Dr Herbert Barker (1814–1865) of Bedford and infant hygiene

Peter M Dunn

Thomas Herbert Barker was born in 1814. He received his medical education at Queen’s College, Birmingham and also at University College, London, where for a time he was house surgeon to Mr Liston. He received the licence of the Apothecaries’ Company in 1837 and membership of the Royal College of Surgeons in 1842; the fellowship followed in 1851. Meanwhile he had obtained the MD, University of London. He was also later awarded the Fothergillian gold medal of the Medical Society of London for an essay on malaria and, in 1865, the Hastings gold medal for another essay on Deodorization and Disinfection. The prize was presented by Sir Charles Hastings himself at a meeting of the BMA that year in Leamington.

Barker settled in Bedford where he served as general practitioner, obstetrician, surgeon, physician, paediatrician, pathologist, and public health doctor. His knowledge was very comprehensive and he aimed for and achieved the highest standard in everything in which he took an interest. He was immensely hard working and determined and the goodness of his intentions, his high intellect, and his unwearied industry on behalf of the community gained for him a wide reputation and honour for his profession. He founded the Bedford Dispensary, a food kitchen, and a coal club for the poor, and he took a great interest in the affairs of the various hospitals in the town. His greatest contribution, though, was in improving the sanitation of the town. In 1854 he startled the inhabitants with a pamphlet entitled: ‘Is Bedford healthy? and if not, why not? and how can it be made so?’ Another essay had the title: ‘Foul Air and Fever, as exemplified in the sanitary condition of Bedford’. Against considerable opposition he persevered and eventually succeeded in winning support for the improvements needed to prevent disease in the town.

Dr Barker wrote many papers and essays. In 1859 he published an important, though little known work on the hygienic management of infants and children. As he wrote:

‘During several years past I have devoted some part of the leisure afforded by an extensive practice to the task of collecting information on the errors most prevalent with regard to the management of infants and children … I would contend, the right management of infants and children lies at the root of all other plans of social amelioration. What can good subsequent measures avail, for a constitution already hopelessly injured by errors in the opening years of life?’

Half of all the children born in England die before they reach their fifth birthday … What are the causes of this excessive mortality? They may be found under the following general divisions:—First. Original constitutional debility, or hereditary disease. Secondly. Acute diseases, such as measles, hooping-cough, scarlet fever, etc. Thirdly. Our general want of sanitary measures, giving rise to pollution of the atmosphere. Fourthly. Mismanagement with regard to diet and regimen in the nursery. Of these four causes of mortality, the first three are common to all ages: the last alone is peculiar to infancy … To this last cause of infantile
mortality I shall exclusively devote attention ...
... The reason for thus giving it priority is, 
that I regard it as surely and easily preven-
tible; and the object is, to point out the two 
simple means of its prevention: (1) An 
increased attention to the subject on the part 
of medical men; (2) Sound instructions for
mothers and nurses.

The topics belonging to infantile hygiene
should, it is conceived, form no inconsider-
able part of every course of lectures on
midwifery and disease of children. Unfortunately, these topics, seeming so 
simple and easy that few will take the pains 
to study them, are, too often, passed over
lightly and briefly ... The medical man who 
could save life even in a rare case of surgical
difficulty, may sacrifice the life of a healthy
infant for want of knowledge of a few plain
natural laws of diet and regimen!

The following extracts serve to illustrate
Dr Barker's simple yet practical and very
important advice on newborn care:

'In every period of life, health depends, in
a great measure, on the equable diffusion
of warmth over the whole body, ... the new-
born infant should be warmly wrapped in
flannel; that during cold weather it should 
be dressed near a comfortable fire, ... Too 
much attention can hardly be paid to clean-
liness during infancy and childhood. Careful
washing should be performed daily ... care
should be taken not to allow exposure of
the body to cold. We have known bad results 
to follow too protracted exposure in washing,
and tardy movements in dressing the child ...
The temperature of the morning and
evening bath should be about 90° or 96°
Fahr.; and on no account should the infant
be submitted to cold bathing during the first
few weeks of its existence ... The nursery
should be a large room, airy, well-ventilated
and easily warmed; neatly painted and
papered ... an upper room is preferable ...
Let it be scoured once a week ... special
attention should be given to have the room 
filled with fresh air every morning ...
Attention must also be paid to the due regu-
lation of temperature ... we must pay regard
at the influence of light ... the early period of
infancy is passed in sleep ... the only natural
interruption to repose is the feeling of
hunger. The lesson to be learned from this
fact is obvious — all unnecessary interrup-
tions of the child's natural state of rest
should be avoided ...'

Barker's comments on infant feeding also
have a remarkably modern ring to them:

'In cases where, happily, it is resolved that
the child shall have its natural diet, some
hours, or perhaps days, may elapse before
the secretion of milk is ready ... in ordinary
circumstances an infant is well able to bear a
fast of twelve hours immediately after its
birth. In this interval, while the flow of the
mother's milk is deferred, the nurse is too
commonly anxious to supply the supposed
want by pouring gruel or panada into the
child's stomach ... This process is useless
and mischievous ... There can be no need of
any artificial food, if, during the first five or
six months, the infant is applied to the breast
at regular intervals of about three or four
hours, by night as well as by day ... There
may be cases in which it would be highly
improper to allow the mother to suckle her
own babe, while it may be difficult to employ
the services of a good wet-nurse. In
such a case, we must, with the utmost
calmsion, employ a system of artificial feed-
ing. A very considerable part of the mortality
of infants reared by hand is the result of errors,
respecting either the quality or the quantity of the
artificial food administered ... the artificial
food of infancy should form the best possible
imitation of the natural milk which ought to
be the diet of the infant. In order to succeed
in this imitation, we must carefully study the
properties of the original. Milk is the perfect
form in which nature presents to us the three
esential constituents, saccharine, oily, and
albuminous matters, necessary to support
infant life. It may be resolved into three
organised compounds, which we may designate
by the familiar terms, cream, curd and whey.
These three constituents vary in
proportions in the milk of various animals,
as the following table will show:

<table>
<thead>
<tr>
<th>Properties</th>
<th>Human milk</th>
<th>Cow's milk</th>
<th>Goat's milk</th>
<th>Assam milk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casein</td>
<td>2.85</td>
<td>4.48</td>
<td>4.02</td>
<td>1.92</td>
</tr>
<tr>
<td>Butter</td>
<td>5.90</td>
<td>3.10</td>
<td>3.10</td>
<td>0.11</td>
</tr>
<tr>
<td>Sugar</td>
<td>0.34</td>
<td>0.77</td>
<td>0.38</td>
<td>0.49</td>
</tr>
<tr>
<td>Saline matters</td>
<td>0.15</td>
<td>0.00</td>
<td>0.58</td>
<td>0.34</td>
</tr>
<tr>
<td>Water</td>
<td>85.08</td>
<td>97.02</td>
<td>86.90</td>
<td>91.02</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Now it should be observed that this
casein is the least digestible of the
constituents of milk, and from this fact we learn the
necessity of diluting cow's milk, so as to
adapt it to the tender organisation of the
child ... The foregoing table also shows us
that it is proper to add to the diluted cow's
milk a small quantity of loaf sugar, to
increase its resemblance in the saccharine
quality, to the milk supplied for the child by
nature ... Let the diet of the infant be gently
given in small quantities. Let the first
symptom of indifference be noticed as a
sign that the appetite is satisfied for the
present'.

Outside medicine Herbert Barker had many
interests in which he excelled, including chem-
istry, meteorology, microscopy, astronomy,
antiques, and also exploration of the Alps
which he visited every summer. He married
twice and had six children. Sadly, in view of his
efforts to improve the hygiene of Bedford,
he contracted typhoid there and died four weeks
later at the early age of 51.