

CHAPTER – 3

METHODOLOGY

The literature related to Attention–Deficit /Hyperactivity Disorder, reviewed in the previous chapter suggests the need for alternative and complementary treatment to optimize therapeutic effects. The present study designed in this regard is as follows:

3.1. AIM

To study the effect of Play Therapy and Yoga on children with attention-deficit / hyperactivity disorder

3.2. OPERATIONAL DEFINITIONS

Attention-Deficit/ Hyperactivity Disorder

The term attention-deficit/hyperactivity disorder (ADHD), often referred to as hyperactivity, is characterized by difficulties that interfere with effective task-oriented behavior in children particularly impulsivity, excessive motor activity, and difficulties in sustaining attention (DSM-IV).

Play Therapy

“Play Therapy” in the present study is defined as a technique whereby the child’s natural medium of self-expression, namely play, is used as a therapeutic method to assist him/her in coping with emotional stress or trauma. Child plays out his/her feelings, bringing these hidden emotions to the surface where she/he can face them and cope with them (Axline, 1974).

Non-directive Play Therapy

In the present study, “non-directive Play Therapy” is defined as approaches that, the therapist follows the child and not vice versa. It allows children to act out circumstances that are scary, confusing or bothersome to them. It uses specific techniques, such as, interactions, observation, listening and making reflective statements of recognition. In its psychotherapeutic form, the therapist is unconditionally accepting anything the child might say or do. The therapist never expresses shock, argues, teases, moralizes, or tells the child that his/her perceptions are incorrect (Landreth, 1991).

Yoga

The term “Yoga” in the present study refers to Asana, Pranayama, and Relaxation based on Yogacharya Avneesh Tiwari guidance.

3.3. OBJECTIVES

The objectives of the present research are as follows:

1. To identify a group of children clinically diagnosed as cases of ADHD by competent and qualified mental health professionals.
2. To administer appropriate psychometric tools to undertake a baseline of disturbance in observable and measurable terms in the identified group of children.
3. To impart individualized Play Therapy and group based Yoga (Asanas, Pranayamas and relaxation) separately as well as together with specific curriculum content and for a specified period of time in groups of children diagnosed as cases of ADHD.

4. To compare and contrast the relative effects of play and Yoga (Asanas, Pranayamas and relaxation) either singly or together as against another group of non-intervened, control group of children identified as cases of ADHD.

3.4. HYPOTHESES

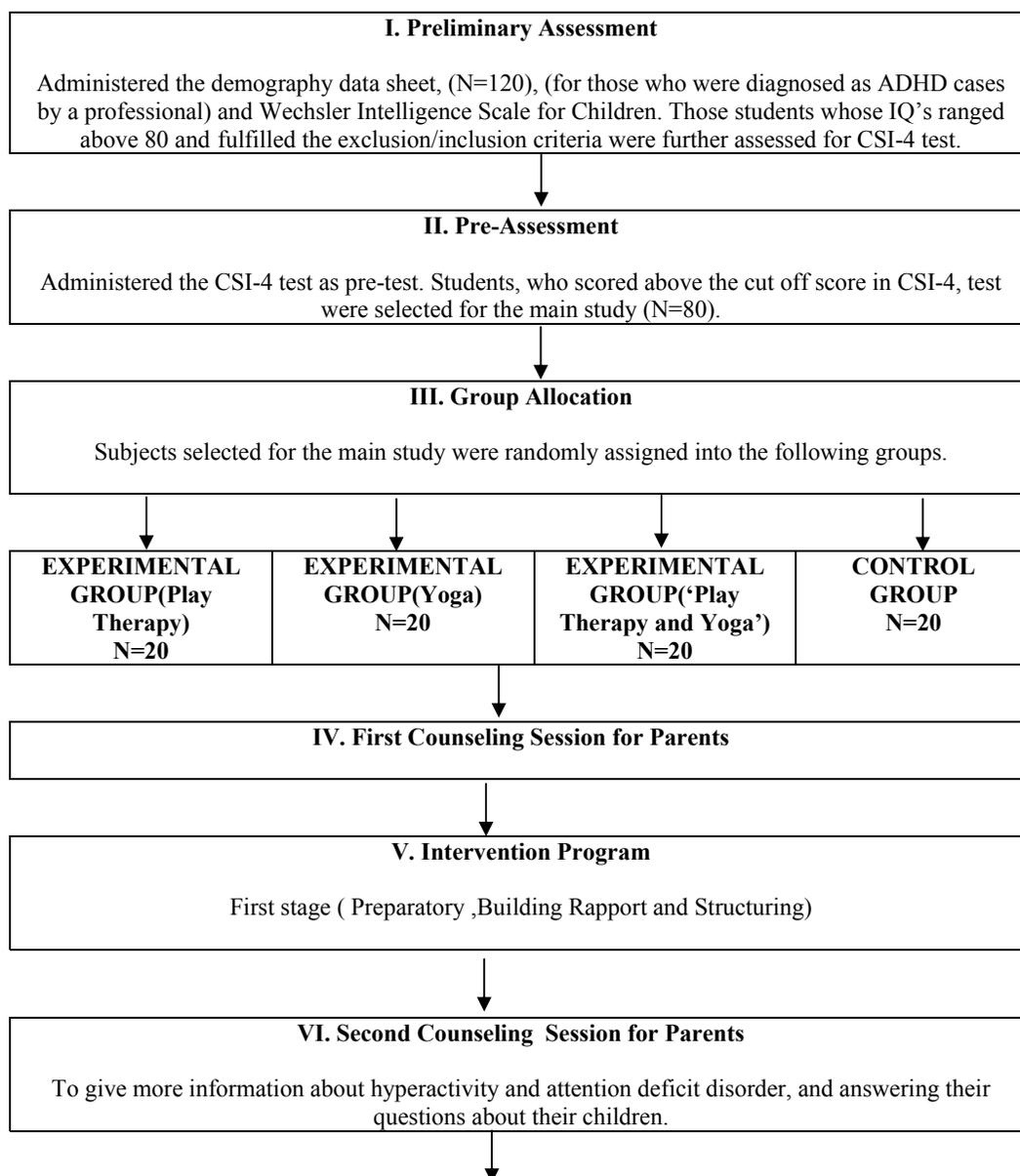
The following null hypotheses formulated for the present study are as follows:

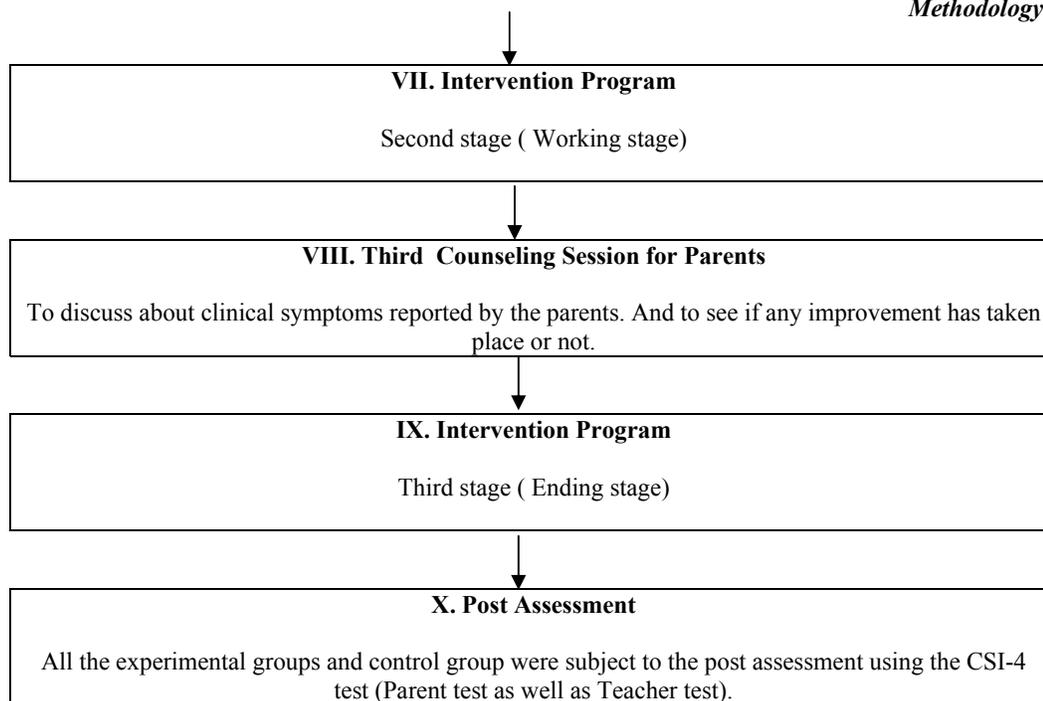
1. There will be no difference in CSI-4 scores among children with ADHD between pre and post intervention program of Play Therapy.
2. There will be no difference in CSI-4 scores among children with ADHD between pre and post intervention program of Yoga.
3. There will be no difference in CSI-4 scores among children with ADHD between pre and post intervention program of 'Play Therapy and Yoga'.
4. There will be no significant difference in the effect of the three different intervention programs as measured by CSI-4.
5. There will be no difference in CSI-4 scores (attention subscale) between the relative effectiveness of different therapies on children with ADHD.
6. There will be no difference in CSI-4 scores (hyperactivity subscale) between the relative effectiveness of different therapies on children with ADHD.
7. There will be no difference in CSI-4 scores between attention and hyperactivity subscales on the relative effectiveness of different therapies on children with ADHD.
8. Age does not influence the relative effectiveness of Yoga and Play Therapy in the ADHD symptoms.

3.5. RESEARCH DESIGN

The present study is a pre-post test design with comparing the experimental and control group. The performance of the subjects on all variables before and after group program was assessed and compared. A comparison was made between the experimental group and control group with reference to the results obtained during various stages of assessment. The following flow chart gives the detail of the procedures followed in the study.

PROCEDURE OF THE PRESENT STUDY





Variables

The dependent variable in this study is:

Attention Deficit/ Hyperactivity Disorder child as measured by the score on the CSI-4 test.

The independent variable is defined as the type of treatment received during the study. They are as follows:

1. Control group-no treatment
2. Play Therapy
3. Yoga
4. Combined 'Play Therapy and Yoga'*

3.6 SAMPLE

The sample for the present study was selected from the public and private schools student population of Shiraz city (Iran) and was referred by professional psychologists from educational counseling center.

* . 'Play Therapy and Yoga'= A combination of Play Therapy and Yoga program in alternative sessions.

Sampling Technique. A list of all the names of the schools from Shiraz City's North, South, East, and West, urban and semi urban areas were made note of (total=144 schools) then from this list, once odd numbers were chosen which further reduced to 72, and from this list again odd numbers were chosen which finally became 36 schools.

Then an information note about ADHD students was sent to these schools through the Educational Center, and they were asked to introduce the ADHD students to the Educational Counseling Center for further study. Following this, the student were then tested by a professional and in case he diagnosed them as an ADHD case, then that case was sent to the researcher for further study. Totally within two months they referred 120 ADHD students. In this manner all of the parents (N=120) were asked to fill the demographic details of their child in the data sheet given by the researcher. The sample populations were then tested on CSI-4 questionnaire, both teacher and parents test. Students who scored above cut-off score in CSI-4 test and fulfilled the exclusion/inclusion criteria were selected for the study. Then the researcher made a list of students and selected the names of every third student. This reduced the number to 80 students. Finally these 80 students were selected for main study and intervention program. Further, researcher divided the students in to experimental groups (60 students) and the control group (20 students). This procedure was followed for selecting the experimental and control group as follows:

In order to get an equal number distribution and also a random method to be followed; the researcher divided the students into 4 groups in a rotation order.

For e.g. the first student was put into group 1.
 the second student was put into group 2
 the third student was put into group 3
 the fourth student was put into group 4
 the fifth student was put into group 1

This procedure was followed till all the 80 students were completed. The following inclusion/exclusion criteria were followed in this study:

Inclusion Criteria

- Children should have 80 and above IQ score.
- Children should fulfill the diagnostic criteria of DSM-IV (2000) to be diagnosed as cases of Attention Deficit Hyperactivity Disorder.
- The children should be in the chronological age group between 9-12 years
- Ratio of boys to girls should approximate the prevalence of ADHD which is 5-6 boys to 1 girl.

Exclusion Criteria

- The child should not have any signs/symptoms suggestive of Mental Retardation, Seizure Disorder, Learning/Communication Disorder, Mood Disorder, Pervasive Developmental Disorder, etc.
- The child should not have any sensory handicaps, such as, hearing impairment, visual impairment, etc.
- The child should not have any chronic physical health problems and/or organic brain syndromes.
- The child should not be on any medication during the entire period of study.

Description of the Sample

The sample for the present study was selected from 36 semi-urban and urban schools according to the inclusion and exclusion criteria stated above. The respective educational center was contacted for permission and appointments were procured prior to administration of the intervention programs. In this manner all of the parents (N=120) were asked to fill the demographic details of their child in the data sheet given by the researcher. The sample was then administered the Wechsler Intelligence Scale for Children (Wechsler, 1991). Students who scored above IQ=80 on intelligence test were selected for further assessment. Then selected sample were administered the pre- test on CSI-4 questionnaire, both teacher and parents test. Students who scored above cut-off score in CSI-4 test and scored above IQ=80 on intelligence test were selected for the main study and intervention programs. Finally the experimental group constituted of 60 students and the control group 20 students.

Participants were boys and girls aged 9-12 years. All participants were from middle to lower-middle socioeconomic status. Children were diagnosed according to DSM-IV criteria by experienced pediatrician or psychologist specializing in ADHD. Diagnosis of all study participants was confirmed by the results of pre-test (CSI-4) Parent and Teacher Rating Scales that demonstrated Scores suggestive of ADHD in all the subscales that measured the Primary symptoms of ADHD. The distribution of sample for the study is given in Table I.

Table 3.1 : Distribution of sample characteristics

Variables	Control Group	Experimental Group			Total
		Yoga	Play Therapy	Combined Therapy	
Boys & Girls	20	20	20	20	80

3.7. ASSESSMENT TOOLS

Assessment tools used in the present research are classified into the following:

1. Demographic data sheet (developed by the researcher)
2. Child Symptoms Inventory (Gadow & Sprafkin, 2002).
3. One big room with recommended items.
4. Wechsler Intelligence Scale for Children (Wechsler, 1991).

Description of the tools

1) Demographic Data Sheet

This tool combined with a parent interview schedule was developed to elicit details on psychosocial variables of the included sample of cases like name, age, sex, education, nature or type of family, schooling, socio-economic status, etc.

In order to work with a child who was diagnosed with ADHD, it is very important for the therapist to get enough information from the intake with the parents, teachers. Study by Dewey, Crawford and Kaplan(2003), shows that parental reports of every day cognitive functioning is useful in distinguishing between children with reading disability and attention- deficit/hyperactivity disorder.

2) Child Symptoms Inventory:

The Child Symptom Inventories-4 (CSI-4) consists of 97 items that are individually administered to parent and teacher completed rating scales that allow for the screening of children with emotional and behavioral disorders as per DSM-IV criteria. It is for use in the population age range 5-12 years. It provides for separate subtests and scores for Attention Deficit Hyperactivity Disorder,

Oppositional Defiant Disorder, Conduct Disorder, Anxiety, Schizophrenia, Major Depressive Disorder, Dysthymic Disorder, Autistic Disorder, Asperger's Disorder, Social Phobia, and Separation Anxiety Disorder. The items are to be marked by respondents along a Likert-type of rating scale. The reliability coefficient of this inventory has been calculated as 0.88 and internal consistency is placed as 0.97. Criterion validity is found to be acceptable.

There are two different methods of scoring for the CSI. Symptom Count Scores (never=0, sometimes=0, often=1, very often=1) and Symptom Severity Scores (never=0, sometimes=1, often=2, very often=3). The Symptom Count Scoring procedure helps identify children who exhibit the minimum number of symptoms necessary for a diagnosis of a disorder and who may require a more in-depth clinical evaluation. The Symptom Severity Scoring procedure measures the degree of behavioral deviance compared with a norm sample. T scores from 60 to 69 denote symptoms of moderate severity, and T scores of 70 and above indicate high symptom severity.

The administration time is approximately 10-15 minutes for completing Parent Checklist and 5-10 minutes for completing Teacher Checklist. After a little practice, the Child Symptom Inventories can be scored in 3-5 minutes. Computer scoring and report writing software programs are available (Gadow & Sprafkin, 2002).

An objective scoring system was adopted whereby precise quantitative weights could be given to emotional and behavioral status of the child at pre as well as post- intervention phase of the Yoga and Play Therapy program.

3) One big room with recommended items which include:

- manipulative (e.g. , clay, crayons, painting supplies)
- water and sand play containers
- toy kitchen appliances, utensils, and pans
- baby items (e.g., bottles, bibs, rattles, etc)
- dolls and figures of various sizes and ages
- toy cars, boats, soldiers, and animals
- blocks, erector sets and stuffed animals

4) Wechsler Intelligence Scale for Children (WISC-R, 1991)

3.8. PROCEDURE

The following procedure was adopted in implementation of this study.

Identification of Target Cases

As per the envisaged research design, the target cases of children between 9-12 years diagnosed as ADHD purposively sampled as per the inclusion/exclusion criteria from public and private schools by approaching mental health professional in Education Center in Iran.

Administration of Tools

The selected tools were individually administered on all the identified cases and/or their parents/teachers as baseline information about the included sample of children with ADHD.

Sample Selection and Pretest –Assessment

The pre-test assessment was done to determine the base line of the sample on the ADHD criteria. Demographic details of the subjects were also obtained from their parents for ensuring the suitability of the sample as per the exclusion and the inclusion criteria using the data sheet. The demographic details were put to statistical analyses, using one-way ANOVA and contingency table analysis. For the effectiveness of intervention program, repeated measure ANOVA was employed using SPSS for Windows (Version 15.0) software.

Table 3.2 : Mean Pre-test on CSI-4 scores of sample selected in different groups and results of One-way ANOVA

Groups	Mean	SD	F value	P value
Control	12.57	1.62	2.54	.062 (NS)
Play Therapy	12.70	2.62		
Yoga	14.00	2.19		
‘Play Therapy and Yoga’	13.95	2.11		

Table 3.3 : Mean ages of sample selected in different groups and results of One-way ANOVA

Groups	Mean	SD	F Value	P value
Control	10.45	1.00	1.672	.180
Play Therapy	10.10	0.91		
Yoga	9.75	0.91		
‘Play Therapy and Yoga’	10.00	1.17		
Total	10.07	1.02		

Table 3.4 : Class-wise distribution of the sample (frequency and percent) in different groups and results of contingency coefficient test

Classes		GROUPS				Total
		Control	Play	Yoga	'Play and Yoga'	
3	Frequency	5	7	10	10	32
	Percent	25.0%	35.0%	50.0%	50.0%	40.0%
4	Frequency	9	5	7	4	25
	Percent	45.0%	25.0%	35.0%	20.0%	31.3%
5	Frequency	6	8	3	6	23
	Percent	30.0%	40.0%	15.0%	30.0%	28.8%
Total	Frequency	20	20	20	20	80
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

CC=.260; P<.337 (NS)

Table 3.5 : Distribution of the sample by status of family (frequency and percent) in different groups and results of contingency coefficient test

SOF		GROUPS				Total
		Control	Play Therapy	Yoga	'Play Therapy and Yoga'	
Intact	Frequency	14	17	16	16	63
	Percent	70.0%	85.0%	80.0%	80.0%	78.8%
Broken	Frequency	6	3	4	4	17
	Percent	30.0%	15.0%	20.0%	20.0%	21.3%
Total	Frequency	20	20	20	20	80
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

CC=.132; P<.701 (NS)

Table 3.6 : Distribution of the sample by parent's occupation (frequency and percent) in different groups and results of contingency coefficient test

Occupation		GROUPS				Total
		Control	Play Therapy	Yoga	'Play Therapy and Yoga'	
House+	Frequency	6	3	5	14	
	Percent	30.0%	15.0%	25.0%	17.5%	
House	Frequency	8	7	10	11	36
	Percent	40.0%	35.0%	50.0%	55.0%	45.0%
Nothing	Frequency	12	7	7	4	30
	Percent	60.0%	35.0%	35.0%	20.0%	37.5%
Total	Frequency	20	20	20	20	80
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

CC=.355; P<.074 (NS)

Table 3.7 : Distribution of the sample by school types (frequency and percent) in different groups and results of contingency coefficient test

SCHOOL TYPE		GROUPS				Total
		Control	Play	Yoga	'Play Therapy and Yoga'	
Private	Frequency	1	4	1	2	8
	Percent	5.0%	20.0%	5.0%	10.0%	10.0%
General	Frequency	19	16	19	18	72
	Percent	95.0%	80.0%	95.0%	90.0%	90.0%
Total	Frequency	20	20	20	20	80
	Percent	100.0%	100.0%	100.0%	100.0%	100.0%

CC=.200; P<.343 (NS)

Table 3.8 : Mean IQ of sample selected in different groups and results of One-way ANOVA

Groups	Mean	Std. Deviation	F Value	P value
Control	93.95	8.86	1.567	.204
Play Therapy	99.80	9.08		
Yoga	99.05	10.14		
'Play Therapy and Yoga'	96.75	9.49		
Average	97.39	9.51		

The above statistical analyses showed no significant differences in any of the demographic factors. It was therefore considered that the sample was homogeneous and analysis of demographic factors was not considered further. This further confirms the randomization of subjects in different groups, so that any change in the experimental group can be attributed for effectiveness of intervention program. The subjects (N=120) were first assessed for the Wechsler Intelligence test to assess their level of intelligence. The subjects whose IQ's ranged above 80 were then administered CSI-4 questionnaire by their parents and teacher. Following this, those who scored above cut-off point were selected for further intervention program. These 80 subjects were selected for the main study. At this stage the selected sample was divided into experimental (N=60) and control group (N=20) randomly. The experimental group was then further divided into three groups. First group comprised of 20 subjects (thirteen boys and seven girls), second group 20 (twenty boys), third group 20 (fourteen boys and six girls). The frequency of the sessions, i.e., the duration between sessions was decided as twice a week on the basis of experimental findings of Glanz and Hayes (1971). According to them the clients need time to assimilate and test in the outside world what they learnt in the sessions. A meeting of clients once or twice a week was most desirable.

Play Therapy and Yoga group

The experimental group were administered the intervention program. During the intervention program, Play Therapy was applied to children individually in 2 sessions per week for the duration of eight weeks. Each session runs for 45 minutes duration. Yoga (Asanas, Pranayamas and relaxation) was conducted to children for two sessions per week for duration of eight weeks, each session runs for 45 minutes duration. Play Therapy and Yoga (Asanas and Pranayamas) was performed simultaneously and alternately individually/group in 2 sessions per week for a duration of eight weeks.

- Control group-no treatment
- Play Therapy
- Yoga (Asanas , Pranayamas and relaxation)
- Combined ‘Play Therapy and Yoga’

No intervention was given to the control group but pre-test and post-test was applied to them, after duration of eight weeks. At the end of the intervention program, each subject in the experimental as well as control group was reassessed on the same tools as carried out during the baseline. This is to enable comparison of any gain or loss in the clinical symptoms as reported by the parents as well as by the teachers. This terminal evaluation of the cases was carried out after the intervention program in order to see if any improvement has taken place or not.

The group setting (Play Therapy) and the interaction process followed the suggestions of The Eight Basic Principles of non-directive Play Therapy (Axlin, 1974). The present research followed the ethical principles of American

Psychological Association (2002) and American Association for Counseling and Development AACD, 1988). The intervention sessions were conducted in the room provided by the educational counseling center. The sessions were held after school hours to avoid the disturbance of the normal school proceedings. The subjects of the experimental group were subjected to either Play Therapy or Yoga exercise or 'Play Therapy and Yoga' intervention program .Different groups were subjected to intervention on different days of the week. The subjects of the control group were not exposed to any intervention strategies. The procedures followed are as given below.

Play Therapy Intervention Procedure

The Play Therapy intervention was spread over sixteen sessions for a period of eight weeks, which was based on the non-directive Play Therapy methodology. The procedures of the intervention are as given below:

The researcher alone facilitated the intervention sessions and the duration of the session was 45 minutes. The initial session started with the time limit of thirty minutes and in following session the time limit of the session was increased by about fifteen minutes.

The sessions consisted of mainly interaction activities, recognition and reflection of feelings, giving feedback (by researcher to the child). First session consisted of establishing rapport and introducing play room, as well as establishing the limitations. Those limitations which are necessary to anchor therapy to the world

of reality and to make the child aware of his/her responsibility in the relationship were made.

All sessions took place in a large play room which had a two-way mirror at one end. In front of this was a large table on which clay and artwork took place. Next to this, sand tray table with sand tray toys, farm, pre historic, and animals, human and fantasy figures, soldiers, transport vehicles, scenery and miscellaneous objects were available. In addition, games, doll houses, a dress up center and puppets were readily available to the children. The children who participated in this study were attending Play Therapy weekly at an educational counseling center.

Stage I : The Preparatory Stage

This stage aimed at introducing play room and rapport building. The initial contact is of great importance for the success of the therapy. The structuring is demonstrated to the subject, not merely by words, but by the relationship that is established between the researcher and subject. Within sessions the subject chooses how to spend the time. The researcher offers the core conditions of unconditional positive regard, empathy and congruence. She does not make direct interpretations to the subject but remains within the play metaphor, unless the subject makes a link to "the real world". But to herself, both during and between sessions, the researcher forms interpretive hypotheses about the meaning of the subject's activities. These enable her to focus on the subject's issues and work with the subject towards resolution. The subject is free to talk, remain silent, play alone or involve the researcher. The researcher is warm, accepting, genuine, open, and responsive to the subject's emotions.

All feelings are accepted but not all behaviors. The researcher sets limits to keep the subject and herself physically and emotionally safe. Because of the prior knowledge of the subject's probable issues, the researcher is alert to possible links between the subject's play and emotional conflicts. Of course, not all play is about aggression. Laughter, relaxation and creativity are almost always present. It is always a privilege to be alongside children while they play out their innermost difficulties, things that could not be put into words even perhaps by adults, and to support them in the process of finding some resolution.

Building Rapport

During the second session the researcher was able to develop a warm, friendly relationship with the child, in which good rapport was established, encourage the child to express his/her true feelings by accepting the child completely. Finally establishing a feeling of permissiveness in the relationship so that the child feels to express his/her feelings completely.

Structuring

The word structuring is used in this instance to mean the building-up of the relationship according to the foregoing principles so that the child understands the nature of the therapy contacts and is thus able to use them fully. Structuring is not a casual thing, but a carefully planned method of introducing the child to this medium of self-expression which brings with it release of feelings and attendant insight. It is not a verbal explanation of what this is all about, but by establishing the relationship. The researcher further established those limitations that are necessary to anchor therapy to the world of reality and to make the child aware of his responsibility in the relationship.

Stage II. Working Stage

The working stage began with putting sincere effort to understand the child and to check constantly her/his responses against the basic principles and to evaluate her/his work with each case so that she/he, too, grows in her /his understanding of the dynamics of human behavior. Researcher incorporated complete acceptance of the child as he/she is. The child selects activities and makes decisions. The researcher was an alert attendant who helps the child clarifies his or her experience by reflecting that acceptance in a caring, non- judgmental way. Ultimately, the child gains respect for himself/herself as an individual of value. He/she learns to accept himself/herself, to grant himself/herself the permissiveness to utilize all of his/her capacities, and to assume responsibility for himself/herself. And in turn he/she applies this philosophy in his/her relationships with others so that he/she has a real respect for people, an acceptance of them as they are, and a belief in their capacities (Axline, 1974). In this stage, researcher worked according to Axline's Eight Basic Principles for Play Therapy which are:

1. The therapist develops a warm, friendly relationship with the child as soon as possible.
2. The therapist accepts the child exactly as he/she is.
3. The therapist establishes a feeling of permissiveness in the relationship that allows the child to express his/her feelings freely.
4. The therapist recognizes feelings the child is expressing and reflects them back to help the child gain insight into his/her behavior.
5. The therapist deeply respects the child's ability to solve his/her own problems given the chance. Choices and change are initiated by the child, not imposed by the therapist

6. The therapist does not attempt to direct the child's actions or conversation. The child leads the way; the therapist follows.
7. The therapist does not hurry therapy along. It is a gradual process and is recognized as such by the therapist.
8. The therapist establishes only the limitations necessary to anchor the therapy to reality and make the child aware of his/her responsibility in the relationship

Yoga Intervention procedure

The Yoga intervention was spread over sixteen sessions for a period of eight weeks, which was Asana, Pranayama, and Relaxation based on Yogacharya Avneesh Tiwari Yoga for children. The procedure of the intervention is as given below:

The researcher alone facilitated the intervention sessions. Though she has Yoga certificate, but she used Yoga for children's CD and showed it to children along with her treatment. Duration of the sessions was forty-five minutes except first session which was about thirty minutes. The sessions consisted of mainly Yoga exercise including Pranayama, Asanas and Relaxation.

Stage I : Preparatory and Building Rapport Stage

First Yoga sessions were spent creating a strong bond of trust and friendship between children and researcher. Once this bond of trust was established, they were able to proceed with their work. In this stage researcher tried to explain the nature of Yoga program briefly to the children. The researcher was able to develop a warm, friendly relationship with the child, in which good rapport was established.

Structuring Stage

In the second step, researcher began to slowly introduce the Asana portion of their class. In the beginning, almost all the Asanas were difficult for them to perform. In order to keep their attention during our Yoga sessions, researcher found it necessary to increase the speed at which they performed Asanas.

Another aspect of ADHD's condition was their need to talk incessantly. The researcher's instructions and comments during the sessions were often met with replies on totally unrelated topics. Researcher finally devised a way to keep them from talking during Yoga and made an agreement that they could speak about anything they wanted for a period of up to ten minutes, either before or after Yoga session; but during the class, they promised to follow instructions and allow researcher to guide them without interruption. Working stages designed program are described as follows:

The researcher further established those limitations that are necessary to anchor therapy to the world of reality and to make the subject aware of his/her responsibility in the relationship. Finally, a feeling of permissiveness was established in the relationship so that the subject feels comfortable. In order to strengthen their nervous system and calm them down enough to practice Yoga, researcher decided to focus on teaching Pranayama (breathing exercises) and deep Relaxation rather than Asanas.

Stage II. Working Stages

- **The Preparatory Stage Program** consists of a series of eleven exercises designed to prepare the child for the practice of Asanas. In this phase of development, the child is totally passive during the Yoga session, absorbing the benefits of the exercises without any noticeable response.

- **The Inductive Stage Program** contains many of the same exercises as the Preparatory Stage, plus a number of basic Asanas that are relatively easy to perform. As motor control and body awareness gradually develops, the child begins to respond by flexing or extending in accordance with the guiding movements of the instructor. Eventually the level of development reaches a point where the child is able to remain in a comfortable and steady pose for brief periods with the help of the instructor.
- **In the Interactive Stage Program**, the child learns to participate in a greater variety of movements and poses. As the participation level increases, the need for researcher support and assistance will decrease. They will quickly learn to hold some of the poses without help. In addition, they need to have a basic understanding of researcher requests and commands. A child with attention deficit disorder, who has good motor skills but difficulty in following instructions, should begin working in this stage (Sumar, 1998).
- **In the Imitative Stage**, the child's motor and cognitive skills are developed enough to stand and walk without assistance, and to imitate the movements of others. Now it is time for him to start practicing Asanas and Pranayama with a minimum of physical assistance from the instructor. To facilitate this process, the parent or Yoga instructor should be able to perform a basic Yoga routine, since the child will learn most quickly by imitating others. (Sumar.1998).
- **Relaxation** was given by the end of each session for period of 10 minutes. One technique used to encourage relaxation was visualization. At first researcher had them focus on belly breathing and listening to relaxing music. Then ask them to imagine that they are at the beach, walking on sands and try to feel it, and walk down to sea. Another approach used was to create a guided

visualization or story with a calming theme of some kind. e.g. ask them to imagine themselves walking in a green pasture. Notice the beautiful trees and the butterflies flying over head, and smell the fresh air. Listen to the blue jays calling for their mates. The idea is to instill a sense of peace and feeling of oneness with nature. At the end of the relaxation exercise, researcher encouraged the subjects to share their own experiences.

Counseling for parents

This stage consists of some techniques and suggestions from Ochoa (2004). There are three sessions of counseling for parents. These counseling sessions are conducted to parents of experimental groups only at intervention work time. Here a great deal of work goes into the preparation stage: the researcher needs to gather detailed referral information about the child and family. Researcher met the parents to explain their role in the intervention, to answer questions about Play Therapy and to discuss practical details.

First session

During the first session the researcher was able to build confidence and positive attitudes among the participants, gave brief information, definition, symptoms, and the causes of ADHD, the importance of their communication and their empathy with the child. The main objective of this session was to build a rapport between the researcher and participants and to set goals for enhancement of their attitudes towards coping skills. This facilitated the researcher to formulate a plan of action with the objective of enhancing the coping skills of the parents.

Second session

The second session began with a review of the impact of the previous session, which was focused on relationship between child adjustment and parental empathy. This session included parenting programs which stress the importance of;

- Consistency and follow-through, that helps family cope with ADHD children.
- Understanding the effects of ADHD as it is for children.
- Relationship between parental empathy and child adjustment in children with ADHD.
- Acceptance of their child with warm regard and valuing him/her, no matter what their condition/state.

The parents were also encouraged to learn as much as they can about ADHD, so that they can monitor their child's behavior and creatively intervene when there are differences. Finally, taught following coping skills that will help them maintain control.

- Identify the problem
- Problem solving
- Brainstorm possible solutions
- Evaluate the solutions
- Behavior management systems

Third session

The third session began with the review of the experiences of the group member as a result of parenting program and Yoga and Play Therapy used as an

intervention for their child. Administered the CSI-4 test as post test and asked them to give the CSI-4 test (Teacher form) to child's teacher which was given to them at the end of the session.

Stage III. Final Stage

Post Assessment

The experimental group and the control group were subjected to post assessment immediately after the termination of intervention sessions to evaluate the effectiveness of intervention and the benefits gained by the experimental group. The parents of both experimental group and control group were administered CSI-4 test questionnaire. This assessment also aimed to see if any changes had occurred in the control group in the area of ADHD symptoms during this period. The procedure used in the pre-assessment was repeated in the post – assessment also.

Follow-up session

After the post intervention assessment procedure was over, the parents of control group were requested to attend the follow-up session. The follow-up session included parenting programs similar to counseling sessions for experimental groups.

3.9. STATISTICAL TOOLS APPLIED

The data obtained after the main study, from the responses of the two groups (experimental group and control group) on CSI-4 test questionnaire were statistically analyzed. The responses of the participants were analyzed to verify the hypotheses stated earlier. ANOVA (One Way and Two Way) followed by Scheffe Post Hoc test and Repeated Measure ANOVA were the statistical tools employed to analyze the data.

As the present study focuses on the effectiveness of intervention on the betterment of ADHD symptoms, the scores obtained from the experimental group on pre and post assessment were subjected to a paired 't' test. This was done to indicate the changed level of CSI-4 test of the group after the termination of intervention session. The control group too was subjected to similar statistical analysis to check if their CSI-4 tests level differed.

In order to evaluate the maintenance of the outcome of the intervention over a period of 60 days, the post assessment scores of the experimental group and control group on CSI-4 test were compared using a 'F' test. The results are discussed in chapter 4 of results and discussion.

3.10. DIFFICULTIES ENCOUNTERED DURING THE STUDY

Problems encountered during the present study by the researcher were located at the three main stages, which are, during assessment and intervention. The problems faced are as follows:

1. Though parents showed interest in attending the intervention program, but due to some reason such as long distance, economy problem, and illiterate parents, resulted in a few dropouts.
2. The researcher faced difficulty in administering the teacher form of CSI-4 test due to lack of their cooperation.
3. Sometimes it was very difficult to ask parents to change their home life a bit to help their child.