REVIEW

Four candles. Original perspectives and insights into 18th century hospital child healthcare

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It has only recently been recognised that for more than a century before the opening of Great Ormond Street Hospital for Children (1852) children were treated and even admitted in English Voluntary Hospitals. Among the earliest English 18th century records, that contain the patient's age, are those found at the Northampton General Hospital within an archive dating from its foundation as the Northampton Infirmary in 1744. They afford a fascinating glimpse into both inpatient and outpatient child health. Although there are no medical notes as such, the hospital archive has recently rediscovered 1743 statutes, contemporary patient literature entitled *Some Friendly Advice to a Patient* (written by the Northampton Infirmary's founding physician Dr (later Sir) James Stonhouse), minute books, contemporary engravings of the outside and inside of the hospital and inpatient menus. Thus we can speculate with a high degree of certainty as to what would be the then current infirmary environment and treatments for illustrative examples of the children seen in the period 1744-45 (two inpatients and two outpatients). Interestingly one of the inpatient cases, Elizabeth Ager, a child with fever, was admitted against the infirmary regulations, suggesting already a stretching of boundaries in favour of paediatric admissions. This paper gives a flavour of 18th century hospital child healthcare in an era before the formal recognition of paediatrics as a medical specialty and preceding by more than a century the construction of specialist provision through the foundation of the first children's hospitals.

older than the regulations of later voluntary hospitals such as Leicester, 1778) and at an earlier age only for the treatment of fractures (box 1).

The rules also placed an obligation on the healed patient (box 2). Non-attendance or irregularity (ie, failure to attend Prayers) was severely censured. The patients would be discharged and would write the following letter to their sponsor "to acquaint you, that 'tis contrary to our Rules and Orders, ever to admit him to be a patient again after such an Offence Rule 13" (box 3).⁴

There was also no problem with the chronic bed blockade that is so prevalent nowadays. Rule 14 stated "That every patient shall be discharged in Course, within two months after Admission without an Order from the Committee to the contrary."⁴

The wards were segregated and restricted in patient access: "no Men Patients go into the Womens Wards, nor Women into the Mens, without leave of the Matron."⁴ (rules to be observed by the in-patients rule 4)

Additional information on different menus, milk and diets for patients during 1744 are available on <http://adc.bmj.com/supplemental>

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The hospital records of the Northampton General Infirmary are among the earliest currently known to exist in England.¹ The previously lost 1743 *Statutes Rules and Orders for the Government of the County Hospital* were rediscovered in late 2005 (fig 1).

1743 STATUTES, RULES AND ORDERS

On the frontispiece, the heraldic pelican vulning herself for her chicks is a symbol of charity, love and piety.² The motto underneath, translated as "the Health of the People shall be the supreme law" still has obvious current relevance.

In the 18th century, admission to a voluntary hospital did not depend so much on medical need as on the recommendation of a subscriber or a governor of the hospital (a governor gave ≥£2 annually or a single donation of ≥£20)³ (fig 2).

The regulations for children were explicit, admitting from a cut-off age of 7 years (1 year

Figure 1 Frontispiece of the Northampton General Infirmary regulations for admission.

Figure 2 The form of recommendation.

The two physicians undertook ward rounds every Wednesday from 10:00 and the surgeons from 11:00 every Saturday. This is shown in a contemporary print of 1744 taken from the anniversary sermon delivered on the day of the opening of the infirmary, Thursday, 29 March 1744 (fig 3).⁵ There is also a lectern conspicuously placed in the foreground for the reading of prayers, religious tracts and passages from the Bible.

Notwithstanding the presence of the lectern, the atmosphere within the infirmary was somewhat austere. Rule 5 prohibited patients from playing “at cards, Dice or any other Game or to smoke in the Wards, or elsewhere within the Hospital”.⁴ Of course, at the time of writing, total smoking bans have only relatively recently been reintroduced and paediatric wards (and maybe certain adult ones too) would be very difficult to manage if the full rigours of rule 5 were now to be reapplied.

However, the food would appear to have been of generous quantity, good quality and well-regulated even if somewhat monotonous. There was some seasonable variability regarding vegetables, and special diets were available. A copy of different menus, milk and dry diets and full and low diets for patients during 1744 has survived and is downloadable from the <http://www.adc.bmjjournals.com/supplemental>.

FRIENDLY ADVICE TO A PATIENT

Patient literature was given in the *Friendly advice to a patient* written by Dr Stonhouse, a doctor in ordinary to the Northampton General Infirmary when it opened its doors in 1744 and a major force behind its establishment.⁶ His book (fig 4) saw illness as being an affliction sent by God. It explicitly aimed to convert (or return those who lapsed) inpatients to a devout Christian life and perhaps should be best seen as a religious patient vade mecum. Stonhouse's book became famous throughout England and was used well into the 19th century.⁷

A flavour of this book is seen in the following extracts (box 4).

The book encourages the patients if they are well enough, to assist others on the wards, as well as participating in the nursing duties of cleaning the ward, washing, ironing and other duties recommended by the matron (box 5).

More than one century before Florence Nightingale revolutionised nursing, patients assisting on the wards would have been the only realistic way of managing with the ward duties when the ward staff comprised a matron, a resident apothecary, three nurses and a porter. The matron had the necessary powers to cheaply run an efficient ward, but it should be borne in mind that the nurses were unskilled middle-aged women. The matron was appointed for her discretion.³

However, Stonhouse clearly has considerable experience of the ward, and he gives poignant advice about overcoming anger and jealousy when patients feel their cure is not progressing, as well as that of their fellows (box 6).

After discharge, there was an explicit obligation of gratitude on the patient (box 7).

Stonhouse himself admitted that his book would appear “somewhat foreign to the province of a Physician”,⁶ but he

Box 1: Rules to be observed by the inpatients rule 11

That no women big with child, no Children under seven Years of Age, (except as in the foregoing Rule) no Persons disorder'd in their Senses, or suspected to have the Smallpox, Itch, or other infectious Distemper: nor any who are apprehended to be in a consumptive or dying Condition, or who are supposed to have Venereal Disease, be admitted into the Hospital as In-Patients, or any Account whatever, or permitted to stay in it.⁴

Box 2: Rules to be observed by the inpatients rule 12

That when the Patients are cured, they be enjoined by the Chairman to return Thanks, in their respective Places of Worship.⁴

Box 3: Rules to be observed by the inpatients rule 3

That the Patients constantly attend the Prayers, and that they do not swear or curse, or give abusive language, or behave themselves indecently in any other Way, on Pain of Expulsion, if they do not amend after the first Admonition.⁴

sincerely believed this was his religious duty. In this he was supported by the hospital governors.

Of course times, as well as society's attitudes, have changed. Nowadays, no one faith (or none at all) has, or is allowed to have, a monopoly and any present-day religious literature has first to overcome greater sensitivities about presumed offence to others.

From our perspective of three centuries, we can wonder how the circumstances in which we practise have taken a different, but not a necessarily better path.

It seems strange, even perplexing, to us how we have come from an era where medicine could seemingly offer little and yet patients were grateful for being treated for free, to the present where medicine can offer so much more but patients are increasingly dissatisfied and are seemingly more often seeking compensation.

FOUR CANDLES

How were children treated in a mid-18th century English provincial hospital?

Figure 3 A 1744 print of the inside of the Northampton Infirmary.

Figure 4 Dr Stonhouse's book *Friendly advice to a patient*. (This copy is taken from a posthumous collection of his works edited by his son the Rev T. Stonhouse-vigor.)

I selected these four cases (2/29 inpatients and 2/37 outpatients) because they are still commonplace in current paediatric practice and are therefore still relevant. All had outcomes perhaps no different than are seen today. We can also see at how these 18th century children would have been treated from books still held within the Northampton General Hospital archives: Thomas Willis's⁸ *London practice of physick* and William Buchan's⁹ *Domestic medicine or a treatise on the prevention and cure of diseases*. Of course, we can only assume this.

Buchan's biography has been published elsewhere.¹⁰ Buchan was active in writing explicitly about childhood conditions. He took inspiration from William Cadogan, but the cases in this paper are outside those discussed by Cadogan, which is about the management of children from their birth up to 3 years of age.

Buchan wrote eloquently about the lack of concern of the medical profession and society as a whole regarding child healthcare:

Were physicians more attentive to the diseases of infants, they would not only be better qualified to treat them properly when sick but likewise to give useful directions for their management when well. The diseases of children are by no means so difficult to be understood as many imagine It is really astonishing that so little attention should be paid to the preservation of infants. What labour and expense are daily bestowed to prop an old tottering carcass for a few years, while thousands of those who might be useful in life, perish without being regarded! Mankind are too apt to value things according to their present, not their future usefulness.⁹

Contemporary readers will naturally find that Buchan's words still resonate.

Box 4: Advice to a Patient, considering him as under the afflicting hand of God

The first necessary advice will arise from the consideration that you are now under the afflicting hand of God. The place in which this finds you, as a patient, supposes two very grievous afflictions concur; namely, That you are under some illness, or unhappy accident, and that you are so poor as not to be able, at your own expense, to procure proper relief. The Governors would not have admitted you, if they had not been persuaded, that this was your case; and there would be so much injustice and wickedness in deceiving them into such a persuasion, that I shall not entertain any such supposition.⁶

Thomasin Grace

13 years old. Admitted 29th March 1744 as an in Patient with Scald head which she had suffered from since her infancy. Discharged July 7th cured.

During subsequent research I discovered that I had been mistaken in my original diagnosis of the first inpatient admitted to the Northampton General Infirmary.¹

The nomenclature and classification of scalp pathology has changed as understanding has grown. In the early 18th century, all skin diseases affecting the scalp were called porrigio. "Scald head" or more commonly named "scalled head" was the usual descriptive term given for scaling of the scalp and hair loss in children.¹¹ We would now recognise this condition as being due to infection of the scalp by ringworm (*Tinea capitis*), and indeed scald head is described as *Tinea capitis* by Underwood in his *A treatise on the diseases of children* in 1789.¹² Before the first discovery of a fungal skin infections in humans by Schoenlein in 1839^{12a} and medical science's gradual acceptance of fungal infection as the cause of ringworm, in the 18th century its diagnostic features were poorly defined, and non-infective disorders such as alopecia areata, traumatic alopecia, pityriasis simplex and pityriasis aniantacea were and still are often confused with it.¹¹ Of course ringworm can resolve (sometimes passing through a kerion stage), leaving scarring of the scalp and scarring alopecia of a variable extent.¹³

The treatment of scald head varied depending on the recommendations and whims of the doctor, but Buchan's comments are as follows:

The eruptions of children are chiefly owing to improper food and neglect of cleanliness That neglect of cleanliness is a very general cause of eruptive disorders must be obvious to every one. The children of the poor, and of all who despise cleanliness, are almost constantly found to swarm with vermin, and are generally covered with the scab, itch and other eruptions. When eruptions are the effect of improper food or want of cleanliness, a proper attention to these alone will generally be sufficient to remove them. The most obstinate of all

Box 5: Advice in case of Amendment

If it pleases God that you recover a little, or if under your illness you are capable of moving about, which is often the case, there are many other ways by which you may, perhaps, be useful in the Infirmary. For instance, by reading to others, and by teaching them to read; by learning some of them to write and cast accounts ... or by assisting in which duty you ought, under the direction of the Matron, in attending upon others.⁶

Box 6: Advice if no relief should be found

If you find no immediate benefit by the method used for your recovery, be not impatient; nor by any means envy such as do. Suspect not the skill or the integrity of those who have the care of you, for the Physicians of Princes are often unsuccessful; and even the Royal Patient grows worse and worse under their care; nay, the most judicious physicians themselves are at last obliged to submit to death.⁶

the eruptions incident to children are tinea capitis, or scabbed head. The scabbed head is often exceedingly difficult to cure and sometimes indeed the cure proves worse than the disease. I have frequently known children seized with internal disorder of which they died soon after their scabbed heads had been healed by the application of drying medicines. The cure ought always to be attempted by keeping the head very clean, cutting off the hair, combing and brushing away the scabs. If this be not sufficient let the head be shaved once a week, washed daily with soap suds and gently anointed with linament.⁹

Buchan in the footnotes also relates his observation of an Ackworth Foundling hospital, which demonstrated the “striking danger of substituting drying medicines in the place of cleanliness and wholesome food”, which in turn led to an epidemic of putrid dysentery that carried off half of the children there.⁹ Nowadays, scalp ringworm remains a major health problem only in areas where griseofulvin is not available.¹¹ However, a recent work in Pakistan¹⁴ has shown the continued importance of hand washing with soap, reducing the incidence of both diarrhoea and pneumonia in children by half and the incidence of impetigo by one third.

Elizabeth Ager

8 years old. Admitted April 13th 1745 with a one month history of fever. Discharged April 27th cured.

The 18th century understanding of the causation of fevers was different from our own. One century before the great discoveries in microbiology, the issue was more complicated than distinguishing between being epidemic or miasmatic in origin, complicated by fever being a useful though general non-specific medical term.¹⁵

The treatment invoking galenic principles involved dilution of the blood and adjustment of the balance of the humours. Bleeding, purgatives and Peruvian bark containing quinine were thus recommended.⁹ However, the medical treatment itself did little other than support the patient and trust in nature. Perhaps the most interesting aspect of this case is that she was admitted after all in spite of the regulations prohibited admissions for “other *infectious* Distemper.” This is suggestive of boundaries already moving outwards in matters of child health with the ultimate (is not known or recognised at the time) aim of embracing all children and excluding none.

Jos Furness

13 year old boy first seen in outpatients on August 25th 1744 with a 11 year history of “epileptick fits.” Discharged February 23rd 1745 incurable.

Buchan is clear that once a brain cause has been determined as the root of the epilepsy, little can be done, although he counsels the reader that fortunately in his experience this situation is rare.

When a child is seized with convulsions without having any complaint in the bowels or symptoms of teething or any rash

Box 7: Advice in case of recovery

But, if you should recover, be not unmindful when you leave the Infirmary, to report what good you have seen, and received there, with thankfulness. Particularly for some time after you have received this benefit, return thanks to God for your recovery⁶

or other discharge which has been suddenly dried up we have reason to conclude that this is a primary disease and proceeds immediately from the brain. Cases of this kind however happen but seldom, which is very fortunate as little can be done to relieve the unhappy patient.⁹

It was more than a century later in 1857 that Sir Charles Locock first advocated bromides as a credible anticonvulsant drug.¹⁶ We can speculate that Jos’s epilepsy was relatively benign as there would have been no effective treatment to prevent a convulsion having a fatal outcome. Of course the risk of sudden death, development impairment and accidents as a result of epilepsy were then already well known.

Jos Furness’s fate is unknown, but whatever it ultimately was we, should not speculate that it would have been epilepsy related. Indeed, a recent review again reiterated that epilepsy-related deaths are unusual, with most cases being seen in patients whose epilepsy was symptomatic of the underlying neurological disease.¹⁷ Furthermore, over the past 50 years the epilepsy mortality would seem to be declining, although the introduction of new antiepileptic drugs has not had a large effect on reducing the risk of death.¹⁷

Mary Connor

2 year old outpatient first seen February 2nd 1745 asthmatick. Discharged February 23rd relieved.

The seriousness of asthma was already well known to the 18th century doctors, being described at least 1600 years previously by Aretaeus, the Cappadocian.¹⁸ Buchan emphasises the danger of the spasm and implores the doctor with an emphasis on relief.

Every thing that braces the nerves or takes off spasm may be of use suggesting that for convulsive asthma antispasmodics and bracers are the most proper medicines.⁹

Of course, these are no longer recommended, but should these fail he advises, “the Peruvian bark (quinine) is sometimes found to be of use”. He concludes finally with “a very strong infusion of roasted coffee is said to give ease in an asthmatic paroxysm”.⁹

Caffeine, of course, is a phosphodiesterase inhibitor raising intracellular cAMP. Advocates of aminophylline (of which I am one) find a strong historical parallel.

However, should these strategies fail, then Thomas Willis (1621–75) (whose understanding is based on speculative pneumonic spirits) advises a more direct and physical approach to torture the spirits and divert their attention elsewhere.

Moreover to reclaim the Pneumonick Spirits from their Convulsions; it is good sometimes to put the Spirits to torture in some other part, for when some of them are any where tormented, all the rest for the most part, being in a concern at it, quit their disorderly motions.⁸

Willis also recommends as part of this regimen, “Vomits, cupping, blistering, painful frictions, ligatures”, but gives no further advice as to how these are to be implemented.⁸

Asthma, of course, still remains a major health problem in both child and adult healthcare, although recent work suggests that its prevalence may well be falling.¹⁹

CONCLUSION

Of course, we can only speculate up to a certain point on the snapshot information we have available. We cannot know precisely how the 8-year-old little girl was managed on a single-sex ward or for that matter how patients in the Northampton General Infirmary perceived their hospital stay. Although there are no regulations whatsoever regarding visitors for the patients, it would appear that from 09:00 until 10:00 and from 15:00 until 19:00 visiting was allowed.²⁰

The most likely scenario is that it did not cross anyone’s mind that it was necessary for a young child to be accompanied throughout by a parent. The parents would certainly have been grateful that their child was admitted and being seen for nothing as the *Friendly advice to the patient* made it clear they were only there because they were too poor to be able to afford proper care for themselves.

Apart from the duration of symptoms, what is also most striking, at least to our own eyes, is the protracted length of inpatient stay, often being many weeks. There seemed to be a greater acceptance that if the physical ailment has been prevailing for long, any treatment that may effect a cure will also require time. Interestingly the admittance of a child with fever contrary to the Infirmary’s regulations, suggest an already permeable border concerning paediatric admissions.

It should be remembered that the rise of hospitals in the 18th century had its origins in provision not for the wealthy, but for the poor.²⁰ Indeed Fissell has commented: “Patients’ choices of medical care, albeit constrained by poverty, were influenced by their understanding of the hospital’s charitable nature as well as the contingencies of ill health.”²⁰

The establishment of modern health should not be seen in isolation but rather as part of a more general process of cultural and social change.²⁰ The overall process from the 18th century onwards nevertheless did lead to a progressive loss of patient autonomy. The reasons for this are:

- The hospital evolved from a charity to a medical workplace.
- There was the rise of the medical profession (with changes in its structures and medical education).
- There was a growing medical understanding about illness and its treatment.²⁰

Now the situation has almost come full circle, where we as medical practitioners recognise that it is the patient who has the disease and it is our duty under most circumstances to advise in partnership and only rarely—and then through a legal process—to compel.

Historical records can of course be of interest for their own sake. The Northampton General Infirmary admission and discharge registers clearly show a thriving child health service

in a provincial mid-18th century English town long before the establishment of specialist child health provision or a welfare state. The four cases illustrated earlier show that the children’s medical conditions and their outcome may be very similar to today’s. Of course we would like to think that our treatments and therapeutic environment are not only better tolerated by the patient but also universally more effective. Let us keep our humility in the light of the known facts and hope that future readers looking back after a similar interval at our surviving records will not, in their turn, judge us harshly.

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