Zhang *et al.*
Journal of Ethnobiology and Ethnomedicine (2024) 20:92
https://doi.org/10.1186/s13002-024-00726-4

Journal of Ethnobiology and Ethnomedicine

REVIEW

Open Access

Nanhai Jigui Neifa Zhuan: exploration of and research on hygiene, medicine and health care knowledge in ancient India

Ting Zhang[1,2], Wanyue Chen[1,2], Ran Li[3], Lili Xu[4], Yunhui Shen[5], Xinyang Song[4*], Tingting Kuang[2,3,6*] and Zhang Wang[2,3,6*]

Abstract

Background The famous Tang Dynasty monk Yi Jing travelled to ancient India in 671 AD, visited more than 30 regions and returned to China in 695 AD. He wrote *Nanhai Jigui Neifa Zhuan*, which he completed in 691 AD. It describes the basic rules, namely 'Inner Dharma' (Neifa,内法) that Buddhist sites and monks should follow in their daily lives. Additionally, the author provided an overview of ancient Indian Buddhist medicine, covering aetiology, diagnosis, medication, acupuncture, health preservation and other aspects, which exhibited distinct characteristics.

Methods This article first delves into the original text of *Nanhai Jigui Neifa Zhuan* by reading it thoroughly and extracts core chapters related to hygiene, medicine and health care. Later, the extracted information is meticulously classified and organised. Lastly, through a systematic literature review, keywords search, data screening and comparative analysis, an in-depth and comprehensive exploration and analysis of *Nanhai Jigui Neifa Zhuan* is conducted within the domains of hygiene, medicine and health care.

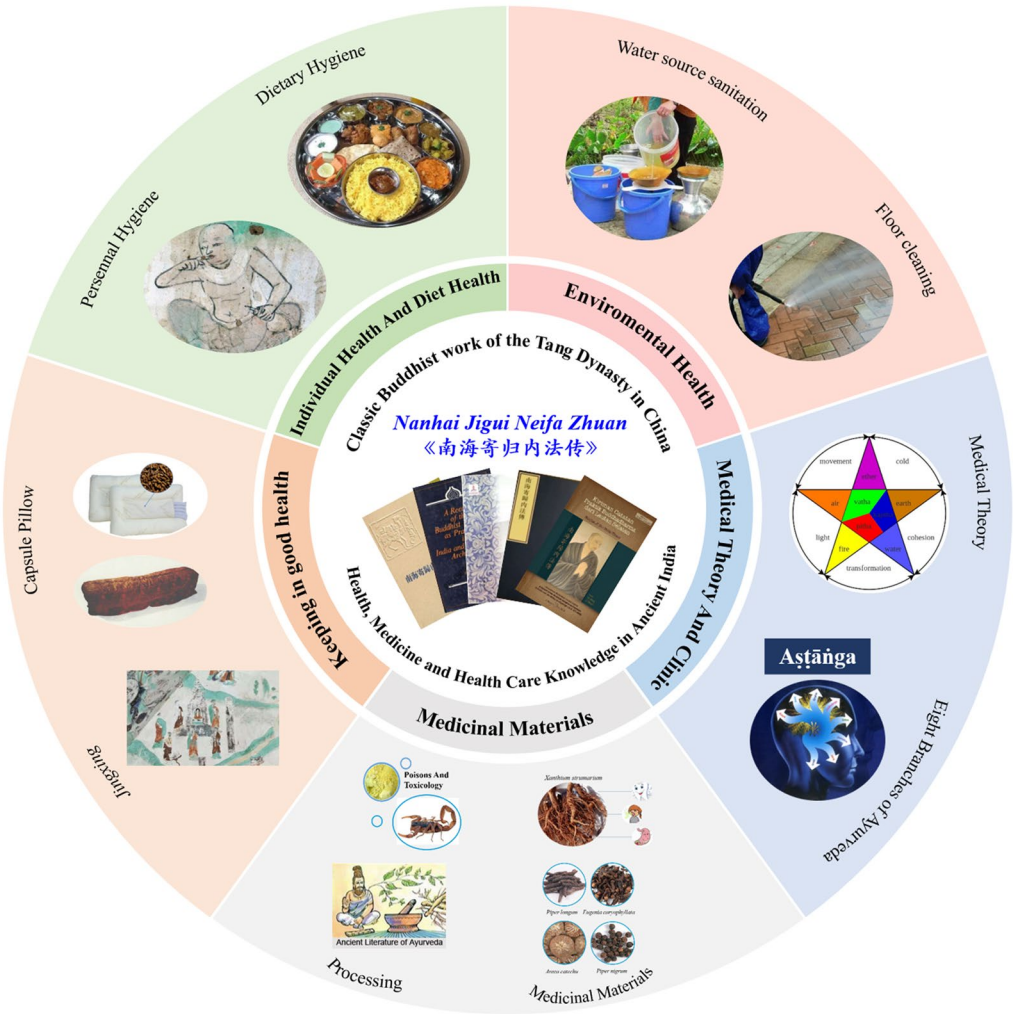
Results *Nanhai Jigui Neifa Zhuan* emphasizes the importance of personal hygiene for ancient Indian monks and introduces the basic theories of ancient Indian medicine. It compares ancient Indian and Chinese medicinal materials, highlighting their respective roles in treating different diseases. Furthermore, it briefly discusses the storage and processing of ancient Indian medicinal materials, poisoning and toxicology, and ancient Indian health preservation ideologies.

Conclusion A comprehensive and in-depth study of traditional ancient Indian medicine, including Buddhist medicine and Ayurveda, and its application in the religious environment and communities of the Tang Dynasty (618–907 AD) aids in understanding the treatment methods and health practices of ancient Indian medicine. Additionally, it facilitates a deeper understanding of the similarities, differences and exchange between Chinese and Indian medicine, thereby opening up new horizons for future research.

Keywords *Nanhai Jigui Neifa Zhuan*, Yi Jing, Ancient India, Religious sites, Traditional medicine, Health care

*Correspondence:
Xinyang Song
song33@163.com
Tingting Kuang
kuangtingting@cdutcm.edu.cn
Zhang Wang
wangzhangcqcd@cdutcm.edu.cn
Full list of author information is available at the end of the article

Graphical abstract



Background

Indian Buddhism, as the birthplace of Buddhism, is deeply rooted in the belief of samsara theory, aiming ultimately to achieve Nirvana and liberation. Chinese Buddhism, although originating from Indian Buddhism, has constantly integrated and collided with local culture during its long historical evolution, eventually forming a unique Buddhist system and developing a new genre-qing gui (清规, The regulations governing the organisation of Chinese Zen monasteries and the rules for the daily conduct of monks can also be described as the monastic system established in Zen monasteries since the Middle Ages) [1, 2]. *Nanhai Jigui Neifa Zhuan* (南海寄归内法传) was written during the Tang Dynasty, when Buddhism flourished the most in Chinese history [3]. During this period, the unification of Chinese Buddhist laws was not only a reflection of the common aspirations of politics and monasteries but also a sign that all Chinese monasteries followed the same basic laws. The importance of this law lies in its 'correctness'. For the masters in the Buddhist community (Dharma Master: generally speaking, it refers to a senior monk who is proficient in Buddhist teachings and able to impart and explain them to others), the 'correct' law means that the life of Chinese monks needs to be closely connected with the traditional laws of India [4]. This is also the reason why several eminent Buddhist monks in ancient China, such as Fa Xian (法显, 334–420 AD), Xuan Zang (玄奘, 602–664 AD), Yi Jing (义净, 635–713 AD) and Jian Zhen (鉴真, 668–763 AD), travelled west to study [5]. They

were eager to improve the practice of Chinese monks by deeply understanding the actual practices of Indian Buddhist places and the precepts of Buddhist schools [6].

The author of *Nanhai Jigui Neifa Zhuan*, Yi Jing, was from Qizhou (now Jinan, Shandong Province) in the Tang Dynasty. He entered the monkhood at age 14 and studied Buddhist scriptures for a long time. However, he felt that the Buddhist materials were not sufficient, and he was not satisfied with the previous translations of Buddhist scriptures [7]. Therefore, he was determined to visit ancient India personally and collect new scriptures [8]. In addition to bringing back 400 Buddhist scriptures, he wrote *Nanhai Jigui Neifa Zhuan* and *Biography of Eminent Monks in Western Regions of the Tang Dynasty* 《大唐西域求法高僧传》 (691 AD) [9].

Nanhai Jigui Neifa Zhuan written by Yi Jing in 691 AD consists of four volumes [10]. The text offers detailed records of Buddhist discipline, diet, daily routines and other aspects of the time. Within the realm of medicine, it provides an overview of the ancient Indian Buddhist 'Yifangming' (医方明), which involves aspects such as aetiology, diagnosis, medicine, acupuncture and health preservation (Yang Sheng,养生: To achieve the goal of health and longevity through various methods) [10–15]. It is worth noting that when Yi Jing wrote his work, it was during the reign of Empress Wu Zetian [11]. Some believe that Empress Wu Zetian hoped to establish a Buddhist space in China comparable to India to enhance her ruling status [12]. Therefore, Yi Jing's travelogue may contain some elements written to please Empress Wu [13]. Therefore, when we read these historical texts, we must adopt a critical attitude, interpret them in the context of their historical background and compare the works of these eminent monks with Buddhist literature, existing Indian materials and archaeological discoveries to understand more about their historical value [14, 15].

Methodology

Data sources

To gain a more comprehensive understanding of *Nanhai Jigui Neifa Zhuan*, this study conducted a comprehensive search of journal articles. Three researchers (LR, XLL and SYH) independently conducted the screening process and selection of the studies included in this review, and one corresponding author (SXY) reviewed the screening. The search was conducted up to December 2023, and the following databases were searched: CNKI, Wanfang Data, VIP, SpringerLink, Web of Science. In the literature search process, the investigators used the following keywords: '南海寄归内法传' AND '义净'; 'Nanhai Jigui Neifa Zhuan OR A Record of the Buddhist Religion as practised in India and the Malaya Archipelago (AD671-695)' AND 'Yijing OR Yi Jing OR Medicine OR Buddhism'.

In addition to keyword searching, valuable literature information was further acquired and downloaded (extracted literature) through the references listed at the end of journal articles. Meanwhile, the literature base of this study was supplemented and enriched by searching for works and research achievements of scholars specialising in Buddhist medicine or the intersectional field of religion and health care both domestically and internationally.

Inclusion criteria

Close relevance to the *Nanhai Jigui Neifa Zhuan* and Yi Jing;

Content that encompasses professional knowledge in the fields of hygiene, medicine or health care;

Materials that provide substantial exploration or analysis of the stated themes.

Exclusion criteria

Literature that merely mentions the title of the book without conducting in-depth research;

Content that is unrelated to medicine, hygiene or health care;

Literature related to subtopics but evidently unconnected to traditional medicine (Fig. 1).

The chapters pertinent to hygiene, medicine and health care were extracted

Firstly, by systematically reviewing the annotated, translated and other domestic and international editions of *Nanhai Jigui Neifa Zhuan,* then chapters pertinent to hygiene, medicine and health care were extracted.

Its scope covers the content on Buddhist temples in Chapter 3 of the book, as well as Sects. 1 to 9 of Volume 1 in Chapter 4, which discuss topics such as taking a short break after eating, dividing food into clean and unclean categories, removing dirt from the body after meals, using two separate bottles for water, inspecting the body for insects in the morning, chewing on a wooden toothpick and following regulations during fasting. Additionally, the study encompasses Volume 2, Sects. 17 and 18 on etiquette; Volume 3, Sects. 20 on bathing at any time, 22 on sleeping methods, 23 on reducing illness through walking, 27 on understanding the source of illness, 28 on medication methods and 29 on eliminating harmful drugs; and Volume 4, Sects. 31 on bathing etiquette, 32 on eternal praise etiquette, 34 on Western learning methods, 36 on monks' appearance following a death and 38 on the impropriety of self-immolation.

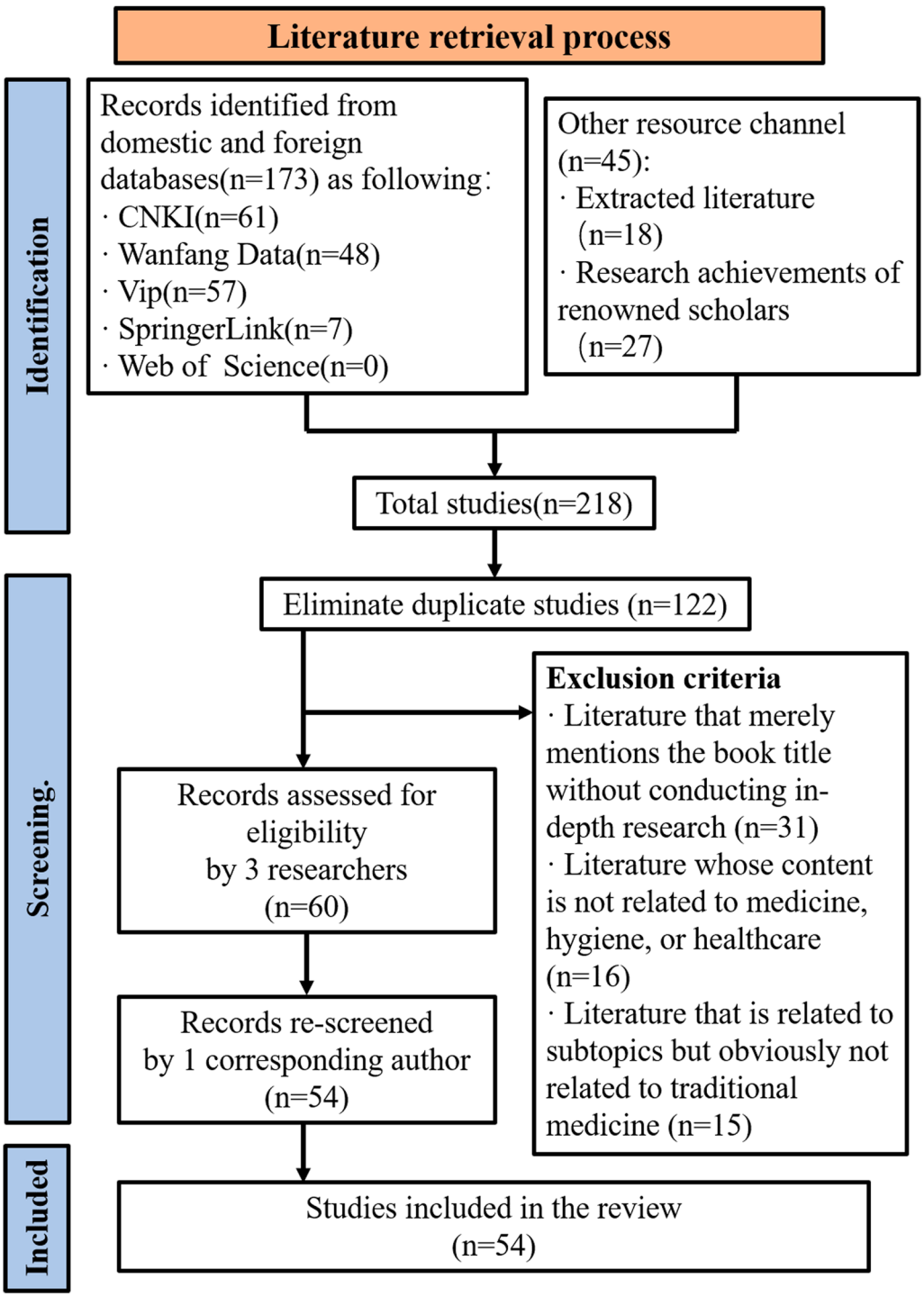


Fig. 1 Literature retrieval flowchart

Classify and organize the extracted information according to different themes

These chapters were then carefully categorised and organised based on headings in the manuscript, such as personal hygiene, dietary hygiene, environmental hygiene, medical theory, clinical practice, medicinal materials and health preservation, forming the core research content of this paper.

Refer to journal articles and monographs to conduct in-depth analysis of the identified themes

Finally, through the aforementioned comprehensive literature search, solid and reliable reference materials and theoretical support are provided for subsequent in-depth analysis [15].

Results

Personal hygiene and dietary hygiene

Monks pay attention to personal hygiene

During the Tang Dynasty (AD 618–907), Buddhist monks in ancient India attached great importance to personal hygiene. Volume 2, Sect. 17 of *Nanhai Jigui Neifa Zhuan*: Monks are considered rude if they fail to bathe, wash their hands, gargle, or cleanse their bodies of saliva or other impurities after defecation or urination. Similarly, if they do not chew danta-kāṣṭha (wood chips used by monks to brush their teeth and scrape their tongues) in the morning, it is considered impolite. Monks are required to not only gargle, wash their hands and clean their bodies after defecation and urination but also gargle and wash their hands after eating. Another important consideration is mass gatherings. Monks are not allowed to gather in crowds, circumambulate a pagoda or worship without a clean body. Cholera was common because of the hot climate and poor sanitary conditions in ancient India. Such regulations for monks may have effectively reduced the spread of disease among them.

In ancient India, the fasting rules for monks generally included gargling and washing one's hands after eating. Benefactors provided the monks with danta-kāṣṭha and clean water. As stated in Volume 1, Sect. 4 of *Nanhai Jigui Neifa Zhuan,* when a person consumes food, their body becomes contaminated when the food is ingested, and it is necessary to rinse the mouth with clean water before touching another person or other clean food. If monks fail to bathe and gargle, then anything they touch becomes unclean, and those who are touched by them must bathe and gargle. If one touches dogs and other animals, they must also wash and gargle. After eating, people should wash their hands and gargle before touching the utensils. If this is not done, then prayers and pledges become forbidden spells and ineffective.

Ancient India generally had a tropical monsoon climate with high temperatures, leading to an emphasis on bathing and cleanliness. Bathing is a manifestation of Buddhist precepts, dignity and practice and is an important part of Buddhist culture. It has five benefits, including removing dirt, cleansing the body, dispelling colds, alleviating strokes and promoting stability. According to Volume 3, Sect. 20 of *Nanhai Jigui Neifa Zhuan*, during hot summers, ancient Indian monks often took a bath before lunch. This had two advantages: one, it kept the body clean and free from excessive dirt, and two, it helped dispel phlegm and boost appetite. In ancient Indian medicine, taking a bath after a full meal was discouraged; one should remain hungry during a bath and only eat after bathing. Doctors believed that bathing should not be performed when one was full. In contrast, in China, taking a bath while hungry was also discouraged. Bathrooms in ancient India were mostly open-floor brick pools that could be used to contain medicinal brews to remove diseases. After bathing, the body was often coated with ghee. It was believed that applying ghee to the feet every night and coating the head with it every morning had a positive effect on eyesight and dispelled wind [10]. In addition, monks in ancient India were required to wipe and wash their bodies after defecation.

Volume 2, Sect. 18 of *Nanhai Jigui Neifa Zhuan* provides a minute description of actions and precautions for using the toilet. Prior to entering the toilet, monks were required to change into more convenient clothing. Once inside the toilet, they closed the door and squatted down. If there was no Cechou (厕筹) (small pieces of wood and bamboo for cleaning after defecation) in the toilet, the monks were instructed to take 2–7 pieces of soil on their way and place them in two rows outside the toilet. They would then take a good piece, divide it into three and take the three pieces into the toilet. One piece was used to clean the body, while another was used to wash the body. The monks' cleaning routine involved first cleaning their left hand with water, then carefully wiping it with their right hand, followed by rinsing it with water and finally giving a brief wipe. If the monks had Cechou, they would take it into the toilet and discard it after use. If they needed to use paper, they could discard it in the toilet after use. The monks were only allowed to clean their clothes with their right hand once they had followed these steps.

Monks pay attention to dietary hygiene

Dietary contamination refers to a lack of propriety in consuming food without rinsing one's mouth or washing one's hands. In terms of dietary restrictions, monks were required to abstain from raw, cold and spicy foods to safeguard their digestive health. All vegetables had to be cooked thoroughly and then seasoned with ingredients such as *Ferula assa-foetida* and ghee before consumption. Ancient Indian monks were exceedingly cautious about food hygiene. The concepts of 'clean' and 'touch' were strictly distinguished, and all utensils were designed to maintain the purity of food and water. The 'cleanliness' emphasised here was different from the secular concept and was closer to a ritual and rule that a person must follow to achieve a certain cleanliness. For instance, one

had to wash their hands and mouth and purify their own tableware before touching any other utensils.

Before partaking in food, monks had to wash their hands, feet and mouths and then sit on a specified small bed. After eating, which was to be no later than noon, they were to rinse and gargle. The monks paid meticulous attention to the process of washing and gargling, purifying the water, other cleaning agents and the duration of washing. During the dharma meeting for fasting, various ceremonies and rules for fasting were observed. Water, food and utensils all required careful preparation. In summary, the diet of the monks at that time was characterised by simple food, strict ceremonies and rules [16]. All monks and laypeople in ancient India followed a system of distinguishing between clean and unclean food, meaning that any item became unclean after a single bite. The tableware used could not be reused and had to be discarded after use to prevent cross-contamination. It was prohibited to give leftover food to others or even store it to eat later oneself. Everyone, regardless of status, had to follow this system, which was considered divine law, not just for mortals. Ancient texts indicate that people who did not chew poplar branches and gargle, who did not wash after defecating, and who did not distinguish whether food was clean were considered vulgar. Volume 1, Sect. 5 of *Nanhai Jigui Neifa Zhuan* provided that after the monks finished their meals, they were to either pack the leftovers with utensils or dispose of them in a hidden place. They could also bring their own water bottle or have someone else provide water, but their hands had to be thoroughly washed. To maintain oral hygiene, danta-kāṣṭha was to be used to brush teeth and scrape the tongue. Food and water were taken from a clean bottle and placed in a snail cup. Fresh leaves or hands could be used to clean dirt. It was important to thoroughly clean utensils and hands of three types of dirt: bean chips, soil and cow dung. In Volume 1, Sect. 4 of *Nanhai Jigui Neifa Zhuan* details how an envoy from outside the north-western border of ancient India was ridiculed and criticised by the local people due to his habits of not cleaning after urination and defecation; eating leftover food; sitting in crowds; coming into contact with others; not avoiding pigs, dogs and other animals; and not using danta-kāṣṭha to gargle. In Yi Jing's descriptions, we see the Indian Buddhist institutions' pursuit of cleanliness. However, it cannot be denied that the overly idealised portrayal raises doubts about its authenticity. As mentioned earlier, we should approach Yi Jing's descriptions of hygiene in Indian religious institutions with a rational mindset.

Indian monks maintained excellent oral hygiene habits. Every morning, they chewed danta-kāṣṭha, brushed their teeth and scraped their tongues. Only after washing and gargling could they perform morning prayers. In early Buddhist scriptures in China, danta-kāṣṭha was translated into a poplar branch [17]. The proper method for chewing danta-kāṣṭha involves slowly chewing one end of the wicker and then gently rinsing and brushing the teeth with the chewed end [18]. According to Volume 1, Sect. 8 of *Nanhai Jigui Neifa Zhuan*, *Xanthium strumarium* root could strengthen teeth, freshen breath and aid digestion. Using *Xanthium strumarium* root for two weeks could eliminate mouth odour, and after three months of use, toothache and tooth damage could be cured [19]. The *Mahāparinirvāṇa-sūtra* states that when chewing danta-kāṣṭha, 5–6 thin wickers should be used, and after chewing all the wicker, monks need not rinse their mouths. Monks were to wash their hands after eating and clear away any remaining food to ensure that the ground remained clean. Volume 1, Sect. 8 of *Nanhai Jigui Neifa Zhuan* notes that chewing a mixture of *Areca catechu*, *Myristica fragrans*, *Syringa oblata* and borneol before departure can eliminate mouth odour and aid digestion. These fragrant medicines should be washed with water from a clean bottle and wrapped in fresh leaves before being presented to the monks.

Before the Tang Dynasty, oral health care in China primarily consisted of gargling and knocking teeth. *Prescriptions Worth a Thousand in Gold for Every Emergency* (《备急千金要方》652 AD) documented the practice of putting a small amount of salt in the mouth every morning, followed by filling the mouth with warm water and wiping or knocking the teeth with the hands [20]. The method employed by ancient Indian monks for chewing danta-kāṣṭha to clean teeth was also introduced into China through the missionary efforts of monks, ultimately influencing the development of Chinese toothbrushes [21]. The mural in Cave 196 of the Mogao Grottoes in Dunhuang, created during the late Tang Dynasty, titled 'The Sacred Picture of Laodu Fork Fighting (劳度叉斗圣图)', depicts a newly shaved monk cleaning his teeth with a poplar branch. During the Song Dynasty (960–1279 AD), there was a dedicated chapter on tooth wiping in *Prescriptions of the Bureau of Taiping People's Welfare Pharmacy* (《太平圣惠方》992 AD), indicating that people began using various 'toothpastes' to treat oral diseases during that time. In 1953, two bone toothbrush handles were discovered among the funerary objects of King Liao Liemawei (959 AD) in Dayingzi Village, Chifeng County, Inner Mongolia Autonomous Region, and they are considered to be the earliest toothbrushes in China [22].

Environmental sanitation

Water source sanitation

In ancient times, sanitation conditions were generally inadequate, leading to various diseases often caused by the contamination of water and food. The ancient Indian monks placed great emphasis on hygiene and made strict distinctions between 'clean' and 'contact' drinking water and food, effectively preventing the occurrence of cholera and other infectious diseases caused by dietary issues [10]. Regarding water sanitation, Volume 1, Sect. 6 of *Nanhai Jigui Neifa Zhuan* states that water was categorised as clean or polluted and stored in different bottles. Clean water was kept in a container made of tile or porcelain for daily consumption, with the clean bottles handled with clean hands (the right hand) and placed on a clean floor. Contaminated water was to be kept in copper or iron containers for cleaning after defecation, with such containers being touched using the left hand and placed on the ground.

Ancient India, situated in the tropics, had water that was easily polluted and dirtied. Hence, the monks were accustomed to observing the presence of insects in the water every morning. Due to differences in water sources, such as bottles, wells, pools and river water, the inspection methods varied. In ancient India, the climate was hot, with a rainy season and no winter, leading to abundant water sources. Furthermore, many ancient Indian monks begged for food and used water everywhere. Inspecting and filtering water not only prevented harm to animals but also ensured better hygiene [23]. Volume 1, Sect. 7 of *Nanhai Jigui Neifa* Zhuan stated that water in bottles needed to be inspected when there was sufficient light. Water could be poured into clean copper cups or lacquerware placed on bricks or stones. If an insect was found in the bottled water, the water had to be discarded, the bottle washed three times, and fresh water added. For pond and river water, filtering was necessary, and the purified insect-free water was stored in a bottle. The filter cloth was typically made of dense cotton material. For well water, a copper cup was used to collect water for inspection. If there were no insects, then it could be used directly; otherwise, filtering was needed. In ancient India, the general rules for fasts (abstaining from meat, wine, etc.) also included checking for insects in the water when monks visited Buddhist households. If no insects were present, they would use the water to wash their feet and then rest.

Floor cleaning

Volume 3, Sect. 22 of *Nanhai Jigui Neifa Zhuan* refers to the practice of using cattle dung to clean floors. However, due to differences in the natural and cultural environments between China and India, Yi Jing opines that this behaviour is not suitable for Chinese monks to adopt [24]. Currently, the Indian government has promoted the belief that chips made of cow dung can shield mobile phone radiation or that medications crafted from cow dung and cow urine can prevent and treat COVID-19, among other claims [25]. Indians also grind cow dung into toothpaste. Some individuals in India drink cow urine or apply cow dung daily, thinking that it will cleanse their bodies and minds and prolong their lives. Additionally, Indians often smear cow dung on walls, believing that it wards off evil spirits [26].

Volume 4, Sect. 31 of *Nanhai Jigui Neifa Zhuan* describes a process of grinding Santalum album and Aquilaria sinensis with water to create mud, which was then used to coat idols or portraits made of gold, silver or copper, followed by pouring clean water over them [27]. In ancient India, it was common for people to apply ointments and balms to their bodies. The ancient Indian custom of using incense was closely linked to the country's climate, as India is situated in the tropics and subtropics and is characterised by intense heat and humidity. Furthermore, the abundance of fragrant plants in ancient India provided favourable conditions for the widespread use of aromatic medicines. In such a hot and humid environment, the human body tends to sweat profusely, leading to an unpleasant odour. Therefore, ancient Indian people applied incense to their bodies to mask the scent of sweat, and it served as a cooling and deodorising agent [28].

Medical theory and clinical practice

Introduction to the basic theories of ancient Indian medicine

The medical and pharmaceutical knowledge recorded in *Nanhai Gigui Neifa Zhuan* involves Ayurveda and Buddhist medicine in ancient India; however, the author does not distinguish them clearly.

According to the theory of Ayurveda in ancient Indian medicine, Kapha, Pitta, Vāyu and Vāta exist within the body. When these elements balance each other and remain in certain amounts, the body remains healthy. Otherwise, disease may manifest. Kapha, one of the three body fluids in ancient Indian medical theory, is similar to phlegm or lymph, and it refers to the increase of nasal discharge or saliva. Pitta, another fluid, is similar to bile. It corresponds to symptoms of damp heat and jaundice. Vāta is also known as Vāyu, which means wind. It refers to the wind generated and circulated in the human body. It is similar to Qi (气) in traditional Chinese medicine, which refers to wind-induced symptoms.

Ancient Indian Buddhist medicine theory holds that the four major irregularities of the human body are Guru, Kapha, Pitta and Vāta. Guru is food accumulated in the

stomach without the sense of heaviness produced by digestion. There are four kinds of diseases in the human body: earth, water, fire and wind. Initially, a large increase in earth leads to a heavy body. Second, a large amount of water accumulates, resulting in abnormal discharge of saliva. Third, the risk of fire increases significantly, causing strong heat in the head and chest. Fourth, a large amount of wind surges in, leading to shortness of breath. In the case of wind hyperactivity, the body can be smeared with ointment. This method can also be used for fractures and other injuries and should be applied with heated oil for better effect. If one feels as if there is phlegm in the chest, with an increase in saliva in the mouth, clear nasal discharge, loss of appetite and symptoms for ten days, fasting can improve the condition. If diseases can be cured without the help of decoction medicine, that is a manifestation of superb medical skills. If the undigested food is removed, the fever will be relieved. When the liquid is about to drain, the phlegm can be dissolved. When the Qi is eliminated from the body, the wind can automatically be eliminated as well. Neither pulse diagnosis nor the Yin-Yang theory is needed to diagnose diseases; anyone can be a medical expert and become a famous doctor known as Jīvā (耆婆). Patients with a sudden outbreak of carbuncles and pimples; discomfort and pain in the hands and feet; epidemic illnesses such as febrile diseases; trauma from weapons or falls; typhoid or cholera; or symptoms such as headache, heartache, eye pain and toothache that develop suddenly should start a hunger strike.

With the dissemination of Buddhism, Ayurveda had some impact on the formation and development of the theoretical systems of Tibetan medicine and Mongolian medicine. When Buddhism was introduced, Tibetan medicine was still immature and thus more receptive to foreign medical systems [29]. The Ayurvedic concept of Tri-doṣa, which postulates three doshas (bodily principles) as the fundamental causes of disease, was directly borrowed by Tibetan and Mongolian medicine. When ancient Indian medicine was introduced in China, traditional Chinese medicine based on the theory of Yin-Yang was quite mature, leading to the selective absorption of these new medical concepts [29]. For example, the 'Four Great Theories' of Buddhism, namely, earth, water, fire and wind, were integrated into *Qianjinfang*, enriching the 'Five Elements View' of traditional Chinese medicine. The gold needle obstacle removal technique in *Tianzhujing Lunyan* promoted the development of ophthalmology in Chinese medicine [30, 31].

Introduction to the eight clinical subdisciplines of ancient Indian medicine

The ancient Indian medicine Ayurveda encompasses eight branches (Aṣṭāṅga). However, the original books related to Ayurveda have been lost for a considerable period, with their fundamental content preserved in later classical writings such as *Caraka Saṃhitā* and *Suśruta Saṃhitā*. Volume 3, Sect. 27 of *Nanhai Jigui Neifa Zhuan* states, 'jin ri you ren lue wei yi jia' (近日有人略为一夹), that is, finally compiled by Vāgbhaṭa, a contemporary of Yi Jing, in his classic work *Aṣṭāṅga saṃgraha*. Hoernle et al. also speculate from the above records that Vāgbhaṭa was a man of the late sixth or early seventeenth century [32]. Volume 3, Sect. 27 of *Nanhai Jigui Neifa Zhuan* notes that *Cikitsāvidyā* should first observe sounds and complexion and then adopt the Aṣṭāṅga classification. Aṣṭāṅga includes all sores and poisons, acupuncture and head diseases, general conditions, diseases caused by demons, agada medicines for the treatment of all poisons, obstetrics, gynaecology and paediatrics, longevity medicine and aphrodisiacs. This is the first record of the Chinese understanding of the Classification of Disciplines of Ancient Indian Medicine [33, 34].

At that time, the Pañcavidyā of ancient Indians included Śabdavidyā (knowledge of linguistic phonology), Śilpasthānavidyā (knowledge of craft calendars, etc.), Cikitsāvidyā (knowledge of medicine), Hetuvidyā (knowledge of logic debate) and Adhyātmavidyā (knowledge of life, soul and the universe). These were the foundational educational contents of Brahmanism. Consequently, the eight clinical branches of Ayurveda in ancient Indian medicine were also naturally introduced in Yifangming (医方明) [35].

Introduction to the relationship between diet and disease

According to the aetiological theory of ancient Indian medicine, most sicknesses are attributed to overeating or fatigue [10]. A person might become ill if the evening meal was not digested, and they continued to eat during the day, or if they did not digest the morning meal but still ate at noon. Over time, this could lead to cholera, which in ancient Chinese medicine involved simultaneous vomiting and diarrhoea and was seen as a pattern of gastrointestinal 'hui huo liao luan' (挥霍撩乱gastrointestinal dysfunction). Hiccups would persist all night, and the stomach would be distended for ten days. Those with the above symptoms should seek Shenqi pills (肾气丸) or expensive medical glue from ancient Rome. Therefore, monks were generally not allowed to eat breakfast, but depending on the specific situation, thin monks might be able to do so. An improper diet could cause illness, and some drugs were also foods, with food and medicine having the same origin. Yi Jing states that when a person feels

something abnormal when eating, they should pay attention to their body, which may have started to become ill, and food can also be the cause of illness [16]. With a good diet, one is supported; without it, the body will be harmed. In times of hunger, food is medicine; in regard to healing, food is also medicine. At that time, the classification of patients was simple, the treatment methods were not complicated, and the drugs used were mainly simple herbs. During more than 20 years of dharma, Yi Jing remained in good health, as he followed local medical guidance.

The most important belief in ancient India was in the value of hunger strikes. An old legend states that if one goes on a hunger strike for seven consecutive days, they may encounter Avalokiteśvara. According to Volume 3, Sect. 28 of *Nanhai Jigui Neifa Zhuan*, during hunger strikes, parades and labour were taboo. Long-distance travel was also discouraged, even if a hunger strike was not harmful to people's bodies. After a hunger strike, one could eat rice, drink cooked mung bean soup, add spices and drink as much as desired. If one felt cold, *Piper nigrum* L., *Zingiber officinale* Roscoe and *Piper longum* L. could be added. If wind-evil invaded, *Allium fistulosum* L. and *Nepeta cataria* L. could be added. According to the medical treatment, all spicy drugs could calm the wind, and the addition of dried *Zingiber officinale* Roscoe was also quite effective. During a hunger strike, people should reduce their work, rest and avoid drinking cold water and taking medicine. The consumption of porridge during a hunger strike could lead to an increase in phlegm. If the illness was caused by wind-evil and overexertion, eating would not harm the body. If a patient had a heat illness, drinking a decoction of scurvy grass was more effective. Volume 3, Sect. 28 of *Nanhai Gigui Neifa Zhuan* reads: Patients who did not recover after a month of hunger strike, so it was not a matter of the length of the hunger strike. With such patients, it was necessary to investigate the cause of the disease.

Medicinal materials

Introduction to medicinal materials used in ancient India

Yi Jing was a monk rather than a doctor or pharmacist. Therefore, he did not systematically introduce the traditional medicinal materials of India and China in *Nanhai Jigui Neifa Zhuan* at that time; instead, he introduced medicinal materials that may have commonly been used by monks in the region where he lived. These included root of *Xanthium strumarium* L., *Areca catechu* L., *A Myristica fragrans* Houtt., *Syringa oblata* Lindl., *Dipterocarpus turbinatus* C.F. Gaertn., *Typha angustifolia* L., *Bombax ceiba* L., *Senna tora* (L.) Roxb., *Terminalia chebula* Retz., *Crocus sativus* L., *Ferula assa-foetida* L., *Piper nigrum* L., *Zingiber officinale* Roscoe, *Piper longum* L., *Allium fistulosum* L., *Nepeta cataria* L., ghee, sulphur, realgar, *Glycyrrhiza uralensis* Fisch. ex-DC., *Dichroa febrifuga* and *Sophora flavescens* Aiton [36].

Among the commonly used medicinal materials introduced by Yi Jing, we have identified numerous components that were also utilised in ancient Chinese medicine, including root of *Xanthium strumarium* L., *Senna tora* (L.) Roxb. *Zingiber officinale* Roscoe, *Nepeta cataria* L., sulphur, realgar, *Glycyrrhiza uralensis* Fisch. ex-DC., *Dichroa febrifuga* and *Sophora flavescens* Aiton. However, despite the prominent role of *Glycyrrhiza uralensis* Fisch. ex-DC. in ancient Chinese medicine, it is not commonly found in ancient or modern Indian medicine. Its prominence in ancient China may be attributed to Yi Jing's frequent use of this herb in treating local residents during his travels, prompting him to specifically mention it in his works. On the other hand, there are numerous similarities between the common Ayurvedic drugs in modern India and the medicinal herbs utilised at ancient Indian religious sites. For instance, spices such as p *A Myristica fragrans* Houtt., *Terminalia chebula* Retz., *Piper nigrum* L. and *Piper longum* L. have widespread applications in India. Notably, India is the original habitat of herbs such as *Piper nigrum* L. and *Piper longum* L., making them integral components of Ayurvedic medicine since ancient times [37].

The functions and therapeutic strategies of ancient Indian medicinal materials are introduced

Volume 3, Sect. 28 of *Nanhai Gigui Neifa Zhuan* states, it is very rare that there are three medicines that can cure all diseases. It recommends an equal division of the peel of Harītakī (which is generally considered to be *Terminalia chebula* Retz.), the drier tuber of *Zingiber officinale* Roscoe and granulated sugar. The peel of Harītakī and *Zingiber officinale* Roscoe was to be crushed, a small amount of water was to be mixed with granulated sugar, and the resulting mixture was to be made into pills. Patients were recommended to take more than ten of these pills per day without any contraindications. Patients with dysentery were to take 2–3 doses. These pills could break Qi, remove wind and eliminate food to treat a variety of diseases. If there was no granulated sugar, molasses could be used. If one could chew the juice of Harītakī every day and swallow it, they would be free from disease for life. During the Tang Dynasty, *Terminalia chebula* Retz., *Terminalia billerica* (Gaertn.) Roxb. and *Phyllanthus emblica* L. were collectively referred to as triphala [38]; they

were the most commonly used combination drugs in traditional Indian medicine. However, Yi Jing does not mention triphala in *Nanhai Jigui Neifa Zhuan*, possibly because the place where he lived was not suitable for the growth of these three medicines. During the Song Dynasty, with the spread of Buddhism and wider use of Indian medicine in China, *Aquilaria sinensis* (Lour.) Spreng. and *Terminalia chebula* Retz. were commonly used individually. Prescriptions such as Renshenlurong pills and Chenxianglurong pills can also be found in *Taiping Shenghui Prescription* [21].

The root of *Xanthium strumarium* L. had the effects of strengthening the teeth, eliminating oral malodour and improving digestion. Its use for two weeks could help eliminate oral malodour. A toothache would heal after three months of use. Generally, mineral medicines such as sulphur and realgar were used to detoxify bites from snakes and scorpions, so one should carry some sulphur and realgar in their daily life. A person with heatstroke could make a decoction of *Glycyrrhiza uralensis* Fisch. ex-DC., *Dichroa febrifuga* and *Sophora flavescens* Aiton. If a hunger strike did not help, a prescription would be needed to treat the disease. Kushen-soup was a cure for fever. Ghee and honey could remove wind-evil. In ancient India, patients had to go on a hunger strike for two weeks or even a month until they were well enough to eat. Before striking, monks would blend together *Areca catechu* L., *Myristica fragrans* Houtt., *Syringa oblata* Lindl. and *Dipterocarpus turbinatus* C.F. Gaertn., which were chewed to make the breath fragrant, aid digestion and cure heart disease [39]. These fragrant medicines had to be washed with water from a clean bottle and wrapped in fresh leaves before being given to the monks.

Storage and processing of ancient Indian medicinal materials are introduced

Yi Jing also discussed storing, purifying and processing medicinal materials in *Nanhai Jigui Neifa Zhuan* to heighten their therapeutic effect. All drugs should be placed in a clean warehouse for patients to access at will, which provides a record of how drugs were stored at the time. Volume 1, Sect. 9 of *Nanhai Jigui Neifa Zhuan* mentions Saṁpragata, or the idea that all poisons become delicious [40]. This behaviour is equivalent to processing medicinal materials, which means that toxic medicinal materials are processed into nontoxic ones. In ancient China, herbs and medicines were processed before being used in treatment, reflecting the commonalities between traditional medical systems. Through processing, the toxicity of herbs could be reduced, and their therapeutic effects could be enhanced, thereby better realising their medicinal value. This approach demonstrated ancient people's profound understanding and ingenious utilisation of the nature and functions of herbs, representing a unique charm of traditional medicine [41].

Introduction to poisons and toxicology

Volume 3, Sect. 29 of *Nanhai Jigui Neifa Zhuan* describes the use of mineral medicines such as sulphur and realgar in ancient India to counteract the venom of snakes and scorpions. These mineral medicines were commonly carried in small quantities as a precautionary measure. If one had heatstroke, they could make *Glycyrrhiza uralensis* Fisch. ex-DC., *Dichroa febrifuga* Lour. or *Sophora flavescens* Aiton to alleviate their symptoms. Volume 4, Sect. 34 of *Nanhai Jigui Neifa Zhuan* states, 'Between a poisonous environment and poison, which one is more harmful to the body? The answer is that there is a distant difference between poison and a poisonous environment. Eating poison will cause harm, while a poisonous environment can be eliminated with one's mind.'

Comparison of ancient Indian medicine with ancient Chinese medicine

Chinese and Indian traditional medicine began to communicate in the Qin (221–207 BC) and Han (202–220 BC) dynasties and was directly related to the rise and fall of Buddhism [42]. The influence of Indian traditional medicine on Chinese medicine mainly involves medical theory, medical technology, prescriptions and medicinal materials. The famous surgical operations in ancient India were probably introduced to China during the Jin Southern and Northern Dynasties (265–589 AD) [43]. In the Sui and Tang dynasties (581–907 AD), ancient Indian medicine was introduced along with Buddhism. Buddhist Cikitsāvidyā scriptures were translated into Chinese, and there are many records from that period about prescriptions and medicines. *Bukong Juansuo Zhoujing* of the Sui Dynasty (581–618 AD) contains 25 kinds of medicines, such as *Dipterocarpus turbinatus* C. F. Gaertn., *Piper longum*, realgar and Shidai. The book *Manshu Shilipasa Zhou* records 19 kinds of medicines in the Tang Dynasty, such as danta-kāṣṭha, root of *Achyranthes bidentata* Blume, molasses and cattle milk; *Avalokitesvara Bodhisattva Moneta Sutra* records realgar, root of *Curcuma aromatica* Salisb., *Piper nigrum*, *Piper longum*, *Zingiber officinale*, *Dipterocarpus turbinatus* C. F. Gaertn., etc. The application of pathological products such as of *Calculus Bovis*, Moschus, *Curcuma aromatica* Salisb., *Dipterocarpus turbinatus*, *Santalum album* and *Syringa oblata* is described many times in *Avalokitesvara Bodhisattva Secrets and Yiddish Incantations* [42]. *Sui Shu Jingji Annals* records eight kinds of Indian medical works, including *Prescription of Nāgārjunabodhisattva* and *Prescriptions of the Western Regions* [44]. The titles of books often include the

names of famous ancient Indian doctors, such as Jīvā and Nāgārjunabodhisattva [45]. Although there are few direct historical records of Chinese medicine being introduced into India, many indirect sources provide some evidence. In the Western Jin Dynasty (265–316 AD), *Mai Jing* (脉经, from approximately the third century AD), written by the imperial physician Wang Shuhe, was introduced into India through Tibet; Song Yun, an eminent monk in the sixth century, introduced the spread of Hua Tuo's medical skills in India in *Xingji* [46]. According to *The Records of the Ten Continents*, the envoy of the Western King of Fenglin Island offered glue and Xi to Emperor Wu of the Han Dynasty in the third year of Emperor Wu's Heavenly Han Dynasty (98 BC). Later, Emperor Wu thanked the envoys and left them behind, giving them such things as *Paeonia*×*suffruticosa* Andrews, which are unique in Western countries. Later, these drugs became traditional in Chinese medicine [42]. In *Aṣṭāṅga Hṛdaya*, mercury and other mineral medicines were taken orally for the first time, also influenced by traditional Chinese medicine [47].

Traditional Chinese medicine was also introduced into India by monks and merchants, such as Yi Jing, a famous monk in the Tang Dynasty, who introduced material medica, acupuncture, pulse diagnosis and health care longevity to Indians. According to Volume 3, Sect. 28 of *Nanhai Jigui Neifa Zhuan*, there were more than 400 kinds of rhizome medicinal materials produced in China, most of which had a unique colour, taste and fragrance that could be used to treat various diseases. The island countries of Southeast Asia did not have acupuncture, pulse diagnosis or health care and longevity medicine; these techniques were only used in China. Yi Jing, who was proficient in medicine, once shared his own recipe and taught the locals how to use Kushen-soup and tea to treat fever.

Yi Jing compared Chinese medicinal materials with those of India and other countries. Volume 3, Sect. 27 of *Nanhai Jigui Neifa Zhuan* notes that the medicinal materials in ancient India differed from those in Tang Dynasty China. However, there may also have been ancient Indian medicinal materials in China and Chinese medicinal materials in ancient India during the Tang Dynasty, which cannot be generalised. For instance, *Panax ginseng* C.A. Mey., *Angelica sinensis* (Oliv.) Diels, *Polygala tenuifolia* Willd., *Aconitum carmichaelii* Debeaux, *Ephedra sinica* Stapf and *Asarum heterotropoides* F. Schmidt were all medicinal materials produced in China. In ancient India, harītakī was abundant, *Crocus sativus* was produced in northern India, *Ferula sinkiangensis* K.M. Shen was abundant in northern India, and *Cinnamomum camphora* was rare and produced in the South China Sea (i.e. the islands of Southeast Asia). *Alpinia hainanensis* K. Schum. *and Myristica fragrans* Houtt. came from the country of Tohopodi (modern-day Loburi, Thailand). *Syzygium aromaticum* (L.) Merr. & L.M. Perry came from Pulo Condore. *Nanhai Jigui Neifa Zhuan* was one of the rare examples in China comparing traditional Chinese and Indian medicines at that time. Even today, there are few comparative studies on this topic, so this book can provide strong support in identifying ancient medical exchanges between China and India.

Health preservation

Liuyi (六意) encompasses six principles, including comprehending the profound essence of Buddhism, understanding the order of the Buddhist system, maintaining physical and mental cleanliness, having an open mind, fearlessness amidst others and living a long and healthy life. Nāgārjunabodhisattva, the founder of the Middle View School of Mahayana Buddhism, exerted a profound influence on all sects of Mahayana Buddhism. His practice of drinking water through the nose was a technique for attaining a long life. However, this behaviour could cause discomfort, and drinking water through the mouth had the same effect, that is, reducing disease over time.

During the Tang Dynasty, wooden pillows, which were hard and unable to conform to the skin, were commonly used, often leading to conditions such as Toufeng (头风) and headache. In cold weather, the neck was easily affected by wind-cold, which caused diseases such as typhoid fever during winter. During the same period in ancient India, pillows could be filled with different contents according to the climate or physical conditions. Generally, they were filled with pollen from *Typha angustifolia* L., *Tamarix chinensis* Lour., *Bombax ceiba* L. or soft leaf dry moss. In cold weather, they could be filled with cotton wool hemp and other materials to maintain warmth, while in hot weather, they could be filled with *Senna tora* (L.) Roxb., which could help clear heat, dispel wind and improve eyesight. Capsule pillows were more comfortable than wooden pillows, and their adjustability allowed for timely intervention to reduce the occurrence of diseases.

Jingxing (经行) refers to circular walking in a certain place, typically after meals, when feeling fatigued or sitting in meditation and falling asleep. Jingxing was not only advocated by ancient Indian monks but also practised by secular people, who believed that it could cure disease and help people digest food when they were not suffering from an illness [10]. Volume 3, Sect. 23 of *Nanhai Jigui Neifa Zhuan* noted that most of the walking places could be chosen at noon or dusk, but they had to be quiet. The focus was on walking slowly and straight back and forth on a path, which aided in the regulation of emotions and fostered physical and mental well-being. It

had the added benefit of treating issues such as swollen feet and bellies, as well as sore arms.

Discussion

Among the several masters who travelled to India for study and wrote about related disciplinary rules, Yi Jing clearly paid more attention to hygiene and health issues. However, he also had a significant flaw: on certain issues, he tended to rely too much on his own views without analysing the issues more objectively and professionally. For example, in his writings, he expressed a negative attitude towards faecal-based medications. In ancient India, some people used faeces as medicine, and some monasteries did as well, referring to it as dragon soup. These practices were frowned upon by the Yi Jing. However, if he had conducted more thorough literature research and field investigations, he would have discovered numerous records in traditional Chinese medicine documenting the use of animal faeces to treat various diseases. *Shennong's Classic of Materia Medica* contains 18 kinds of faecal medicines, while *Mingyi Bielu* includes 21 types of faecal-based medicines [50]. The Tang Dynasty's *Kaibao Materia Medica* provided evidence that the Faeces trogopterori could promote blood circulation to relieve pain and arrest bleeding and was used to treat blood stasis block syndrome [51, 52]. Furthermore, Tibetan medicine has an extensive record of utilising faecal remedies, with over 40 types of faecal medicinal materials, including vulture and pigeon faeces, documented in the esteemed Tibetan medical work known as *Jingzhu Materia Medica* (1745 AD). It also describes the functions and main therapeutic strategies [53]. The classic work of Tibetan medicine *Yuewang Yaozhen (written in the mid-eighth century AD)* also notes that faecal materials could be used to treat a variety of diseases, including the internal use of horse faeces to treat abdominal blood-diarrhoea and the use of dog faeces, cattle faeces with *Stellera chamaejasme* L., wolf tongue and 15 other medicines to treat waterborne furuncle [54]. It is evident that the use of faecal drugs has clinical efficacy that cannot be replicated by other medications. However, the limitations of faecal Chinese medicine are also apparent, which requires us to look at it dialectically [55]. Yi Jing's opposition to the use of faecal medicines may stem from his failure to see the processing of faeces and his lack of awareness that cow dung was used as a medicine in ancient India and may have also been influenced by Confucianism.

When Yi Jing wrote *Nanhai Jigui Neifa Zhuan*, on the one hand, he firmly believes that the behavioural norms in Chinese Buddhist monasteries should strictly adhere to the traditions of Indian Buddhism. He strongly opposes the tendency of localisation, arguing that only through comprehensive inheritance can we better understand and pass down the spirit of the founder of Buddhism. On the other hand, during his journey of seeking knowledge in the west, Yi Jing not only focused on the inheritance of Buddhist behavioural norms, but also attached great importance to the inheritance and development of medicine. He often compared Indian and Chinese traditional medicine, discovering significant differences between them. These differences stem from the geographical, climatic and other conditions of the two countries, leading to obvious distinctions in the selection and use of commonly used medicinal herbs. Regarding such differences, Yi Jing believes that they can be studied and developed to better suit the needs of different regions and people. This attitude towards medical differences seems to contradict his 'strong opposition to integration and adaptation' in terms of Buddhist behavioural norms. However, this contradiction is not as sharp as it appears. Yi Jing's insistence on 'opposition to integration' is at the level of Buddhist teachings. He is concerned that excessive localisation may deviate from the essence and original intention of Buddhism. However, in the field of medicine, he values practicality and adaptability more, hoping to promote the development and innovation of medicine through the comparison and reference of different medical systems.

Conclusion

In *Nanhai Jigui Neifa Zhuan*, Yi Jing primarily portrays the behavioural norms of ancient Indian Buddhist monks in their religious lives. Among them, physical care and hygiene stand out as a significant focus of the book. However, it is evident that Yi Jing's depiction of the Indian Buddhist community is idealised, which is closely related to his intention to set an example for Chinese Buddhist monks, further shaping a righteous image of the Buddhist community and promoting society's respect and reverence for the Buddhist group. Additionally, Yi Jing mentions numerous medical-related contents in the book, which is attributed to his proficiency in both Indian and Chinese medicine. Despite the two systems being based on vastly different concepts of the human body, he still strives to harmonize them to a certain extent, highlighting his emphasis on health issues and unique insights.

The results obtained in this study can serve as a reference for a research approach for scholars seeking to extract medical knowledge from religious texts. For instance, works such as *Biography of Eminent Monks* (《高僧传》), *Biography of Faxian* (《法显传》) and *Records of Shakyamuni* (《释迦方志》) are travelogues written by monks during their visits to ancient India. These research outcomes contribute to a deeper understanding of the similarities, differences and exchanges

between traditional Chinese and Indian medicine, thereby opening up new horizons for future research.

Acknowledgements
The author sincerely thanks colleagues for their care and support.

Author contributions
ZT and CWY wrote the manuscript, LR, XLL and SYH collected and organized the data; SXY, KTT and WZ revised and reviewed the article. All authors reviewed the manuscript.

Funding
This work was supported by the General Program of the National Social Science Foundation of China (grant number 19BMZ101).

Availability of data and materials
No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

Author details
[1]College of Pharmacy, Chengdu University of Traditional Chinese Medicine, Chengdu 611137, China. [2]State Key Laboratory of Southwestern Chinese Medicine Resources, Chengdu University of Traditional Chinese Medicine, Chengdu 611137, China. [3]College of Ethnomedicine, Chengdu University of Traditional Chinese Medicine, Chengdu 611137, China. [4]International Development Research Center, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China. [5]College of Pharmacy, Shanghai University of Traditional Chinese Medicine, Shanghai 201203, China. [6]Research Institute of Traditional Indian Medicine, Chengdu University of Traditional Chinese Medicine, Chengdu 611137, China.

Received: 29 December 2023 Accepted: 5 September 2024
Published online: 27 September 2024

References

1. Li SL. The Development of Chinese Buddhism in History and the Establishment of its Cultural Subjectivity. Chin Relig. 2022;11:62–5.
2. Heirmann A, Torck M. A Pure Mind in a Clean Body: Bodily Care in the Buddhist Monasteries of Ancient India and China. Gent: Academia Press; 2012.
3. Yang Q. The trend of the literature of Buddhist travel notes in Tang Dynasty. J. Yunnan Norm. Univ. (Humanit. and Soc. Sci. Ed.). 2017;49(04): 134–142.
4. Singar DP. India and World Civilization. Beijing: Commercial press; 2019.
5. Peng W, Liu XM. Yi Jing, an eminent monk who traveled westward in the Tang Dynasty. Cult and Educ Mater. 2011;18:79–80.
6. Zhu YF. Yi Jing: an outstanding envoy of cultural exchange between China and foreign countries. J. Shandong Norm. Univ. (Soc. Sci.). 1995;(06): 39–42. https://doi.org/10.16456/j.cnki.1001-5973.1995.06.010
7. Xu JX. Yi Jing and Luoyang. J. Henan Univ. Sci. Technol. (Soc. Sci.). 2019;37(06),5–8. https://doi.org/10.15926/j.cnki.hkdsk.2019.06.001.
8. Wu BL. Reading two books by Monk Yi Jing. J Humanit. 1980;02:35–9. https://doi.org/10.15895/j.cnki.rwzz.1980.02.009.
9. Wan M. Historical Memory of Ancient Indonesia - The Writing of the Chinese Travelers. J. Chin. Cult. 2019;(02): 4–13+154.
10. Bai YH, Li LS. Study on the Health Preserving Thought of Nanhai Jigui Neifa Zhuan. J Tradit Chin Med Lit. 2017;35(05):29–31.
11. Wang BW, Da Tang Xiyu qiu fa gaoseng zhuan jiao zhu. Beijing: Zhonghua shuju; 2009.
12. Forte A. Political Propaganda and Ideology in China at the End of the Seventh Century. Napoli: Istituto Universitario Orientale; 1976.
13. Salguero P. Translating Buddhist Medicine in Medieval China. Philadelphia: University of Pennsylvania Press; 2014.
14. Salguero P. Buddhism & Medicine in East Asian History. *J. Relig. Compass.* 2014; 239–250. https://doi.org/10.1111/rec3.12113
15. Salguero P. A Global History of Buddhism and Medicine. New York: Columbia University Press; 2022.
16. Jiang H. The Diet Custom in Nanhai Jigui Neifa Zhuan. Chin Relig. 2020;09:40–1.
17. Wang Q. Chewing willow branches: the historical custom of teeth cleaning. Folk Stud. 2014;01:75–9. https://doi.org/10.13370/j.cnki.fs.2014.01.022.
18. Wang BW. On the origin of "chewing willow wood." Acad Res. 1983;02:109.
19. Li SJ. A Case Study of the Late Documentary Evidence in the Great Chinese Dictionary. Seek. 2008;05:193–6. https://doi.org/10.16059/j.cnki.cn43-1008/c.2008.05.044.
20. Zhen XY. Talk about ancient teeth. Chin Health Hum Resour. 2021;04:74–5.
21. Chen JL, Song XY. Discussion on the Medicine Communication between Western and Central Plains from the perspective of Yi Jing's Works. J Anc B Collat and Stud. 2019;03:68–70.
22. Zhao SZ. The origin of toothbrushes. Chin J Med Hist. 2006;03:186–9.
23. Wang YR. Food, Clothes and Discipline of Indian Sangha in the 7th Century. Forum of Chinese Culture, J. Chin. Cult. 1995;(04): 79–84.
24. Chen J, Ma CC. As High as Vulture Peak on Shaoshi Mountain, Just Like Rajagriha in the Divine Land-The Study on Buddhism Reformation of Huineng and Yjing's External Buddhism andInternal Confucianism. Ningxia Soc Sci. 2018;04:171–8.
25. Yang YS. The Cultural, Political and Economic Roots of India's "Cowdung Economy." World Aff. 2020;23:29–31.
26. Null. Interesting! Indians consider cow dung as a treasure. Obs. and Ponder. 2011;(10): 60.
27. Hao JG. Yi Jing 's Thought of Bathing Buddha and Its Influence. Chin Relig. 2020;06:42–3.
28. Wen CF. A study on the history of Indian incense entering China in the Han and Tang dynasties. Glob. Hist. Rev. 2010;3(00): 223–246+434–435.
29. Cai JF. General History of Tibetan Medicine. Qinghai: Qinghai People's Publ. House; 2002.
30. Liu CJ. The relationship between medicine and medicine in the history of China and India. J Tradit Chin Med. 1958;04:280–3.
31. Zhu XQ. The exchange of Chinese and foreign books in the Tang Dynasty. J Chin Cult. 1995;03:21.
32. Xue KQ. Indian Buddhism and ancient Chinese medicine. Buddh Stud. 1997;00:252–62.
33. Liu YH. On the Evolution of the Concept of Astanga in Medicine -- Based on the comparative study of Sanskrit, Chin. and Tibet. texts, 2009 International Conference on Science and Technology of Traditional Medicine.
34. Vidyanath R, Nishteswar K. A hand book of history of Ayurveda. Chowkhamba Sanskrit Series Office,2015.
35. K.R. Srikantha Murthy. Vāgbhaṭa's Aṣṭāṅga Hṛdayam. Chowkhamba Krishnadas Academy,2017.
36. National Pharmacopoeia Commission. Pharmacopoeia of the People's Republic of China (Volume I) [S]. Beijing: China Medical Science Press; 2020.
37. Sen S, Chakraborty R. Revival, modernization and integration of Indian traditional herbal medicine in clinical practice: Importance, challenges and future. J Tradit and Complementary Med. 2017;7:234–44.
38. Chen M. "It Is From Persia": An Exploration of the Origin of Sanlejiang. Hist. Res. 2012;(01): 4–23+190.
39. Tan DL. A Study of Yi Jing's Writings Quoted in Han Yu Da Ci Dian. J. Hefei Norm. Univ. 2011;32(04): 127–129+133.
40. Hou C. Curse and wish and its unfolding. J Relig Stud. 2012;00:68–88.
41. Gong QF. Processing of Chinese Medicinal Materials [M]. Beijing: China Press of Traditional Chinese Medicine; 2019.
42. Li JW. History of Chinese and Foreign Medical Exchanges. Changsha: Hum. Educ. Press; 1998.
43. Ji XL. History of Sino Indian Cultural Exchanges. Beijing: Chin. Soc. Sci. Press; 2008.

44. Ji XL. Complete Works of Ji Xianlin. Foreign Lang. Beijing: Teach. and Res. Press;2009.
45. Huang L, Wang XD. Medical History and Civilization. Beijing: Chin. Tradit. Chin. Med. Press; 1993.
46. Wang MQ, Zhang ZK, Gao Y. History of Chinese Traditional Medicine Culture Communication. Beijing: Chin. Tradit. Chin. Med. Press; 2015.
47. Liao YQ. Ayurveda: Traditional Medicine in India. Shenyang: Liaoning Education Press; 2002.
48. Kleine C. Health Care in Indian Monasteries Selections from Yi Jing's Record of the Inner Law Sent Home from the Southern Seas. In: Salguero P. eidtors. *Buddhism and Medicine: An Anthology of Premodern Sources*. New York: Columbia University Press; 2017.p.145–159.
49. Reddy DV. Glimpses into the practice and principles of medicine in Buddhistic India in the 7th century A.D. *Bull. of the n.a. Inst. of Hist. of Med.*;1938.
50. Zhou CF. Thoughts on Fecal Drugs. World Chin Med. 2010;5(02):138–40.
51. Shi XH, Yang YS. Clinical application of fecal drugs in China. Chin. J. Tradit. Chin. Med. and Pharm. 2017;32(08): 3417–3420.
52. Lv J. Discussion on the clinical application of animal feces drugs. Mod Chin Med. 2008;05:85–6.
53. Timar DP. Jingzhu Bencao. Shanghai: Shanghai Sci. and Technol. Press; 1988.
54. Ma SL. Yuewang Yaozhen. Shanghai: Shanghai Sci. and Technol. Press; 2012.
55. Du H, Xu T, Li HJ, Li Q, Gang HCL, Fan G, Zhang Y. Literary research and current status of fecal Tibetan medicine. Chin J Chin Mater Med. 2008;05:1054–61. https://doi.org/10.19540/j.cnki.cjcmm.20171212.001.
56. Wen JY. Historical Memory of Ancient Indonesia – The Writing of Chinese Travelers. J Hist Chin Philos. 2009;02:32–9.
57. Chen YF. The study of A Record of the Buddhist Religion as practiced in India and the Malaya Archipelago English version. Sichuan Univ. Foreign Lang.;2012.
58. Dominik W. The Roots of Ayurveda. Penguin books ltd;2003.

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