General Practice Observed

Paediatric home nursing scheme in Gateshead

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Summary

A scheme to provide specialised nursing care for sick children in their own homes was begun in Gateshead in 1974. Selected district nurses were retrained in the paediatric unit on which the scheme was based and nursed at home 22 children referred to them by general practitioners as the alternative to hospital admission and 39 discharged to their care by the hospital. Most of the children were aged 3 years or less and came from working-class homes. Most of the mothers who were asked were in favour of the scheme.

Introduction

For many years special consideration for children admitted to hospital has been advocated on general humanitarian as well as medical grounds, and some of the earliest initiatives came from Tyneside in the 1920s and 1930s.^{1 2} In 1951 Bowlby described a syndrome of "maternal deprivation"³ in young children after admission to hospital. His findings have been confirmed and extended^{4 5} and formed a springboard for the Platt Committee's report,⁶ which recommended changes in the organisation of paediatric wards, increased access for mothers and families, and the extension of nursing schemes for shortening the child's stay or avoiding admissions altogether. The last of these had already been tried in the form of paediatric home nursing schemes in Paddington,⁷ Birmingham,⁸ and Rotherham,⁹ and more recently a similar scheme was begun in Southampton.¹⁰ All these differ in objectives and method, and humanitarian motives have now been joined by more pragmatic considerations such as the availability of beds and length of surgical waiting lists.

We describe a scheme that began in Gateshead in 1974 that was designed to enable intensive paediatric nursing care to be given at home and to support the sick child's family. Highly sophisticated care or "heroic" procedures continued to be carried out in hospital.

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Method

The reorganisation of Gateshead into a single district area (population about 220 000) in 1974 coincided with the rebuilding and reorganisation of the paediatric unit at the Queen Elizabeth Hospital. This allowed one of us (RHJ) to review the provision of paediatric care in the area, and the home nursing scheme for children was instituted after consultations between the staff of the hospital, the local health authority (as it then was), and general practitioners.

Gateshead children and some from outside the area are admitted to the self-contained unit in the hospital for medical, surgical, orthopaedic, traumatic, and infectious conditions, while those with special requirements (eyes, ENT, neurosurgery, and neonatal surgery) are admitted to units in Newcastle.

Since our aim was to evaluate certain aspects of the nursing scheme, we decided for the first year to limit participation to 18 general practitioners in six practices within the former Gateshead county borough. Two full-time nurses were recruited from the existing district staff to nurse paediatric cases while retaining their "attachment" to two of the practices concerned. They were given ancillary help in the practice to allow priority for children referred to them. Later two more nurses were recruited for the scheme. At least one nurse was always available between 8 am and 8 pm, and contact was made with them through either their nursing officers or the paediatric ward sister. They received an average of 114 hours of retraining in the paediatric wards—all that was possible under the circumstances—during which they learnt the "feel" of very ill children, were trained in new techniques and treatments, and formed relationships with the ward staff that acted as a basis for subsequent communication.

Children could be admitted to the care of the paediatric home nurses either as an alternative to admission to hospital ("avoided admissions"), when the general practitioner both initiated and supervised the use of the scheme, or after discharge from hospital ("supported discharges"), when the use of the scheme was initiated by hospital staff but was supervised in the home by the general practitioner, who retained clinical control of the case outside hospital. General practitioners using the same scheme agreed to admit to home care only children suffering from illnesses that would usually necessitate admission to hospital. If in doubt they could obtain a consultant's opinion about the suitability of a child for home care either by referral to the ward or by a domiciliary visit, which in the event was never requested. While general guidelines were suggested for each case, the frequency and duration of visits to the children at home were usually left to the judgment of the paediatric nurses. If a child's condition deteriorated and no doctor was available the nurses could admit children to hospital on their own initiative. The decision finally to discharge a child from care was reserved for the general practitioners, though in practice it was often made by the nurses.

We collected data from the families by interview and from the hospital, general practitioners, and nurses by questionnaire. We also asked the health visitor to the family to see each child two weeks after discharge from home care, when she completed a final questionnaire and dealt with any problems.

Results

Twenty-two children were admitted to the scheme as avoided admissions and 39 as supported discharges (table I). The ages of those nursed as avoided admissions, more than half of whom were under

TABLE I—Age, sex, and social class of children admitted to scheme as avoided admissions and supported discharges

	Age					Sex		Social class*			Total
	Months		Years			M	F	I-III (NM)	III (M)-V	Other	
	<3	3-	1-	5-	10-15						
No (%) of avoided admissions ..	6 (27)	6 (27)	9 (41)		1 (5)	11 (50)	11 (50)	4 (18)	17 (77)	1 (5)	22 (100)
No (%) of supported discharges ..	1 (3)	10 (26)	10 (26)	8 (21)	10 (26)	25 (64)	14 (36)	6 (15)	30 (77)	3 (8)	39 (100)

*III (NM) = Class III non-manual. III (M) = Class III manual.

1 year, differed significantly ($P < 0.01$) from those nursed as supported discharges, nearly half of whom were aged 5 or over. The preponderance of boys in the supported discharges group (table I) is not significant. General practitioners tended to admit children with respiratory and gastrointestinal infections to the care of the home nurses (table II), whereas those nursed as supported discharges were more evenly distributed among the diagnostic categories. This difference, however, is not significant.

TABLE II—Diagnoses of children nursed at home

	Avoided admissions		Supported discharges	
	No	%	No	%
Respiratory infections ..	8	36	12	31
Gastrointestinal infections ..	6	27	3	8
Other infections ..	3	14	8	21
Trauma ..			6	15
Other conditions ..	5	23	10	26
Total	22	100	39	100

Before seeing their general practitioners, children admitted to home care had been ill for an average of two days, although all those with gastrointestinal infections and most of those with respiratory infections presented sooner than this. After admission to home care the paediatric nurses judged that all but one of the children with gastrointestinal infections had recovered by the seventh day, those with respiratory infections by the eighth day, and the remainder by the 18th day, giving a median of 6.5 days under care at home. No residual impairments¹¹ or obvious psychological problems were reported in any of these children either by the nurses or subsequently by the health visitors.

The children in the supported discharges group had spent an average of 3.9 days in hospital. At the time of discharge 29 (74%) of them were judged by hospital staff not to have recovered clinically (table III). Of the 10 children said to have recovered, three had a restabilised chronic condition needing supervision—for example, diabetes—while most of the remainder required the removal of sutures.

TABLE III—Clinical conditions of 39 children discharged from hospital to care of paediatric nurses

	No (%) of cases
Cough, dyspnoea, or wheezing after respiratory infection ..	12 (31)
Unhealed operation wound ..	5 (13)
Unhealed fracture ..	3
Diarrhoea after gastroenteritis ..	3
Incipient infectious disease ..	2
Unhealed burns ..	1
Malaise, non-specific symptoms, cause of illness not established	3
Recovered from acute episode ..	10 (26)

For the 51 children for whom the nurses' records were complete the median duration of home care was 10.0 days, with about half lying between 6.0 and 14.3 days. At their final visit the nurses judged that all but two of the children had recovered completely.

Four children in the avoided admissions group and four in the supported discharges group deteriorated and were readmitted to hospital. Six of these were aged under 1 year and six had gastrointestinal disorders that threatened dehydration. One child with a serious feeding problem was transferred to hospital three times, the nurses themselves initiating these and five other transfers.

Table IV shows how the nurses' work was organised in those cases for which information is complete, and there is no reason to believe that the remainder were significantly different. Three visits to children

in the avoided admissions group occupied a total of four and a half hours. Without these, the average time per visit would have been 18.5 minutes. The baby transferred to hospital three times is excluded from table IV. He received an average of 1.4 visits daily for 47 days (84% of them made by one nurse) and occupied a total of 26.8 hours of the nurses' time. He was also responsible for a quarter of the 30 district nursing visits that the paediatric nurses had to postpone, cancel, or transfer to another nurse during the year. After the first two months of the year, 36% fewer visits were made to each patient and the average number of days for which cases were nursed decreased by up to 48%, the effect being more noticeable in the supported discharges group.

TABLE IV—Analysis of visits recorded by nurses

	Avoided admissions	Supported discharges
No of children ..	21	29*
No of visits ..	145	154
Average number of visits per case (range) ..	6.9 (1-18)	5.3 (1-11)
Average duration of each visit (min) ..	20.0	17.4
Average duration of cases in days (range) ..	8.1 (1-17)	10.2 (1-29)
Average time spent on each case (h) ..	2.2	1.5

*Excludes one child who was transferred to hospital on three occasions because of feeding problems.

The nurses were asked to record their activities at each visit against a list of 15 nursing and related procedures, and table V shows that 12 of these were recorded. Hospital equipment (disposable feeding bottles and special feeds) was used on 17 (6%) occasions.

TABLE V—Nursing procedures recorded by paediatric nurses

	% of visits		% of visits
Examination ..	65	Surgical dressing ..	4
Temperature, pulse, respiration ..	52	Giving injection ..	2
Feeding ..	11	Measuring/recording intake and output ..	1
Administering medicine ..	7	Tepid sponging ..	
Preparing feeds ..	5	Weighing ..	
Toilet of eyes, ears, mouth, or nose ..	5	Removing sutures ..	

The general practitioners were asked their reasons for admitting children to the nurses' care at home. Most gave the need for regular observation and specified an emergent problem such as dehydration or abnormal chest signs. In five cases they wanted the nurse to support and instruct what they believed to be an anxious or inadequate mother or specified social difficulties in the family. One commented, "This was an ideal case for the nursing scheme—I don't think that hospital admission would have achieved more than home care. On discharge all the social problems would still have to be met, and by home supervision most of the difficulties had already been dealt with." Only one general practitioner believed that one child could have been cared for equally well by a district nurse without paediatric retraining.

Out of 53 mothers who replied to questions on their attitudes to the scheme, 44 (83%) were satisfied with the care received and many appreciated the reduced separation from their child. Mothers whose children were nursed at home were also pleased to avoid hospital visiting while those in the supported discharges group believed that their child would recover more quickly. Apart from two mothers who were ambivalent about the scheme, 7 (13%) expressed dissatisfaction.

Two, whose children were nursed entirely at home, were socially isolated. One found lack of sleep intolerable, while the other felt confused by conflicting medical views about the advisability of home care. The remaining five were worried particularly about the care of other children—"It's difficult with all my other worries to look after Helen. In hospital she would do and eat what she was told. . . ."

Discussion

A final estimate of the effects of this nursing scheme must await analysis of our social and epidemiological data, but it is already clear that children at an age most liable to psychological damage from separation were successfully nursed entirely at home. They suffered mainly from self-limiting acute conditions, whereas the children admitted to the scheme from hospital were older and often required long-term support and education for conditions such as stabilised diabetes.

In both groups the young and the easily dehydrated were most at risk, and the nurses always recognised a deterioration in the clinical condition. None of the transfers were judged by hospital staff to have been unnecessary, and none of the children were in extremis on arrival. This capacity of nurses, which has also been shown with adult patients in the community,¹² combined with their freedom to transfer children at any time is one guarantee of safety in schemes of this kind. Most of their decisions to transfer were made in the evening, and if a 24-hour service cannot be provided then nursing cover until at least 11 pm is essential.

Communication between the nurses and with other participants was occasionally delayed, and one child was transferred to hospital by the general practitioner when a message to a nurse to visit went astray. Communication between nurses in experimental schemes should be as direct as possible, avoiding third parties in administration.

The nurses said that they gained confidence in handling children from their in-service training, and it appears to have been adequate for the level of care envisaged, as reflected by the procedures recorded. Nevertheless, if nurses with a paediatric qualification or equivalent experience cannot be recruited a longer and more formal period of retraining is desirable.

Among the children nursed as supported discharges the nurses recognised cases that they believed were within the

capacity of a district nurse without special paediatric training, and Hockey¹³ among others has drawn attention to this under-estimation of the district nurse's abilities. Apart from the support they gave to mothers, the paediatric nurses' activities were essentially practical. In this scheme the health visitors used their own skills at the conclusion of each case, when they also collected data for us.

In general the mothers were satisfied with home nursing, which allayed anxiety about separation from their children. It also avoided special arrangements for other siblings and the disruption entailed in visiting the hospital. Mothers who are socially isolated from kin and friends need special support and consistent advice from their doctors and nurses.

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How can an opium addict (living in Pakistan) be cured?

Opium addiction is predominantly a problem of the East. The condition occurs occasionally in Europe, but then usually affects a patient from an ethnic group that has some special experience of this drug. It would therefore be a mistake reflexly to propose Western remedies. Drug taking is intimately related to social processes, and the remedies also must be sympathetically attuned to the particular society and culture. For instance, rather than setting up Western-style specialised clinics or methadone maintenance programmes, it may be important to examine the possible role of the indigenous healer, the village headman, religious leaders, or in some countries the political cadre. A fundamental mistake can be to import a culturally alien model that gives to opium addiction a too exclusive image of a medical problem, and therefore to be dealt with by the doctor rather than by the community.

That help for the opium taker is best seen as falling into three phases is, though, a fair statement, whatever the culture. The first phase must be to persuade the person to come forward for help, and here the environmental attitudes and helpful pressures may be enormously important. The second phase is to get him off his drug. Withdrawal may be accomplished by a slow cutting down, or sometimes oral methadone may, in the very short term and in decreasing doses (say, 7-10 days), be substituted so as to cover withdrawal symptoms: the drug is given once daily, in a dose determined by the severity of withdrawal symptoms. The third phase is to help him to stay free of opium, and here again positive environmental influ-

ences are of the greatest importance. Someone who has given up opium needs to be congratulated and re-integrated into a life that rewards him. What must be avoided at all costs are cures that are worse than the disease. Punitive responses, the heavy-handed use of compulsion, and prolonged hospital admissions usually serve only further to alienate and stigmatise the person whose needs are of exactly the opposite kind.

Can the effectiveness of the contraceptive pill be guaranteed in a patient with an ileostomy (for ulcerative colitis) whose food passage time is four hours?

The steroids of which contraceptive pills are made are mainly absorbed in the small intestine, and, on analogy with bile salts with their entero-hepatic circulation, they might be expected to be absorbed mainly in the terminal ileum. If, at operation, no small intestine was removed the contraceptive pill will probably remain effective. If some ileum was removed, however, then the pill may fail in its purpose due to poor absorption. Also if there is concomitant steatorrhoea the pill may not be properly absorbed. The fat content of the faecal material could be checked by analysis. An indication of whether a specific contraceptive pill is suppressing ovulation might be obtained if it could be shown that the midcycle peaks of follicle stimulating hormone and luteinising hormone, measured in the blood, have been eliminated. Serial estimations would be needed and should be extended over at least two cycles. Other hormone investigations might be devised but would perhaps not be so convincing.