

History of paediatrics and child health

G170 INSIGHT INTO PAEDIATRIC IN-PATIENT POPULATION IN THE VICTORIAN HOSPITAL: INFORMATION FROM THE CENSUS RETURNS OF 1881

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Introduction: The establishment of dedicated children's hospitals in the UK occurred during the second half of the 19th century. Children were admitted to these units and to nearby general hospitals. Census returns were undertaken every 10 years from 1841 and detailed information on patients and staff resident in the hospital was collected. The study looked to collate this information.

Method: Census forms from the 1881 census were reviewed and the entries for the children's hospitals and nearby general hospitals in Nottingham, Derby and Birmingham were identified. All patients under the age of 14 were noted and comparisons between adult and children's institutions were made. Details of staff who were resident were also noted. Mortality of the children in these units was assessed by checking the national register of deaths for comparable names.

Results: In-patient numbers for Birmingham, Nottingham, and Derby children's hospitals were 59, 28 and 9 respectively. Most were under 12 and all were under 14 years. The nearby general hospitals, however, had significant numbers of children as in-patients during the night of the census. 59 of 242 patients in Birmingham, 19 of 114 in Nottingham and 33 of 133 in Derby were under 14 years of age. The children's hospitals in Nottingham and Derby did not have medical staff listed as sleeping in the building whilst all the others did.

Discussion: Changes in attitudes clearly saw the establishment of children's hospitals in many towns and cities in the UK. The nearby main infirmaries and general hospitals continued to admit children. It is likely that the two units received differing groups of children as in-patients.

G171 FEEDING BABIES IN THE BATTLE TO CONTROL INFANT MORTALITY IN GLASGOW 1900-1910

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During the early years of the child welfare movement the setting up of milk depots stands out as an initiative that was seized upon throughout Great Britain as an answer to infant malnutrition. Within the first decade of the 20th century they were established in most large towns and cities, usually under the auspices or direction of medical officers of health, sometimes with charitable and public support. Based on the Gouttes de Lait of France, their aims were to provide 'clean milk' for babies, largely of the poor. The development and marketing of infant milk 'formulas' was also well advanced by the period.

Milk depots have generally been viewed as a public health initiative. In Glasgow their creation and abandonment may have been influenced by those closely involved with the care of sick children who had a particular interest and expertise in infant feeding and nutrition. The decade was also a time of intense interest in the precise cause of infant malnutrition and its relation to diarrhoeal disease, and debate about optimal alternatives to breast-feeding, especially among the poor. The rise and fall of the Glasgow milk depots is a story of the interaction of public health, commercial, clinical, scientific, economic and social forces, represented by powerful figures active in these fields battling to control infant mortality during the early years of the past century.

G172 DEVELOPMENTS IN TROPICAL CHILD HEALTH IN LIVERPOOL

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Planning for the Diploma in Tropical Child Health (DTCH) started in 1967 but activities only began in October 1969 with the appointment of a Course Director. The first students enrolled in 1970. The Leverhulme Trust provided funds for the first five years. Subsequent

funding was by the ODA in the form of a capital grant for new premises and generous recurrent funds which permitted staff recruitment and the establishment of research laboratories and computing facilities needed for teaching in epidemiology and statistics.

In collaboration with the Government of India, ODA, and the British Council, an MCH programme was devised for senior paediatricians, obstetricians and administrators selected by the India Ministry of Health. Another programme involved paediatric training for doctors in the medical services of Orissa State. The department of Paediatrics of Garyounis University, Benghazi, Libya, was established on request. In 1990 the Master Degree in Tropical Paediatrics was established. A requirement for both the DTCH and the Masters is a dissertation based on original work. Fieldwork abroad has provided the basis for most dissertations, several of which have been published in peer-review journals. Research has been undertaken in many countries world wide on women's health, malaria, health hazards of mycotoxins, etc and a quarterly journal, *Annals of Tropical Paediatrics*, has been published since 1981. A full academic Department of Tropical Paediatrics and International Child Health was created in 1990 with an endowed Chair to which an appointment was made. This was a unique development in European medicine.

G173 CELTIC MEDICINE IN SCOTLAND

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In the Middle Ages, Celtic society in Scotland was organised on the clan system of extended families occupying their own territories. Two streams of health care, folk medicine and classical medicine, gradually converged as clan physicians became established in medical dynasties serving clan chiefs. The rise and decline of this pattern of society and medical practice will be briefly considered, with particular reference to child care.

G174 THOMAS WILLIS'S PRACTICE OF PAEDIATRIC NEUROLOGY AND NEURODISABILITY

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Thomas Willis (1621-75) was Sedleian Professor of Natural Philosophy at Oxford and a founding Fellow of the Royal Society. A distinguished 17th century physician and anatomist, he is best remembered for his work in neuroscience and in particular neurology, a speciality which he is considered to have founded since he conceived the name. Although GF Stills' "History of Paediatrics" emphasised his "scientific discernment", until recently interest has been concentrated largely on his description and treatment of childhood epilepsy, while overlooking his work within paediatric neurology and neurodisability.¹

Although making up only a small part of his medical canon, nevertheless in his writings and lectures Willis described a wide variety of paediatric cases and in a chapter entitled "Instructions and Prescriptions for the Cure of Stupidity or Folly" gave one of the earliest classifications of mental deficiency in medical literature.

This paper concentrates only on those concerning paediatric neurology and neurodisability taken directly from his writings and from the surviving medical student lecture notes of the philosopher John Locke, the chemist Robert Boyle and the eminent physician Richard Lower. The breadth of the material presented bears testimony to Willis' acute and enquiring mind with many of the cases being the first descriptions within the medical literature. Very many of the paediatric conditions encountered by Willis and which he tried to solve (often successfully by methods which to our understanding should have been ineffective) still remain considerable challenges to paediatric management and force us to always reconsider our own practice.

1. Still GF. *The History of Paediatrics*, Chapter XXX1: The XV11th Century (continued). London: College of Paediatrics and Child Health, 1931 reprinted 1996:282-6.

G175 THE CHILDHOOD AND THE LIFE OF JAMES HENRY PULLEN, THE VICTORIAN IDIOT SAVANT (1832-1916)

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John Langdon Down was the first to use the designation idiot savant in 1886. He described 7 individuals in institutional care who had exceptionally highly developed talents in specific areas although suffering from global learning disability. The best known of these was James Henry Pullen, who came to be known as the Genius of Earlswood.¹ He could not write and he communicated using primitive speech and sign language. He was however an expert draughtsman and carved in wood and ivory. The making of model ships was a dominant interest from early childhood. His memories of his life were set out in a unique series of over 80 sketches, recording his inability to learn at school and the models, increasingly complex, which he designed each year. In the Royal Earlswood Asylum for Idiots he was ultimately employed and paid as a carpenter. The crowning glory of his career was a 10' model of Brunel's Great Eastern assembled over three years, complete with individually crafted anchors, pulleys, paddles and lifeboats. His brother William was also in Earlswood and he too was a skilled draughtsman. James Henry never developed social skills or insight. He lived out his life in Earlswood. When he died expert autopsy examination identified underdevelopment of the left temporal and frontal lobes, consistent with a diagnosis of Asperger's syndrome.

1. Surrey Records Office 131/392/11/4/12/F104.

G176 THE EARLY USE NEONATAL CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) IN BRISTOL

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CPAP was used to treat neonatal respiratory problems in Austria and Germany before the first world war, only to be then neglected and forgotten (*Arch Dis Child* 1990;**49**,68).

In 1971 Gregory *et al* of San Francisco re-introduced the technique in the management of infants with severe respiratory distress syndrome (RDS) (*NEJM*, 1971;**284**:1333). In Bristol we manufactured and used a head chamber for the delivery of CPAP, which we named the "Gregory box" (*Lancet*, 1971;**2**:971 & 1973;**2**:853). Our indications for its use (CPAP of 4-6 mm Hg) were clinical and radiological signs of severe RDS, coupled with a PaO₂ below 45 mm Hg when breathing an ambient oxygen of 40% or more at the age of 4 hours. The outcome was dramatic; the neonatal mortality (>1Kg birthweight after excluding lethal malformations) fell by 74% to 3/1000 births in 1973 (RDS mortality fell by 82%) (*Lancet*, 1973;**2**:853; *Proc RSM*: 1974;**67**:245). We also demonstrated the immediate impact of CPAP on the respiratory pattern of infants with RDS (*Lancet*, 1975;**1**:302) and, using nasal prongs, its effectiveness in treating severe recurrent apnoeic attacks in extremely preterm infants (*Lancet*, 1976;**2**:658). A 7-10 year follow-up of the first 50 RDS cases treated in the Gregory box revealed remarkably few longterm problems.