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Combining Day Patient Treatment With Family Work in a Child Psychiatry Clinic

Maurice Place, Selowa Rajah, and Thomas Crake

Department of Child, Adolescent and Family Psychiatry, Sunderland District General Hospital, Kayll Road, Sunderland, SR4 7TP, UK

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Summary. The 81 youngsters who began attending a day treatment programme within a 1-year period were assessed using an interval design. The children ranged in age from 18 months to 16 years and attended with similarly aged children for 1 day a week. The treatment programme combined family therapy with the day unit's milieu therapy and specific individual treatment programmes for the child. The results indicate that the combination of a 1 day a week attendance and family therapy had a significant clinical impact upon the problems. The pattern of improvement observed would suggest that the day-unit attendance made a unique contribution to the overall outcome.

Key words: Child – Day hospital – Treatment outcome

Introduction

The treatment of psychological difficulties in children has progressed a long way since Emmanuel Miller established the first Child Guidance Clinic in London in 1927 (Renton 1978). In particular day-unit treatment provision has shown a significant increase since Connell described the development of a day hospital for children in the early sixties (Connel 1961). A review of the day units for children in the London area carried out in the early 1970s (Bentovim and Lansdown 1973) revealed that there was a variety of provision, but subsequently it has tended to be the pre-school settings which have received research attention (Coleman et al. 1977; Richman et al. 1983). In fact the steady development of day unit facilities in child psychiatry has occurred although only a few studies have attempted to consider the effectiveness of this type of setting (Chazin 1969; Gold and Reisman 1970; Zimet and Farley 1985).

Hersov and Bentovim (1977) observed that day-units tend to be organised upon similar lines to inpatient units, but this structure may prevent them from exerting their maximum therapeutic effect. In Sunderland there has, for some 12 years now, been a day unit facility which is organised so that children of a similar age attend on the same day each week (Taylor and Place 1986). The unit serves the Sunderland Borough, which is an urban area with a resident population of 320,000, of which 71,000 are children under the age of 16 years. The area has a high level of unemployment, and the local population, which is rather insular, has virtually no ethnic minorities.

The department operates with a family focus, and a majority of the referred families would be offered sessions of family therapy using a broadly systemic model (Burnham 1986). Admission to the day unit is sought when a more detailed understanding of the child's individual development is required, or when the youngster's interactions outside the family have to be assessed. In addition a day unit referral is used as a way of initiating treatment programmes which focus on the child. About a fifth of all referred cases attend the department's day unit, the admission tending to occur early in the treatment process. The day unit programme is based on a milieu concept with variations being introduced according to the perceived needs of the specific age groups. For instance the group of children who are under 5 years of age use activities such as water play and shops. Testing out behaviour is dealt with initially by using a time-out procedure, but this is modified to suit the needs of each child, as they become known. The degree of staff control reduces with each age group, such that the adolescent group are expected to meet with the staff to plan the activities for their day of attendance. The programme for the teenagers' day commonly contains small discussion groups which focus on areas such as bullying or avoiding trouble. By structuring each day to meet the needs of the specific age group, the day unit staff have created an environment which is flexible, and in which specialised techniques, for the group or the individual, can flourish (Frommer 1983). A central feature of the day unit's programme is that the staff develop an empathic relationship with each of the children. In this context empathy is

Offprint requests to: M. Place

seen as the therapist resonating with the child's affective experiences so that the therapist can share the child's subjective world (Olden 1953).

Although this regime has been in operation for several years its effectiveness has never been critically appraised. In an attempt to do this the youngsters who commenced attending the day unit within a calendar year were studied using an interval design.

Subjects and Methods

The study group was made up of all the youngsters who were referred to the department's day unit during the year 1985. The details of each case were recorded using The Sunderland Inventory. This instrument was originally designed for use with a wide age range, and detailed analysis of its reliability and validity in a young adolescent population has already been described (Place et al. 1985). Briefly, it consists of 118 items which are either nominal or ordinal scales and these are grouped into eight sections. The first two sections give details of the present family circumstances and the family history. The third section records the personal history of the identified patient. The fourth section, the symptom profile, records the intensity of the presenting signs and symptoms, with each symptom being rated on a nine-point scale. Experience with the inventory indicated that minor modifications were necessary to this section to improve its performance with younger children. For the purposes of this particular project the total score obtained from this symptom profile was also recorded separately and used as a measure of the child's current difficulties. A global assessment of the child's functioning is also made, using all the available information. The functioning of the family is assessed by comparing the family with vignettes in the inventory's manual. An overall global rating of the family's functioning is then made, again using information from all sources. The last two sections record the formulation of the case and any formal diagnoses, such as schizophrenia, that may have been made.

The Sunderland Inventory has previously demonstrated good reliability (Place et al. 1985), but because of the minor changes which had been made to the symptom profile this was reassessed by analysing ten cases, chosen at random. The degree of interrater reliability, using a chance-adjusted measure of specific agreement (Uebersax 1983) was calculated for each of the items. The kappa coefficient (Cohen 1960) for the total score was 0.87, with individual items ranging in reliability from 0.78 to 0.91. These are very similar to the original findings and indicate that the minor changes had not altered the instrument's performance.

To provide an assessment of the youngster's progress in the day unit the symptom profile and the two global ratings were rescored when the child was admitted and when the child's attendance ceased. Two years after leaving the day unit the index child's functioning was reassessed using the inventory, by a team member blind to the previous scores. To assist in assessing overall outcome, information was also gathered from local social services departments, the education department and, where appropriate, adult psychiatric colleagues.

Over the period of the study the staff group of the day unit did not change, and there were no changes in structure or routine. Eighty-one children formed the study population, 35 of whom were girls. The children ranged in age from 18 months to 16 years, with the mean age being 9.5 years (SD = 3.44). Twelve of the youngsters were 5 years or under, 23 were between 6 years and 8 years, and 27 were between 9 years and 12 years, with the remaining 19 being 13 years or over. Analysis of the social class distribution showed that 5 cases came from social classes I and II with the remainder evenly spread between classes III (24), IV (25), and V (27). When compared with the social class distribution for the borough (Office of Population Censuses and Surveys 1981), it is clear that the clinical sample has a large preponderance of social class IV (30.8% compared with 17% in the general population) and V (33.3% compared with 7% in the general population) families.

Results

Twenty-four elements of behaviour were rated, and the number of youngsters displaying the commonest difficulties are shown in Table 1. The most frequent problem was conduct disorder, which included defiance, lying and negative behaviour. Over the study period there were no cases of anorexia nervosa, hypochondriacal complaints, marked sleep disruption or frank psychosis. At the initial interview more boys tended to present with overactivity than girls, and over half of the boys presented as functioning emotionally at a level more typical of a younger child (immaturity) (Table 2). Overall 68% of the youngsters were rated as showing significant behavioural problems or emotional difficulties. In 17 cases the problem had been evident for more than 18 months, and in 23 cases the problem had only emerged in the last 6 months.

Family work was an integral part of the treatment in most cases, but 6 of the youngsters who were referred

Table 1. Presenting problems of day unit attenders

	Boys ($n = 46$)		Girls ($n = 35$)	
	n	%	n	%
Conduct problems	32	70	19	54
In conflict with parents	17	37	18	51
Truanting	8	17	7	20
Enuresis/encopresis	6	13	7	20
Fearful of attending school	9	20	4	11
Conversion disorder	6	13	5	14
Deliberate self harm	5	11	6	17
Stealing	7	15	4	11
Anxiety symptoms	5	11	5	14
Depression	4	9	5	14
Violent outbursts	8	17	1	3
Running away	4	9	2	6
Concentration difficulties	4	9	0	0
Obsessional features	2	4	1	3
Overactivity	1	2	2	6

Table 2. Features evident at the initial interview

	Boys ($n = 46$)		Girls ($n = 35$)	
	n	%	n	%
Immaturity	29	63	17	49
Fidgetiness	22	48	16	46
Overactivity	18	39	8	23
Hostility	14	30	7	20
Passivity	8	17	7	20

Table 3. Family background factors

	Boys ($n = 46$)		Girls ($n = 35$)	
	n	%	*n*	%
History of marital problems	23	50	24	69
Mother has required psychiatric treatment	16	35	17	49
Mother has deprived background	8	17	9	26
Mother under 20 years of age when patient born	9	20	7	20
Father has an antisocial history	5	11	8	23
Father has deprived background	5	11	7	20
Known history of child abuse	6	13	5	14
Father has required psychiatric treatment	4	9	1	3

Table 4. Family features at the initial interview ($n = 79$

	Boys ($n = 44$)		Girls ($n = 35$)	
	n	%	*n*	%
Enmeshed	16	36	10	29
Mother overinvolved	13	30	10	29
Disengaged	14	32	7	20
Mother uninvolved	12	27	8	23
Little flexibility	10	23	7	20
No current father figure	8	18	7	20
With current father figure	($n = 36$)		($n = 28$)	
Father uninvolved	16	44	14	50
Father rejecting of the patient	11	31	6	21
Father overinvolved	8	22	4	14

were in the care of the local authority. Two of these had no contact with their families and so it was not possible to gather direct family information for them. As can be seen in Table 3, the families of the remaining 79 youngsters frequently had a history of marital discord, and in a high proportion of the cases (41%) the mother had received formal psychiatric help for herself. The family assessment highlighted that in a majority of the cases (61%) the emotional communication between family members and the rigidity of the boundaries between them was distorted (Table 4). In some families this took the form of diffuse personal boundaries between individuals and an inappropriate intrusion into each others' privacy (enmeshment). In others there were quite rigid boundaries between the family members, and it was evident that very little attention was given to the needs of others. This style of family functioning resulted in each member living a rather encapsulated existence (disengaged).

Table 5. The outcome of each case according to age group ($n = 81$ cases)

	<6 years	6–8 years	9–12 years	12–16 years	Total
Improved	11	19	23	13	66
Not improved/worse	1	4	4	6	15

Sometimes the assessment interview showed the family to have little potential for change (little flexibility). Most of these features were seen in the 34 families who were rated as showing marked family pathology.

In addition to the milieu approach and family work it was felt appropriate for 12 children to have individual psychotherapy, for 21 to commence behavioural programmes and for 4 to begin drug regimes. Of the 81, 11 participated in the social skills programmes which are organised twice yearly by the day unit team.

There was an average of 3.6 weeks between the initial assessment and the first attendance at the day unit. The average day unit attendance was 3.7 months, with 35 cases attending for less than 3 months, and 44 attending for between 3 and 6 months. In 2 cases the youngsters attended for about 1 year.

At the time of discharge from the day unit the symptom profile total score of 68 of the youngsters had reduced, 37 of these being boys. Of the boys' families, 30 were judged to be functioning better at the time of discharge from the day unit, and 19 of the girls' families were showing similar improvement. There was nothing to indicate that the duration of attendance in the day unit had influenced the degree of improvement noted either in the child or the family. All cases continued to be seen on an outpatient basis for a time after discharge from the day unit. Thus the average duration of all treatment in the department was 4.6 months. Fifteen of the cases were in treatment for a total of less than 3 months, with 35 being seen for between 3 and 6 months, and the remainder (31 cases) being seen for a total of between 6 and 18 months.

When all the children were reviewed after 2 years, 11 showed a further improvement from the discharge assessment and 12 showed some degree of deterioration over that period. When the initial assessment and follow-up data were compared (Table 5), 15 of the youngsters were found not to have improved in their functioning between these points, and 8 (6 of whom were boys) had not shown even a transient improvement at any of the assessment points. As can be seen in Table 5, overall the adolescent group was the group with the highest proportion of poor responders, although using Fisher's exact test the scores for the various age groups do not show differences which are statistically significant.

An advantage of the A–B–A design is that it permits a comparison of the patients' functioning at each of the assessment points to be made. It had, however, not been possible to obtain follow-up information on 3 of the children. Two had shown no improvement in symptomatology during their day unit attendance, and 1 had made

Table 6. Comparision of the mean scores obtained from the symptom profile at the four points of assessment using a one-way analysis of variance and post hoc S method ($n = 81$ cases)

Mean sores				Comparison	*P*-Value
Initial assessment (P1)	Admission (P2)	Discharge (P3)	Follow-up (P4)		
20.27				P1 v P2	NS
	20.21			P2 v P3	0.001
		7.9		P3 v P4	NS
			10.72	P1 v P4	0.001

only minimal gains. For the purposes of calculation all were assumed to have become more symptomatic over the follow-up period, and accordingly their discharge scores were increased by five points. The scores from the four points of assessment were compared using a one-way analysis of variance (Table 6). This gave an F ratio of 24.25 ($P < 0.001$) and the high level of significance permitted the four points of assessment to be compared using the S method (Scheffe 1953). The S method analysis revealed no significant change between the scores obtained at the initial attendance at the department and those obtained at admission to the day unit. A highly significant change was evident when the scores recorded at the time of admission to the day unit were compared with those obtained at the time of discharge. Comparing the discharge scores with those obtained at follow-up showed a change that was not statistically significant. When the initial scores were compared with the follow-up scores a highly significant change was evident.

Discussion

The treatment of children within a psychiatric facility is difficult to evaluate because of the numerous factors which are at work in a child's life. Not only may the department's influence be operating, but also the extended family's, the education authority's, and sometimes the social services' as well. In addition the psychiatric intervention may take many forms. When considering the inputs offered it is important not only to identify the large therapy categories such as family work or individual therapy, but also the elements which make up each of these. For example, the day unit endeavoured to offer a flexible approach to the individual youngsters, which effectively meant that each child's experience of the treatment milieu was unique. Indeed the most constant feature of the day unit programme was the single weekly attendance. During the course of the study only three youngsters attended for a period on a daily basis. In two cases this arrangement lasted for 1 week and in one case it lasted for 3 weeks, while the youngster was prepared for a school return.

Routinely the day unit programme ran along side of work with the family, and so both elements made a contribution to the clinical response which was seen in each case. This style of working gave rise to the dilemma of how to integrate a predominately systemic family therapy philosophy with a day unit programme which clearly focused on individual psychopathology. The problem was resolved by accepting that presenting problems tend to have their roots in the family of origin and that it is important for symptoms to be seen in a family context (Olie 1982). It has become a cornerstone of practice within the department that a flexible, and at times inventive, approach must be maintained when seeking to influence a family's way of working. In our experience a day unit intervention can be a powerful adjunct to bringing about family change.

It has becoming increasingly evident that children show a powerful response to their environment (Rutter 1982) and this may lead to behaviour becoming specific to particular settings (Mischel 1968; Kolvin et al. 1977). In an effort to minimise this the day treatment programme was structured so that youngsters only attended for 1 day each week. It was hoped that this would produce improvements outside the department's day unit, because for most of the week the children would be in their usual school environment and retaining the major part of their daily routine. It was also hoped that this pattern of attendance would minimise the problems which can arise when children are treated out of the context of their families or away from their home environment (Rutter 1986).

The findings presented here have to be seen in the light of the limitations of the research design. It is well recognised that a treatment programme which includes milieu therapy creates particular problems with regard to evaluation (Dalgard et al. 1983). An interval design was adopted because it was not feasible to obtain a matched non-treatment control group for the sample, and also because such a design permits reasonably robust findings to be generated from a relatively small sample (Wing and Jeffery 1984). This methodology also mirrors routine clinical work and so may give a more realistic picture of the programme's effectiveness in the natural situation. Initially it was hoped that it might be possible to compare this sample with a group who had only received family work in order to try to determine the contribution which day unit attendance made to the overall outcome. However, the study populations were drawn from routine clinical referrals, and it quickly became evident that the cases referred to the day unit were of greater complexity and generally were displaying more severe symptoms than those treated solely as outpatients. Such differences would clearly prevent appropriate matching of cases to be carried out. Unfortunately the A–B–A design does carry with it the assumption that change will cease when treatment stops, an assumption that is at odds with clinical aims. A further potential source of error arises because in three cases there were no follow-up details available (Cox et al. 1977). However, by making a "worst case" assumption the direction of this error will be towards underestimating the effectiveness of the treatment package.

In setting up the project it proved difficult to decide which would be the most appropriate way of assessing

the youngsters' functioning. We had considered using a global rating made by a clinician, but Cronholm and Daly (1983), in reviewing the evaluation of psychiatric treatment, concluded that it was preferable to sum the severity scores of a number of separate items. However, Shaffer et al. (1983) maintained that symptom profiles alone may not give an accurate picture of general social adjustment. In an effort to resolve this dilemma we decided to use a symptom profile made up of several behavioural symptoms but also included items on peer relationships and family friction in order to broaden the picture.

Previous outcome studies have suggested that day unit treatment can produce lasting change. Robertson and Friedberg (1979) reported that 85% of their youngsters were still showing improvement at follow-up, and Zimet et al. (1980) indicated that all the children in their study were still showing some gains up to 2 years after discharge. Such studies have tended to be designed for highly disturbed groups of youngsters, which makes it difficult to draw direct comparisons with the present study. For example, 50% of the cases reported from the Cornell Medical Centre (Gabel et al. 1988) had been physically abused (compared with 14% of this sample). Indeed the patients who attend most of the day units reported in the literature were well described by Arajarvi and Oranen (1983) as "the most feared or the most harrassed" of children. Our sample was made up of children with generally a less severe level of difficulty, but some individuals did have marked psychological problems which significantly hampered their functioning. Similar problems of comparison arise when trying to judge a day unit's performance against inpatient treatment. However, it is interesting to note that the 84% improvement at discharge reported here is of the same order as that reported for the Kanner Unit, where 87% of the children were rated as improved at discharge, and 74% were still showing improvement at follow-up (Oliver and Knight 1984).

A further problem arises, however, when trying to determine which criteria will be used to indicate what has been a successful intervention. For example, Gabel et al. (1988) suggested that a criterion for the success of a day treatment programme should be that the child is still living at home at the time of discharge. This is perhaps not helpful because in the present study there were two cases where the clinician's regular contact with the child and family made it clear that the family's rejection of the child was irremediable and that this was exacerbating the emotional difficulties. In both cases the symptom rating fell markedly once the child had been received into the care of the local authority. For departments which use family therapy as the major treatment modality the success of an intervention may be judged more by the degree of improvement in overall family functioning than by the amount of symptom reduction which is evident in the child (Madanes and Haley 1977). However, we chose to focus upon symptom reduction because this not only corresponded with the aim of the day programme, but it was also the main thrust of the family work done within the department.

Conclusions

Falloon and Talbot (1982) have pointed out that day units for adult populations usually do not have clearly defined goals of treatment. In day units for youngsters this is less of a problem because with this client group there is usually an emphasis upon problem-solving. The problems tend to be defined either by the child, or by the parents, or by the professionals who are already working with the family. The programme of intervention described here was based upon the combination of a single weekly day patient attendance and regular therapeutic work with the family. The results from the four intervals of assessment suggest that the maximum change was noted during the period of day unit attendance, and that overall two-thirds of the youngsters showed symptomatic improvement between the initial assessment point and follow-up. This improvement may in part come about because the regime permits the children to remain established within their normal school and home environments.

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