Psychoeducational Treatment of Children with Autism and Reactive Attachment Disorder
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What is This?
Psychoeducational treatment of children with autism and reactive attachment disorder

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Abstract

The aim of the study was to evaluate and compare the efficacy of short-term psychoeducational treatment in children with autism and reactive attachment disorder (RAD). Ten boys with autism aged 24–66 months and 11 children with RAD (nine boys and two girls) aged 30–70 months were included in the study. The Ankara Developmental Screening Inventory was used to monitor progress following a 14-session psychoeducational programme. This focused on establishing a reciprocal-dyadic interaction between children and their caregivers and it also provided an educational programme for emotional, social, and language development. Although both groups showed significant changes on all scales of the ADSI, the children with RAD showed greater improvement than the autism group in their total development score, on the language-cognitive subscale, and in social/self-care abilities.

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Introduction

Impairments in reciprocal social interaction in children are seen in their most extreme form in autistic spectrum disorders. However, there are other clinical conditions involving social impairments that may seem 'autistic-like' but do not meet criteria for autistic disorder (Scheering, 2001). Reactive attachment disorder (RAD) is one of these conditions. The presence of inappropriate social interaction (DSM-IV: American Psychiatric...
Association, 1994), delays in language development and deficits in communication skills (Bowlby, 1969; Cicchetti, 1989; Gaensbauer and Sands, 1979; Mukaddes et al., 2000; Provence and Lipton, 1962; Richter and Volkmar, 1994; Spitz, 1945) and self-stimulating behaviours in children with RAD (Mukaddes et al., 2000; Richter and Volkmar, 1994) cause difficulties in differentiating this condition from autistic disorders. DSM-IV notes the necessity of the existence of pathogenic care for diagnosis of RAD. Richter and Volkmar (1994) in their RAD case series also argue that ‘response to treatment’ is an important factor in distinguishing between the two clinical entities of RAD and autism.

Psychoeducational treatment, social skills programming, behavioural modifications and parent support programmes are some treatment approaches that can be applied to cases with social, communicative and behavioural problems (from autistic disorders to RAD). Treatments based on behavioural strategies are amongst the best evaluated for children with autism and it appears that such treatments are most effective if they involve parents and are implemented early in the child’s development (Lovaas, 1987; Schreibman, 2000). Ozonoff and Cathcart (1998) evaluated the effectiveness of a TEACCH-based home programme intervention for young children with autism. In this project they taught parents how to work with their preschool autistic children at home, focusing on cognitive, academic and pre-vocational skills essential to later school success. Children in the home programme treatment group improved significantly more than those in the non-treatment control group on the Psychoeducational Profile–Revised (PER–R) subtests of imitation, fine motor and conceptual skills. The authors suggested that home programme intervention was effective in enhancing development in young children with autism.

In RAD intervention is complicated by the fact that there are frequently comorbid mental health, medical and developmental conditions that also need to be assessed and treated (Hanson and Spratt, 2000). Although a variety of treatments including dyadic psychotherapy (Keren et al., 1998) and psychoeducational treatment (Mukaddes et al., 2000) have been utilized, there is a little evaluative assessment of therapeutic approaches for this condition.

In the present study we aimed to provide a standardized psychoeducational intervention package derived from the TEACCH-based home programme (Schopler, 1987; Schopler et al., 1984; 1995) to children with autism and children with RAD and to compare their responses to the same programme.
Method

Assessments

Participants were referred to our Pervasive Developmental Disorder Clinic because of their problems in social-affective and communicative areas.

At the time of referral, all patients and their mothers and fathers were evaluated using a semi-structured interview format. This interview includes 75 items and was designed (by the first author) to assess the psychiatric symptoms of cases with pervasive developmental disorders (PDD) and to differentiate cases with RAD from PDD groups. The first part of this interview retrospectively reviewed family history, pregnancy, emotional, social, motor and language development and behaviour in the children. It also assessed the quality of care given to the children from birth to the referral time and collected information on pathological care, abuse, neglect and other environmental factors. The second part of the interview evaluated present psychiatric symptoms including deficits in communication, imitative abilities, and behavioural problems. Two 45 minute interviews took place. The mother–child relationship was observed during a third assessment of 20 minutes duration. Interviews were conducted by the first and second authors. After all interviews and investigations were completed, children who had experienced significant pathological care and neglect were considered for a diagnosis of RAD. Diagnoses of both groups were made using DSM-IV criteria. Since criteria for the presence of pathogenic care are limited, two clinicians independently assessed the following issues in the interviews and determined the presence or absence of pathogenic care:

• the quality of interaction between the mother or primary caregiver and/or the father or secondary caregiver and the child
• level of responsiveness of the caregiver to the child’s need
• level and quality of emotional stimulation during interaction between the caregiver and the child
• level of physical and emotional support provided to the child by the caregiver
• quality of play activities, and the composition of a typical day in respect of the relationships between the caregiver and the child in different age groups.

The Ankara Developmental Screening Inventory (ADSI) (Savasir et al., 1998) was used to obtain parents’ reports about children’s development at baseline and at the end of intervention. The ADSI is a 154-item scale widely used in Turkey for the assessment and evaluation of social, cognitive and
communicative levels of children between 0 and 6 years old. Each item has three choices (yes, no, don’t know).

The ADSI includes four subscales. The total development score reflects the general development level of the child and it is obtained from the total of the four subscales.

- The language-cognitive subscale (65 items) contains items related to the child’s understanding and use of language, simple problem solving abilities and notions of numbers and time.
- The fine motor subscale (26 items) contains items related to visual-motor skills ranging from simple eye–hand coordination to complex fine motor behaviours.
- The gross motor subscale (24 items) contains items related to movement, strength, balance and coordination.
- The social interaction skills and self-care abilities subscale (39 items) contains items related to eating, drinking, dressing, self-care, toilet training, independence, social interaction and initiative taking.

The inter-rater reliability of the instrument for all age groups is high (Cronbach α = 0.99 for 0–12 months; 0.98 for 13–44 months; 0.88 for 45–72 months) (see Savasir et al., 1998).

Only those cases for whom both clinicians rated the presence of pathogenic care were diagnosed as having RAD.

Participants
Ten boys with autism aged 24–66 months (mean 43.20 ± 15.17) and 11 children (nine boys, two girls) with RAD aged 30–70 months (mean 48.36 ± 13.99) were included in the study. Children were diagnosed as having RAD on the basis that they had been exposed to emotional neglect and because of the lack of parenting skills of their caregivers. According to parental reports of the quality of care provided to their children in the first 2 years of life, children were exposed to social isolation for much of the time and received only minimal verbal-affective stimulation. Ten of 11 children were exposed to TV for between 5 and 11 hours per day in the first year of life and did not receive enough verbal-affective stimulus from their parents. Nine out of the 11 mothers reported their inability to understand and respond to their child’s needs. However, well-known risk factors associated with RAD/neglect, such as single-parent household, family disorganization, economic difficulties, parental mental retardation, social isolation, frequent changes in caregiving or repeated long-term hospitalizations were not found in this sample. Possible prenatal, perinatal and postnatal risk factors that seemed to be related to pathogenic care were: unplanned pregnancy (n = 8), disappointment of parents about the sex of
their children \((n = 5)\), psychiatric symptoms in mother during pregnancy \((n = 6)\), postpartum depressive symptoms \((n = 6)\), child’s physical problems after birth \((n = 1)\), and prematurity \((n = 1)\).

**Treatment**

All children and their mothers were enrolled in a standardized psycho-educational treatment programme conducted by experienced child educators. Each weekly treatment session lasted 45 minutes and focused on developing a reciprocal interaction between children and their parents, enhancing communicative language, modifying stereotypic behaviours and increasing self-care skills. The intervention focused primarily on parent training and was based on the principles and framework of the TEACCH programme principles (Schopler et al., 1995).

In the first stage of the programme (sessions 1 and 2), parents were informed about the nature of their children’s problems. Parents were also encouraged to verbalize their emotional states, and the most common issues raised concerned feelings of guilt. Strategies about coping with guilt were introduced, and parents were educated about how a stable and stimulating relationship could be started. They were also advised about play activities that were appropriate for children’s social-emotional development.

The second stage (10 to 12 sessions) consisted of child-directed play activities. Parents were given the opportunity to play and interact with their child, and to observe the interaction provided by the educator in the sessions. Parents were then able to practise these techniques at home. They were also given the opportunity to discuss feelings about the home and clinic sessions with the educator. Some clinic sessions involved the parent and educator working together on dyadic play activities and others involved only child and therapist. Parents were taught techniques to improve their children’s self-care skills and how to cope with aggression and other behavioural difficulties. Social and language training programmes were also introduced.

The final evaluative phase of the study was conducted after 3 months of intervention. This focused on the child’s social-emotional contact and communication skills in the parent–child relationship, interactions during play and the presence of psychiatric symptoms. Parents’ reports about possible improvements were also evaluated. Decisions about sending the child to a day care facility, requirements for additional language development interventions and further remedial interventions were assessed.
Results

All of the participants in both groups completed the treatment programme and both groups showed significant improvement in all subscales of the ADSI from baseline to post-intervention. On the ADSI the children with autism showed statistically significant improvements in total development score \((z = 2.81, p = 0.005)\), language-cognitive subscale \((z = 2.81, p = 0.005)\), social and self-care subscale \((z = 3.06, p = 0.002)\), fine motor subscale \((z = 3.05, p = 0.002)\) and gross motor subscale \((z = 2.66, p = 0.008)\) (see Table 1).

The children with RAD also showed significant improvements in total development score \((z = 3.06, p = 0.002)\), language-cognitive subscale \((z = 2.84, p = 0.004)\), social and self-care subscale \((z = 2.80, p = 0.005)\), fine motor subscale \((z = 3.06, p = 0.002)\) and gross motor subscale \((z = 2.80, p = 0.005)\).

However, compared with the autism group, children with RAD showed significantly more improvement in the total development score \((p = 0.05)\).

Table 1  Changes over the course of treatment for children with autism (group I) and children with RAD (group II)

<table>
<thead>
<tr>
<th>Treatment groups</th>
<th>Median (baseline)</th>
<th>Median (the end)</th>
<th>Significance (within the group)</th>
<th>Differences between the two groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total development score</td>
<td>6</td>
<td>9.14</td>
<td>9.41</td>
<td>10.64</td>
</tr>
<tr>
<td>Group I</td>
<td>16.50</td>
<td>22.50</td>
<td>(z = 2.81) (p = 0.005)</td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>18.56</td>
<td>34.00</td>
<td>(z = 3.06) (p = 0.002)</td>
<td></td>
</tr>
<tr>
<td>Language – cognitive subscale</td>
<td>4</td>
<td>8.36</td>
<td>4.54</td>
<td>6.86</td>
</tr>
<tr>
<td>Group I</td>
<td>15.50</td>
<td>20.00</td>
<td>(z = 2.81) (p = 0.005)</td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>16.50</td>
<td>29.50</td>
<td>(z = 2.84) (p = 0.004)</td>
<td></td>
</tr>
<tr>
<td>Social/self-care abilities subscale</td>
<td>6</td>
<td>9.00</td>
<td>3.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Group I</td>
<td>16.50</td>
<td>26.75</td>
<td>(z = 3.06) (p = 0.002)</td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>21.00</td>
<td>35.50</td>
<td>(z = 2.80) (p = 0.005)</td>
<td></td>
</tr>
<tr>
<td>Fine motor subscale</td>
<td>6</td>
<td>9.68</td>
<td>3.18</td>
<td>6.86</td>
</tr>
<tr>
<td>Group I</td>
<td>18.50</td>
<td>26.75</td>
<td>(z = 3.05) (p = 0.002)</td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>20.50</td>
<td>34.00</td>
<td>(z = 3.06) (p = 0.002)</td>
<td></td>
</tr>
<tr>
<td>Gross motor subscale</td>
<td>6</td>
<td>11.63</td>
<td>5.74</td>
<td>11.63</td>
</tr>
<tr>
<td>Group I</td>
<td>49.00</td>
<td>51.00</td>
<td>(z = 2.66) (p = 0.008)</td>
<td></td>
</tr>
<tr>
<td>Group II</td>
<td>50.00</td>
<td>57.00</td>
<td>(z = 2.80) (p = 0.005)</td>
<td></td>
</tr>
</tbody>
</table>

\(a\) Wilcoxon signed ranks test.

\(b\) Mann–Whitney \(U\)-test.
the language-cognitive subscale ($p = 0.01$) and the social and self-care subscale ($p = 0.04$) of the ADSI (Table 1). There was no interaction between the mean differences, group and sex ($p < 0.05$).

Discussion

The common characteristics of children with autism and RAD are delay in language development, impairments or restriction in social and emotional responsiveness, deficits in self-care skills and the presence of bizarre behavioural patterns. However, the two conditions have completely different aetiologies. In this study we aimed to compare the treatment responses of these two groups of children in the areas of social-emotional development, language and behavioural difficulties following a standardized treatment procedure.

The positive response to treatment indicates that the TEACCH approach is effective for both groups. Previous studies have demonstrated the effectiveness of TEACCH-based home intervention (Ozonoff and Cathcart, 1998) and supportive programmes for parents of children with autism. The response to treatment in our autistic group is similar to that reported by Ozonoff and Cathcart (1998) in terms of improvements in imitation, fine motor and conceptual skills. TEACCH-based programmes have also been found to be effective in the few existing studies of children with RAD (Mukaddes et al., 2000).

The paucity of treatment studies for RAD is a result of diagnostic difficulties. Until this diagnosis was included in DSM-III in 1980, severe maltreatment and deprivation were thought to be the most prominent causative factors and studies mostly focused on institutionalized children. However, despite the fact that all of the children in our study were living with their biological parents, they were not receiving adequate stimulation for their cognitive and emotional development, because of deficits in parenting skills. Nevertheless, the treatment programme resulted in rapid improvements and parents in both groups shows high levels of motivation in using what they had learned.

The finding that children with RAD showed greater improvements in language-cognitive skills, social development and self-care skills than the autistic group replicates the results of Richter and Volkmar (1994) who reported that children with RAD showed better response to treatment than children with autism. These authors have emphasized the importance of ‘the treatment response’ in differential diagnosis of these two groups of children. Mukaddes et al. (2000) also found improvements in children with RAD following modification of environmental factors, and it was their rapid
response to treatment that was the key element in distinguishing them from children with PDD.

In conclusion, although this study has a number of methodological limitations, such as small sample size and a relatively short follow-up period, it is important in terms of being the first study to evaluate the responses of children with RAD and autism in a standardized treatment programme. However, there is a need for further research in this area with larger samples and longer-term follow-up.

References

