centered activity was more useful in improving fine motor skills. Children rated as having easy temperament and children who received treatment for the first time responded better to child-centered therapy in regard to behaviors and play.
Dudek (1967)	20 – 4 to 13	Author found in comparing two treatment groups in which one group received therapeutically oriented play each week combined with a threat to cut off warts in the following week and a second group receiving therapeutically oriented play without any threats, five children from the group that was threatened were discharged with no curative change, 2 had complete cures within 3 weeks, and 3 had partial cures within 3-4 weeks. Of those in the unthreatened treatment, 6 showed curative changes within two weeks, two within 4 weeks, and one developed more warts. Within 5-11 weeks, 8 were complete cures, one was a partial cure, and one showed no change.
Miller & Baruch (1948)	7 children	Authors found that of 22 patients, including 7 children who had been unsuccessfully treated for severe allergies thus far, who participated in nondirective therapy for adults and nondirective play therapy for children, marked improvements were measured in 19 of 22 subjects. 21 of 22 showed improvement and 6 subjects were completely cleared of symptoms.
Oualline (1975)	24 - Ages 4 to 6	Author found that deaf children participating in 10 individual nondirective play therapy sessions demonstrated a significant increase in mature behavior patterns as measured by the Vineland Social Maturity Scale, compared to children participating in 10 sessions of free individual play. No differences were demonstrated according to the Child Behavior Rating Scale and Behavior Problem Checklist.
Siegel (1970)	48 - Ages 2 nd to 5 th graders	Author found that after dividing children with learning disabilities into 2 classrooms of special class and regular class then further dividing the children into 3 treatment groups of play therapy for child, parental counseling, and play therapy for child and parental counseling and 1 control group, children participating in therapeutic interventions significantly improved on all four dimensions of cognitive, affective, psychomotor, and environmental. Therapy groups also improved at a statistically significant level on interaction between parent attitude and child achievement, interaction between child and parent adjustment, and interaction between psychomotor functioning and intelligence. Children receiving no therapeutic intervention decreased in the psychomotor and cognitive areas. Classroom assignment made no significant difference.
Sokoloff (1959)	24 - Age 5	Author found that when comparing 30 sessions of group play therapy to 30 sessions of individual speech therapy for children with cerebral-palsy, there was no statistical difference in IQ between the two groups but the play therapy group did show a 4 point increase while the speech therapy group actually lost 2 points. Play therapy group showed statistically significant improvement in the areas of attention, concentration, responsiveness to therapeutic techniques, social confidence, self-confidence, and appropriate expression of nonverbal and verbal hostility. Play therapy groups also demonstrated a significant improvement on social maturity scores and personality ratings as measured by Vineland Social Maturity Scale and personality rating scale. Group play therapy participants also improved significantly in communicative abilities.

Utay (1992)	66 - 3 rd to 6 th graders	Author found that of children with learning disabilities who participated in 8 sessions of cognitive-behavioral group counseling using The Social Skills Game, placebo control group playing educational games, or a nonintervention control group, treatment group did perform significantly better on teacher-preferred social skills than the other two groups. Treatment and placebo groups performed better than control on peer-preferred social behavior. Regarding school adjustment, the treatment group scored significantly higher than the placebo control group, which scored significantly higher than the control group.
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RESEARCH ISSUE: SPEECH/LANGUAGE PROBLEMS		
AUTHORS	PARTICIPANTS	FINDINGS
Axline (1949)	15 – Ages 6 to 7	Author found that children who were emotionally disturbed with speech problems and behavior problems receiving 8 to 20 individual non-directive play therapy sessions demonstrated higher IQ scores. She concluded that the child was freed from emotional constraint and could thus express his/her capacities more adequately.
Bouillion (1974)	43 – Ages 3 to 6	Author compared children with a speech or language delay through treatment groups of non-directive group play therapy, individual direct speech therapy, group speech lessons and physical-motor training that met 5 days a week for 14 weeks with a non-intervention control group. Children who participated in group play therapy achieved significantly higher scores than the other treatment groups in the areas of fluency and articulation. Play therapy group also showed the least improvement in remediating receptive language deficits.
Froehlich (1984)	39 – Ages 5 to 12	Author found that in comparing 5 music therapy sessions with 5 medical play therapy sessions for hospitalized children, music therapy elicited a more involved type of verbalization of hospital experiences and feelings than play therapy.
Wakaba (1983)	3 – Ages 4 to 5	Author found that 3 Japanese boys who stuttered and participated in one hour of nondirective group play therapy once a week for five months improved their stuttering symptoms.

RESEARCH ISSUE: SEXUAL ABUSE/DOMESTIC VIOLENCE		
AUTHORS	PARTICIPANTS	FINDINGS
Kot (1995)	22 – Ages 3 to 10	Author after 12 non-directive play therapy sessions over 2 weeks, child witnesses of domestic violence, in comparison with a control group, demonstrated significant improvement in their self-concept as measured by the Joseph Pre-School and Primary Self-Concept Screening Test, significant reduction in their externalizing behavior problems and significant reduction in their total behavior problems as measured by the Child Behavior Checklist, and significant improvement in the play behaviors of physical proximity and play themes as measured by Children's Play Session Behavior Rating Scale.
Perez (1987)	55 – Ages 4 to 9	Author found that in comparing sexually abused children participating in 12 sessions of individual relationship play therapy, 12 sessions of group relationship play therapy, or a control group, self-concepts of children in treatment groups increased at a significant level while those in control group actually scored lower at posttest as measured by the Primary Self-Concept Inventory. The self-mastery scores of children in play therapy rose significantly while those in control group dropped as measured by Locus of Control Scale. No differences occurred between individual and group play therapy.
Reams & Friedrich (1994)	41 – Ages 3 to 5	Authors found that in placing victims of abuse or siblings of victims of abuse in a treatment group of 15 weekly directive play therapy sessions only one significant difference was found between treatment group and control group. Treatment group engaged in less isolated play than the control group. All children were already placed in a therapeutic preschool for an average of one year prior to this study.

Saucier (1986)	20 – Ages 1 to 7	Author found that after 8 sessions of non-directive or directive play therapy sessions, abused children scored significantly higher on personal-social development than the control group as measured by Minnesota Child Development Inventory.
Tyndall-Lind (1999)	21 – Ages 4 to 9	Author found that in comparing child-centered group play therapy, child-centered individual play therapy, and a control group, child witnesses of domestic violence who participated in either treatment model exhibited a significant improvement in their self-concept, a significant reduction in total behavior problems, significant reduction in externalizing behavior problems, significant reduction in internalizing behavior problems and a significant reduction in aggression and a significant reduction in anxiety and depression.

RESEARCH ISSUE: DEPRESSION		
AUTHORS	PARTICIPANTS	FINDINGS
Burroughs, Wagner, & Johnson (1997)	21 – Ages 7 to 17	Authors found that when comparing a treatment group of 5 counseling sessions using the board game “My Two Homes” with 5 conventional play therapy sessions of children whose parents were divorced or divorcing, both groups experienced a decline in parents’ scores on the Internalizing Scale of the Child Behavior Checklist and the parent form for the Children’s Depression Inventory. State and trait anxiety decreased for both groups. No differences were found in the child self-report inventories.
Springer, Phillips, Phillips, Cannady, & Kerst-Harris (1992)	132 – Ages 7 to 17	Authors found that children identified as having at least one parent suffering from alcohol or drug dependency who participated in an experimental group of play and art therapy for an average of 11 peer groups and 9 family play and art activity groups experienced significant gains on the Child Behavior Checklist. Changes in depression and hyperactivity were significant for boys and girls. Aggressiveness was significant for boys and changes in delinquent behaviors were significant for boys.
Tyndall-Lind (1999)	21 – Ages 4 to 9	Author found that in comparing child-centered group play therapy, child-centered individual play therapy, and a control group, child witnesses of domestic violence who participated in either treatment model exhibited a significant improvement in their self-concept, a significant reduction in total behavior problems, significant reduction in externalizing behavior problems, significant reduction in internalizing behavior problems and a significant reduction in aggression and a significant reduction in anxiety and depression.
Wiide (1994)	80 – 9 th -12 th graders	Author found that adolescents who participated in group counseling once a week for 7 weeks to play Let’s Get Rational board game endorsed fewer irrational beliefs than a matched control group. 9 th grade experimental subjects agreed with fewer irrational beliefs than 9 th grade control subjects. 10 th grade experimental subjects were significantly less depressed than 10 th grade control group subjects.

RESEARCH ISSUE: POST-TRAUMATIC STRESS DISORDER		
AUTHORS	PARTICIPANTS	FINDINGS
Shelby (1994)	56 – Ages 3 to 8	Author found that in placing child survivors of Hurricane Andrew in either a therapeutic coloring book condition or an intervention using both the coloring book and a mastery technique that children in the treatment using both the book and technique reported more reduction in fear both immediately post-treatment and at the three day follow-up. Parents reported a greater reduction of fear in their children for the coloring book only condition.

RESEARCH ISSUE: ADHD/LOCUS OF CONTROL		
AUTHORS	PARTICIPANTS	FINDINGS
Kaduson & Finnerty (1995)	63 – Ages 8 to 12	Authors found that in comparing 3 groups of children diagnosed with ADHD, cognitive-behavioral game play (using Self-Control Game), biofeedback game play, and control strategic game play only group, the biofeedback group showed the largest improvement in the children's perception's of self-control. These findings remained at posttest and 3-month follow-up. These treatment effects failed to generalize to behaviors in the home setting. The control group showed the largest decrease in hyperactivity symptoms as reported by parents and was the only condition to demonstrate improvement of hyperactive symptoms. All groups indicated significant gains at post-treatment and follow-up in sociability and attention.
Kaniuga (1990)	60 – Ages 7 to 11	Author found that day-camp children who participated in 3 sessions over 3 days using the board game, The Clubhouse Game, showed a significant short-term gain in internal locus of control orientation compared with children who were not exposed to the game. It was also found that children who had played the game were able to use concepts learned from the game in discussing problem situations which occurred outside of the game situation.

RESEARCH ISSUE: DIVORCE		
AUTHORS	PARTICIPANTS	FINDINGS
Burroughs, Wagner, & Johnson (1997)	21 – Ages 7 to 17	Authors found that when comparing a treatment group of 5 counseling sessions using the board game "My Two Homes" with 5 conventional play therapy sessions of children whose parents were divorced or divorcing, both groups experienced a decline in parents' scores on the Internalizing Scale of the Child Behavior Checklist and the parent form for the Children's Depression Inventory. State and trait anxiety decreased for both groups. No differences were found in the child self-report inventories.

RESEARCH ISSUE: ALCOHOL/DRUG ABUSE		
AUTHORS	PARTICIPANTS	FINDINGS
Springer, Phillips, Phillips, Cannady, & Kerst-Harris (1992)	132 – Ages 7 to 17	Authors found that children identified as having at least one parent suffering from alcohol or drug dependency who participated in an experimental group of play and art therapy for an average of 11 peer groups and 9 family play and art activity groups experienced significant gains on the Child Behavior Checklist. Changes in depression and hyperactivity were significant for boys and girls. Aggressiveness was significant for boys and changes in delinquent behaviors were significant for boys.

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