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Effectiveness of Play Therapy on Family Stress, Coping and Selected Variables of Children with Disruptive Behaviour Disorders

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Abstract

Children with Disruptive Behaviour Disorder (DBD) often have an impaired ability to relate to others appropriately due to poor social skills and behaviours that others find offensive. This impairment may be due to a combination of how core symptoms compel children with DBD to respond to others, and how others respond reciprocally to disruptive behaviour. This leads to strenuous child parent relationship, increasing family stress and further affects the child's behaviour. The current study focused on assessing the behaviour problems of children with DBD, and secondly, evaluated the effectiveness of play therapy on child variables: anger, aggression and social competence, and parent variables: family stress and coping. A quasi experimental design was used. 42 children with DBD and their parents were selected, using convenience sampling. Both groups underwent pre assessments using a semi structured interview for children and parents, DBDRS, AACL, VAS, FAS & SDQ. After pre assessments, the experimental group received play therapy with Parent Management Training (PMT-Usual treatment) and the control group received PMT, in 8-15 sessions, two sessions per week, for 45 minutes to 1 hour duration. Post assessment was conducted using the same instruments for both groups, 1 week after the last session. Additional assessment of play observation on the experimental group was conducted during play therapy sessions. The data was analyzed using descriptive and inferential statistics. Play therapy has a significant beneficial impact on anger, aggression, social competence, family stress and coping in children with DBD & their families. In conclusion, the study demonstrates that behaviour therapy contributed to issues relating to parent management techniques, whereas the use of play helped the parents at a specific level to connect to their child in joyous, process-based activities, where there is no pressure of correct outcomes, thus enabling the child to experience a more loved and validated sense of personhood

Keywords : Play therapy, parent management training, family stress, coping, Disruptive Behavior Disorders

Introduction

"Growing numbers of children are suffering needlessly because their emotional, behavioral, and developmental needs are not being met by those very institutions which were explicitly created to take care of them. The increased needs of children suffering from mental health problems are accompanied by an increased need for mental health professionals" (Satcher, 2001). In the process of growing up, children's problems are often

compounded by the inability of adults in their lives to understand or to respond effectively to what the children are feeling and attempting to communicate. This communication gap is widened as a result of adults' insistence that children adopt means of expression commonly used by adults (Landreth, Homeyer, Glover & Sweeney, 1996). Children with DBD often have an impaired ability to relate to others appropriately, due to poor social skills and behaviours that others find offensive. This impairment may be due to a combination of how core symptoms compel children with DBD to respond to themselves and to others, and how others respond reciprocally to disruptive behaviour (Judy, 2010). A study by Deater & Deckard (1998) indicated a strong link between poor parenting and child adjustment, in addition to the mediating effect of parental behaviour on parental stress and child adjustment. What the child does is as equally important in the parent child relationship as what the parent does. Parent child interactions show reciprocity, thereby creating a circle of continued effect on attitudes, relationship, and behaviour between parents and child. Higher levels of parental stress correspond with higher levels of children's behavioural problems, such as aggression and anxiety (Deater & Deckard, 2005). In support of the theory that problematic parent child interactions continue to worsen over time, Ackerman, Brown, & Izard (2003) determined that effective treatment of aggressive and antisocial child behaviours led to a decrease in parent stress. Kazdin and Whitley (2003) suggested the need for outcome studies targeted at reducing parent child relationship stress, in order to identify therapeutic interventions that reduce childhood aggressive behavioural problems. The treatment as usual (TAU), in managing these behavioural issues, is parent training, and in many moderate to severe attention deficit hyperactivity disorders, the use of medication can also enhance the prognosis. Early identification of stressful parent child systems, and subsequent intervention efforts, may possibly reduce behavioural emotional problems among children (Abidin, 1995).

Considerable attention is being given to problems of children with disruptive behavior disorders. However, there are only a few studies about the effectiveness of play therapy on children with DBD, as well as family stress and coping. Nursing professionals spend maximum time with the children and their families in a hospital setting. Use of play therapy by nurses dealing with DBD children and their families will help to improve the prognosis of the children's behavioural problems. Hence, this study aimed to assess the effectiveness of play therapy on family stress, coping, and the child's anger, aggression and social competence.

Objectives

1. To assess the behaviour problems in children with Disruptive Behaviour Disorder (DBD).
2. To evaluate the effectiveness of play therapy on anger, aggression and social competence in children with DBD.
3. To evaluate the effectiveness of play therapy on family stress and coping in family members of children with DBD.

Methods

A quasi experimental control group design was used in the study. All children with DBD attending outpatient services during the period of data collection were screened; those children who met the inclusion criteria were recruited in the study. Using convenience sampling, forty two children and their parents, i.e. 21 in the experimental group and 21 in the control group, were selected for the study. Both groups underwent pre assessments using a semi structured interview with the child and parents, Disruptive Behavior Disorder Rating Scale, Family Assessment Schedule, Anger Assessment Checklist, Visual Analogue Scale for Anger Assessment, and a Strength and Difficulty Questionnaire. After pre assessments, both groups received Parent

Management Training (treatment as usual), consisting of 8-15 sessions, twice a week for 45 minutes to 1 hour duration. The experimental group, in addition, received play therapy consisting of 8-15 sessions (average of 12), twice a week for 45 minutes to 1 hour duration. Assessment of play observation in the experimental group was conducted during all play therapy sessions. Post assessment was conducted using the same instruments for both groups, 1 week after the last session. The play therapy session focused on a combination of non-directive and directive play (anger control & social skill) activities. After the first 5 individual play therapy sessions with the child (to develop rapport with the child and to understand the child's problems), parents were involved in play therapy sessions (to improve the child-parent relationship and to ensure that quality time was spent by parents with the child). The Researcher observed parents during all sessions, suggested behavioural changes required, and promoted use of PMT principles while spending this quality time with the child.

Parent Management Training: Is a well-established treatment for children with DBD. In the current study, the structured PMT module of Kazdin was used as treatment as usual.

Inclusion criteria: the following criteria was considered for recruiting the study subjects.

1. Children with Disruptive Behaviour Disorders, aged below 7 years old, attending child and adolescent psychiatry outpatient services.
2. Hindi or English speaking children and families, willing to participate in the study.
3. In the experimental group, children and parents who attended all the sessions of play therapy. In the control group, parents who attended all sessions of PMT

Exclusion criteria:

1. Presence of Intellectual Developmental Disorder, and Inpatients

Assumptions:

1. Among inpatient children, the Hospital's therapeutic environment may influence a child's behaviour; hence inpatients were excluded from the study.
2. Children staying at home and attending therapy on an OPD basis, means their parents can practise learnt behaviour in actual scenarios, having more beneficial impact on the child's prognosis.

Instruments:

Semi structured interviews with the Child and Family Members:

A semi-structured Proforma for socio-demographic data interview was devised by the researcher for the study. Socio demographic data included information about the child and parents, specifically focusing on age, sex, education, occupation, income, number of children, child's birth order, type of family, religion, health status, parenting style, child's temperament and chief complaints - onset, duration and treatment details were included.

Disruptive Behaviour Disorder Rating Scale (DBDRS):

The Disruptive Behaviour Disorder Rating Scale developed by Pelham et al. in 1992 measured symptoms of Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder and Conduct Disorder based on DSM-IV criteria. DBDRS consisted of 45 items, of which 41 measured DBD symptoms. Of these, 18 items measured Attention Deficit Hyperactivity Disorder, 8 items measured Oppositional Defiant Disorder and 15 items measured Conduct Disorder. The instrument was used for screening of the patients.

Family Assessment Schedule (FAS):

The Family Assessment Schedule (Girimaji et al, 1999), also known as the Modified Family interview for Stress and Coping in Mental Retardation

(FISC-MR), is a semi structured interview schedule to systematically elicit and quantify :-

- The stress experienced (perceived) by families caring for children with DBD (contains 11 subscales) and
- Certain key coping resources available for the family which are likely to modify the perceived stress (mediators - contains 9 subscales).

Anger Assessment Checklist (AACL):

The AACL was developed by Karpe (1993), the checklist consisted of 35 statements in the first person and two open ended items. Each statement is rated on a five point scale from 'never' to 'always' based on the extent to which the statement was applicable to them. The scores of the tool ranged between 35 and 175 and were classified according to mild/ moderate/ severe anger.

Visual Analogue Scale (VAS):

The Visual Analogue Scale is a 10 cm long line marked from 0-10, at an interval of 1 cm each. Zero indicated no anger while 10 indicated the maximum amount of anger experienced (Aiteken 1969). Children were asked to rate their anger based on this scale.

Strength and Difficulty Questionnaire (Goodman, 1997): (SDQ)

The SDQ had 25 items divided into 5 scales of 5 items each, covering conduct problems, hyperactivity, emotional symptoms, peer problems and prosocial behaviour.

The researcher focused on peer problems and prosocial behaviour subscales, to assess the social competence of children with DBD.

Self-observation of Play

Play observation included the child's way of play initiation, communication, emotional expression, energy levels, attention and concentration, social interaction, abnormal patterns of behaviour, special skills, contents of play, and any other significant findings. Play observation was supervised and rated, or recorded and then rated, by an expert.

Results

Play therapy has significant beneficial impact on anger, aggression control, and improving social competence in children with DBD. It also helps to reduce family stress and improve coping. Results showed a significant decrease in externalizing behaviours, and decreased parenting stress in both study groups. Various socio demographic parameters were assessed during the study, as mentioned in the instrument details, which were very specific and significant to the study findings, and are described here. As per Chi square analysis, both study groups were found to be homogeneous. In the experimental group, the majority of children were aged 5-6 years old (47.6 %), and 6-7 years old (42.9%), whereas in the control group (61.9%) were aged 6-7 years old. The minimum age of the children was 3 years 5 months old, while the maximum age was 7 years old. The Chi square value of 5.97, at a degree of freedom of 3, is 0.113, which is more than 0.05, hence there is no significant difference between the children's age groups in both groups. The majority (>50%) of parents (father & mother) were in the age group 31-40 years old. The minimum age of a father was 28 years old, while the maximum was 50 years old, whereas the mother's minimum age was 24 years old, and the maximum age was 43 years old. The majority of children with DBD (95.2% in experimental and 81% in control) were males and a majority (76.2% in experimental and 90.5% in control group) had difficult temperaments.

Figure 1: Bar diagram of distribution of study sample based on type of family

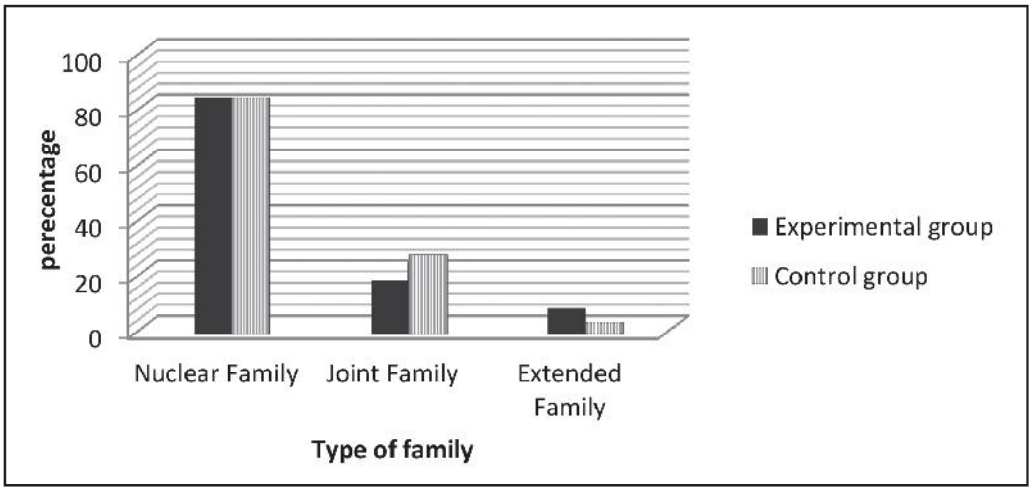

Figure 1 indicates that a majority 81% & 76.2% were from a nuclear family, 14.3% & 23.8% were from a joint family, & 4.8% were from an extended family in the experimental and control groups respectively. Chi square p value 0.465 (1.53; df 2) indicates p>0.05, hence both groups didn't have a significant difference and were homogeneous considering the type of family. The majority of fathers in the experimental group (52.4%) and control group (61.9%) used permissive parenting, whereas 52.4% of mothers in the experimental group used permissive parenting, and 47.6% of the control group used authoritative parenting while managing their child. The findings on DBDRS comparisons of ADHD (Inattention and hyperactivity), ODD behaviour and conduct problems before and after intervention, within group analysis using paired t test in experimental and control group indicated ($p<0.05$), showed significant improvement in both the study groups after play therapy intervention and treatment as usual in the experimental and control groups respectively. Between group analysis using independent t test shows, $p>0.05$, no statistical difference was noticed in both study groups, whereas parents reported beneficial impact in the experimental group.

Table 1: Effect of play therapy on child's anger and aggression using AACL (N=42)

Anger & Aggression	Experimental Group n=21		t_{20}	Sig	Control Group n=21		t_{20}	Sig	Between Groups	
	Mean	SD			Mean	SD			t_{40}	Sig
AACL Pre intervention	2.90	0.63			2.62	0.74				
AACL Post intervention	2.67	0.58	2.02	0.56	2.43	0.51	1.71	0.104	1.42	0.163
VAS Pre intervention	8.19	1.40			8.00	1.23	3.25		-3.79	
VAS Pre intervention	8.19	1.40	7.28	**<0.001**	8.00	1.23	3.25	**<0.001**	-3.79	**<0.001**

Table 1 shows within group comparison and post intervention scores of anger and aggression of the child, objectively expressed by parents (AACL) & subjectively expressed by the child (VAS). Paired t test in AACL findings within the group and between both study groups, show no significant difference in the child's level of anger and aggression after intervention. Whereas the parents' report indicates a decrease in frequency and intensity of anger and aggression at home as well as in a social scenario. Paired t test findings in VAS within the group, and between both study groups, show significant difference in the child's level of anger and aggression after intervention.

Table 2: Effect of play therapy on social competence (peer problems, prosocial behaviour) based on SDQ findings (N=42)

SDQ SUBSCALE	Experimental Group n=21		t_{20}	Sig	Control Group n=21		t_{20}	Sig	Between Groups	
	Mean	SD			Mean	SD			t_{40}	Sig
Prosocial behaviour pre intervention	5.10	2.47			6.67	2.67			-1.98	.055
Prosocial behaviour post intervention	6.38	2.16	-2.49	**.022**	7.29	2.55	-1.01	**.323**	-1.24	.222
Peer problem pre intervention	4.52	1.63			5.38	1.16			-1.96	.057
Peer problem post intervention	4.38	1.24	0.45	.658	5.48	2.04	-.241	.812	-2.10	**.042**

Table 2 shows within group comparison of pre & post intervention scores of the child's social competence, objectively expressed by parents. Paired t test findings of prosocial behaviour in the experimental group were (t=-2.49; df 20) $p<0.05$, showing significant improvement, whereas in the control group (t value -1.01; df=20) p=0.323, hence no significant difference was noticed in the child's level of prosocial behaviour.

Between group comparisons of prosocial behaviour using an independent t test shows no statistical significant difference between both study groups, but parents from the experimental group reported improved prosocial behaviour. In peer problems, no significant improvements were noticed within the group, but the between groups comparison showed p value < 0.05, hence a significant reduction in peer related problems were seen in the experimental group, rather than the control group.

Table 3: Family stress perceived within and between the experimental & control groups based on Family Assessment Schedule findings (N=42)

FAS Components	FAS Subscale	Experimental Group n=21		t_{20}	Sig	Control Group n=21		t_{20}	Sig	Between Groups	
		Mean	SD			Mean	SD			t_{40}	Sig
Daily Care Stress	Extra Inputs For Care-Pre	2.86	1.2			2.95	1.07			-0.272	0.787
	Extra Inputs For Care-Post	1.76	0.7	4.6	**<0.001**	2.1	0.77	3.7	**0.001**	-1.469	0.15
	Decreased Leisure Time-Pre	2.62	1.16			2.67	1.43			-0.119	0.906
	Decreased Leisure Time-Post	1.52	0.98	4.42	**<0.001**	1.14	0.96	6.22	**<0.001**	1.27	0.212
	Neglect Of Others-Pre	2.14	1.2			2.29	1.27			-0.375	0.709
	Neglect Of Others-Post	1.29	0.96	3.18	**<0.001**	0.86	0.79	5.62	**<0.001**	1.581	0.122
	Disturbed Behavior-Pre	2.52	1.08			2.9	1			-1.19	0.241
	Disturbed Behavior-Post	1.62	0.67	3.8	**0.001**	1.67	0.73	6.38	**<0.001**	-0.22	0.827
Family Emotional Stress	Personal Distress-Pre	2.95	1.07			3	0.89			-0.156	0.877
	Personal Distress-Post	1.57	0.81	5.09	**<0.001**	1.48	0.68	8.58	**<0.001**	0.413	0.682
	Marital Problem-Pre	2.29	1.1			2.05	1.02			0.725	0.472
	Marital Problem-Post	1.05	0.86	4.65	**<0.001**	1.1	0.89	4.48	**<0.001**	-0.176	0.861
	Other IPR Problem-Pre	1.48	1.21			1.33	1.32			0.366	0.716
	Other IPR Problem-Post	0.67	0.8	3.44	**0.003**	0.52	0.6	4	**0.001**	0.656	0.515
	Effect On Siblings And Other Worries-Pre	0.9	1.04			1.05	1.12			-0.428	0.671
	Effect On Siblings And Other Worries-Post	0.57	0.68	2.32	**0.031**	0.48	0.51	3.87	**0.001**	0.515	0.61
Social Stress	Altered Social Life-Pre	2	1.26			2.38	1.4			-0.927	0.36
	Altered Social Life-Post	1.05	0.67	4.07	**0.001**	1.14	0.73	4.5	**<0.001**	-0.442	0.661
	Social Embarrassment-Pre	1.9	1.09			2.43	1.16			-1.504	0.14
	Social Embarrassment-Post	0.86	0.91	4.3	**<0.001**	1.1	0.62	6.01	**<0.001**	-0.988	0.329
Financial Stress	Financial Stress Pre	1.24	1.14			2	1.26			-2.054	0.047
	Financial Stress Post	0.67	0.86	2.83	**0.01**	1.29	0.85	3.63	**0.002**	-2.358	0.023

Table 3 shows the findings in all areas such as daily care, emotional, social and financial stress (p value<0.05). Significant improvements were noticed within both study groups. No significant difference was noticed between both study groups, except in financial stress. Despite no statistical significant difference between the experimental and control groups, the parental report in the experimental group suggests clinical improvements in the child's behaviour and family interaction processes improved in the experimental group.

Table 4: Coping strategies adopted by families to overcome stress within and between the experimental and control groups based on Family Assessment Schedule findings (N=42)

FAS Components	FAS Subscale	Experimental Group n=21		t_{20}	Sig	Control Group n=21		t_{20}	Sig	Between Expt. & Control Groups	
		Mean	SD			Mean	SD			t_{40}	Sig
Awareness About Child's Problem	General Awareness About DBD Pre	2.24	0.83	3.93	**<0.001**	2.1	0.7	6.64	**<0.001**	0.602	0.55
	General Awareness About DBD Post	1.48	0.6			1.19	0.51			1.658	0.105
	Misconceptions-Pre	2.05	0.67	3.83	**<0.001**	1.9	0.62	4.18	**<0.001**	0.715	0.479
	Misconceptions-Post	1.43	0.51			1.19	0.51			1.514	0.138
Attitudes And Expectations	From Child-Pre	1.76	0.54	4.69	**<0.001**	1.57	0.6	3.53	**0.002**	1.085	0.285
	From Child-Post	1.24	0.44			1.05	0.22			1.789	0.081
	General Attitude Towards Child Pre	2.19	0.68	6.17	**<0.001**	2.05	0.92	4.39	**<0.001**	0.572	0.57
	General Attitude Towards Child Post	1.38	0.59			1.14	0.69			1.581	0.122
	Attitude Towards Management Pre	1.81	0.6	3.21	**0.004**	1.9	0.7	5.59	**<0.001**	-0.473	0.639
	Attitude Towards Management Post	1.33	0.48			1.14	0.36			1.451	0.155
Child Rearing Practices-	General Rearing Practices Pre	2.29	0.72	4.56	**<0.001**	2.29	0.78	6.25	**<0.001**	0	1
	General Rearing Practices Post	1.57	0.6			1.1	0.3			3.262	0.002
	Specific To Training Pre	2.05	0.59	4.38	**<0.001**	2.05	0.59	6.64	**<0.001**	0	1
	Specific To Training-Post	1.48	0.51			1.14	0.36			2.445	0.019
Social Support	Social Support -Pre	2.1	1	2.42	**0.025**	2.43	0.87	5.12	**<0.001**	-1.155	0.255
	Social Support -Post	1.67	0.66			1.43	0.68			1.156	0.254
Global Family Adaptation	Global Family Adaptation -Pre	2.62	0.59	6.48	**<0.001**	2.38	0.59	7.2	**<0.001**	1.309	0.198
	Global Family Adaptation-Post	1.62	0.67			1.24	0.44			2.185	0.035

Table 4 above shows p <0.05 in both study groups i.e. significant improvements were noticed within both study groups. No significant difference was noticed between both study groups, except in child rearing practices-general rearing practices, child rearing practices-practices specific to training, global family adaptation. Although there was no statistical significant difference between both study groups, the parental report in the experimental group suggests clinical improvements in the child's behaviour and family interaction processes improved in the experimental group.

Discussion

Behavioural problems in the child point towards the involvement of multiple factors, such as the child's temperament, inconsistent and faulty parenting techniques, environmental triggers, etc. Considering these assumptions, the researcher used an approach to involve parents and children in play therapy, in order to handle childhood behavioural problems. A meta-analysis of 94 play therapies (from 1947 to 2001) conducted by Bratton, Dee, Tammy, & Leslie (2005) on the effectiveness of play therapy, revealed that effects were more positive for humanistic treatments, 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. Similar findings were noticed in the current study and hence the involvement of parents in the play therapy sessions. . Some research has been conducted independently on behavioural management techniques involving parents, which proved that teaching parents how to handle these childhood behavioural problems has a significant impact on the child.

Current study also suggests that the PMT has a beneficial effect, but the addition of play therapy helps parents to understand their child, his reactions in particular situations, and how to manage it. Parents feel closer to their child which they never felt before, starting with the sessions. Use of play therapy allowed the child to communicate his/her problems to the therapist and parents, while also allowing parents to interact and develop healthy child parent relationships through play. The Researcher stressed management of specific problems such as anger control and social behaviour through directive play activities. The findings of AACL indicated that, there was no statistical significant reduction in anger and aggression even after the intervention in the experimental group. The same findings were seen when comparing both study groups. However, parents reported a considerable reduction in intensity of the child's anger and aggression after their involvement in play therapy intervention within the experimental group, which was not seen with the parents of the control group. Similar findings were studied by **Vijaya (1995)** in her study on the effectiveness of non-directive play therapy for emotionally disturbed children and found no significant difference in the outcome variables. However, variations in clinical improvements were seen. Such findings are seen in studies by Wilkes-Gillan, Bundy, Cordier & Lincoln (2014), Shaheen (2014), Abdollahian, Mokhber, Balaghi & Moharrari (2013), Halperin et.al (2013), Pfeifer, Terra, dos Santos, Stagnitti & Panúncio-Pinto (2011), Wilkes, Cordier, Bundy, Docking & Munro (2011), Jafari, Mohammadi, Khanbani, Farid & Chiti (2011), Cordier, Bundy, Hocking & Einfeld (2009), Rye, Norfolk & Waveney (2008), Bratton, Dee, Tammy, & Leslie (2005), and Vijaya (1992). A reduction in the child's behavioral problems and the parents' ability to handle these problems in turn, helped parents to reduce stress and improve coping, and vice a versa. Current study also suggests that the PMT has a beneficial effect, but the addition of play therapy helped parents to understand their child and his/her reactions in particular situations,

and how to manage them. Parents felt closer to their child after starting the sessions. Use of play therapy allowed the child to communicate his/her problems to the therapist and parents, and allowed parents to interact and develop a healthy child-parent relationship through play. The researcher stressed management of specific problems, such as anger control and social behaviour, through directive play activities. The findings of AACL indicated that there was no statistically significant reduction in anger and aggression, even after intervention in the experimental group. The same findings were seen while comparing both study groups. However, parents reported a considerable reduction in intensity of the child's anger and aggression, after their involvement in play therapy intervention within the experimental group, which was not seen with the parents of the control group. Similar findings were studied by Vijaya (1995) in her study on the effectiveness of non-directive play therapy for emotionally disturbed children, and found no significant difference in the outcome variables.

Suggestions for further research:

1. Follow up assessment of the children studied can be carried out one year later, in order to demonstrate the sustainability and retention of gained skills.

2. A qualitative study/ mixed method research can be conducted in the same area.

3. Future study can be conducted on a larger sample in order to generalize the findings.

Conclusion

Play therapy is based on developmental principles and thus provides, through play, developmentally appropriate means of expression and communication for children. Therefore, skill in using play therapy is an essential tool for mental health professionals who work with children. Therapeutic play allows children an opportunity to express themselves fully and at their own pace, with the assurance that they will be understood and accepted. The study demonstrates that behaviour therapy, such as parent management techniques, contributed to addressing issues of parenting, whereas the use of play helped the parents to connect with their child at a specific level, in joyous, process-based activities, where there is no pressure of correct outcomes, thus enabling the child to experience a more loved and validated sense of personhood.

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