Linköping University Medical Dissertations No 250

FAMILY INTERACTION AND FAMILY THERAPY IN CHILDHOOD PSYCHOSOMATIC DISEASE
A family systems approach to illness

Per A Gustafsson

Akademisk avhandling som för avläggande av doktorsexamen i medicinsk vetenskap kommer att offentligt försvaras i Berzeliussalen, plan 09, Cellbiologiska institutionen, Halsouniversitetet, Linköping, den 29 maj 1987, kl 09.00.
Opponent: Professor Pekka Tienari, Uleåborg, Finland.

Different aspects of the family systems approach to childhood psychosomatic and chronic disease were evaluated. A rating scale for family interaction assessment was developed and validated, theories of family interaction patterns in the families of children with psychosomatic and somatic symptoms were empirically investigated as well as efficiency of family therapy. The therapeutic process in family therapy was also briefly discussed.The family assessment method employed comprised video-recordings of interaction among family members as they performed certain standardized interaction tasks. The recordings were then evaluated by independent raters. This technique was originally designed for family research in the USA. The method was further developed by making operational definitions of a previous rating instrument more precise. The procedures were also modified to fit Swedish families.

The discriminative power of the modified instrument was then evaluated. Employing this improved technique a group of families whose children were patients at a Child and Adolescent Psychiatric out-patient department were shown to have significantly ($p<0.01$) more "extreme" (dysfunctional) patterns of family interaction (rigid or chaotic, disengaged or enmeshed, undistinct generational boundaries) compared with families in which the children had neither psychiatric nor psychosomatic symptoms.

Family interaction patterns were evaluated with the rating instrument in 22 families of children with severe, chronic bronchial asthma. Comparisons were made with 30 families of children with diabetes mellitus and 6 families with healthy children. Family interaction was significantly ($p<0.01$) more disturbed in the severe asthma group compared to both the diabetes group and the normal group. Interaction patterns in the latter two groups were similar. In children who were not steroid treated there was a correlation between measures of airway conduct- ance (PEF) and family dysfunction. There was also a tendency towards lower levels of IgE in children living in dysfunctional families suggesting that psychological factors could be of relatively greater importance in non-atopic children.

A prospective study of the role of family interaction for metabolic balance in children with diabetes was also made. Measures of family interaction patterns in the 30 families with children with diabetes were compared to metabolic balance 5 years later, when the patients were in adolescence. Levels of HbA1 were significantly ($p<0.05$) higher in the children whose families had dysfunctional interaction patterns 5 years earlier. This correlation was found mainly in the younger children in the group, who were <13 years of age at the family evaluation. In the older group (≥13 years of age), who at the follow-up were young adults, the impact of family interaction patterns on metabolic balance was not significant.

The value of family therapy in the treatment of childhood psychosomatic and chronic disease was evaluated in two ways. In the first approach the dependent variable was the symptoms of asthma in the children, in the second the utilization of pediatric in-patient care in cases where psychological factors was considered to contribute to the symptoms.

Twenty children with severe, chronic bronchial asthma were randomly divided into two groups. The families in one group received family therapy while the others served as a control group. All children received optimal conventional In a second step the control families were also offered family therapy. All children were followed for 3 1/2 years. Asthma symptoms, functional impairment and the use of drugs (from diaries) were rated in ten different ways for eight months

before and eight months after the family therapy. Improvement in the clinically most important variable, i.e. general pediatric assessment, was significantly ($p<O.O5$)greater in the children in the family therapy group compared to the control group. Of the 12 children who received family therapy 11 showed significant improvement at the follow-up ($p<0.01$).

The effects of family oriented child psychiatric treatment of 42 children with psychosomatic or somatic disorders on the amount of pediatric hospitalisation were evaluated in a retrospective study. Each treated child was paired to controls who were matched for diagnosis and age. A telephone interview regarding the families' attitudes towards treatment was also done. In total, hospitalization days were reduced by 75 % and medical care costs by 15% for the treated children, while there was a slight increase of hospitalization days and costs for the controls. In 32 out of 42 cases there was a greater decrease in number of hospitalization days for the treated children than for the matched controls, a clearly significant difference ($p<0.001$). About 2/3 of the treated families felt they had received help and understanding. They would want the same kind of help again if needed, and would readily recommend the treatment to others.

To get an understanding of what kind of therapeutic interventions that were used, and which of them had caused positive treatment effects, certain family therapy sessions in the asthma study (see above) were video-recorded. It was found that an active approach, where the therapists conducted the therapy sessions with focus on the symptoms of the child and gave directives for behaviour change was superior to a less structured technique. The active approach could both improve symptoms and change family interaction in a favourable direction. However, since methods for evaluation and analysis of the therapeutic process in family therapy are still tentative and the material investigated was small the results of this part of the study should be interpreted with caution.

The results of the study could be concluded as follows:
Valid ratings of family interaction could be made with the developed rating instrument.
Families with children, who had behavioural symptoms, or where psychosomatic aspects were considered to contribute to the somatic symptoms, showed "extreme" (dysfunctional) patterns of interaction, while healthy families were "balanced" in this aspect.
In families of child-psychiatric patients interaction patterns could be either rigid or chaotic, disengaged or enmeshed, while in families with severely ill asthmatic children patterns of rigid and enmeshed interaction dominated.
Interaction patterns in the families of diabetic children did not differ significantly from families with healthy children. It seems thus possible to maintain "normal" family relations in spite of severe, chronic, childhood disease. However, in the minority of families that were dysfunctional this was predictive of metabolic imbalance in adolescence.
Family therapy and a family systems approach in general improved psychosomatic symptoms in the children, seemed to improve family interaction and diminished the utilization of medical care.
-An active and directive symptom-oriented approach seemed to be superior to an approach of providing little structuring of treatment sessions.
Most families were content with the treatment given, however, the importance of clearness and empathy in the process of remittance and early phases of treatment was pointed out as essential.
- Child-psychiatric liaison to pediatrics and a family systems approach to child- hood psychosomatic diseases seem to be beneficial for the children and their families, and can be recommended as a mode for co-operation between child psychiatry and pediatrics.