Lessons from the past: preventive medicine in early modern England

L Hill Curth

The history of English medicine used to consist of chronicles of medical progress and great ideas culminating in twentieth century biomedicine. Unlike earlier generations whose medical beliefs and practices were seen to be both futile and dangerous, modern medicine was thought to be able to eradicate illness with a “magic bullet”. During the later part of the 20th century, however, the general public began to have doubts about the efficacy and safety of modern medicine. In turn, both the institution of medicine and the biomedical model began to be challenged by the media. These events led to a spreading desire for people to take a greater responsibility for their own health. One of the areas of greatest interest and growth is that of preventive medicine which focuses on a good diet and exercise. Far from being a new concept, however, the idea of a daily health “regimen” goes back to the ancient Greece and was further developed during the Middle Ages, and by the early modern period (1500–1800).

The art of Physicke [medicine] hath two principal parts; the one declaring the order how health may be preserved: the other setting forth the means how sickness may bee remedied. Of these two parts (in mine opinion) that is more excellent, which preserveth health and preventeth sickness . . . even as it is better to stand fast stil, than to fal and rise again, better to keepe a Castle or City, than after we have suffered the enemy to enter, to rescue it.

Far from being a new issue, the practice of preventive medicine is one that dates back to the earliest days of medical practice. Although this quotation was first published in 1612, its message is still as clear and true almost 400 hundred years later. It is still preferable to try to maintain a health state than it is to restore health to a diseased body.

Over the course of four centuries there have been massive advances in humankind’s understanding of disease and sickness. During the early 20th century in particular, biomedical research began to take significant strides. The ability of biomedicine to prevent and treat a number of acute, infectious diseases during this period resulted in a growing widespread public confidence in the medical professions. Patients fully expected their practitioners to diagnose “the cause” of their illness, and to prescribe a “magic bullet” of drugs that would drive it from their bodies.

For many people, doubts about the efficacy of modern medicine began to grow in the later decades of the 20th century. Biomedical limitations became increasingly obvious, both in fighting acute diseases such as AIDS or BSE and in alleviating chronic illnesses such as asthma or allergies. In turn, both the institution of medicine and the biomedical model began to be actively and publicly challenged by the popular and academic press. Many members of the public began to feel the need to take greater responsibility for their own health, resulting in what Roy Porter has called a “body culture”. Far from being a new trend, however, I would argue that this simply continues an established recognition that it is better to try to follow a healthy lifestyle resulting in a body better able to fight off disease. In early modern England this was known as following a good “health regimen”. As this article will show, there are many important parallels between “healthy lifestyles” and “health regimens”.

The study of medical history has already disclosed numerous precedents for contemporary acts and behaviours. It follows that an understanding of early modern health regimens designed to “keep out” disease may also provide insights into our own efforts to have a healthy lifestyle.

As one 17th century writer advised his readers:

If we were careful to keep out diseases, we should not be troubled to drive them out: Reason tells us ‘tis better to keep out an enemy, then to let him in, and afterwards to beat him out . . .

The concept of preventing disease through a good health regimen was based on ideas developed in Greece by Hippocratic writers during the fourth century BC. These ancient theories and practices of medicine were further developed by Islamic writers, including the enhancement of the Galenic concept of what Arabic writers called the “non-naturals”. The non-naturals were based on environmental factors involved in the preservation of health. Most of them could be manipulated in ways that would help to keep illness at bay. They consisted of:

1. Air
2. Motion and rest
3. Sleep and waking
4. Things taken in (food and drink)
5. Things excreted
6. Passions and emotions

This paper will examine the way in which the non-naturals were employed in the creation of “health regimens” which aimed to produce healthy, disease-free bodies. Many of these points will be surprisingly familiar to modern readers, such as the key theme that everything should be taken in moderation. I am not suggesting that contemporary medical practitioners should, or even could, follow all of these early guidelines. Being aware, however, of the importance of these principles, as well as many other of the features of early modern medicine, can help us to understand more about current medical practices.

THE SIX NON-NATURALS

Air

Although concern about the quality of the air we breathe might seem to be a modern issue, it has a considerable history. Hippocratic writers believed that plagues or epidemics were the result of breathing in noxious air. What is now referred to as “air pollution” is said to emanate from a number of sources, including industry, agriculture, services, households, solid waste management, and road, air, and sea transport. With the exception of air transport, all of these factors also featured in the creation of miasma. Toxic air could be created through the work of butchers, tanners, or farm workers. The decomposition of human and animal waste, whether excrement or the rotting of bodies on the battlefield, was thought to create very dangerous fumes. Other noxious vapors were said to arise from swamps and muddy areas or stagnant water.

During the early Modern period it was commonly believed that such ill ayre carried a range of diseases from “rheumes” to “gowte”. “Vitrious and hurtfull” air even fostered the transmission of smallpox and measles. As the writer of a popular 16th century vernacular book warned his readers:

There is nothing, except poysen that doth putryfie, or doeth corrupte the blood of man; and also doth mortify the spirites of man, as doeth a corrupt and a contagious ayre.

Clearly, in order to prevent disease, it was important to “Keepe your selfe in a pure Ayre”. Of course, air quality varied depending upon location and outside conditions. For example, rural areas were thought to enjoy better air than polluted towns, although certain weather conditions which were thought to cause ill health affected town and country equally. On the simplest level this included foggy and misty days. Far more dangerous was the contamination of the air from “Meteors, Thunder and Lightning, intemperate heat and cold”. Precipitation in the form of rain showers was not considered hazardous in itself, although the released vapours were thought to be dangerous. It was said that “they that come abroad soon after those Showers, are commonly taken with sickness”. It was thought safest to stay indoors “where the Air is cold long after sun-rising, where the Air is long hot after sun-set [and] where the Air is long, close, cloudy or thick”. Those who ignored this advice would find the “cheerful virtues of the body greatly weakened”.

Motion and rest

There are obvious parallels between the perceived importance of exercise in early modern and 21st century England. Then, as now, social forces exerted a great deal of influence upon contemporary ideas of appropriate physical activities. Today the media continually bombard the public with messages about the many benefits that exercise has for both overall health and cognitive function. In the 17th century, many writers of popular medical books offered the same message, that exercise was a vital part of a good health regime. These included homilies stating that “Exercise is best, for him that in old Age would live at rest” or for “the man that is in health, exercise is the only medicine”.

Then, as now, there were a range of popular forms of physical activities in early modern England. David Underdown has written that football was the most popular plebeian sport, and variations of it were played countrywide. Contemporary writers mentioned a much wider variety of physical activities. Many of these other activities revolved around horses, whether for “running”, “hunting”, or “ambling”. Gervase Markham also suggested that countrymen might enjoy “hawking, coursing of Grey-hounds, Shooting, Bowling, Tennis or Baloune”.

Another contemporary author recommended “leaping” as being “an exercise very commendable and healthful for the body”. There were a number of games that involved running, such as “post and pillar” and “prisoner’s base” dating from the previous century. Alternatively, “nobles and gentlemen” might prefer “the skill and art of swimming”. Women, on the other hand, were encouraged to try gardening as a form of healthy recreation.

For those who preferred something less strenuous, taking long walks, particularly in the countryside, was highly recommended. As one author enthused, “walking measurably” was good for the brain. In the springtime it was good to “rise early now is month of May, and walk the fields that be so gay”. It was considered even more healthful to walk in fields besides running streams. The British Merlin further specified that the reader should walk the fields by running streams on the north and south sides. As autumn set in, however, readers were advised to “walk as little as thou canst after Sun set.”

Although exercise was considered to be an important component of preventive health care, too much was likely to result in disease and illness. This was believed to result from over heating the body either “through toyl or pleasure”. Once again, the keyword was moderation.

Sleep and waking

Modern studies suggest that men and women who sleep less than seven to eight hours at a time have a higher mortality rate than their better rested contemporaries. Insufficient sleep is also known to affect mental functions such as concentration as well as general mental wellbeing. Early modern English writers reached similar conclusions, based on a collection of ancient wisdom, and their own empirical findings.

Sleep was an important part of the Galenic health regime, and was regularly referred to in medical works of the renaissance. Nicholas Culpeper believed that sleep “comforts nature much, refresheth the memory, cheers the spirits, quickens the senses”. Richard Allestree suggested that since sleep was ordained by God, it “comes as a medicine to that weariness, as a reparier of that decay, so that we may be enabled to such labours as the duties of Religion or works of our Calling require of us”.

The hours spent sleeping could also provide clues as to the person’s state of health. Those who were ill tended to be “oppressed with sleep, and are sluggish and idle”. This was certainly true of people suffering from gout who tended to need many additional hours of rest. Disturbing dreams could be a symptom of illness and disease, while pleasant ones signified a state of good health.

As with the other non-naturals, moderation was the key word for sleeping habits. “Long and superfluous Sleep” could “chill the Body, weaken the Natural Heat and breed Flegmatic
Humours”. It was, however, recognised that the constitutions of some people made them require more sleep. On the other hand, there were two circumstances in which it was important to stay awake. It was never considered safe to sleep directly after having blood drawn. Secondly, it was considered “ill for the braine” to have much sleep after eating meat because it slowed down the task of digestion.

In general, however, moderation in sleeping meant less than more. Even during long winter days, napping was discouraged, since “Long sleep at after-noons by stirringer fumes, Breeds sloth and ayses, agaking-heads and rhumes”. Spring mornings were not the time to make up for lost sleep either, as “Now ‘tis excellently wholsom to rise early”. Since some people were likely to suffer as a result of short nights, it was not “discommended” to have a nap after dinner.

As sleep was an important part of maintaining health, advice for insomniacs was also offered. Pond suggested a mixture of nettlesseed and honey. This would not only induce sleep, but also would cure cholic, soften phlegm, and heal gout. A lighter hearted recommendation was:

But if thou thinkest thou canst not sleep, This Counsell’s good, if thou dost go, Drink a Sack Posset [wine punch], quart or two: ‘Twill cause thee sleep, and banish sorrow, And make thee fresh to rise the Morrow.

Diet

The relationship between diet and health has been called one of the most ancient branches of the therapeutic art. During the early modern period, diet was considered “the mother of diseases” because it was the longest—and most frequently internalised component of the non-naturals. Today, overconsumption of food and drink and a sedentary lifestyle are regularly linked to obesity and subsequently high rates of mortality and morbidity.

The concept of “nutritional medicine” is another aspect of 21st century health care. This focuses on the use of specific nutritional factors in conjunction with the elimination of toxic and/or allergenic materials from the daily diet. Although the terminology differed somewhat in the 17th century, the principle was almost exactly the same. People were advised to eat a varied diet, with the proviso that the type and quantity of food to be ingested depended on each person’s individual age and constitution.

The healthiest diets were also supposed to change with the seasons of the year, in quantity as well as in types of food and drink taken. Although part of this advice might have been linked to seasonal availability, it also took accounts of the changes in the human body. In the winter:

We may feed liberally on strong meats, as Beef, Barren Does, Gelt [gelded] and on spiced and baked meats for whole better digestion, and to shut the orifice of the mouth of the stomack; some other having weak stomacks, take digestive poders made of sweet Fennel Seeds, Coriander, Coral prepared, a little Mastick, Cinnamon and rose sugar, with the conserves of Roses.

In the warmer seasons, somewhat different advice was offered. In April, “our blood begins to heat and wax rank, and therefore it is expedient to eat meats of light digestion. Salt meats are very hurtful, chiefly to restive persons”. During the springtime readers were advised to:

Abstain from such Meats as do engender raw, crude, and moist humours. Now a cup of good White-wine taken fasting doth purge choler, and offensive humours from the Stomach; Eat moderately, and such meats as are easily concocted.

Many popular books spelled out the specific foods that readers should consume. Some recommended items such as cheese and dairy products, in spite of the modern perception that they were often thought of as foods only suitable for the poor. Wealthier people tended to use butter only for cooking, and saw cheese as inferior to meat. On the other hand, dairy products became increasingly popular amongst working town dwellers during the 17th century. Cheese, in particular, was a common feature of the daily diet. Generally, it was thought that for “healthy men may cheese be wholesome food, But for the weak and sickly ‘tis not good”.

Other foods, however, were thought to provoke illness and were to be avoided at any cost. These included “eating trash and food contrary to Nature”. According to one author, these included items such as “garlicke, onions, radishes, sweete and thickke Wines, salt meates, coleworts [and] pulses”. The content of contemporary printed works suggests that the assumption that people ate very small quantities of vegetables and fruits was not true. “This idea was presumably caused by the term “meat” being used generically for all types of food. In fact, there are actually numerous direct references to the consumption of fruits and vegetables in popular works. Some, such as “sallets” were recommended as being particularly healthy, and good for “cooling the body” during the hot summer months.

Fresh fruits, in season, were well liked and consumed in large quantities. Indeed, this was so much the case that many almanacs warned readers about the dangers of overindulging. Dried fruits were very popular, often as ingredients in mulled wine or other foods. These included “raysons of the sun” or figs. Unripe fruit was considered to be detrimental to one’s health, although in a ripe state it was wholesome. This was thought to be especially true in the summertime, when fruits and herbs had “their crude and superfluous humours exhaled”.

Wine, consumed in moderation, was thought to be an important ally in the fight against disease. According to Tobias Whitaker, “the bloud of the grape” was “neerest to the nature of the Gods and their nature is incorrupt”. Wine was the most nutritious beverage available, being “more pure and better concocted than any other juice, either of mille, egges, corne, fruits, or the like”. People who regularly consumed the beverage could expect to be “faire, fresh, plump, and fat”, in contrast with water or beer drinkers, who “look like Apes rather than men”.

Once again, wine would protect health only if taken in moderation. Whitaker’s book warned that “By the excessive quantity [of wine], you will add so much oyle to the Lamp and shall extinguish it”. This was because the wine would “penetrate into all the parts, and go into the veins undigested, and pricke the nerves and brains”. This would, in turn, “inflammeth the bloud, deblateth the nerves [and] vexeth the head”. Once the patient had been so affected, the way was clear for such “deadly diseases, as apoplexies, dropsies, palisies, the gout and many others to strike”.

Evacuation and retention

It was widely accepted that good health was linked to the periodical removal of excessive humours. This was done by regularly purging the system, as a preventive measure. The modern definition of purging refers to the emptying of the bowels, perhaps through the assistance of colonic irrigation.
In the 17th century, however, this was only one of many different methods used to remove unwanted materials from the body.

There were a number of different ways in which to purge offensive matter from almost every natural or artificial bodily orifice. Generally, they began with phlebotomy, or bloodletting (from the Greek phileps or vein, and tome or incision). Vomiting, “neesing” (sneezing) and gargarisms (gargles) were three popular methods for clearing the upper body. A more general, overall method was causing the body to sweat.

There were correct and incorrect times for carrying out any of these treatments. In cases of phlebotomy, the position of the sun, moon, or Lord of the Ascendant was of primary importance. The best time for bleeding was when any of these occupied the zodiacal sign controlling the disease in question. Decisions also needed to be made as to opening veins or arteries, and whether to use a lancet, leeches, or cupping to draw the blood.

Whether used as preventive medicine, or to treat an illness, there were vital guidelines to follow. In 1647 Woodhouse warned that “...many times the careless and unlearned, by letting of blood, openeth a way to dangerous inquiriments, and oft to present death”.

According to one popular book, the best form of purging was “the sweet Evacuation by way of Venus”. In moderation and at the correct times of the year, sexual intercourse was an important part of good health. Galenic theory held that if the “natural seed” were kept too long within the body it would turn into poison. In fact, for married men, regulated and moderate sexual emissions played a major part in the preservation of health. Although most advice of this nature was aimed at men, some authors suggested that regular sexual intercourse was a necessity for women:

The first Mover and Maker of all things knew it necessary, to have a procreation of Mankind, for the continual supply of the World... and “was not only sufficient to make a Man and a Woman so, and furnish them with Instruments proper to conjunction and copulation; but also that as well as in the Man, as in the Woman, there should be a desire, and magnetic attraction to the Art of Copulation”.

On the other hand, too much sex would weaken the seed, and could result in stunted or deformed offspring. During certain times of the year any amount of sexual activity was considered dangerous. This was particularly true in the summer months when readers were advised to abstain from “venerious acts” or “venus-sport”. Those who chose to indulge themselves nevertheless were likely to overheat their blood which would result in a multitude of illnesses.

According to contemporary stereotypes, either abstinence or even moderation could be almost impossible for many married men. Women were attributed with a “voracious sexuality” which could make them physically demanding whatever the season. Such behaviour could adversely affect their male partners, as too much sex was thought to weaken their seed and therefore their general health. The physical reason for this had to do with Galenic theory, whereby men were thought to be hotter and drier than women were. In some cases, the woman’s urge to obtain sperm to counteract her colder and wetter complexion could spiral out of control. For most women, however, there were other reasons they both required, and enjoyed sexual relations:

The sense and feeling of venerious actions seemeth to be given by nature to women, not only for the propagation of issue and for the conservation of mankind, but also to mitigate and assuage the miseries of man’s life.

The other major problem of unconfined sex was that of venereal disease. This was particularly true for those pursuing extramarital sex. As a number of contemporary vernacular medical books warned, the result of this could easily lead to “claps” or the “french pox.” In order to drive this point home, some almanacs contained the frightening list of symptoms that such readers could expect:

Running of the Reins, and the Symptoms as Pains in the Head, Shoulders, Arms, Shin-Bones, Heat and Scalding of Urine, prickings in making Water, soreness; or swelling in the Yard or Groin, hard Pustules or Blisters in the Head, Neck, Face, Whitish, Yellowish, Greenish or Blewlish Matter issuing from the Privy-parts.

Passions and emotions

The final “non-natural” influence appears to have been a favourite topic for 17th century writers. A number of books were published urging readers to suppress their pride, anger, envy, malice, sorrow, and fear. Such themes are still popular today, both in the academic press and in the multitude of popular “self help” books and articles printed in the mass media. Some studies suggest that such “negative emotions” increase mortality rates following a myocardial infarction, and even play a role in the onset of coronary disease.

Early Modern writers held similar views. An over emotional state would weaken the body and provide the perfect, welcoming conditions for “disorders”. An excess of passion or emotion was thought to weaken the body. This held equally true for positive as for negative feelings. One almanac reminded readers that while they should “fly wrath, anger and envy”, they needed to “use mirth also moderately”.

Unfortunately, some people had a propensity to strong emotions owing to their birth sign. People born in April or November, under Mars, were thought to be hot, dry, and choleric. This meant they were likely to be “bold and proud, given to mock, scorn, quarrel, game, drink and wench, and sometimes steal!”. Their internal “extremity of passion” put such people in particular danger of falling ill, and was thought to lead also to debauchery, surfeits, and fevers. In the direst cases, the sins of passion could cause a person to go mad or die an early death.

CONCLUSION

Preventive health care has been one of the basic tenets of popular medicine. The idea that it was better to retain health rather than fight illness was based on tradition, observation, and good sense. Many types of popular medical books listed a number of ways in which people could protect their health. The majority of these revolved around choosing a proper lifestyle, based on Galenic theory. Through the use of the six “non-naturals”, such information could be broken down into manageable, easily understood segments. The majority of advice would have been possible to follow, if somewhat tedious, or perhaps unpleasant. It does not seem likely that people believed they could always keep illness at bay. Their own experiences would have strongly contradicted this. I think, however, that the emphasis on trying to protect one’s health served two purposes.

In the first place, attempting to follow a regime based on the non-naturals probably did result in stronger bodies that were more resistant to disease. Indeed many of these influences are still recognised as building blocks of good health. Modern medicine also acknowledges that unpolluted air is safer to breathe, and less likely to damage the lungs and other organs. The strain on the body from overwork and insufficient sleep is still generally acknowledged. Through the efforts of modern government propaganda, most people know it is important to eat certain foods in specified quantities. The purging of bodily
wastes, through the use of laxatives or diuretics, also has been common for many years. In addition, the growth of interest in alternative medicine has also meant a greater acceptance of purgative methods such as “colonic cleaning.”

In the second place, I believe that being provided with, and attempting to follow, a systematic method of preventive health served an important function. It addressed what has been recognised as the rampant feeling of helplessness in the face of disease. It provided the readers with such advice additionally with the feeling that they had some control over events. During the routine of daily life, one might feel that a disease had been avoided through the personal efforts of prevention. Perhaps they also served the purpose of a placebo, helping to prevent illness through mind power.

Both of these considerations hold true today as they did then.

AUTHOR’S NOTE: REFERENCING CONVENTION FOR EARLY MODERN CITATIONS

Citations for early modern books (circa 1450–1800) do not follow the same format as for modern printed works. The most noticeable differences were that they did not always include information on their publisher and that the pagination system was different from today. Although Arabic numerals were commonly used, some sections, or even whole books only contained “signatures”. These were printers’ aids, consisting of letters, numbers, or marks at the foot of the first leaf of each section as an aid to compiling the complete volume. Today, historians use these as referencing tools, with “sig A2r” representing the second page of the first section. The r refers to the Latin recto, which means the front side of the page, while A2v would refer to verso, or the back side of the page.

REFERENCES
1 Cogan T. The haven of health. London, 1612: sig A3r.
19 See reference 6: sig A4v.
21 Pond E. An almanack. Cambridge, 1687: sig C3r.

"Athos, how big is the actual heart?" asks the young Jewish boy, Jakob Beer, in the novel Fugitive Pieces (page 113). The reply is: "Imagine the size and heaviness of a handful of earth" (page 113). Athos is an archaeologist and this perhaps is an archaeologist’s answer. A doctor might reply that, providing it is healthy, it is the size of a human fist. For us it is the size and heaviness of a handful of the screams in the camp by rehearsing Beethoven and Brahms in her head, using her forearm as a keyboard (page 167). In the midst of the nightmare the music is still beautiful.

Fugitive Pieces is a book that achieves the most extraordinary feats. It somehow manages to be incredibly simple, and yet incredibly complex at the same time, both in its prose and in its subject matter. It charts the journey of a frightened, bereft child into adulthood and demonstrates how love, beauty, knowledge, music, and words can raise us above pain and iniquity. Simple truths like this can, and often do, sound trite in the wrong hands.

“Writing can be powerful therapy. It raises curtains, brings the past to light. Often what I write surprises me. Dreams and fears that linger threateningly. Appear in a new light in black and white. Writing can be powerful therapy.”

In surviving Jakob felt that he had cheated fate, which forced him to ask the question: “if you escape your fate, whose life do you then step into?” (page 48). He knew the answer, which is actually found earlier in the book.

Even as a child, even as my blood past was drained from me, I understood that if I were strong enough to accept it, I was being offered a second history (page 20).

To rebuild a life after disaster and to construct a different narrative that was meaningful was the challenge for Jakob, as it is a challenge for all who suffer, whether through loss or through illness. What Anne Michaels is suggesting to us is the possibility of healing, even after something as unspeakable as the holocaust, and the notion that language and narrative are part of the process. Small wonder then that the language in the book is so beautiful and so intense. It has to be. Nothing less would suffice.

But there are times when words fail us and we are at a loss to communicate. There are people too, who are denied, or have lost the use of language. Music therapy may help to conquer this void and to reduce the fear, and music is another fascinating strand that runs through this book. For Anne Michaels is also a musician who composes for the theatre and she can testify to the power of music to take us to another place and connect us to history. Jakob’s sister, Bella, a gifted pianist, blots out the screams in the camp by rehearsing Beethoven and Brahms in her head, using her forearm as a keyboard (page 167). In the midst of the nightmare the music is still beautiful.

Fugitive Pieces is a book that achieves the most extraordinary feats. It somehow manages to be incredibly simple, and yet incredibly complex at the same time, both in its prose and in its subject matter. It charts the journey of a frightened, bereft child into adulthood and demonstrates how love, beauty, knowledge, music, and words can raise us above pain and iniquity. Simple truths like this can, and often do, sound trite in the wrong hands. In Anne Michael’s they are anything but. Fugitive Pieces is a wonderful book that shows us all the possibilities of the human heart and spirit. It should sit alongside the anatomy textbooks.