

Foreign report

Pyoderma and paddy fields

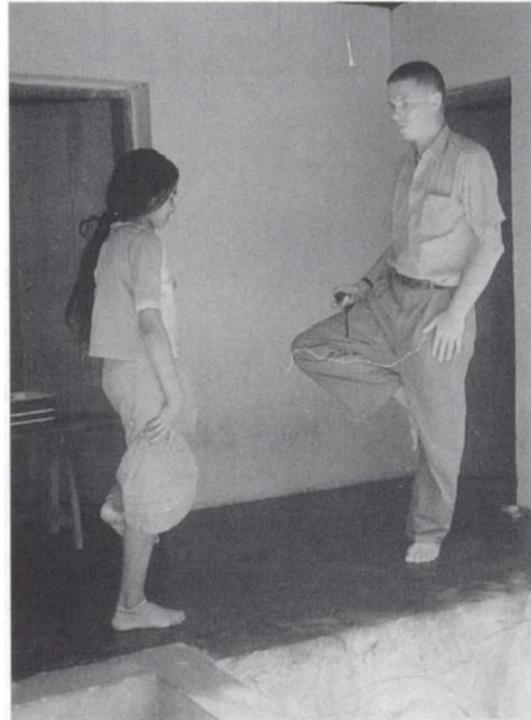
RICHARD HACKETT and LATHA HACKETT, Calicut, Kerala State

The day starts with a jeep ride up the hill out of town. Beyond, the road drops into typical Kerala countryside, a patchwork of rice paddy and coconut plantations. We pass through several villages, usually just a row of small shops and stalls on either side of a dusty main street. Despite the overnight rain, the heat of the South Indian summer is already starting to dispel the morning freshness. Two villages further on we abruptly leave the road at a bus stop thronged with people. The track takes us through cracked and arid fields where a man is trying to till, exhorting the oxen with shouts as he stands on the furrow to force it into the hard ground. The track ends by a canal and we get out. This is Kuttykartor, one of the nine areas randomly selected for the research. It is about three kilometres by two and is separated over a low hill, covered in the ubiquitous palm trees. About 150 out of our 1,400 subjects live here. Half of them live on similar nearby hills and valleys, the rest around lagoons 15 kilometres away on the other side of town. We came here to estimate the prevalence of epilepsy, mental retardation and psychiatric disorder in 8 to 12-year-old children in Calicut district.

We split into two parties. Latha takes our three research assistants, a history graduate, a trainee typist, and a retired headmistress, to where they finished yesterday. They will continue going from house to house asking about each child. They elicit a mass of detail about the families and lives of these children as well as screening for the disorders we are looking for.

I head off with Sandya, our psychologist, into the plantation. Our task is to look for the children already screened by the research assistants. She tests their reading and vocabulary with tests we have developed in Malayalam, the local language, and their non-verbal reasoning using the Raven's Progressive Matrices. I test coordination with the Oseretsky test, and when appropriate, neurologically examine them.

Up sunken paths between the compounds we go, stopping to ask the way. We eventually find our subject's house after a sweaty climb, but as it is only 10 a.m. she is not yet back from the Mudrassa, the Koranic school, so we sit on a wall and wait. After half an hour we hear the sound of children's shouts



Performing the modified Oseretsky test of motor co-ordination with a 10-year-old girl.

getting closer and we know that our day's work will soon start. Zainaba, a small 10-year-old girl, wanders up the path to a nearby house with two friends, carrying a book and a slate, her hair concealed by a scarf. The surprised girl is told to sit on the verandah by her mother while Sandya opens her case and begins to show the reading flash cards. Looking around I see that this verandah belongs to a better than average house. Although the furniture is rudimentary, the house has a tile roof and is gaily painted. It is set in a compound with many coconut palms which ensure a basic income during the months when her father cannot find work. Out in the yard the family's cow stands in a covered stall facing the house from where its hay is provided, manure issuing in the other direction.

The house itself is austere. Certainly there is no spare money, but unlike the Hindu households with their predilection for pictures of deceased relatives and exotic gods, Muslim convention permits at most a picture of the sacred tomb in Mecca, a framed page of the Koran and a calendar from the local Muslim orphanage.

This little girl is not a strong reader although her mother assures us that she has no difficulty with the Arabic of her daily Koran lessons. As Sandya turns to the progressive matrices, a crowd gathers. Several aunts and elder sisters from the same house stop hammering rocks into roadstone and stand nearby, babies in arms, watching curiously. Zainaba resorts to guessing and finishes the matrices soon. Her surprise visibly increases when the white man asks her to come and stand at one end of the verandah and walk backwards heel to toe, avoiding the hen droppings. Two watching boys start to snigger as she performs the balance items of the Oseretsky test, so Sandya sternly tells them to go, which they do, only to come back a minute later with six more of their friends. Jaws drop as Zainaba is asked to sort matchsticks, make dots on paper and put 20 paise coins in a piggy bank (which has yet to cause offence despite administration to 570 children, mostly Muslim). The vocabulary test is administered to much amusement from the adults after which I measure her height and her weight, then, at their request, the weight of the other 15 people present. To my dismay, drinks are brought just as we are about to depart, buttermilk flavoured with ginger and cumin. Feigning enjoyment I drink mine before bidding goodbye, genuinely grateful that another parent has been kind enough to let us test her child.

We press on up the hill to our next house, very different from the first, with thatched roof and crumbling walls. There are no animals in the yard except for a dog covered in boils. We are met at the door by a young woman holding an apparently plump baby. The child to be tested is a thin 8-year old-boy with purulent sores on his legs. The woman is his step-mother, his own having died in the same hut, during the birth of a subsequent child. The test routine is begun again.

His father, a man in his early 60s, watches listlessly from a bed. He was laid off after a strike at the local rayon factory seven years ago and has not worked since. Their small compound has no coconut trees, just a few cassava plants. I take a closer look at the baby the mother is holding and notice swollen ankles and fading hair along with a protuberant abdomen. Kwashiorkor is rare in these parts but is a sure sign that a family is living through hard times. We terminate the reading test because the boy is illiterate. During the matrices I wander around the hut. The well is just a deep opening in the ground, with no retaining wall. Dust and refuse, including droppings



Top: Latha Hackett conducting a psychiatric assessment interview in the home of one of our subjects; middle: with no possibility of privacy, interviewing had to cope with the extended family and neighbours; bottom: psychiatric assessment at a child's home.

left by a goat tethered a few feet away, are gently blown into family's water supply. The boy does the Oseretsky test badly, perhaps handicapped by the rough sloping ground. We learn in the course of the testing that he has had two previous step-mothers, both of whom had left. Of his eight siblings, three have been placed in the orphanage because the family cannot afford to feed them.

During the vocabulary test, his mother goes into the hut and we hear stirring sounds. Two glasses of sugar water are triumphantly brought out. With embarrassment I say that I have a stomach upset and after efforts to press the drink on me it is given to a 4-year-old child who gratefully gulps it down. We finally weigh the boy (17 kg) and leave some antibiotics behind after his mother asks for something for his pyoderma; a cosmetic gesture.

As we walk to the next house, the sound of "I wish you a merry Christmas", rings out several times through the coconut trees, progressively changing into a formless buzz before it stops. This intrusion comes from one of the fashionable Japanese-made clocks that these families own if they have a relative working in the Gulf. Clearly the manufacturers did not take account of the fact that their products may find their way into Muslim households when they were choosing the tune.

After a long walk we come to the house of Rajiv and Bajitha. Not only is the roof thatched but the walls are made of woven palm leaves. Their grandmother is preparing some more for the roof in readiness for the monsoon. It was in a neighbouring compound that I saw a snake slide out from under a leaf not six feet away, two days before.

Bajitha, who is 12 years old, completes the reading test without error and performs impressively well on the others. Kerala's fanaticism for education often allows the most unlikely households to spring such surprises. Rajiv does well too, but as he screened positive on the epilepsy questions we ask his grandmother about his convulsions. She gives a clear history of grand mal seizures occurring three or four times a month. Rajiv has had both Ayurvedic and Western medicine but she wasn't impressed by either,

especially as a month's supply of the latter is worth two days food. Asked whether the convulsions worry her, she replies that they don't because they usually happen on Tuesdays, an auspicious day.

Although a prevalence study, we quickly found ourselves concerned with the forces that mould the behaviour and emotions of children. An 8-year-old, one of ten children in a large, gloomy villa peopled by aunts, uncles and formidable elders and having to struggle daily with medieval Arabic for two hours before school starts, must perceive himself differently from the one of two, liberally reared, centres-of-attention children that we bring up in Britain. Yet this control and communalism has produced the only school for mentally retarded children in the neighbourhood which, although a Muslim foundation, looks after children of any religion without attempting to impose Islam on them.

Common to so many of our subjects is the experience of material deprivation which means one meal a day, dirt, disease, no money for books or toys and ragged hand-me-down clothing. Poverty itself dramatically limits choices, turning family life into a joint effort to survive. Underlying these diverse social forces is the heavy burden of neurological morbidity that afflicts the child population. The absence of neonatology seems to prevent the survival of the gravest cases. The largely agricultural economy may even give mentally retarded people opportunities to contribute that would be denied in Britain: someone has to feed the cow and plant the beans. Further down the spectrum of neurological disorder are the many children whose brains have been affected by malnutrition or febrile convulsions. We have often wondered whether these milder insults adversely affect children's behaviour, and whether the atmosphere of control in households could lessen any such behavioural effects.

Research itself cannot make a dent in these enormous problems. But if it allows us to estimate the size and nature of the need and if it puts child psychiatry and paediatric neurology on the map in this district, we will not be too disappointed when it is time to go home.