#### History in Asian medicine

# Shifting paradigm regarding illness and medical practices in Thai society

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**Background:** Beliefs about the causes of illnesses have had implications on how individuals and society responds to sicknesses and epidemics. These beliefs have been derived from the process of observation, test, selection, and transfer through generations in the quest to preserve a harmony between man and the physical and social environments. There are three Thai beliefs influencing health and diseases: 1) The balance between four elements (soil, water, wind and fire); 2) supernatural; and 3) beliefs about faith and astrological. Different societies (local and national) have accumulated, collated, and summarized the experiences of their responses into national and local wisdoms. Some of the wisdoms are documented, while others remained as folk knowledge. *Objective:* This article describes some examples of how Thai wisdom and folk knowledge have changed overtime and how it might influence decisions to accept modern medicine in Thai society.

Keywords: Folk knowledge, health and diseases, medical practices, Thai traditional belief.

Beliefs about the causes of illnesses have impacted on individuals and society responses to sicknesses and epidemics. These beliefs have derived from of observation, test, selection, and transfer through generations in the quest to preserve a harmony between man and the physical and social environment. As noted by Hippocrates: "Whoever wishes to pursue the science and art of medicine must first investigate the seasons of the year and reflect upon winds, waters, site, elevation, soil, climate, astrological features, and diet in order to understand diseases and treatments". Different societies (local and national) have accumulated, collated, and summarized the experiences of their responses into national and local wisdoms [1]. Some of the wisdoms are documented, while others remained as folk knowledge. This article describes some examples of how wisdom and folk knowledge in Thailand have changed overtime and how they might influence decisions to accept modern medicine.

Beliefs and perceptions can influence behaviors with positive and/or negative health consequences. Traditionally, there were several theories circulating among the royalties and Thai elite about the causes of illnesses and options for coping with them. We describe three principles of traditional beliefs.

#### Three principles of traditional beliefs

### The balance between soil, water, wind and fire can influence health and disease

It was believed that all things in nature including human beings consist of 4 elements (soil, water, wind and fire). Sicknesses result from the imbalances of these elements. The wind element was thought to have power necessary for body movements such as walking and stretching. The soil elements include head hair; body hair; nail; teeth; skin; muscles; tendon etc. The water elements consist of bile; sputum; pus; blood; sweat; thick oil; tears; thin oil; saliva; nasal discharge etc. The soil and water elements were thought to be the key vehicle upon which the wind element operates. Without the soil and water elements, the wind element became paralized. The were six directions that the wind element moved: i.e., upward wind; downward wind; wind in the abdomen outside the intestine; wind within the stomach and intestine; wind all over the body; wind from breathing [2]. Too much air in the bowel caused flatulence, regurgitation and abdominal pain. Abnormal circulation of the wind around the body gave rise to fainting and syncope. Therefore, Thai traditional healers pay much attention to the wind

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element and strive to restore the balance between the wind element and water and soil elements to heal ailments. The wind element could carry bad things into the lung and cause sickness. The fire functions to warm up the body and digest or burn food. It also slowly burns the body towards degradation and degeneration leading to degenerative diseases and old age. Too much fire element was believed to cause fever. Hot food such as peppers and specific herbs increase the fire element and help digestion. One way to balance the four elements was to balance what people ate, i.e., balancing hot and cold food. Herbalists and folk healers also used herbal medicine or sauna to restore the balances when sicknesses struck [3]. Massages with hot oils and other vehicles were used with diet adjustments to restore balance between elements.

#### Supernatural influences of sickness

Many Thais believe that sicknesses and death resulted from the influence of supernatural beings whose duties were to protect the land, the sky, the air, mountains, forests, and brooks and rivers. The spirits could also be the souls of ancestors. Some spirits were human enemies and could inflict harm without good reasons. Others made people sick as a punishment because man violated the integrity of nature such as the lands and forests. Extra-marital relationships were avoided because they showed disrespect to the spirits of the ancestors. If an extra-marital sexual act occurs for some reasons, it must be handled by paying appropriate respect to appropriate individuals and spirits to avoid punishment.

## Beliefs about faith and astrological influences on health and diseases

Beliefs about fate and astrological influences prevailed in many circles of the Thai society. The positions of stars in relation to time were calculated to predict the risks of lucky and unlucky events. The risks were thought to be modifiable if certain preventive actions were carried out.

Sicknesses or unlucky events were predicted based on the dates of birth of individuals using the astrological principles. The principles can also predict work prospect, marriage, and fate. Kings and dignitaries in the past had special astrologers working for them. The practices have spread to common people until today. People use the astrological predictions intended to reduce the impact of their bad luck. In the Northeast of Thailand, the relatives of the sick will bring their dates of birth to fortune tellers to request for actions aimed at harm reduction. Some pursue both modern and astrological treatment at the same time. The practices can reduce anxiety and give hope.

In many instances, the three principles of traditional beliefs (balance of elements, supernatural powers and astrological predictions) were practiced in isolation or in combinations, depending on the dominant beliefs of specific societies at a particular time.

### Integration of modern sciences and traditional beliefs

During the reign of His Majesty King Rama 4 of Thailand, people were scared when they saw comets because the comets were thought to be bad omens which led to disastrous events such as floods, drought, famine, epidemics and deaths [4]. People performed sacred ceremonies to pardon and please the supernatural beings and the spirits so that they might spare the land. His Majesty King Rama 4 attempted to educate the public about the modern scientific basis of the occurrences of comets, lunar and solar eclipses. Flood, tides and drought were the results of the natural ecology and the relative positions of the sun, the moon and the earth. His Majesty King Rama 4 suggested to the public to prepare for natural disasters, e.g., vaccination of the children to prevent epidemics and to build food and water storages adequate for consumption all year round. Any surplus could be sold. Household sanitation, adequate clothing and improved ventilation could prevent diseases. Bans on throwing animal carcasses and dead bodies into the rivers were introduced during His Majesty's reign [4]. Health facilities with medicines for sale and with capacity for admissions were available. The facilities were manned by American missionaries and Thai traditional healers. Thai healers did not understand the organ systems of the body as the American doctors did and relied on their foreign colleagues for certain ailments. The elites as well as the Thai public began to accept the changing paradigms of health care and appreciated the environmental sanitation as a key strategy to control epidemics.

The efforts of His Majesty King Rama 4 were preceded by the slow but continual introduction of Western medicine into Thailand since the time of Ayuthaya. For example, Dr. Bradley introduced modern medicine to the Royal Palaces [5]. American missionaries also brought vaccinations, blood transfusion and surgery into Thailand [6]. The operations were carried out first in patients with severe wounds from explosions and burns. Patients, including respectable monks, recovered from the operations. This led to the use of modern medicine as a choice for treatment of diseases and injuries. The acceptance of modern medicine as a choice started among the elites and royalties and later spread to commoners [7].

An important example of the integration between Thai traditional healers and Western medicine was the care His Majesty King Rama 4 of Siam. His Majesty developed fever five days after he returned from an excursion to observe the solar eclipse at Wa Kor Sub-district, Prachuab Kiri Khan Province. The fever was periodic and was associated with chill and profuse sweating. His Majesty lost appetite and drank a lot of water. Western medicine was called in for help but His Majesty's conditions did not improve quickly enough. Royal traditional healers then prepared herbal medicine using local wisdom, a mixture of herbs, salts and some mantra or traditional prayers [8]. Sacred prayers were mixed into the herbal remedies and Western medicine was discontinued. His Majesty King Rama 4 finally succumbed to the illness and passed away.

Many conjectured that His Majesty King Rama 4 had malaria which led to his death because the camp where His Majesty put up to observe the solar eclipse had abundant mosquitoes [9, 10]. Quinine was introduced into Siam during the reign of King Rama 3. Might the Western medicine given to His Majesty King Rama 4 have been quinine? [9]. If so, the possibilities of the inability of Western medicine to improve His Majesty's conditions might have been the inappropriate use of the medicine in terms of dosages, frequency, too short duration and in adequate continuity. His Majesty King Rama 4 was ill for about one month and died at the age of 65.

The integration of modern and traditional medicine in the Thai society has continued until today. Since the time of His Majesty King Rama 4, modern medicine has outgrown traditional medicine. However, the practices of traditional remedy still creep into the way of life of many, even the education. Such practices have been influenced by traditions, culture, social beliefs in the popular sector, folk sector and traditional sector. Many still believe that sicknesses result from a failure to obey the rules of nature, disrespect for the spirits of the land, and imbalances between the elements. Many still believe that when the ancient world lived in simplicity, "yin" and "yang" works harmoniously. Many have sought the advices of astrologers and fortune tellers to plan for their livelihood. With the introduction of germs theory, biological and behavioral determinants of diseases, immunology, and receptors targeting for cancers, and gene therapy, modern science has greatly improved our understanding of health and diseases. However, it is still the patients and the public who make the first choices to cope with health and diseases. A full understanding of modern medicine and people's practices is essential to bring about cost effective care for individuals and the society.



Fig. 1 Traditional healers prepared herbal medicine using local wisdom, a mixture of herbs.

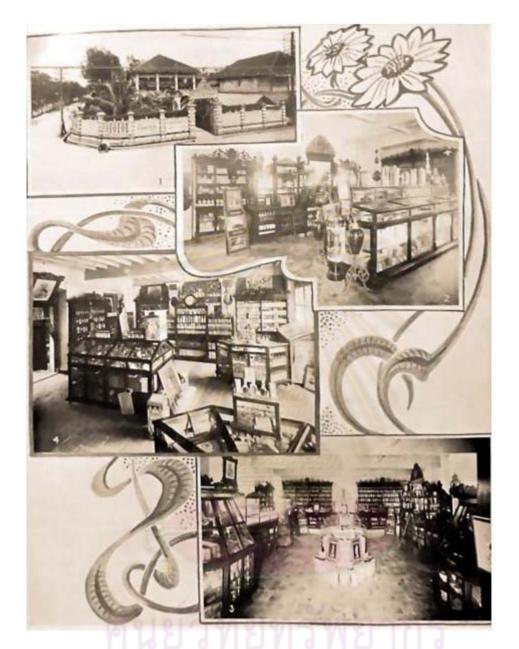


Fig. 2 The modern drug store in Siam during the reign of His Majesty King Rama 5. There was both herbal and western medicine for sale.

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