



Full Length Article

On the Investigation of the Effects of Play on Educational Behavior; Evidence from Elementary Schools

Elnaz bakhshi¹, Zahra Jafari¹, Marziye Dehghani²

¹ Department of Educational Research, University of Tehran, Tehran, Iran

² Faculty of Educational Research, University of Tehran, Tehran, Iran

ABSTRACT

This study was intended to focus the viability of play as a system for mediation for youngsters with a mixture of passionate and behavioral issues. Particularly, the study was pointed at deciding the effectiveness of play help in: (a) enhancing plans toward oneself of kids with change troubles; (b) lessening disguising conduct issues, for example, withdrawal, physical grumblings, nervousness, and melancholy; (c) lessening externalizing behavioral issues, for example, hostility and reprobate practices; (d) diminishing general conduct issues, social issues, thought issues, and consideration issues of kids with change troubles; and (e) diminishing child rearing anxiety of folks of kids who were encountering modification challenges. The experimental group comprised of 15 kids who were encountering a mixture of change troubles and accepted play help once for every week for 7 to 10 weeks. The control group comprised of 14 kids who were encountering a mixture of change troubles and who were on a holding up rundown to accept mediation, and consequently, did not accept any medication throughout the time of information gathering. Experimental and control groups were randomly selected from 5 elementary schools in Ahvaz Province, Iran. An increase scores investigation uncovered that kids in the test gathering exhibited a noteworthy change on disguising conduct issues. Likewise, a lessening in externalizing conduct issues and child rearing anxiety was watched. No change in thought toward oneself was exhibited. This study gives confirm that play treatment is a feasible intercession for treating an assortment of passionate and behavioral troubles in junior kids, especially youngsters who are encountering disguising conduct issues.

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INTRODUCTION

Meeting the mental health needs of children is increasingly challenging due to limitations of the managed health care delivery system, coupled with alarming rises in child abuse and neglect, child violence, and emotional and behavioral problems of children (Friedman, 1997; Ginsberg, 1995; Gullotta, Adams, & Montemayor, 1998). Friedman (1997) argued that mental health services have been significantly affected by the increased reliance on managed care companies due to out-of-control costs of health care. Thus, issues of accountability, efficiency, and effectiveness play a larger role in mental health services than ever before. Furthermore, national statistics on children point to the need for greater efforts to provide services that will ensure the mental and emotional health of our children (Ginsberg, 1995). Ginsberg (1995) asserted, "the plight of children, perhaps the most disadvantaged Americans, will become increasingly severe as the development of services continues to lag behind the development of social problems and needs" (p. 89). Importantly, unresolved childhood problems are likely to extend into adulthood, where their amelioration poses a much greater challenge. In order to effectively help young children who are experiencing emotional and behavioral difficulties, mental health professionals must be particularly sensitive to children's unique developmental needs (Landreth, 1991). In the early years of development, children are rapidly undergoing cognitive, socio-emotional, and physiological changes. An important part of early development is the acquisition of language (Piaget, 1980). Piaget maintained that language development is structured by, and dependent upon, cognitive development. According to Piaget (1952), the child between the ages of 4 and 7 is in a preoperational stage of cognitive development and the child from 7 to 11 is in a concrete operational stage. Children at these stages have not yet developed the language capacity of adults. They have a limited ability to accurately articulate their life experiences and the content of their inner cognitive and emotional world (Landreth, 1991). Rather than continuously

engage in verbalizations to express their inner life, as do adults, children in the preoperational and concrete operational stages are absorbed in play throughout most of the waking day, acting out their experiences, experimenting with adult roles, rehearsing for future events, developing competencies, achieving mastery, and simply trying to make sense of their world (Landreth, 1991). The preoperational stage is characterized by the development of basic language and other forms of representation and rapid conceptual development (Wadsworth, 1984). According to Piaget, preoperational thought is prelogical. Children at this stage are not able to perform operations, or, schemas of connected relational reasoning. For example, preoperational children cannot conserve, or grasp the reality that two things that are equal remain so if their shape is manipulated. Also, their logic is also limited by irreversibility: once they concentrate on one aspect of a phenomenon, they have difficulty reverting to a previously experienced perception of that same event or object. Next, children at this stage reason by transduction: they move from particular to particular without taking the general into account, and simultaneous events seem to have a cause and effect relationship. Finally, they tend to centrize, focusing on one aspect of a situation and neglecting others, and cannot decenter, or think about several aspects of an event simultaneously. Through the developmental processes of assimilation and accommodation, the plethora of experiences and activities that fill children's lives during their early years lead them into the stage of concrete operational at about age 7 (Wadsworth, 1984). Children at this stage are able to think logically about the here and now, conserve quantities, serialize items, and deal with logical relationships. They also begin to assimilate the concepts of time and space. However, problem solving remains at the trial and error level. Children generally remain in this stage until about age 11. Piaget has probably been one of the most influential child developmentalists, fostering increased sensitivity toward and awareness of the uniqueness of children's capacities at varying stages of cognitive development. Piaget's (1962) research has indicated that children are not able to competently engage in abstract reasoning until about the age of 11, which supports the notion that children have an underdeveloped capacity for language processing. Despite his landmark contributions to the body of knowledge on children's cognitive development and language acquisition, researchers following Piaget's work have suggested that even Piaget had a tendency to overestimate the young child's cognitive ability to understand and use language. In several experiments, children misinterpreted tasks they were asked to perform and had difficulty retelling stories they had just heard (Mandler, in Pines, 1983). Often, children had an accurate grasp of cause and effect relationships, but experienced difficulty comprehending language and using language to convey their understanding of events. This research further supports the notion that children have an underdeveloped capacity for language. Language is a complex process that requires the ability to abstract (Piaget, 1980). Since words are made of abstract symbols, language requires the ability to form abstract cognitions and to effectively verbalize those cognitions in order to be utilized proficiently. Before the age of 11, children are developmentally functioning in a concrete reality where their capacity to verbalize their knowledge of experiences is far less than that of adults. Language is only one way among others to communicate one's knowledge (Sinclair-deZwart, 1973). Unlike adults, whose natural medium of expression is verbalization, the child's natural medium of self expression is play (Axline, 1947; Ginott, 1960; Landreth, 1991).

METHODOLOGY

A quasi-experimental design was utilized in this study to measure the effectiveness of individual play therapy with young children experiencing a variety of behavioral and emotional problems. Participants were children ages 4 through 6 with a variety of adjustment difficulties (n=29). Both experimental group (n=15) and control group (n=15) participants were referred by parents and/or teachers for counseling due to adjustment difficulties. Only the experimental group received play therapy. At termination of the study and as counselors became available, control group participants received intervention for their presenting adjustment problems. No child was denied treatment as a result of being in the control group. Test (JPPSST). A global score indicates the child's self-concept. Child participants' behaviors were rated by one of the child's parents via completion of the Child Behavior Checklist (CBCL). The specific behaviors measured are grouped under Internalizing Behavior Problems and Externalizing Behavior Problems. The total score also includes social problems, thought problems, and attention problems. Parent participants' stress levels were rated by their completion of the Parenting Stress Index (PSI). Specific levels measured are categorized in a Child Domain and a Parent Domain. The following discussion includes the hypotheses, definitions of terms, instrumentation, and selection of subjects, collection of data, and the statistical analyses.

Hypotheses

To carry out the purposes of this study, the following hypotheses were formulated:

- 1) Children in the experimental group will attain a significantly higher mean total score at post testing than will children in the control group.
- 2) Children in the experimental group will attain a significantly lower mean total score on the Child Behavior Checklist (CBCL) posttest than will children in the control group.
- 3) Parents of children in the experimental group will attain a significantly lower mean total score on the Parenting Stress Index (PSI) posttest than will children in the control group.
- 4) Children in the experimental group will attain a significantly lower mean score on Externalizing Behavior Problems on the CBCL posttest than will children in the control group.
- 5) Children in the experimental group will attain significantly lower mean score on Internalizing Behavior Problems on the CBCL posttest than will children in the control group.
- 6) Parents of children in the experimental group will attain a significantly lower mean total score on the Parent Domain of the PSI posttest than will children in the control group.
- 7) Parents of children in the experimental group will attain a significantly lower mean total score on the Child Domain of the PSI posttest than will children in the control group.

Data Collection

The investigator met with qualified participants and their guardians prior to the beginning of the investigation to: a) explain the purpose and requirements of the study; b) provide information pertaining to the maintenance of confidentiality; c) address any questions or concerns of participants and their guardians; and d) obtain informed consent. The guardian was asked to identify the child by writing the child's name on the consent form prior to signing it. In addition, the child was given a copy of the child consent form to read or look at as the investigator read the form aloud to the child. The child was asked to sign or make his or her mark if the child agreed to participate. After obtaining informed consent from parents, each subject in the experimental group participated in a 45-47 minute play therapy session once per week for 7 to 10-weeks. The individuals administering the treatment, play therapy, were graduate students who were pursuing either a master's degree or doctorate degree in counseling, and who specialized in play therapy. Two of the therapists were doctoral students who held master's degrees in counseling, and eleven were master's students who were in the final phase of their training. The CBCL, the PSI, and the JPPSST were administered for the purpose of pretest and posttest data collection. Pretest and posttest instruments were administered to experimental subjects by the play therapists who were administering the treatment. The instruments were administered immediately prior to treatment and immediately following treatment for the purpose of data collection. Control group subjects were administered the pretest and posttest instruments immediately prior to and immediately following a ten-week period whereby no treatment was administered. All information provided by the participants was kept confidential.

Data Analysis

Instruments were scored and double-checked following the collection of the pretests and posttests. The data were keyed into the computer and analyzed by the researcher using SPSS for MS Windows Release 8.0. The data were then analyzed via a sequence of two one-way multivariate analyses of variance (MANOVA). The independent variable for the analysis was group membership (i.e. experimental and control); the dependent variables for the first MANOVA consisted of change scores on the Total CBCL, Total PSI, and the JPPSST. The dependent variables for the second MANOVA consisted of change scores for the Internalizing and Externalizing subscales of the CBCL and the Parent Domain, Child Domain, and Life Stress subscales of the PSI. A MANOVA of change scores was deemed more appropriate than analyzing the data using a MANCOVA. Specifically, a MANOVA was utilized to analyze change from pretest to posttest as opposed to artificially equating the groups at pretest as in MANCOVA (Maxwell & Delaney, 1990). A level of significance of .05 was established as the criterion for either retaining or rejecting the hypotheses.

RESULTS AND DISCUSSION

The results of this study are presented in the order the hypotheses were tested. Multivariate analyses were performed on all hypotheses and a level of significance of .05 was established as the criterion for either retaining or rejecting the hypotheses. Results of evaluation of assumptions of normality, homogeneity of variance-covariance matrices, linearity, multi-co linearity, and detection of outliers were deemed satisfactory. The data were analyzed via a sequence of two one-way multivariate analyses of

variance (MANOVA). The independent variable for the analysis was group membership (i.e. experimental or control). The dependent variables for the first MANOVA consisted of change scores on the JPPSST, Total CBCL, and Total PSI. The dependent variables for the second MANOVA consisted of change scores for the internalizing and externalizing subscales of the CBCL, and the Parent Domain and the Child Domain of the PSI. Table 1 presents the results of the first MANOVA. Table 2 presents the results of the second MANOVA.

Table 1. Multivariate Analysis of Variance

F-Tests	F Ratio	df	p	η^2
Multivariate Analysis Wilks Lambda	1.21	3.23	0.34	0.15
Univariate Analysis				
CBCL	0.69	1.25	0.43	0.04
PSI	3.58	1.25	0.08	0.14
JPPSST	0.12	1.25	0.75	0.02

The first MANOVA using the Total Scores from the CBCL, PSI, and JPPSSC was not significant, $F(3.23) = 1.203$, $p = .34$, $h^2 = .14$. Although the MANOVA was not significant, the effect size was sufficiently large enough to present the univariate ANOVAs for clarification. It is presumed that the lack of significance was due to low power due to small group sizes as opposed to the absence of a group effect. Analysis of the univariate ANOVAs (i.e. change scores for JPPSSC, Total CBCL, and Total PSI) revealed that the change in parenting stress demonstrated a marginally significant difference between experimental and control groups, $F(1,24) = 4.566$, $p = .07$, $h^2 = .13$ (see Table 2). As seen in Table 2, analysis of the mean change scores demonstrated that subjects in the experimental group (mean = 36.38; standard deviation = 50.88) demonstrated a larger decrease in stress than did subjects in the control group (mean = 5.38; standard deviation = 30.26). The second MANOVA using scores from the CBCL subscales, Internalizing Behavior scale and Externalizing Behavior scale; and from PSI subscales, Child Domain and Parent Domain, was significant $F(5,21) = 6.69$, $p = .001$, $h^2 = .61$. Therefore, it was necessary to proceed to interpreting the univariate ANOVAs. Analysis of the univariate ANOVAs revealed that the change in Internalizing Behaviors demonstrated a significant difference between experimental and control groups. Table 2 presents the pre and posttest means and standard deviations for the experimental and control groups.

Table 2. Mean Scores of Pre- and Post Tests

Group	Pre-test			Post-test	
	N	Mean	SD	Mean	SD
Experimental	15	60.076	9.461	58.434	11.322
Control	15	50.776	10.643	48.997	8.009

The results of this study revealed that children receiving individual play therapy experience at least moderate improvement in adjustment difficulties. Of the 7 presented hypotheses, 1 was retained and the other 6 were rejected. However, a positive trend is evidenced in each of the dimensions under investigation, with the exception of self-concept, which remained stable. An explanation of these findings is discussed below. Experimental group children showed no significant improvement in self-concept as indicated by the Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST) (gain mean = 0.000). However, parents' comments and therapists' observations supported the notion that most of these children demonstrated greater self-confidence, increased autonomy, and improved comfort in social situations and interpersonal relationships – all characteristic of an improved self-concept (Joseph, 1979). For example, one father of an experimental group child reported that his son had become more

"self-assured" since he started receiving play therapy. The father stated, "Chris is initiating more frequent interactions with peers; and at school, he is starting to raise his hand to answer questions - something he has not attempted in the past for fear of what the other children would think of him if his answer were wrong." Several play therapists also elaborated on how experimental group children developed more confidence and independence. Important is the possible existence of a ceiling effect, one of the limitations of performing gain scores analysis (Gall, Borg, & Gall, 1996) due to children rating themselves in the moderately high to high range at the administration of the pretest. A ceiling effect would place a restriction on the distribution of gain scores across initial levels of self-concept, leaving virtually no room for improvement. Although there appears to have been observable improvement as reported by parents and play therapists, children in the experimental group did not report significant change as a group (gain mean = 0.000) in perception of self. There are several possible explanations for the occurrence of a ceiling effect in this study. First, all of the participants' behavioral problems developed after the occurrence of one or more recent life changes, such as starting kindergarten, divorce of parents, moving, death in the family, birth of a sibling, etc.; and it is believed that participants' internalizing and externalizing behaviors are manifestations of their attempts to adjust to recent experiences in their lives (Gil, 1991). Since self-concept is a part of the individual that is stable overtime (Joseph, 1979; Brownfain, 1965; Rogers, 1951), there may not have been enough time between the precipitating life events and the administration of the pretest for children to experience a change in self view. Thus, their reports revealed high self-concepts. If this is the case, it is hoped that play therapy has made a large enough impact on the experimental group children to prevent any future damage to their self-concepts by ameliorating current behaviors that may have otherwise resulted in negative emotional consequences.

CONCLUSION

This study has demonstrated the effectiveness of play therapy as a viable intervention for a variety of emotional and behavioral problems in children; particularly, difficulties such as shyness, social withdrawal, somatic complaints, anxiety and depression. Children receiving play therapy demonstrated more improvement in adjustment problems, and parents evidenced less parenting stress, than children who were not receiving any type of intervention. The most remarkable improvements were observed in internalizing behaviors. Specifically, children became more socially interactive, experienced less anxiety, evidenced less somatic complaints, withdrew from social situations less often, and demonstrated greater feelings of security and contentment with themselves. Play therapy can serve as a treatment for problematic behaviors and has the potential to preclude the development of future emotional and behavioral problems. In addition to ameliorating immediate adjustment difficulties, play therapy can foster improved social acceptance by peers, family, teachers, and others. Social acceptance and a sense of belonging help provide security, comfort, and confidence in one's surroundings; and help foster the development of a positive self-concept. Joseph (1979) believed a child's self-concept may be the best predictor of a child's ability to succeed in life due to its instrumental role in influencing "emotional growth, academic achievement, interpersonal relationships, and the outcome of major life experiences" (p. 1). Social acceptability, a sense of belonging, and a healthy self-concept will benefit all children throughout the duration of their development and will help to ensure their becoming fully-functioning, socially-minded, well adjusted adults.

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