

## Epilepsy in Thomas Phayer's *The Boke of Chyldren* (1546)

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Thomas Phayer is credited with being the first English physician to write a monographic treatise on children's diseases. While preparing *The boke of chyldren*, he realized that pediatrics had been somewhat abandoned in traditional medical literature, especially when compared with the sheer volume found in some other related disciplines (like obstetrics or midwifery). Therefore, he pointed that out in the preface and foreword to his text in the view that he might prompt a greater academic contribution to this specialty. Besides, Phayer sought to raise awareness about the complexities of infant healthcare by presenting children as a delicate group of patients that demanded remedial measures according to age, physiology, constitution and treatment tolerance. No wonder, then, that Ruräh (1925) called him "the Father of English Pediatrics" in recognition of such a pioneering enterprise in the vernacular.

### THOMAS PHAYER (1510–1560)

Thomas Phayer was a distinctive Renaissance polymath who, apart from studying Law at the Inns of Court (London) and becoming graduate physician at Oxford University in 1559, still had enough time to compose poetry, to write administrative and legal books, as well as to render an incomplete translation of Virgil's *Aeneid* and two French medical treatises (*The Regiment of Life* and *A Treatise on the Pestilence*) in English. Moreover, he served as MP for Carmarthen Boroughs (1547) and Cardigan Boroughs (1555, 1558, 1559), thus being well-versed in 16th-century politics and public affairs.

Phayer's early life remains obscure (Cule, 1979; Bowers, 1999), but he was probably born in 1510, son of Thomas Phayer from Norwich and Clara Godier (Lee, 1921–1922). He is then located on the household of the influential Sir William Paulet, who is likely to have helped him with the appointment as solicitor to the Council of

the Welsh Marches sometime in or around 1547. The new job led Phayer to move to Pembrokeshire (Dyfed County), where he opportunely combined the management of ongoing legal issues at the Council with various local offices: customs officer in Milford Haven and other Welsh ports, justice of the peace in Cardiganshire, steward of Cilgerran and constable of Cilgerran Castle. On March 21, 1559, he was also awarded with an MD degree at Oxford University. In his application, Phayer argued that he had been embarked on a compromised medical career for more than 20 years and had performed "various experiments upon poisons and their antidotes and written a book about the ailments of infants, and about the plague" (Lewis, 1986).

He died at his granted estate in the Forest of Cilgerran, soon after signing his will on August 12, 1560, and he was buried nearby, in St. Llawdog Churchyard. Both Barnabe Googe and Sir Thomas Chaloner mourned Phayer's death in two panegyric poems ("An Epytaphe of Maister Thomas Phayre" [1563] and "Epithapivm Thomæ Phayre, Medici" [1579], respectively) which praised his human virtues, social compromise, and professional versatility.

### THE BOKE OF CHYLDREN (1546) AND THE CHAPTER ON INFANTILE EPILEPSY

*The boke of chyldren* is a relatively slim treatise of 124 pages, which "appeared in concert with a boom of translating and reprinting continental pediatric writing and a new concern for prenatal, gynecological, and obstetric care" (Berry, 1974). In the preface, Phayer affirmed that the book contained some fresh ideas on children's diseases and therapeutic needs—coming from his on-the-ground daily experience, but, at the same time, he confessed that it was largely derivative when he revealed that some renowned classical and contemporary authors (Leonard Fuchs, Johannes Ruellius, and Otto Brunfels, among others) had been his most valuable sources of inspiration.

The sixth chapter of *The boke of chyldren* focuses on *the falling evil*. It is divided into three uneven sections. The first, which coincides with the opening paragraph, includes a short theoretical account on the disease.

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The second unfolds in two paragraphs and speaks of external remedies against epileptic seizures. The last, and longest, section teaches the reader how to elaborate various "wholesome medicines to be taken inward."

### Theoretical framework

The chapter begins with two epidemiological data on epilepsy: age distribution and frequency of occurrence. Phayer said that adults and small children were often at risk of suffering from this neurological disorder, but he omitted if such a diffuse frequency rate was true for England by then. It remains unknown whether he was just offering some kind of statistics derived either from the bibliography he consulted or from the fruits of everyday medical practice.

The author proceeds to define "the falling evil" as a "grievous" entity, an adjective which—used in the 16th century and applied to the medical field—indicated both severity of presentation and difficulty or resistance to healing (Simpson, 2007). By using the term "falling," the author was naming an effect commonly associated with epilepsy, but there is no additional record on why, how, and when falls were produced or manifested in children. Similarly, Phayer eluded any mention of prodromes, seizure-precipitating factors, typology or concomitant disease, possibly to avoid confusion and diagnostic misinterpretations from nonacademically trained readers.

Epileptogenesis is minimized to the expression of two well-known causes. On the one hand, Phayer attributed children's comitial seizures to parental inheritance, which could considerably reduce the possibilities of recovery and favor chronification. The Hippocratics had already introduced the role of hereditary factors in epilepsy ("the sacred disease") and explained that either parent might have transmitted the disease to the foetus through biological fluids, as it sometimes happened with humoral constitution, phthisis or spleen disorders (Chadwick and Mann, 1983).

On the other hand, Phayer said that seizures in children were also due to unhealthy diets. The excess or lack of basic nutrients exerted a negative effect in the quantity and density of phlegm (the cold and moist humor); as a result, it began to expand upwards, reaching the brain and accumulating there to the point of congestion. This disturbed the child's physiological balance and eventually provoked a pathogenetic reaction that externalized through epileptic attacks. The role that phlegm played in epilepsy had been postulated by the Hippocratics too; likewise, Phayer's description matches Galen's idiopathic epilepsy, a subtype where primary humoral affliction in the brain did not involve the sympathetic nervous system (Sarton, 1952; Prioreschi, 2001). The prognosis for this aetiological factor depended on age; that is, whilst infants had serious problems in overcoming the disease whenever it was caused by

bad dietetic habits, seven and up year-olds of strong complexion had more healing opportunities under the same conditions.

### Treatment

In section two, Phayer reported his findings on external remedies, a series of amulets that had entered in medical literature since Antiquity notwithstanding their usage was based on unexplainable empirical evidence and even stepped into the realm of folkloric superstition. Precious stones (sapphires and emeralds), certain commonplace plants (red coral, peony, or dill), and the stone lying on the stomach of a swallow's first offspring all possessed the double virtue of saving and preserving the child from further seizures. Phayer assumed Galen's connection between "substance" and "the notion of occult qualities" (Garber and Ayers, 2003) when saying that these elements had no "quality elemental"—maybe an allusion to its active principles—that brought about a specific antiepileptic response in the human organism. Instead, he believed that their efficacy stemmed from some mysterious curative properties intrinsic to the piece itself, or, alternatively, from heavenly influence that had turned it powerful against convulsive states.

On the contrary, section three contains eight medicinal preparations to be ingested. The main purpose of each one was not revealed, so the neophyte reader could not know whether it inhibited the child's transitory neural and physical complications or acted as a long-term preventive treatment. Preparations one, two, and three are age-linked, although the author is imprecise regarding how old the patient must be. Thus, the first remedy is devised for older children, who should drink a leveret's maw mixed with water and honey to stop seizures. In the second, tender babies and young children should lick the powder of peony's root mixed with a small quantity of pap and sugar, whereas older ones can swallow the solid powder alone or the plant's black seeds. The third is again recommended for any young child capable of drinking an unspecified part of the heartsease plant with water or with a mixture of water and honey.

The remaining five remedies can be hypothetically applied to all children since no explicit age distinction is given. The fourth from the list is a sample dietetic strategy to restore normal potassium levels, a modern therapeutic contrivance whose rudiments were already present in medieval Iranian literature (Gorji and Khaleghi Ghadiri, 2001); it consists in an oak-tree's muscle (heartwood?) razed and concocted in milk or in water and honey. The fifth antiepileptic remedy is a watery liquid distilled from the bark-tree's flowers; here, Phayer warns the reader to be extremely careful with dosage ("a spoonful") and the time of administration ("now and then"). The sixth recipe offers two options for the sea-holly's root: it can be taken in broth or drunk in an unknown liquid. The seventh just indicates

that wild chicory is singularly good against epilepsy. Finally, a soft paste (“conserva”) made of rosemary’s flowers is equally effective for relief.

Phayer closes the chapter by addressing the reader in the following terms: “I could declare many other remedies, commended of authors, but at this time, these shall be sufficient.” This clarification implies that he probably knew about the benefits of the above-mentioned anticonvulsive remedies through classical, medieval, or Renaissance works dealing with epilepsy, infantile or not. Pedacius Dioscorides’ *De medicinali materia libri quinque* (1516), for instance, had pointed that the sea-holly’s root diluted in hydromel stopped comitial attacks; Paolo Bagellardo’s “De epilepsia” (1472) cited the use of emerald, peony’s root and mistletoe as amulets to be worn by infants who were not prepared for oral therapy; and Phayer’s peony-based internal remedy may have been taken from Thomas Raynold’s *The byrth of mankynde* (1545) since the excerpts from both books are nearly identical in contents and instructions.

### CONCLUSION

*The boke of chyl dren* is well-documented from reliable sources and reflects an unprecedented attempt to systematize a set of principles for a future pediatric discipline in England. Much as Phayer did not stand out for his innovative contributions to the ever-growing field of epilepsy, it is true that he rendered a ready-to-use chapter in the vernacular so that the “unlearned” gained access to a selection of remedies intended to control children’s seizures.

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