

Commentary



Need for Residential Treatment for Children with Diabetes Mellitus

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Specialists in childhood diabetes in North America were queried about the need for residential facilities for their patients with recurrent hospitalizations and school deficits due to family coping problems. Of 132 respondents, 115 indicated a need for 5–12% of their patients, a total of 530, close to the estimate of 600 based on the number of places available for Danish, Dutch, and German children. *DIABETES CARE* 5: 545–546, SEPTEMBER–OCTOBER 1982.

The successful management of childhood diabetes requires a therapeutic alliance among the patient, family, and medical team.¹ This is achieved through education and frequent clinical and telephone contact to reinforce the educational effort and support the patient and family through problems.² However, when the family is unable to effectively cope with the diabetes, emotional turmoil, with its concomitant metabolic effects and nonadherence to the treatment program, can have disastrous effects. Psychological counseling and camping programs for children with diabetes have been effective in assisting many young people and their families to deal effectively with the demands of diabetes.³

When these conventional methods are unable to prevent frequent illness, somatization with the development of a "sick" image, and scholastic deficiency, few resources are available to solve the problem. Special residential centers may offer the last chance for stabilization and successful adult life for these patients.⁴

To estimate the magnitude of this problem in the United States and Canada, I queried colleagues treating children with diabetes about the need for residential facilities for their patients, and the resources they had available for long-term intervention.

METHODS

In June 1981, a questionnaire was sent to 550 physicians, including the membership of the Lawson Wilkins Pediatric Endocrine Society, members of the American Diabetes Association who had indicated an interest in the children and

youth section, and persons attending the special pediatric day session at the ADA Postgraduate Course in Phoenix, Arizona, January 1981. The questionnaire asked whether or not the physician saw a need for residential facilities for long-term rehabilitation of youngsters with diabetes who were having educational and health deficits resulting from home settings that were unable to cope. They were asked how many patients in their practice would likely need such a facility and how large their diabetes patient population was. They were further asked to describe any residential long-term care facilities available to their patients with diabetes.

RESULTS

One-hundred thirty-two physicians caring for children with diabetes returned the questionnaire; 115 indicated a need for residential facilities and 17 stated that there was no need. Not all who responded to the principal question gave the numbers from their practice and many who gave numbers of patients needing such facilities did not indicate the total number of patients. However, of those who provided both figures, the range was 0–30% requiring such facilities, although most indicated that 5–12% of their patients needed residential services. The total number of patients represented was 9500 and the number needing residential facilities was 530.

Sixteen individuals indicated that some facilities were available and several from the same area indicated the same facilities. In general, these were inadequate, and usually were for delinquents, mentally disturbed, or physically ill youngsters. In some cases the cost was as high as hospitaliza-

tion or the facility was just another variety of hospitalization. Stay was often limited to several months. Only one facility seemed to fit the model of European residential centers for children with diabetes, a farm setting in Virginia that was being developed for children and adolescents with chronic disease. Seven respondents added the comment that such resources were "desperately needed."

DISCUSSION

Specialists dealing with children with diabetes in North America recognize a clear and present need for residential treatment facilities for a substantial number of their patients. The European response to the problem of secondary disability and chronic school handicap has been the development of special homes. This has been found necessary even in societies considered relatively stable and lacking in social disruption, such as Denmark and Holland. The number of places needed in the U.S. and Canada, without any consideration of differences in social stability, ethnic homogeneity, age distribution, and diabetes rates can be calculated according to relative population. Germany, with a current capacity of 181 places for a population of 61 million, would provide an estimate of 717 places for the U.S. and Canadian population. Denmark's 17 places for 5 million people projects a need for 832 places, while Netherlands' 15 places for 14 million people suggests a need for only 260 places in the U.S. and Canada.* The average of these three projections is 600, similar to surveyed specialists' estimates of need for residential facilities for 530 youngsters with diabetes.

Studies are needed of the outcome and costs of diabetes in those youngsters who have severe problems coping with their diabetes and associated school handicap. There are no published reports of the effectiveness of the European homes, particularly comparisons of outcome in graduates of the residences and those with similar problems whose families did

not agree to place their children in the homes. We are presently studying cost-benefit and cost-effectiveness of a pilot program of extended residential intervention with child and family counseling;⁵ the patients are those for whom conventional efforts, including outpatient counseling, have failed to alter pathogenic family dynamics. Such data are necessary in order to determine whether a substantial investment in residential programs is warranted.

ACKNOWLEDGMENTS: Oonagh Kater provided editorial assistance. This research was supported by contracts from the Department of Health and Rehabilitative Services of the State of Florida.

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REFERENCES

- ¹ Hamburg, B. A., Lipsett, L. F., Inoff, G. E., and Drash, A. L. (Eds.): Behavioral and Psychosocial Issues in Diabetes: Proceedings of the National Conference, May 20-23, 1979. NIH Publication No. 80-1993, 1980.
- ² Giordano, B., Rosenbloom, A. L., Heller, D. R., Weber, F. T., Gonzales, R., and Grgic, A.: Regional services for children and youth with diabetes. *Pediatrics* 60: 492-98, 1977.
- ³ McGraw, T. K., and Travis, L. B.: Psychological effects of a special summer camp on juvenile diabetes. *Diabetes* 22: 275-78, 1973.
- ⁴ Anonymous: Behaviour disorders in diabetic children. *Lancet* 2: 188-89, 1980.
- ⁵ Johnson, S. B., Spillar, R. S., and Silverstein, J. H.: What determines success in a residential treatment center. *Diabetes* 31 (Suppl. 2): 17A, 1982. Abstract.

* Data obtained during personal visits, 1979-1980.