Stress point interventions for parents of children in hospital with chronic conditions reduced stress and improved child and family functioning

Burke SO, Handley-Derry MH, Costello EA, et al. *Stress-point intervention for parents of repeatedly hospitalized children with chronic conditions*. *Res Nurs Health* 1997 Dec;20:475-85.

Question

Can a community based, stress point nursing intervention for parents of children with chronic conditions decrease distress and improve child and family functioning after discharge?

Design

Randomised controlled trial with follow up 2 weeks and 3 months after hospital discharge.

Setting

Children's outpatient clinics in 2 university teaching hospitals and surrounding communities in Ontario, Canada.

Patients

145 children and their families were screened, 111 agreed to participate, and 50 (52% boys) were included in the study. Mean age was 6.2 years (range 1-17 y), mean number of previous hospital admissions was 8.7 (range 2-50), and the mean age of the mothers was 35 years (range 25-56 y). Inclusion criteria were living at home, chronic or physically disabling condition of ≥ 8 months duration, and being at risk of hospital admission. Follow up was 96%.

Intervention

Randomisation was stratified based on diagnostic categories (neurodevelopmental, musculoskeletal, and other chronic conditions) and age (> 10 v ≤ 10 y), and occurred when a hospital admission was planned. 25 children were allocated to usual care (discussion of hospital procedures and treatments and child life programmes during admission). 25 children were allocated to the stress point intervention. It was run by a master's prepared nurse and included time with the child and family in their home 2 weeks before admission and after discharge. The intervention

focused on stress points identified by the child's primary care giver and included counselling to develop coping strategies, telephone access, and mailed information.

Main outcome measures

Developmental delays (Scales of Independent Behavior, short form), behaviour problems after discharge (Vernon Post Hospital Behavior Questionnaire), parental anxiety (State-Trait Anxiety Inventory), family functioning (Feetham Family Functioning Survey), and parental coping (Coping Health Inventory for Parents).

Main results

Anxiety was higher in the intervention group at 2 weeks ($p < 0.01$), but lower at 3 months ($p < 0.05$) than in the control group. Developmental age scores were decreased in the control group at 2 weeks but increased at 3 months; they were unchanged in the intervention group at 2 weeks and were higher than the control group at 3 months ($p < 0.001$). At 3 months, the intervention group had better scores for family functioning, parental coping, family care coping, social and personal care coping, and healthcare coping ($p < 0.01$). The groups did not differ for behaviour after discharge.

Conclusion

A stress point intervention for parents with children with chronic conditions increased coping and family functioning and reduced parental stress and child developmental delays after a planned hospital admission.

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Commentary

Regressive behaviour after hospital admission of essentially healthy children is well documented and well recognised by those who nurse children. This study by Burke *et al*, however, is the first to consider not only the phenomena of regression and distress in chronically ill children with multiple hospital admissions but also the effect of repeated admissions on the functioning of the family unit.

Although only 50 children and their parents were included in the study, a power analysis indicated this number to be adequate to detect differences between the experimental and the control groups. The stratified randomisation used by the researchers to minimise the influence of the confounding variables of diagnosis and age is a strength of this study. The

intervention programme is described in considerable detail, but little information is included on the duration of the sessions held in the home before and after hospital admission. Some insight into this aspect of the intervention would have been useful to readers and researchers interpreting the feasibility of using the strategy or contemplating a similar study. A more complete description of the intervention, however, will soon be published.¹

The strength of this study lies in the variety of variables assessed using previously validated instruments. When combined, the results provide valuable insight into aspects of child development, parental anxiety, coping, and family functioning as they relate to chronically ill children.

The findings highlight the potential for the chronically ill child to regress after hospital admission. Frequent admissions to hospital (2-50) may therefore compromise the development of these children over time. An awareness of these findings, and the stress point intervention strategies used by the authors should assist all nurses who care for chronically ill children in hospital or at home.

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¹ Kauffmann E, Harrison MB, Burke SO, et al. Stress point intervention for parents of children hospitalized with chronic conditions. *Pediatr Nurs* 1998 (in press).