

# Clinical Topics

## A children's centre on a budget

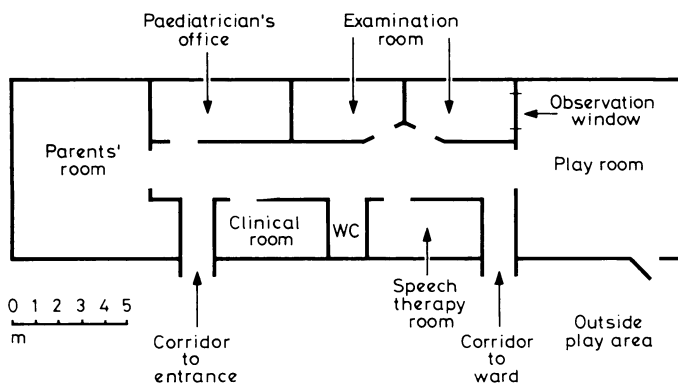
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In recent years child development centres have sprung up all over Britain, with great variation in design and operation, but with the same purpose of providing assessment and usually therapy for handicapped children and support for their parents. Districts without such a centre may now be deterred by building and staffing costs at a time of financial stringency, and the experience of a small health district in setting up a centre at comparatively low cost might be of interest.

Northallerton Health District embraces a large area of North Yorkshire and has a population of about 100 000. The district has one school for the educationally subnormal; but before 1978 there were no formal facilities for preschool handicapped children, though many attended the paediatric clinic at the district general hospital. This hospital (the Friarage) is one of those wartime hospitals, made up of a linked collection of huts, that have happily given much longer service than their makers intended.

### Premises

Two adjacent huts formed the children's wards. As their occupancy had fallen in recent years, mainly because of a reduction in long-term orthopaedic problems, one hut could be freed for another use. The area thus made available measured 28 × 8 m and consisted of two large rooms linked by a corridor, off which opened several smaller rooms. For a little under £10 000 all these were adapted to the plan shown in the figure.



Plan of premises.

The playroom has a door opening to an outside play area and a one-way observation mirror with viewing from the adjacent examination room. It combines play and physiotherapy, being equipped with such things as a sand tray and a climbing frame as well as physio mats and mirrors. Toys are stored on shelves along one wall. The parents' room is furnished with easy chairs and an electric kettle to encourage parents to sit and chat; it also has a collection of books on handicap, which may be borrowed, and a noticeboard for pamphlets.

The speech therapy room, which is partly soundproofed, can also be used for audiology. The two examination rooms are used for clinical examinations or, with the couch removed, for such purposes as individual psychological assessment. The paediatrician's office is large enough to serve as a third examination room.

These premises operate as a development centre for handicapped children for six sessions a week. For three other sessions they serve as an ordinary children's outpatient clinic. Then the parents' room provides a waiting room for grown-ups, and the playroom for toddlers; and there is an additional clinical room for weighing and urine testing. Families find this arrangement much more congenial than the main outpatient department, where children's clinics were held previously. For the tenth session the playroom provides a venue for a playgroup made up of normal children selected on social grounds.

Equipment and furnishings were paid for partly from NHS funds and partly from voluntary donations. The physiotherapy gear, for example, and an impedance meter came from the NHS, while generous donations from such organisations as the League of Friends, the Red Cross, and the Rotarians, totalling over £3000, provided toys of all sizes, from a Wendy house to a baby's rattle, including a large number available for loan.

### Staff

The staff of the centre, like its premises, were provided mainly by adapting existing resources. Drawn from the three main services, they comprise a multidisciplinary team. The education authority provides an educational psychologist and two teachers, skilled in mental subnormality and hearing impairment respectively, for some sessions. The social services provide a liaison social worker. The rest of the staff are on the NHS payroll. Two doctors, a paediatrician and a senior clinical medical officer, work for the centre about one session a week each.

A staff nurse and a nursery nurse, whose posts were created from that of the former ward sister, provide basic care throughout the week. A speech therapist, a physiotherapist, and an occupational therapist, all specialising in paediatric work, come for the child development sessions. The staff nurse does most of the organising, while the paediatric secretary copes with the paper work. Thus the centre is staffed at little additional cost, most of the team lending time from other appointments or occupying positions created from rearranging old posts.

## Assessment and treatment

Assessment and therapy of handicapped children are done according to a pattern common to many centres. The child is first seen by one of the doctors, who takes a history, does a physical examination, and arranges investigations and referrals to specialist consultants as appropriate. Then mother and child come for several sessions a week for about a month, getting used to the surroundings and to the staff.

Each member of the team makes an individual assessment during this period, then all pool their views at a case conference, to which others who know the child, such as the family doctor, health visitor, and teacher, are invited. At this case conference a list of recommendations is drawn up for future management, which may include continuing visits to the centre for therapy, placement in a playgroup, early school entry, special measures at home, and so on. Thus assessment and therapy merge into each other, and children who are currently being assessed mingle in the playroom with those who already have been. We can cope

comfortably with only about six children at one session, and about 30 different children will visit during a fortnight, some coming for specific therapy from one team member rather than for comprehensive assessment.

During our first full year of operation 53 children attended the centre for development work, 12 attended the playgroup, and a total of 2105 attended the outpatient clinics.

Thus, at very little cost to the taxpayer, we have created a child development centre, a paediatric outpatient clinic, and a playgroup. We were fortunate in several ways: premises were available for adaptation; nursing and administrative colleagues gave ready support; other services generously lent staff; and local people helped with money. Our solution is, of course, suited only to the needs of a small health district; our experience may, however, encourage others similarly placed who would like to set up a child development centre but are deterred by lack of funds. If you are lucky it need not cost much.

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## MATERIA NON MEDICA

### The morning after the night before

Big Ben chimed as we walked into labour. The green lights of Westminster Bridge reflected a Victorian hue to the slow-moving Thames. This was the first time, no mistaking though, the "waters had broken" and pains started. The warm air of the hospital's ventilator shafts coupled with the stark rude brightness of lighting were an uncomfortable entry to the relieving arms of hospital confinement. I, of course, was nervous underneath but attempting, I hope convincingly, to impart confidence to my wife, who after all was in for all the work. Smiling labour staff could not have realised the anxiolytic effect of their taking charge. I was ashamed, but at the same time glad to hand my wife over to their hands. I think the first wait was for shave/enema/bath and into the regimental clothing in which, far from being drab or ordinary, I found an appealing loose simplicity. Further waits were for bedpans, assessment of progress, none of which seemed unduly long, and were always welcomed by me as a break from the expectant excitement which was physically difficult to cope with.

We really got down to business in the delivery room; drip up, oxytocin exerting its gentle (?) persuasion to contractions, and monitors, both external contraction device and fetal scalp electrode, reminding us of his imminence. All went very well as expected, September became October, the pinch and punch being administered by our hibernating infant.

Then of course the inevitable, type II dips, obviously named after the dip the pen makes scribbling the result of the fetal heart rate on orange graph paper. At this time I was half asleep like a faithful Labrador at his master's feet. The silence became obvious with the cessation of chat between my wife and the midwife. The doors swung several times as sister, houseman, and registrar each calmly read the monitor and departed. I began to show interest. Epidurally at ease with the world, my wife tolerated the concern calmly.

As the minutes ticked towards 8 o'clock, with the aid of episiotomy and Mr Simpson's forceps, our baby was eased head first into the modest light of the morning. The relief of safe delivery detracted from that urgent glance towards the all-important genitalia. A boy, so the old wives' tale about prolific intrauterine movement is true after all.

Like a busy night on call, I went home, washed, and shaved in a now strangely empty flat and 10 feet taller walked back towards the hospital. Fancy being born in Lambeth, Somerset Maugham has got a lot to answer for.—NEIL WILSON (registrar, Edinburgh).

### Once bitten, twice shy

As a child I soon realised that the Scottish biting midge (the commonest being *Culicoides impunctatus*—one-tenth of an inch long) prefers the dawn and dusk of calm, warm overcast days. It can soon find the

tinest opening into a caravan or tent, and some people appear more attractive to it than others. (Could this be due to pheromones?) The bites itch abominably but bathing in a solution of baking soda gives some relief.

Midges appear to prefer rough open country like heather or bracken covered hillsides, though they are also found in woodland clearings and even in the middle of lochs. From late May to early September—and particularly in July and August—swarms are noticeable, but these can be ignored as only males swarm and they usually feed on nectar and only occasionally on humans. The female, however, likes a high protein meal after copulation to nourish her developing eggs—hence her craving for blood, which she satisfies at human or animal expense. Her proboscis pierces the skin, sucks up blood and tissue fluid, and leaves her characteristic visiting card of a red halo surrounding the puncture site. After being laid on vegetation, the eggs hatch in a few days and go through four larval stages before pupating. In these latter stages they survive the winter.

English tourists are sometimes told an apocryphal tale that the midge, in conjunction with the kilt, is responsible for the Highland Fling. Be that as it may, it has certainly been a cause of the sparsity of population in certain areas and may have prevented reinhabitation after the eighteenth century Highland Clearances. Insects are not mentioned as being the scourge of the Highlands in pre-Industrial Revolution days. There are two possible explanations. Firstly, until the late eighteenth century habitations in the Highlands were built with stone and earth walls and the floors were of earth or clay, tramped flat by a flock of sheep imprisoned in the building for 48 hours. There was seldom a chimney, and windows, where they existed, were minute. As a fire was kept constantly smouldering, the circulating smoke discouraged the midges, "kippered" the inhabitants, and perhaps masked any midge-attracting pheromones. A second possibility is the fact that the original inhabitants of Scotland had a high frequency of blood group O rhesus negatives. People with rhesus negative blood may be less attractive to female midges. After the clearances large numbers of Highlanders were brought down to the Lowlands. Many were relocated in the Carse of Stirling (where today 23% are rhesus negative, compared with an average of 19.3% for Scotland and 17.5% for Great Britain) and were set to work draining the peat bogs around the River Forth.

It might be worth doing some research to see whether there is a statistically significant relationship between rhesus blood groups and midge attractiveness. The question as regards "secretor" status could be relevant, and also whether any interrelationship exists between "secretor" status and pheromones.

My own defensive measures against attack—tobacco smoke (in the days before I was properly educated), dimethyl phthalate, and other insect repellants—have proved useless. As a rhesus positive blood donor but rhesus negative recipient, I should perhaps try to find out my "secretor" status, but what use will the answer be so far as midges are concerned? The firm which first markets a sure-fire method of safely eliminating the midge, or discovers a long-acting repellent will make a killing in more ways than one.—JAMES M DUNLOP (community physician, Hull).