

# The evolution of ancient healing practices: From shamanism to Hippocratic medicine

## A review

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### Abstract

In the ever-evolving healthcare landscape, ancient healing traditions cast a profound shadow, offering insights and inspirations that resonate with modern medical practice. This paper explores the enduring influence of shamanic and Hippocratic healing traditions on contemporary healthcare, examining their contributions to holistic health approaches, diagnostic techniques, and ethical standards. The Hippocratic emphasis on observation, clinical experience, and ethical principles laid the foundation for modern Western medicine, while shamanic practices highlight the importance of spiritual and psychological dimensions in healing. The comparative analysis reveals both commonalities and distinctions among various ancient practices, such as Ayurveda, Traditional Chinese Medicine, and indigenous healing systems, emphasizing their holistic understanding of health and the use of natural remedies. Cross-cultural exchanges, from the Silk Road to the Islamic Golden Age and beyond, facilitated the integration and dissemination of medical knowledge, enriching global medical traditions. The paper also discusses the impact of these ancient practices on contemporary healthcare systems, highlighting the resurgence of holistic and integrative medicine, the validation and incorporation of herbal remedies, and the challenges of cultural appropriation and scientific validation. By embracing the wisdom of ancient healing traditions and fostering collaboration between traditional and modern medicine, contemporary healthcare can enhance therapeutic options, promote patient-centered care, and address global health challenges with a more inclusive and compassionate approach. This integration holds promise for the future of healthcare, benefiting individuals and communities worldwide.

**Abbreviations:** BCE = Before the Common Era, MRI = magnetic resonance imaging, TCM = Traditional Chinese Medicine, TEK = traditional ecological knowledge.

**Keywords:** ancient healing practices, healthcare evolution, Hippocratic medicine, integrative medicine, shamanism

## 1. Introduction and background

Ancient healing practices have long been integral to human societies, playing a significant role in addressing health and wellness long before the advent of modern medicine.<sup>[1]</sup> These ancient traditions encompass diverse approaches, ranging from shamanic rituals to the systematic methods of Hippocratic medicine. Despite the passage of millennia and the advancement of scientific knowledge, these ancient healing practices continue to profoundly influence contemporary healthcare systems, shaping medical philosophies, treatment modalities, and approaches to wellness. Shamanism represents one of the earliest forms of healing practice, dating back tens of thousands of years.<sup>[1]</sup> Shamanic healers, known as shamans, served as spiritual intermediaries, navigating the supernatural realms to diagnose and treat illness.<sup>[2]</sup> Utilizing a combination of rituals, herbs, and spiritual connection, shamans addressed not only the physical symptoms of disease but also the underlying spiritual and emotional imbalances believed to contribute

to illness.<sup>[3]</sup> Shamanic healing traditions varied widely across cultures, from the indigenous peoples of the Americas to the tribes of Siberia and Africa, yet shared common themes of interconnectedness with nature and the unseen forces that govern the universe.<sup>[4]</sup> Ancient civilizations developed their medical systems parallel to shamanic healing, often intertwined with religious beliefs and practices. In ancient Egypt, for example, healing was deeply intertwined with religion and magic, with priests serving as healers and medical practitioners.<sup>[5]</sup> The Ebers Papyrus, dating back to around 1550 Before the Common Era (BCE), provides valuable insights into Egyptian medical knowledge and practices, including surgical techniques, pharmacology, and obstetrics.<sup>[6]</sup>

Similarly, in ancient India, Ayurveda emerged as a holistic system of medicine, emphasizing the balance of mind, body, and spirit.<sup>[7]</sup> Ayurvedic texts, such as the Charaka Samhita and the Sushruta Samhita, detailed diagnosis, treatment, and prevention principles, including herbal remedies, dietary guidelines, and

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yoga practices.<sup>[8]</sup> The ancient Greeks, particularly during the Classical period, made significant contributions to the development of medical science through the work of physicians like Hippocrates and Galen.<sup>[9]</sup> Hippocratic medicine, named after the renowned physician Hippocrates, emphasized rational observation, naturalistic explanations for disease, and ethical principles guiding medical practice.<sup>[10]</sup> The Hippocratic Corpus, a collection of texts attributed to Hippocrates and his followers, laid the foundation for clinical medicine, advocating for the systematic study of symptoms, prognosis, and treatment outcomes.<sup>[11]</sup> Galen, a prominent physician of the Roman Empire, further expanded upon Hippocratic teachings, contributing to advancements in anatomy, physiology, and pharmacology.<sup>[12]</sup> The legacy of ancient healing practices extends far beyond historical curiosity, influencing contemporary approaches to healthcare and wellness. In recent decades, there has been a growing recognition of the value of integrating traditional healing modalities into mainstream medical practice, particularly in holistic and complementary medicine.<sup>[13]</sup> Practices such as acupuncture, herbal medicine, and mindfulness meditation, rooted in ancient healing traditions, have gained acceptance as effective adjuncts to conventional treatments for a wide range of conditions, from chronic pain to mental health disorders.<sup>[14]</sup> However, preserving and revitalizing ancient healing practices face numerous challenges in the modern world. Socioeconomic factors, cultural attitudes, and regulatory barriers often hinder the integration of traditional healing modalities into mainstream healthcare systems.<sup>[15]</sup> Additionally, issues of cultural appropriation and commercialization raise ethical concerns about the commodification of indigenous knowledge and practices.<sup>[16]</sup> Nonetheless, efforts to bridge the gap between traditional and modern medicine continue, driven by a growing recognition of the value of diverse healing traditions in promoting health equity and holistic well-being.<sup>[17]</sup>

### 1.1. The statement of concrete aims

1. Examine ancient healing practices' historical development and evolution, focusing on shamanism and Hippocratic medicine, to understand their foundational principles, methodologies, and cultural contexts.
2. Explore the enduring influence of ancient healing traditions on contemporary healthcare systems, including their impact on medical philosophies, treatment modalities, and approaches to wellness.
3. Identify the challenges and opportunities in preserving and revitalizing ancient healing practices in the modern world, considering socioeconomic, cultural, and ethical factors.
4. Investigate strategies for integrating traditional healing modalities into mainstream healthcare systems, promoting greater inclusivity, accessibility, and effectiveness in healthcare delivery.
5. Contribute to the discourse on holistic and integrative approaches to health and wellness by bridging the gap between ancient healing traditions and modern medical practice.

## 2. Shamanism: origins and practices

Shamanism, a term derived from the Tungus people of Siberia, encompasses diverse spiritual and healing practices in cultures worldwide.<sup>[1]</sup> Shamanism is one of the oldest forms of human spirituality and healing in prehistoric times, predating organized religions and formal medical systems. At its core, shamanism revolves around the belief in the existence of a spiritual realm inhabited by guiding forces, ancestors, and supernatural beings, with shamans serving as intermediaries between the human and spirit worlds.<sup>[2]</sup> The origins of shamanism are shrouded in the

mists of prehistory, with archaeological evidence suggesting that shamanic practices may have emerged as early as the Upper Paleolithic period, over 30,000 years ago.<sup>[3]</sup> Cave paintings, rock art, and artifacts found in regions such as Europe, Asia, Africa, and the Americas provide tantalizing glimpses into the spiritual beliefs and practices of ancient hunter-gatherer societies, many of which bear striking similarities to modern shamanic traditions.<sup>[4]</sup> The figure of the shaman is central to shamanism, an individual believed to possess special powers of healing, divination, and communication with the spirit world.<sup>[5]</sup> Shamans undergo rigorous training and initiation rites, often involving periods of solitude, fasting, and visionary experiences induced through the use of psychoactive plants or techniques such as drumming, chanting, or dance.<sup>[6]</sup> Shamans enter altered states of consciousness through these practices, enabling them to journey into the spirit world to seek guidance, retrieve lost souls, or perform healing rituals.<sup>[7]</sup> The role of the shaman varies widely across cultures, reflecting the diverse beliefs and practices of different indigenous societies. In some cultures, such as the Inuit of the Arctic or the Aboriginal peoples of Australia, shamans play a central role in hunting, healing, and maintaining harmony with the natural world.<sup>[8]</sup> Among the indigenous tribes of the Amazon rainforest, shamans known as ayahuasqueros administer ayahuasca, a powerful psychedelic brew, as a sacrament for spiritual insight and healing.<sup>[9]</sup> In Siberia and Central Asia, shamanic traditions persist among the Tungus, Yakut, and Mongolian peoples, where shamans known as "tengeri" or "böö" continue to practice their ancient rites.<sup>[10]</sup> Shamanic healing encompasses various techniques to restore balance and harmony to the individual and the community. Central to shamanic healing is the concept of soul loss, believed to occur when a person experiences trauma, illness, or spiritual disconnection.<sup>[11]</sup> Shamans diagnose and treat soul loss through rituals such as soul retrieval, in which lost fragments of the soul are recalled and reintegrated, or spirit extraction, in which harmful energies or entities are removed from the body.<sup>[12]</sup> In addition to soul healing, shamans often employ herbal medicine, ritual purification, and symbolic acts to promote physical, emotional, and spiritual well-being.<sup>[13]</sup> Sacred plants such as tobacco, peyote, and ayahuasca are used in shamanic ceremonies for their healing properties and ability to induce altered states of consciousness conducive to spiritual insight and transformation.<sup>[14]</sup> Rituals such as sweat lodges, vision quests, and sacred dances are powerful means of communing with the spirit world and accessing hidden realms of knowledge and wisdom.<sup>[15]</sup> Despite centuries of colonialism, persecution, and cultural assimilation, shamanism continues to endure in many parts of the world, adapting to changing social, economic, and environmental conditions.<sup>[16]</sup> In the face of globalization and modernization, indigenous peoples are reclaiming and revitalizing their traditional spiritual and healing practices, asserting their cultural identity and sovereignty.<sup>[17]</sup> Organizations such as the Society for Shamanic Practice and the Foundation for Shamanic Studies promote cross-cultural dialogue, education, and research into shamanic healing methods, fostering greater understanding and appreciation for this ancient tradition.<sup>[18]</sup>

## 3. Pre-Hippocratic medicine: early medical traditions

Before the emergence of Hippocratic medicine, ancient civilizations developed diverse medical traditions that laid the foundation for subsequent advancements in healthcare. These early medical practices encompassed various therapeutic modalities, including herbal remedies, surgical procedures, and spiritual healing rituals.<sup>[19]</sup> Ancient Mesopotamia often called the cradle of civilization, was home to some of the earliest known human societies, including the Sumerians, Akkadians, Babylonians, and Assyrians. Situated between the Tigris and Euphrates rivers in

present-day Iraq, Mesopotamia was a fertile region that gave rise to advanced agricultural techniques, monumental architecture, and complex social structures. In addition to these achievements, Mesopotamia also played a pivotal role in developing medicine and healthcare, laying the foundation for future medical traditions.<sup>[20]</sup> The origins of Mesopotamian medicine can be traced back to the dawn of civilization in the fourth millennium BCE, with the emergence of city-states such as Uruk, Ur, and Eridu. In these early urban centers, priests, scribes, and healers played essential roles in maintaining the health and well-being of the community. Medical knowledge was closely intertwined with religious beliefs, with gods and goddesses associated with healing, such as Ninhursag, the Sumerian mother goddess, and Gula, the Babylonian goddess of medicine.<sup>[21]</sup> One of the most important sources of information about Mesopotamian medicine is the “Diagnostic Handbook,” a collection of diagnostic signs and symptoms written in cuneiform script on clay tablets. Dating back to the second millennium BCE, these tablets contain detailed descriptions of various diseases, including fevers, wounds, gastrointestinal disorders, and prognoses and treatments.<sup>[1]</sup> The Diagnostic Handbook provides insights into Mesopotamian physicians’ diagnostic methods, therapeutic interventions, and medical terminology. Empirical observation, magical incantations, and ritualistic practices characterized Mesopotamian medicine. Physicians, known as “asipu” or “uššīpu,” employed a variety of diagnostic techniques, including examining the patient’s pulse, urine, and stool, as well as interpreting omens and dreams.<sup>[22]</sup> Treatment options ranged from herbal remedies and dietary restrictions to prayers, offerings, and rituals designed to appease the gods and ward off malevolent spirits. One of ancient Mesopotamia’s most famous medical texts is the “Incantation Series Šurpu,” a collection of magical spells and rituals to cure various diseases and afflictions. Written in Akkadian, the lingua franca of the ancient Near East, the Šurpu incantations invoke the aid of gods, demons, and supernatural forces to banish illness and restore health.<sup>[23]</sup> These incantations were recited by trained exorcists known as “āšipū,” who specialized in ritual magic and the secret names of gods and demons. In addition to magical incantations, Mesopotamian medicine utilized a wide range of herbal remedies, many of which were derived from local plants and minerals. Clay tablets found in ancient Sumerian and Akkadian cities contain lists of medicinal plants and instructions for their preparation and use.<sup>[24]</sup> Plants such as licorice, garlic, and opium were used to treat a variety of ailments, including fevers, coughs, and gastrointestinal disorders. In contrast, minerals such as copper, lead, and sulfur were employed in ointments, poultices, and salves. Surgical interventions were also performed in ancient Mesopotamia, although they were typically reserved for traumatic injuries and emergency cases. Archaeological evidence, such as skeletal remains with signs of surgical procedures, suggests that Mesopotamian physicians were capable of performing amputations, trepanations, and lithotomies.<sup>[25]</sup> These surgical techniques were likely performed by skilled practitioners using sharp stone tools and rudimentary instruments made of bronze or copper. Despite its many achievements, Mesopotamian medicine was not without its limitations and misconceptions. Like other ancient civilizations, the Mesopotamians believed in the influence of supernatural forces, demons, and evil spirits on health and illness. Disease was often seen as a punishment from the gods or the result of malevolent sorcery, requiring divine intervention or magical remedies to cure.<sup>[26]</sup> Consequently, Mesopotamian medicine was heavily influenced by religious beliefs and superstitions, with priests and exorcists playing prominent roles in healthcare delivery. Ancient Egyptian medicine occupies a unique place in the annals of medical history, characterized by a rich tapestry of empirical knowledge, magical incantations, and religious rituals.<sup>[27]</sup> Spanning over 3 millennia, from the predynastic period to the Roman conquest, Egyptian medicine evolved from primitive folk remedies to sophisticated

medical practices that laid the foundation for future medical traditions. The origins of Egyptian medicine can be traced back to the dawn of civilization along the banks of the Nile River, where early inhabitants developed rudimentary healing techniques to address injuries, illnesses, and childbirth. Archaeological evidence, such as the mummified remains of individuals with signs of surgical interventions, suggests that Egyptians possessed basic knowledge of anatomy and surgical procedures as early as 3000 BCE.<sup>[28]</sup> However, medical knowledge during this period was largely shrouded in mysticism and superstition, with an illness often attributed to supernatural causes such as curses, malevolent spirits, or divine wrath. The earliest known medical texts, dating back to around 2600 BCE, were found inscribed on the walls of the Pyramid of Unas in Saqqara. Known as the Pyramid Texts, these hieroglyphic inscriptions contain spells, prayers, and incantations to protect the deceased pharaoh and ensure his journey to the afterlife.<sup>[2]</sup> Among the hundreds of spells recorded in the Pyramid Texts are several about healing and treating diseases, reflecting the intertwined nature of magic and medicine in ancient Egyptian culture.<sup>[29]</sup> Over time, as Egyptian society became more organized and hierarchical, medicine became increasingly specialized, with physicians, priests, and scribes playing distinct roles in healthcare delivery. Physicians, known as “swnw” or “swnw,” were highly respected members of society, trained in medical schools attached to temples or royal households.<sup>[30]</sup> They received instruction in anatomy, diagnosis, prognosis, and treatment, often through apprenticeship and practical experience rather than formal education. One of ancient Egypt’s most famous medical documents is the Edwin Smith Surgical Papyrus, dating back to around 1600 BCE. Named after the American archaeologist who purchased it in the 19th century, the Edwin Smith Papyrus is one of the oldest known medical texts, containing detailed descriptions of surgical procedures, anatomical observations, and diagnostic methods.<sup>[4]</sup> The papyrus provides insights into treating various injuries and ailments, including fractures, wounds, and tumors, using techniques such as suturing, bandaging, and cauterization. Another important medical text from ancient Egypt is the Ebers Papyrus, dating to around 1550 BCE. Named after the German Egyptologist who acquired it in the late 19th century, the Ebers Papyrus is a comprehensive medical knowledge compendium encompassing over 700 magical formulas, prescriptions, and remedies for various diseases and conditions.<sup>[5]</sup> The papyrus covers gynecology, dermatology, ophthalmology, and dentistry, reflecting ancient Egyptian physicians’ diverse interests and expertise. Central to Egyptian medicine was the concept of *ma’at*, the cosmic order, and harmony that governed the universe and all aspects of life. Illness was seen as a disruption of *ma’at*, requiring the intervention of physicians, priests, and deities to restore balance and order.<sup>[6]</sup> Healing rituals and medical treatments often incorporated religious symbols, prayers, and offerings to invoke the aid of gods and goddesses associated with healing, such as Sekhmet, the lion-headed goddess of medicine, or Imhotep, the deified physician and architect of the Step Pyramid of Djoser. In addition to surgical procedures and pharmacological treatments, ancient Egyptian medicine also utilized a variety of noninvasive therapies, such as massage, hydrotherapy, and dietary interventions. Massage, known as “*drd*,” alleviated muscle pain, improved circulation, and promoted relaxation.<sup>[7]</sup> Hydrotherapy, in the form of baths and fumigations, was believed to cleanse the body of impurities and restore vitality.<sup>[8]</sup> Dietary interventions, including herbal teas, poultices, and enemas, were prescribed to treat digestive disorders, fevers, and parasitic infections.<sup>[9]</sup> Despite its many achievements, ancient Egyptian medicine was not without its limitations and misconceptions. The prevailing belief in the humoral theory, inherited from ancient Mesopotamia and Greece, posited that health and illness were governed by the balance of 4 bodily fluids or “humors”—blood, phlegm, black bile, and yellow bile.<sup>[10]</sup> Imbalances in the humor were thought to cause disease,

necessitating treatments such as bloodletting, purging, and emetics to restore equilibrium. Ayurveda, often referred to as the “science of life,” is a traditional system of medicine that originated in ancient India over 5000 years ago. Rooted in Hinduism’s philosophical and spiritual traditions, Ayurveda is based on achieving balance and harmony within the body, mind, and spirit to promote health and wellness. As one of the world’s oldest medical systems, Ayurveda encompasses a holistic approach to healing that integrates diet, herbal remedies, yoga, meditation, and lifestyle practices. The origins of Ayurveda can be traced back to the Vedic period, a time of great intellectual and cultural flourishing in ancient India. The Vedas, the oldest sacred texts of Hinduism, reference healing rituals, medicinal plants, and spiritual practices to promote physical and mental well-being.<sup>[31]</sup> Ayurveda emerged as a synthesis of these diverse traditions, drawing upon the insights of ancient sages and practitioners who sought to understand the nature of health, disease, and the human condition. Central to Ayurvedic philosophy is the concept of the “panchamahabhutas,” or the 5 elements—earth, water, fire, air, and ether—which are believed to constitute the basic building blocks of the universe and the human body.<sup>[2]</sup> According to Ayurvedic teachings, health is maintained when these elements balance and harmony within the body. At the same time, disease arises when there is an imbalance or disturbance in their proportions. Thus, Ayurveda aims to restore equilibrium and promote holistic well-being through personalized treatments and lifestyle interventions. Ayurvedic medicine encompasses many therapeutic modalities, including herbal medicine, dietetics, detoxification, massage, yoga, meditation, and spiritual counseling. Herbal remedies, known as “rasayanas” or “ayurvedic herbs,” play a central role in Ayurvedic pharmacology, with thousands of medicinal plants used for their therapeutic properties.<sup>[3]</sup> Herbs such as turmeric, ginger, neem, and ashwagandha are prized for their anti-inflammatory, antimicrobial, and adaptogenic properties, which are believed to promote vitality, longevity, and resilience. Dietetics is another key aspect of Ayurvedic medicine, emphasizing eating according to one’s “dosha” or constitutional type. According to Ayurvedic teachings, each individual possesses a unique combination of the 3 doshas—vata, pitta, and kapha—which govern various physiological functions and personality traits.<sup>[4]</sup> Imbalances in the doshas are thought to contribute to disease. At the same time, dietary modifications, such as eating seasonally, consuming fresh, whole foods, and avoiding processed refined foods, are recommended to restore balance and promote optimal health. Detoxification, known as “panchakarma,” is a cornerstone of Ayurvedic therapy aimed at removing accumulated toxins and impurities from the body through cleansing practices such as fasting, herbal enemas, oil massages, and steam baths.<sup>[5]</sup> Panchakarma therapies are believed to rejuvenate the body, mind, and spirit, promoting deep relaxation, purification, and revitalization. Massage, or “abhyanga,” is another important therapeutic modality in Ayurveda, with a long history of use for promoting physical, mental, and emotional well-being. Ayurvedic massage techniques involve the application of warm herbal oils to the body, followed by gentle kneading, rubbing, and stroking to release tension, improve circulation, and stimulate the flow of vital energy.<sup>[6]</sup> Massage is often combined with aromatherapy, sound therapy, and energy healing techniques to enhance its therapeutic effects. Yoga and meditation are integral to Ayurvedic practice, focusing on cultivating awareness, mindfulness, and inner peace. Yoga, derived from the Sanskrit word meaning “union,” encompasses a variety of physical postures (asanas), breathing techniques (pranayama), and meditation practices (dhyana) aimed at harmonizing body, mind, and spirit.<sup>[7]</sup> Meditation, or “dhyana,” involves cultivating focused attention and mental clarity through mindfulness, visualization, and mantra repetition. Spiritual counseling, or “Satsang,” is another important aspect of Ayurvedic medicine, providing guidance, support, and inspiration on the path to holistic

healing and self-realization. Ayurvedic practitioners, known as “vaidyas” or “ayurvedic doctors,” serve as teachers, mentors, and healers, offering personalized consultations, lifestyle recommendations, and spiritual guidance to help individuals achieve balance and harmony in their lives.<sup>[8]</sup> Traditional Chinese Medicine (TCM) is a holistic medical system practiced for over 2500 years in China and other East Asian parts. Rooted in ancient philosophical and cultural traditions, TCM encompasses many therapeutic modalities to promote health, prevent illness, and treat disease. The concept of qi (pronounced “chee”) is central to TCM, the vital energy or life force that flows through the body and animates all living beings. The origins of TCM can be traced back to the ancient Chinese philosophy of Daoism (Taoism), which emphasizes the harmonious interplay of opposites and the interconnectedness of all things. According to Daoist teachings, health is maintained when the body, mind, and spirit are in balance and harmony, while illness arises from imbalances or blockages in the flow of qi.<sup>[1]</sup> TCM seeks to restore equilibrium and promote holistic well-being through personalized treatments and lifestyle interventions. One of the foundational texts of TCM is the Huangdi Neijing, or “Yellow Emperor’s Inner Canon,” which dates back to the 2nd century BCE. Compiled during the Han dynasty, the Neijing is a comprehensive treatise on medicine, physiology, pathology, diagnosis, and treatment, containing insights into the nature of qi, the principles of yin and yang, and the functions of the organs and meridians.<sup>[2]</sup> The Neijing provides a theoretical framework for understanding health and disease that continues to inform TCM practice. Central to TCM diagnosis is the concept of pattern identification, or “bianzheng,” which involves analyzing the signs and symptoms of a patient to identify the underlying pattern of disharmony or imbalance. TCM recognizes various patterns, or “zheng,” including excess and deficiency patterns, hot and cold patterns, and interior and exterior patterns, which reflect the dynamic interplay of yin and yang forces within the body.<sup>[3]</sup> Based on the pattern identified, TCM practitioners prescribe individualized treatments tailored to each patient’s unique needs. One of the key diagnostic tools in TCM is pulse diagnosis, known as “pulse-taking,” which involves assessing the quality, rhythm, and strength of the pulse at various positions on the radial artery. According to TCM theory, the pulse provides valuable information about the state of the organs, the flow of qi and blood, and the overall balance of yin and yang within the body.<sup>[4]</sup> By carefully palpating the pulse, TCM practitioners can detect subtle imbalances and disturbances that may not be apparent through other diagnostic methods. Herbal medicine is a cornerstone of TCM therapy, with thousands of medicinal plants and mineral substances used for their therapeutic properties. TCM herbal formulas are carefully crafted combinations of herbs selected for their synergistic effects and tailored to the specific pattern of disharmony identified in each patient.<sup>[5]</sup> Herbs are typically prescribed as decoctions, powders, pills, or tinctures and may be taken orally, applied topically, or used externally in poultices and compresses. Acupuncture is another important therapeutic modality in TCM, involving the insertion of thin needles into specific points on the body to stimulate the flow of qi and promote healing. According to TCM theory, acupuncture points are located along channels or meridians through which qi flows, and by manipulating these points, practitioners can regulate the flow of qi and restore balance to the body.<sup>[6]</sup> Acupuncture treats many conditions, including pain, digestive disorders, respiratory ailments, and emotional imbalances. Moxibustion, or “moxa,” is often used with acupuncture to enhance its therapeutic effects. Moxibustion involves burning dried mugwort (*Artemisia vulgaris*) on or near acupuncture points to warm and invigorate the flow of qi and blood.<sup>[7]</sup> The heat generated by moxibustion is believed to penetrate deeply into the body, promoting circulation, relieving pain, and expelling cold and dampness. Cupping therapy is another ancient healing practice used in TCM, involving the application of glass



or bamboo cups to the skin to create a vacuum effect that draws stagnant blood and qi to the surface.<sup>[8]</sup> Cupping is commonly used to alleviate muscle tension, improve circulation, and promote detoxification, and is often combined with acupuncture and moxibustion for enhanced therapeutic effects. Dietary therapy, exercise, and lifestyle counseling are integral components of TCM, emphasizing preventing illness and promoting longevity through balanced nutrition, regular physical activity, and mindfulness practices. TCM dietary principles are based on the concepts of yin and yang, the 5 elements (wood, fire, earth, metal, water), and the energetics of foods, with an emphasis on eating seasonally, locally, and in harmony with one's constitution and environment.<sup>[9]</sup> Qigong and tai chi, ancient Chinese exercise systems, are also used in TCM to cultivate qi, improve circulation, and harmonize body, mind, and spirit.

#### 4. The Hippocratic Era: birth of rational medicine

The Hippocratic Era, spanning roughly from the 5th century BCE to the 3rd century BCE, marks a pivotal moment in the history of medicine and the emergence of rational thought in healthcare. Named after Hippocrates of Kos, a Greek physician often regarded as the “Father of Medicine,” this period witnessed significant advancements in medical theory, practice, and ethics that laid the foundation for modern Western medicine.<sup>[2]</sup> The Hippocratic Corpus, a collection of over 60 medical texts attributed to Hippocrates and his followers, is the primary source of information about medicine during this era. While the authorship of these texts is debated, they represent a remarkable synthesis of empirical observation, clinical experience, and ethical principles that have shaped medical thought for centuries to come. Central to the Hippocratic approach to medicine was the concept of “physis,” or nature, as the guiding principle of health and disease.<sup>[4]</sup> According to Hippocratic teachings, the body possesses an inherent capacity for self-healing, and illness arises from imbalances or disturbances in the body's natural equilibrium.<sup>[1]</sup> Physicians were advised to work harmoniously with nature, supporting the body's innate healing processes rather than imposing aggressive interventions. Observation and clinical experience played a crucial role in Hippocratic medicine, with physicians encouraged to closely observe their patients, record their symptoms, and monitor disease progression over time. The Hippocratic physician was expected to be a keen observer, skilled diagnostician, and compassionate caregiver, capable of interpreting subtle signs and symptoms to formulate accurate diagnoses and prognoses.<sup>[2]</sup> The Hippocratic Corpus contains detailed descriptions of various diseases, injuries, and surgical procedures, reflecting ancient Greek physicians' diverse medical knowledge and expertise. Topics covered include anatomy, physiology, pathology, pharmacology, obstetrics, pediatrics, surgery, and ethics, providing a comprehensive overview of medical practice during this era. One of the most famous works in the Hippocratic Corpus is the “Hippocratic Oath,” a solemn pledge physicians take to uphold ethical standards and moral principles in medicine. The Oath emphasizes the duties of physicians to their patients, including confidentiality, beneficence, non-maleficence, and professional integrity.<sup>[3]</sup> It continues to serve as a guiding ethical framework for medical professionals today.

Surgery was also practiced during the Hippocratic Era, although it was often considered a last resort and performed by specialized practitioners known as “chirurgeons” or “hand-workers.” Surgical procedures described in the Hippocratic Corpus include wound care, fracture management, tumor excision, and lithotomy (removing bladder stones).<sup>[4]</sup> Surgical instruments such as scalpels, forceps, and probes were used, and techniques such as cautery and ligature were employed to control bleeding. Pharmacology was another essential aspect of Hippocratic medicine, with physicians using a variety of herbal remedies, dietary interventions, and mineral preparations to treat a wide

range of ailments. Herbal medicines were prepared from plants such as opium poppy, mandrake, and henbane, while dietary recommendations emphasized the importance of moderation, balance, and variety in food choices.<sup>[5]</sup> The Hippocratic physician was also expected to provide holistic care for their patients, addressing the physical symptoms of disease and the psychological, social, and spiritual dimensions of health and well-being. The “Hygieia,” or holistic health, encompassed physical fitness, mental resilience, emotional balance, and social harmony, emphasizing the interconnectedness of body, mind, and spirit.<sup>[6]</sup> Despite its many achievements, Hippocratic medicine had its limitations and misconceptions. The Hippocratic physicians lacked knowledge of germ theory, microbiology, and the role of infectious agents in disease, leading to erroneous beliefs about the causes and transmission of illness. Treatment options were often limited to empirical remedies, dietary restrictions, and supportive care, with little understanding of the underlying mechanisms of disease.

#### 5. Bridging the gap: synthesis of spiritual and rational approaches

Bridging the gap between spiritual and rational medical approaches has been crucial in evolving healthcare practices. Ancient healing systems often combined empirical observations with spiritual beliefs, creating a holistic understanding of health that addressed physical and metaphysical aspects of well-being.<sup>[3]</sup> This synthesis of spiritual and rational approaches continues to influence contemporary medicine, fostering integrative practices that aim to treat the whole person. In ancient Mesopotamia, medicine was deeply intertwined with spiritual beliefs. Illnesses were often attributed to the actions of gods or evil spirits, and healing practices involved medical treatments and spiritual rituals.<sup>[2]</sup> The Sumerians, for instance, utilized a combination of herbal remedies and incantations to treat ailments. The Code of Hammurabi, one of the oldest legal documents, includes regulations on medical practice, indicating a recognition of medicine as a science and an art rooted in spiritual understanding.<sup>[1]</sup> Similarly, Babylonian texts reveal a sophisticated knowledge of medicinal plants and surgical procedures, yet these practices were always performed with spiritual invocations to appease deities or drive away malevolent spirits.<sup>[2]</sup> Egyptian medicine also exemplified the integration of spiritual and rational approaches. The Edwin Smith Papyrus and the Ebers Papyrus, among the oldest medical documents, provide insights into Egyptian medical practices that combined practical treatments with spiritual rituals. Egyptian physicians, known as “swnw,” were often priests who performed healing as part of their religious duties. They utilized a vast pharmacopeia derived from plants, minerals, and animal products, but prayers and incantations typically accompanied these treatments to invoke divine healing powers.<sup>[3]</sup> This dual approach underscored the belief that physical health and spiritual purity were interconnected. In ancient Greece, the transition from spiritual to rational approaches began with the works of Hippocrates, often referred to as the “Father of Medicine.” Hippocratic medicine emphasized empirical observation and logical reasoning, laying the groundwork for modern scientific methods. However, it did not entirely discard the spiritual aspects of healing. The Hippocratic Corpus includes texts that reflect a holistic view of health, considering the balance of bodily humor and the influence of environmental and lifestyle factors on health.<sup>[4]</sup> This synthesis of empirical and holistic thinking paved the way for a more systematic and rational approach to medicine while acknowledging the importance of the patient's overall well-being. TCM offers another example of the fusion between spiritual and rational approaches. TCM is based on the concepts of yin and yang and the 5 elements, which represent different aspects of the natural world and their relationships. Health is

seen as a state of balance between these forces, and illness results from an imbalance. Treatments in TCM, such as acupuncture, herbal medicine, and qigong, aim to restore this balance. These practices are grounded in detailed empirical observations and validated by centuries of clinical use. Yet, they are deeply rooted in a spiritual understanding of harmony and balance within the body and the universe.<sup>[5]</sup> Ayurveda, the traditional medicine of India, similarly integrates spiritual and rational elements. Ayurveda is based on doshas, or bodily energies, which must be balanced for optimal health. Treatments include dietary recommendations, herbal remedies, yoga, and meditation. Ayurvedic practitioners view health as physical, mental, and spiritual harmony. This holistic approach is increasingly recognized in contemporary integrative medicine, which seeks to combine the best of traditional and modern medical practices.<sup>[6]</sup> In contemporary healthcare, the synthesis of spiritual and rational approaches is embodied in integrative medicine. Integrative medicine combines conventional biomedical treatments with complementary therapies such as acupuncture, meditation, yoga, and herbal medicine. This approach recognizes that health is not merely the absence of disease but a well-being encompassing physical, mental, and spiritual dimensions. Integrative medicine aims to treat the whole person, considering lifestyle, environment, psychological factors, and clinical symptoms.<sup>[7]</sup> The resurgence of interest in holistic and integrative approaches in modern healthcare can be attributed to several factors. Patients increasingly seek treatments that address their overall well-being rather than specific symptoms. There is also growing recognition of the limitations of conventional biomedicine, particularly in managing chronic diseases and promoting preventive care. Integrative approaches offer a more comprehensive model of care that aligns with patients' desires for personalized and holistic treatments.<sup>[8]</sup> However, integrating spiritual and rational approaches in contemporary medicine is challenging. One major challenge is the need for rigorous scientific validation of complementary therapies to ensure their safety and efficacy. This requires a collaborative effort between traditional healers, biomedical researchers, and healthcare providers to conduct high-quality research and clinical trials. Another challenge is the potential for cultural misappropriation and commercialization of traditional knowledge, which can undermine the integrity of these practices and exploit indigenous communities.<sup>[9]</sup>

### 5.1. Comparative analysis

Ancient healing practices, spanning cultures and civilizations across the globe, share common themes and principles while also reflecting the unique cultural, philosophical, and environmental contexts in which they developed. A comparative analysis of these healing traditions reveals similarities and differences in their health, illness, and healing approaches.<sup>[2]</sup> One of the fundamental similarities among ancient healing practices is their holistic understanding of health, which encompasses the interconnectedness of body, mind, and spirit. Whether it be the Hippocratic physicians of ancient Greece, the Ayurvedic healers of ancient India, or the traditional healers of indigenous cultures, holistic health is central to their understanding of well-being. Ancient healers recognized that physical symptoms of illness are often intertwined with psychological, social, and spiritual factors. They sought to address the root causes of the disease rather than merely treating its symptoms.<sup>[3]</sup> Another common feature of ancient healing practices is using natural remedies derived from plants, minerals, and animal substances. Herbal medicine, in particular, plays a prominent role in many traditional healing systems, with medicinal plants being valued for their therapeutic properties and healing potential. From the medicinal herbs of Ayurveda to the botanical remedies of traditional Chinese medicine, ancient healers relied on the healing power of nature to treat a wide range of ailments and promote overall wellness.<sup>[4]</sup> In addition to herbal remedies, many ancient

healing traditions incorporate dietary interventions, lifestyle modifications, and mind-body practices to promote health and prevent disease.<sup>[4]</sup> Dietetics, for example, is a key component of both Ayurvedic medicine and traditional Chinese medicine, with emphasis placed on eating according to one's constitution, balancing the 6 tastes, and harmonizing the body's internal environment. Similarly, practices such as yoga meditation, and qigong are used in Ayurveda, traditional Chinese medicine, and other healing traditions to cultivate mindfulness, reduce stress, and promote emotional well-being.<sup>[5]</sup> Another shared characteristic among ancient healing practices is diagnostic techniques based on observation, palpation, and questioning to assess health and identify disharmony or imbalance patterns. Whether pulse diagnosis in TCM, tongue diagnosis in Ayurveda, or symptomatology in Hippocratic medicine, ancient healers employed various diagnostic methods to gain insight into the underlying causes of illness and guide their treatment strategies.<sup>[6]</sup> Despite these commonalities, ancient healing practices exhibit significant differences in theoretical frameworks, diagnostic approaches, therapeutic modalities, and cultural contexts. For example, while Ayurveda and traditional Chinese medicine share concepts such as the importance of qi (prana) and the role of the 5 elements (panchamahabhutas), they have distinct diagnostic systems, treatment modalities, and philosophical foundations. Ayurveda, rooted in the philosophical traditions of Hinduism, emphasizes the balance of the 3 doshas (Vata, pitta, kapha) and the importance of individualized treatment plans based on each person's unique constitution (Prakriti).<sup>[7]</sup> Traditional Chinese medicine, on the other hand, is based on the principles of yin and yang, the 5 elements (wood, fire, earth, metal, water), and the flow of qi (vital energy) through meridians or channels in the body.<sup>[8]</sup> Similarly, while Ayurveda and TCM utilize herbal medicine, acupuncture, and dietary therapy, they have distinct pharmacopeias, acupuncture points, and dietary recommendations based on their respective cultural contexts and geographical regions. Ayurvedic herbal formulas often include spices such as turmeric, ginger, and cinnamon, while traditional Chinese herbal formulas may incorporate botanicals such as ginseng, licorice, and astragalus.<sup>[9]</sup> Regarding therapeutic modalities, Ayurveda strongly emphasizes purification and detoxification therapies known as panchakarma, which aim to cleanse the body of accumulated toxins (ama) and restore balance to the doshas. TCM, on the other hand, utilizes techniques such as acupuncture, moxibustion, cupping, and tuina massage to regulate the flow of qi and blood, harmonize yin and yang, and promote the body's innate healing mechanisms.<sup>[10]</sup> The cultural context in which ancient healing practices developed also influences their philosophical underpinnings, diagnostic methods, and treatment approaches. For example, the Hippocratic physicians of ancient Greece were influenced by the philosophical traditions of rationalism, empiricism, and naturalism, which shaped their approach to medicine as a science based on observation, logic, and reason.<sup>[12]</sup> In contrast, Ayurveda and traditional Chinese medicine emerged within the cultural and spiritual frameworks of Hinduism, Buddhism, and Daoism, emphasizing the interconnectedness of all living beings and the importance of harmony with nature. Despite these differences, ancient healing practices share a common goal of promoting health, preventing illness, and alleviating suffering through a holistic and compassionate approach to care. Whether it be the ancient physicians of Greece, India, China, or indigenous cultures, the legacy of their wisdom and healing traditions continues to inspire and inform modern healthcare practices worldwide.<sup>[13]</sup> Additionally, Cross-cultural exchanges and influences have played a significant role in the development and evolution of medicine throughout history, facilitating the exchange of knowledge, ideas, and practices across diverse cultures and civilizations. From the ancient Silk Road trade routes to the modern era of globalization, interactions between different societies have enriched medical traditions, expanded therapeutic

options, and fostered collaboration and innovation in healthcare.<sup>[14]</sup> One of the earliest examples of cross-cultural exchange in medicine can be seen along the Silk Road, an ancient network of trade routes that connected East Asia with the Middle East, South Asia, and Europe. Along these routes, merchants, travelers, and scholars exchanged goods, ideas, and knowledge, including medical remedies, techniques, and philosophies. Chinese medicine, emphasizing herbal medicine, acupuncture, and qigong, spread westward along the Silk Road, influencing medical practices in Central Asia, Persia, and the Arab world.<sup>[1]</sup> Likewise, Indian Ayurvedic medicine, with its holistic approach to health and wellness, found its way to the West via trade and cultural exchange, influencing medical traditions in Greece, Rome, and beyond.<sup>[2]</sup> The Islamic Golden Age, from the 8th to the 14th centuries, was another period of significant cross-cultural exchange and innovation in medicine. Islamic scholars and physicians preserved, translated, and synthesized the medical knowledge of ancient civilizations, including the Greeks, Romans, Persians, Indians, and Chinese, creating a rich and diverse medical tradition known as Islamic medicine or Arabic medicine.<sup>[3]</sup> Works such as the Canon of Medicine by Avicenna (Ibn Sina) and the Al-Tasrif by Al-Zahrawi (Albucasis) became foundational texts in medieval medical education and practice, influencing medical thought in Europe and beyond.<sup>[4]</sup> Rediscovering classical Greek and Roman texts and translating Arabic medical works during the European Renaissance sparked a revival of interest in ancient medical knowledge. They paved the way for the development of modern Western medicine. Scholars such as Andreas Vesalius, William Harvey, and Paracelsus drew upon the insights of ancient and Islamic medicine to advance the fields of anatomy, physiology, and pharmacology, laying the groundwork for the scientific revolution in healthcare.<sup>[5]</sup> The works of Hippocrates, Galen, and Avicenna became foundational texts in medical education, shaping the training and practice of physicians for centuries to come. In colonial and postcolonial contexts, cross-cultural exchanges in medicine often took on a different character, marked by power imbalances, exploitation, and resistance. European colonial powers imposed their medical practices and ideologies on colonized populations, often at the expense of indigenous healing traditions and knowledge systems. Traditional healers and indigenous medical practices were marginalized, stigmatized, or suppressed in favor of Western biomedicine, leading to the erosion of cultural identities and the loss of traditional healing knowledge.<sup>[6]</sup> However, resistance movements and efforts to reclaim indigenous knowledge and practices have emerged in recent years, highlighting the importance of cultural diversity and the need for decolonizing healthcare systems.<sup>[7]</sup> In the modern era of globalization, cross-cultural exchanges in medicine continue to shape healthcare practices and policies around the world. Advances in communication, transportation, and technology have facilitated the exchange of medical information, expertise, and resources across borders, enabling collaboration and innovation in healthcare delivery, research, and education. International partnerships and initiatives, such as the World Health Organization and Médecins Sans Frontières (Doctors Without Borders), work to address global health challenges, promote health equity, and strengthen healthcare systems in underserved communities.<sup>[8]</sup> At the same time, globalization has also led to the commodification and commercialization of healthcare, with pharmaceutical companies, medical device manufacturers, and healthcare providers seeking to expand their markets and maximize profits. This has raised concerns about the influence of multinational corporations on healthcare policies, access to essential medicines, and the prioritization of profit over public health.<sup>[9]</sup> Efforts to promote ethical practices, transparency, and social responsibility in healthcare ensure that cross-cultural medical exchanges benefit all stakeholders and contribute to the well-being of individuals and communities worldwide. The impact of ancient healing practices on

contemporary healthcare systems is profound and multifaceted, reflecting a blend of traditional wisdom and modern scientific advancements. Integrating ancient medical knowledge with contemporary biomedical approaches has enriched healthcare delivery, expanded therapeutic options, and promoted a more holistic understanding of health and well-being.<sup>[10]</sup> One significant impact of ancient healing practices on contemporary healthcare is the resurgence of interest in holistic and integrative medicine. Ancient medical systems such as Ayurveda, TCM, and various indigenous healing practices emphasize the interconnectedness of the body, mind, and spirit. These systems advocate for treating the whole person rather than just addressing isolated symptoms. Contemporary healthcare has increasingly adopted this holistic approach, recognizing the importance of psychological, social, and spiritual factors in health and disease. Integrative medicine, which combines conventional biomedical treatments with complementary therapies such as acupuncture, herbal medicine, and mindfulness practices, has gained popularity as patients seek more comprehensive and personalized care.<sup>[11]</sup> Another area where ancient healing practices have significantly influenced contemporary healthcare is in the field of herbal medicine. The use of medicinal plants and natural products has been a cornerstone of traditional healing systems across the globe. Modern pharmacology and drug development have often drawn upon this rich repository of botanical knowledge. For instance, the antimalarial drug artemisinin, derived from the Chinese herb *Artemisia annua*, has become a critical component in treating malaria worldwide.<sup>[2]</sup> Similarly, the anticancer drug paclitaxel (Taxol), originally isolated from the Pacific yew tree, highlights the enduring relevance of traditional plant-based remedies in contemporary medicine.<sup>[3]</sup> The principles and practices of Ayurveda and TCM have also been integrated into modern preventive medicine and wellness strategies. Both systems emphasize the importance of lifestyle factors, including diet, exercise, and stress management, in maintaining health and preventing disease. The Ayurvedic concept of “dinacharya” (daily routine) and the TCM focus on balance and harmony have influenced contemporary approaches to wellness, encouraging individuals to adopt healthier lifestyles to enhance their overall well-being. Yoga, tai chi, and qigong originated from these ancient systems and are now widely practiced worldwide for their physical, mental, and emotional benefits.<sup>[4]</sup> Diagnostic techniques from ancient healing practices have also made their way into contemporary healthcare, offering valuable insights and complementary methods to modern diagnostic tools. For example, pulse diagnosis in TCM, which assesses the quality and rhythm of the pulse to determine health status, has been explored in contemporary research for its potential to provide additional diagnostic information.<sup>[5]</sup> Similarly, the Ayurvedic practice of examining the tongue and other physical signs to assess dosha imbalances has been incorporated into some holistic health assessments, providing a broader perspective on a patient’s health.<sup>[6]</sup> Moreover, the ethical principles and professional conduct outlined in ancient medical traditions continue to resonate in contemporary medical practice. The Hippocratic Oath, attributed to the ancient Greek physician Hippocrates, remains a foundational ethical guide for modern physicians, emphasizing non-maleficence, beneficence, and confidentiality.<sup>[7]</sup> These ethical standards underscore the timeless values of compassion, integrity, and respect for patients, which are central to medicine today. Integrating traditional healing practices into contemporary healthcare systems also presents challenges and opportunities. One challenge is the need for rigorous scientific validation of traditional remedies and practices to ensure their safety, efficacy, and quality. While many traditional therapies have been used for centuries with anecdotal success, their integration into modern healthcare requires evidence-based research to meet the standards of contemporary medical practice. This necessitates collaboration between traditional healers, biomedical researchers, and healthcare providers to conduct



high-quality studies and clinical trials.<sup>[8]</sup> Another challenge is the potential for cultural misappropriation and commercialization of traditional knowledge. As traditional healing practices gain popularity, there is a risk of exploiting indigenous knowledge without proper Acknowledgments, respect, and benefit-sharing with the communities that have preserved these traditions for generations. Ethical considerations and policies must be in place to protect the intellectual property rights of indigenous peoples and ensure that the benefits of integrating traditional knowledge into contemporary healthcare are shared equitably.<sup>[9]</sup> Despite these challenges, integrating ancient healing practices into contemporary healthcare systems offers significant opportunities for improving health outcomes and patient satisfaction. By embracing a more holistic and patient-centered approach, healthcare providers can address patients' diverse needs and preferences, fostering a more inclusive and culturally sensitive healthcare environment. This approach can also enhance the therapeutic relationship between patients and healthcare providers, promoting trust, communication, and collaboration in healing.<sup>[4]</sup>

## 6. Aboriginal mental health

Aboriginal mental health represents a critical aspect of understanding the holistic well-being practices of indigenous communities. Traditional Aboriginal approaches to health and wellness fundamentally differ from Western medical practices, emphasizing a holistic view that integrates health's physical, emotional, spiritual, and social dimensions.<sup>[1]</sup> One notable model that exemplifies this approach is the Dance of Life, which underscores the interconnectedness of these various health aspects. The Dance of Life model, rooted in Aboriginal spirituality and cultural practices, highlights the importance of rituals, storytelling, and community support in maintaining mental health. Rituals and storytelling serve as therapeutic practices and as means of preserving cultural identity and continuity, which are essential for mental well-being.<sup>[2]</sup> Another significant framework is Te Whare Tapa Wha, developed by Maori health expert Mason Durie. This model likens health to the 4 walls of a house, with each wall representing a different dimension of health: taha tinana (physical health), taha wairua (spiritual health), taha hinengaro (mental health), and taha whānau (family health).<sup>[3]</sup> Te Whare Tapa Wha provides a comprehensive understanding of health that aligns closely with the lived experiences of many Aboriginal people. It emphasizes that imbalance in these areas can affect overall well-being, thus promoting a holistic approach to health care that incorporates physical, spiritual, mental, and social elements.<sup>[4]</sup> In Aboriginal communities, mental health is deeply intertwined with cultural identity and community connections. The loss of cultural practices, language, and land due to colonization has had profound impacts on the mental health of Aboriginal peoples. Reconnecting with cultural practices and traditional knowledge leads to healing and improving mental health outcomes.<sup>[5]</sup> Programs incorporating traditional healing practices, such as bush medicine, traditional diets, and spiritual ceremonies, have positively affected mental health by reinforcing cultural identity and community ties.<sup>[6]</sup> Furthermore, the role of Elders in Aboriginal communities cannot be overstated. Elders are the custodians of knowledge, traditions, and practices, and their involvement in mental health programs bridges traditional and contemporary healing practices. They offer guidance, mentorship, and support, which are crucial for the mental well-being of individuals within the community.<sup>[7]</sup> This intergenerational transmission of knowledge and practices is fundamental to maintaining the cultural continuity and mental health of Aboriginal peoples.<sup>[8]</sup> Research has shown that Aboriginal mental health outcomes are significantly improved when health services are culturally appropriate and community-controlled. Aboriginal Community Controlled

Health Services (ACCHSs) are designed to provide culturally safe and relevant health care that addresses the specific needs of Aboriginal communities. These services incorporate traditional healing practices and cultural elements into their mental health programs, recognizing the importance of a holistic approach to health.<sup>[9]</sup> The integration of traditional and Western medical practices in ACCHSs exemplifies the potential for culturally responsive healthcare models to improve mental health outcomes for Aboriginal people.<sup>[10]</sup> In addition to these culturally specific models and practices, it is essential to consider the broader social determinants of health that impact Aboriginal mental health. Factors such as poverty, unemployment, housing instability, and education disparities play significant roles in shaping the mental health of Aboriginal individuals and communities. Addressing these social determinants through policies and programs that promote equity and social justice is critical for improving mental health outcomes.<sup>[11]</sup> The intersection of these social determinants with cultural practices highlights the need for a comprehensive mental health care approach that addresses individual and structural factors.<sup>[12]</sup> The impact of historical and ongoing trauma on Aboriginal mental health cannot be overlooked. The legacy of colonization, including forced removals, residential schools, and systemic discrimination, has resulted in intergenerational trauma that continues to affect the mental health of Aboriginal peoples today. Understanding and addressing this trauma through trauma-informed care and culturally appropriate healing practices is essential for promoting mental well-being.<sup>[13]</sup> Programs incorporating traditional healing practices, such as healing circles, sweat lodges, and storytelling, offer pathways for addressing trauma and fostering resilience within Aboriginal communities.<sup>[14]</sup> Recently, there has been a growing recognition of the importance of land and connection to the country in Aboriginal mental health. The concept of "country" extends beyond physical land to encompass the spiritual, cultural, and social connections that Aboriginal people have with their ancestral lands. Connection to the country is a source of strength, identity, and well-being.<sup>[15]</sup> Programs that facilitate reconnection with land, such as cultural camps and land management projects, have been shown to improve mental health outcomes by fostering a sense of belonging and cultural continuity.<sup>[16]</sup> These programs highlight the importance of integrating environmental and cultural dimensions into mental health care for Aboriginal peoples. The relationship between climate and health is another critical aspect that intersects with Aboriginal mental health. Many Aboriginal communities are particularly vulnerable to the impacts of climate change, which can exacerbate existing health disparities. Environmental changes, such as shifts in weather patterns, loss of biodiversity, and degradation of natural resources, can directly and indirectly affect mental health.<sup>[17]</sup> For instance, losing traditional food sources and medicinal plants due to climate change can impact physical and mental well-being. Additionally, the displacement caused by environmental changes can disrupt community cohesion and cultural practices, further affecting mental health.<sup>[18]</sup> Traditional ecological knowledge (TEK) held by Aboriginal communities offers valuable insights into sustainable land management and climate adaptation practices. Integrating TEK into environmental and health policies can enhance resilience and improve mental health outcomes by promoting sustainable practices that align with cultural values.<sup>[19]</sup> Collaborative efforts that involve Aboriginal communities in climate adaptation planning and environmental stewardship can foster a sense of agency and empowerment, which are important for mental health.<sup>[20]</sup>

## 7. Relationship between climate and health

The relationship between climate and health is a critical aspect of ancient and modern healing practices; many ancient cultures recognized the impact of environmental factors on



health. For instance, the Greeks and Romans noted the influence of seasonal changes on diseases and human well-being. They observed that certain illnesses were more prevalent during specific times of the year, and this awareness guided their medical practices and public health policies.<sup>[21]</sup> Similarly, ancient Chinese medicine incorporated the understanding of environmental factors, such as wind, cold, heat, and dampness, into their diagnostic and treatment frameworks.<sup>[22]</sup> In ancient India, the Ayurvedic system of medicine also emphasized the relationship between the environment and health. Ayurveda identifies 3 fundamental bodily humors, or doshas—Vata, Pitta, and Kapha—which are believed to be influenced by climatic conditions. Seasonal routines and dietary adjustments are recommended to maintain the balance of these doshas and promote health.<sup>[23]</sup> This holistic approach underscores the importance of aligning one's lifestyle with environmental changes to prevent disease and enhance well-being. The relationship between climate and health continues to be a critical area of study in contemporary times, particularly climate change. Climate change refers to significant and lasting changes in weather patterns over extended periods. This phenomenon has far-reaching implications for human health, affecting various physical and mental health outcomes.<sup>[24]</sup> One of the most direct impacts of climate change on health is the increase in extreme weather events, such as heatwaves, floods, and hurricanes. These events can lead to immediate physical injuries, deaths, and long-term health problems.<sup>[25]</sup> Heatwaves, for instance, have been associated with increased mortality and morbidity, particularly among vulnerable populations such as the elderly, children, and those with preexisting health conditions. Prolonged exposure to extreme heat can cause heat exhaustion and heatstroke and exacerbate cardiovascular and respiratory diseases.<sup>[26]</sup> Studies have shown a significant rise in hospital admissions and emergency room visits during heatwaves, indicating the severe impact of extreme temperatures on public health.<sup>[27]</sup> Additionally, urban areas, known as heat islands, experience higher temperatures than rural areas due to human activities and infrastructure, further exacerbating health risks in densely populated regions.<sup>[28]</sup> Flooding, another consequence of climate change, poses multiple health risks, including injuries, drowning, and waterborne diseases. Contaminated floodwaters can spread pathogens, leading to outbreaks of diseases such as cholera, typhoid fever, and leptospirosis. The aftermath of flooding can also result in long-term mental health issues, such as anxiety, depression, and post-traumatic stress disorder, as individuals cope with the loss of homes, livelihoods, and loved ones.<sup>[29]</sup> The displacement caused by floods often leads to overcrowded living conditions, exacerbating the spread of infectious diseases and creating additional public health challenges.<sup>[10]</sup> Climate change also influences the distribution and transmission of vector-borne diseases and illnesses transmitted by mosquitoes, ticks, and fleas. Changes in temperature, humidity, and precipitation patterns can expand the geographical range of these vectors, leading to the spread of diseases like malaria, dengue fever, and Lyme disease into new regions.<sup>[11]</sup> For example, the increased prevalence of warmer temperatures has been linked to the expansion of the mosquito species *Aedes aegypti* and *Aedes albopictus*, which are primary vectors for dengue fever and Zika virus. This expansion poses significant public health challenges as previously unaffected populations are now at risk.<sup>[12]</sup> Moreover, climate change impacts agricultural productivity and food security, affecting nutritional health. Changes in temperature and precipitation patterns can disrupt crop yields, reduce food availability, and increase food prices. This can lead to malnutrition, particularly in low-income populations relying heavily on local agriculture for sustenance.<sup>[13]</sup> Malnutrition can weaken the immune system, making individuals more susceptible to

infectious diseases and other health problems.<sup>[14]</sup> Additionally, climate change can affect the nutritional quality of food, as elevated carbon dioxide levels can reduce the concentration of essential nutrients in crops such as protein, zinc, and iron.<sup>[15]</sup> Air quality is another critical aspect of the relationship between climate and health. Climate change can exacerbate air pollution, which harms respiratory and cardiovascular health. For instance, higher temperatures can increase the formation of ground-level ozone. This harmful air pollutant can cause respiratory problems and exacerbate asthma and chronic obstructive pulmonary disease.<sup>[16]</sup> Wildfires, becoming more frequent and severe due to climate change, release large quantities of particulate matter and toxic gases into the air, further degrading air quality and posing significant health risks.<sup>[17]</sup> Mental health is also affected by climate change. The psychological impacts of climate change, including stress, anxiety, and depression, are increasingly recognized as important public health issues. The uncertainty and fear associated with the long-term effects of climate change can lead to eco-anxiety, a chronic fear of environmental doom. Additionally, communities that experience the direct impacts of climate change, such as natural disasters, often face long-term mental health challenges as they deal with the trauma and loss associated with these events.<sup>[18]</sup> The mental health impacts of climate change highlight the need for comprehensive public health strategies that address physical and psychological well-being.<sup>[19]</sup> Indigenous communities are particularly vulnerable to the health impacts of climate change due to their close relationship with the environment and reliance on natural resources for their livelihoods and cultural practices. Climate change threatens traditional ways of life, including hunting, fishing, and agriculture, which can lead to food insecurity and loss of cultural heritage. Additionally, many Indigenous communities are located in areas highly susceptible to climate change impacts, such as coastal regions and arctic zones. The displacement and environmental degradation caused by climate change can have profound effects on the physical, mental, and cultural health of Indigenous peoples.<sup>[20]</sup> TEK held by Indigenous communities offers valuable insights into sustainable land management and climate adaptation practices. TEK encompasses the knowledge, practices, and beliefs that Indigenous peoples have developed over generations through their close interaction with the environment. This knowledge includes understanding local ecosystems, seasonal patterns, and sustainable resource management techniques. Integrating TEK into climate adaptation and mitigation strategies can enhance resilience and improve health outcomes by promoting sustainable practices that align with cultural values and local environmental conditions.<sup>[21]</sup> For example, Indigenous fire management practices, such as controlled burning, have been used for thousands of years to manage landscapes and reduce the risk of large, uncontrolled wildfires. These practices involve setting small, controlled fires to clear underbrush and promote the growth of fire-resistant plant species. By reducing the buildup of flammable materials, controlled burning can help prevent catastrophic wildfires and protect ecosystems and communities.<sup>[22]</sup> Incorporating Indigenous fire management practices into modern land management strategies can mitigate the health risks associated with wildfires and promote healthier ecosystems. Water management is another area where TEK can contribute to climate adaptation. Indigenous communities have developed sophisticated water management systems that ensure the sustainable use and conservation of water resources. These systems include techniques for capturing and storing rainwater, managing irrigation, and protecting water sources from contamination. Integrating these traditional practices with modern water management approaches can enhance water security and improve health outcomes by ensuring access to clean and reliable water sources.<sup>[23]</sup>

## 8. Legacy and modern interpretations

The evolution of ancient healing practices from shamanism to Hippocratic medicine has left a profound legacy that continues to influence modern interpretations of health and wellness. Throughout history, various cultures have developed intricate systems of healing that blend empirical observations with spiritual beliefs, resulting in holistic approaches to well-being. These ancient practices are being rediscovered, reinterpreted, and integrated into contemporary healthcare, offering new insights into the nature of healing. Shamanism, one of the oldest known healing traditions, dates back thousands of years and is still practiced in many indigenous cultures worldwide. Shamans serve as intermediaries between the spiritual and physical realms, using rituals, ceremonies, and plant medicines to treat illness and restore balance to the individual and the community.<sup>[30]</sup> While shamanic practices vary widely across cultures, they share common themes of interconnectedness, reverence for nature, and the belief in the healing power of the spirit. The legacy of shamanism can be seen in modern interpretations of healing, such as energy medicine, holistic therapies, and mind-body practices. These approaches recognize the interconnectedness of mind, body, and spirit and seek to address the root causes of illness rather than just the symptoms. Techniques like acupuncture, reiki, and meditation draw inspiration from shamanic principles, tapping into the body's innate ability to heal itself and promoting overall well-being.<sup>[2]</sup> Ancient Egyptian medicine, focusing on practical treatments and spiritual rituals, continues to influence modern interpretations of health and healing. The Egyptians believed in *ma'at*, or cosmic order, and viewed illness as disrupting this balance. Healing practices included surgical procedures, herbal remedies, and incantations to restore bodily harmony with the divine.<sup>[3]</sup> Today, these principles are echoed in holistic approaches to health that emphasize the importance of alignment with nature and the cosmos. The legacy of ancient Egyptian medicine can be seen in the growing interest in natural remedies, herbal medicine, and alternative therapies. People seek alternatives to conventional pharmaceuticals and invasive procedures and turn to ancient healing traditions for inspiration and guidance. Herbs like echinacea, ginseng, and chamomile, once used by ancient Egyptian healers, are now widely recognized for their medicinal properties and incorporated into modern healthcare practices.<sup>[4]</sup> Greek medicine, particularly the teachings of Hippocrates, laid the foundation for modern Western medicine and continues to shape our understanding of health and disease. Hippocratic medicine emphasizes the importance of observation, diagnosis, and treatment based on natural principles rather than supernatural beliefs. The Hippocratic Oath, which outlines ethical guidelines for medical practice, remains a cornerstone of medical ethics today.<sup>[5]</sup> The legacy of Hippocratic medicine can be seen in the scientific approach to healthcare and the emphasis on evidence-based medicine. While modern medicine has made significant advancements in diagnosis and treatment, it has also led to a reductionist view of health, focusing primarily on the physical aspects of illness and neglecting the interconnectedness of mind, body, and spirit. However, there is a growing recognition of the limitations of this approach and a renewed interest in holistic and integrative approaches to healthcare.<sup>[6]</sup>

## 9. Cultural contexts and belief systems

Cultural contexts and belief systems significantly shape the understanding and practice of healing traditions across different societies. Throughout history, diverse cultures have developed unique approaches to health and wellness that reflect their beliefs, values, and social structures. These cultural contexts influence the types of treatments and remedies used and the underlying philosophies and perceptions of health and illness. In many indigenous cultures, healing is deeply intertwined with spirituality and communal practices. Shamans, or traditional

healers, mediate between the physical and spiritual worlds, using rituals, ceremonies, and plant medicines to address illness and restore balance to the individual and the community.<sup>[31]</sup> For example, among the Indigenous peoples of North America, healing rituals often involve drumming, chanting, and purification ceremonies aimed at harmonizing the mind, body, and spirit.<sup>[2]</sup> These practices are rooted in a worldview that emphasizes the interconnectedness of all living beings and the importance of maintaining harmony with the natural world. In TCM, health is viewed as a balance between yin and yang, 2 opposing forces representing different aspects of the natural world. Illness is seen as a disruption of this balance, and treatments aim to restore harmony within the body and with the external environment.<sup>[3]</sup> Acupuncture, herbal medicine, and qigong are commonly used therapies in TCM, each based on energy flow (*qi*) principles and the interconnectedness of the body's systems. Taoist philosophy profoundly influences these practices, emphasizing the cyclical nature of existence and the importance of living according to the natural order. In Ayurveda, the traditional medicine of India, health is viewed as a dynamic equilibrium between the 3 doshas, or bodily energies: *vata*, *pitta*, and *kapha*. Each person has a unique constitution, or *Prakriti*, determining their susceptibility to illness and optimal healing path.<sup>[4]</sup> Ayurvedic treatments include dietary recommendations, herbal remedies, massage, and meditation, all aimed at restoring balance within the body and promoting overall well-being. Ayurveda is deeply rooted in Hinduism and the concept of *dharma*, or righteous living, which emphasizes the interconnectedness of the individual, society, and the cosmos.

In contrast, modern Western medicine is primarily based on a biomedical model that focuses on the physical aspects of illness and relies on empirical evidence and scientific research to guide diagnosis and treatment. While this approach has led to significant advancements in medical technology and treatment modalities, it has also been criticized for its reductionist view of health and its neglect of the psychosocial and spiritual dimensions of illness.<sup>[5]</sup> However, there is a growing recognition within the medical community of the importance of cultural competency and the need to consider patients' cultural beliefs and practices when providing care.<sup>[6]</sup> Cultural contexts and belief systems influence how illness and healing are understood and experienced within communities. In many non-Western cultures, illness is seen as a social or spiritual imbalance rather than a physiological malfunction. Healing is often a communal affair involving family members, community leaders, and traditional healers who come together to support the individual in their journey toward wellness.<sup>[7]</sup> Traditional healing ceremonies and rituals serve not only to treat physical symptoms but also to address underlying social, emotional, and spiritual issues that may be contributing to the illness.

## 10. Medical techniques and therapies

Medical techniques and therapies encompass various practices in diagnosing, treating, and preventing illness and disease. Throughout history, diverse cultures have developed unique approaches to healthcare, drawing on a combination of empirical observations, cultural traditions, and philosophical beliefs. From ancient healing rituals to modern medical innovations, these techniques and therapies reflect the evolution of human understanding and the ongoing quest for improved health and well-being. In ancient times, healing practices were often intertwined with spiritual beliefs and rituals. Shamans, or traditional healers, served as intermediaries between the physical and spiritual worlds, using ceremonies, herbs, and incantations to treat illness and restore balance to the individual and the community.<sup>[1]</sup>

Similarly, ancient Egyptian medicine incorporated spiritual rituals alongside practical treatments such as herbal remedies

and surgical procedures, reflecting a holistic approach to health that emphasized the interconnectedness of mind, body, and spirit.<sup>[2]</sup> The ancient Greeks made significant contributions to the development of Western medicine, laying the foundation for modern medical practices. Hippocratic medicine, named after the Greek physician Hippocrates, emphasized the importance of observation, diagnosis, and treatment based on natural principles rather than supernatural beliefs.<sup>[3]</sup> The Hippocratic Oath, which outlines ethical guidelines for medical practice, remains a cornerstone of medical ethics. Greek physicians also made advancements in anatomy, physiology, and pharmacology, paving the way for evidence-based medicine and clinical research.<sup>[4]</sup> TCM is another ancient healing tradition that has stood the test of time. In Taoist philosophy, TCM views health as a balance between yin and yang, 2 opposing forces representing different aspects of the natural world. Illness is seen as a disruption of this balance, and treatments aim to restore harmony within the body and with the external environment.<sup>[5]</sup> Acupuncture, herbal medicine, and qigong are commonly used therapies in TCM, each based on energy flow (qi) principles and the interconnectedness of the body's systems. Ayurveda, the traditional medicine of India, is similarly based on a holistic understanding of health and wellness. In Ayurveda, health is viewed as a dynamic equilibrium between the 3 doshas, or bodily energies: vata, pitta, and kapha. Each person has a unique constitution, or Prakriti, determining their susceptibility to illness and optimal healing path.<sup>[6]</sup> Ayurvedic treatments include dietary recommendations, herbal remedies, massage, and meditation, all aimed at restoring balance within the body and promoting overall well-being. Modern medical techniques and therapies have become increasingly sophisticated thanks to technological advancements, pharmacology, and biomedical research. Diagnostic tools such as X-rays, magnetic resonance imaging (MRI) scans, and blood tests allow physicians to identify and monitor disease<sup>[7]</sup> accurately. Surgical techniques have also evolved, with minimally invasive procedures becoming increasingly common, leading to shorter recovery times and fewer patient complications.<sup>[8]</sup> Pharmaceuticals have revolutionized the treatment of many diseases, offering targeted therapies that can effectively manage chronic conditions and improve quality of life. From antibiotics to chemotherapy drugs to biologics, pharmaceuticals are crucial in modern healthcare, offering hope and relief to millions worldwide.<sup>[9]</sup> In recent years, there has been a growing interest in complementary and alternative therapies as people seek alternatives to conventional medical treatments. Practices such as acupuncture, chiropractic care, and naturopathy are gaining popularity as patients look for holistic approaches to health that address the root causes of illness rather than just the symptoms.<sup>[10]</sup> Integrative medicine, combining conventional biomedical treatments with complementary therapies, is increasingly embraced by healthcare providers and patients, offering a more comprehensive and personalized approach to healthcare.<sup>[11]</sup>

## 11. Transmission of knowledge and exchange of ideas

The transmission of knowledge and exchanging ideas have been crucial in developing and disseminating medical practices throughout history. From ancient to modern times, societies have shared and adapted healing techniques, theories, and technologies, leading to a rich tapestry of medical traditions that continue to influence healthcare today. This knowledge exchange process has been facilitated by trade, migration, conquest, and the spread of religious and philosophical beliefs, each contributing to the cross-cultural fertilization of medical knowledge and practices. One of the earliest examples of knowledge transmission occurred during the ancient Silk Road trade routes, which connected East and West and facilitated the exchange of goods, ideas, and technologies between civilizations. Along these trade

routes, merchants, travelers, and scholars exchanged silk, spices, precious metals, medical knowledge, herbal remedies, and healing practices. Chinese medicine, emphasizing acupuncture, herbal medicine, and qigong, spread westward along the Silk Road, influencing medical practices in Central Asia, the Middle East, and Europe.<sup>[1]</sup>

Similarly, Indian Ayurvedic medicine found its way to neighboring regions through trade and cultural exchange, leaving a lasting imprint on the medical traditions of Southeast Asia and beyond.<sup>[2]</sup> The transmission of medical knowledge was not limited to trade routes but also occurred through the movement of people and the spread of religious and philosophical ideas. For example, the spread of Buddhism from India to East Asia facilitated the exchange of medical knowledge between Indian and Chinese cultures, leading to the integration of Ayurvedic principles into TCM.<sup>[3]</sup> Buddhist monks, who traveled along trade routes and established monasteries and temples in distant lands, served as conduits for transmitting medical texts, herbal remedies, and healing practices, fostering a cross-cultural exchange of ideas that enriched Indian and Chinese medical traditions. Similarly, the Islamic Golden Age flourished from the 8th to the 14th centuries and saw the translation of ancient Greek, Roman, Indian, and Persian medical texts into Arabic, preserving and disseminating medical knowledge across the Islamic world.<sup>[4]</sup> Muslim scholars, known as the "Golden Chain of Science," translated works by Hippocrates, Galen, Aristotle, and other ancient thinkers into Arabic, preserving and expanding upon their ideas and discoveries. These translated texts and original contributions by Islamic scholars formed the foundation of medical education and practice in the Islamic world and later influenced European medicine during the Renaissance. During the Renaissance, Europe experienced a revival of interest in classical learning and a resurgence of scientific inquiry. This led to rediscovering and translating ancient medical texts from Greek, Latin, and Arabic sources. This rediscovery of ancient wisdom and discoveries in anatomy, physiology, and pharmacology laid the groundwork for modern Western medicine.<sup>[5]</sup> The printing press, invented by Johannes Gutenberg in the 15th century, further facilitated the dissemination of medical knowledge by making books and journals more widely available, enabling physicians and scholars to share ideas and discoveries across geographic boundaries. In the modern era, the exchange of medical knowledge has been accelerated by advances in communication and transportation, as well as by international collaborations and scientific networks. Medical journals, conferences, and online platforms allow researchers and clinicians worldwide to share their findings, discuss best practices, and collaborate on research projects. International organizations such as the World Health Organization and the United Nations Educational, Scientific and Cultural Organization promote global cooperation in health research, education, and policy, facilitating the exchange of medical knowledge and expertise among countries.<sup>[6]</sup>

## 12. Archaeological and anthropological evidence

Archaeological and anthropological evidence provides valuable insights into the history of medical practices and the evolution of healthcare systems throughout human history. Researchers can uncover clues about past societies' health, healing techniques, and cultural beliefs by studying ancient artifacts, human remains, and written records. This interdisciplinary approach helps us understand how medical knowledge was acquired, transmitted, and applied in different cultural contexts, shedding light on how humans have sought to understand and manage illness and disease. One of the primary sources of archaeological evidence for ancient medical practices is human skeletal remains. Analysis of skeletal remains can reveal information about the prevalence of disease, patterns of injury, and surgical



techniques used by ancient peoples. For example, evidence of trepanation, the surgical procedure of drilling holes in the skull, has been found in archaeological sites dating back thousands of years, suggesting that ancient cultures practiced this technique for therapeutic purposes, such as relieving headaches or treating head injuries.<sup>[1]</sup>

Similarly, evidence of fractures, infections, and other skeletal abnormalities can provide insights into the types of injuries and illnesses that affected ancient populations and the methods used to treat them. Ancient medical artifacts, such as surgical instruments, pharmaceutical containers, and medical texts, also offer valuable clues about the practice of medicine in antiquity. For example, the discovery of the Edwin Smith Surgical Papyrus, an ancient Egyptian medical text dating back to around 1600 BCE, provides detailed instructions for diagnosing and treating various injuries and illnesses, including fractures, wounds, and infections.<sup>[2]</sup>

Similarly, archaeological excavations of ancient Roman sites have uncovered surgical instruments, such as scalpels, forceps, and probes, as well as evidence of medical facilities, such as hospitals and healing temples, indicating a sophisticated understanding of surgical techniques and healthcare delivery in the ancient world.<sup>[3]</sup> In addition to physical artifacts, written records and inscriptions offer valuable insights into ancient healers' and physicians' beliefs and practices. For example, the writings of Hippocrates, often called the "Father of Western Medicine," provide detailed descriptions of medical conditions, diagnostic methods, and treatment options used by ancient Greek physicians.<sup>[4]</sup> Similarly, ancient Indian texts, such as the Charaka Samhita and the Sushruta Samhita, contain detailed descriptions of Ayurvedic medical practices, including herbal remedies, surgical techniques, and dietary recommendations.<sup>[5]</sup> These texts provide valuable information about ancient medical practices and offer insights into the cultural and philosophical beliefs that shaped them. Anthropological studies of contemporary indigenous cultures also offer useful insights into traditional healing practices and the cultural beliefs that underpin them. For example, studies of traditional healing practices among indigenous peoples in the Americas have revealed that they use herbal medicines, spiritual rituals, and ceremonies to treat illness and promote well-being.<sup>[6]</sup> Similarly, studies of traditional healing practices in Africa, Asia, and Oceania have documented using plants, minerals, and animal products for medicinal purposes and the role of shamans, medicine men, and other healers in diagnosing and treating illness.<sup>[7]</sup> These studies highlight the importance of cultural context in shaping the practice of medicine and the role of traditional healers as custodians of indigenous knowledge and wisdom.

### 13. Influence of ancient healing practices on modern medicine

The influence of ancient healing practices on modern medicine is profound and far-reaching, shaping how we understand, diagnose, and treat illness and disease. Throughout history, cultures worldwide have developed sophisticated systems of healing based on empirical observations, cultural traditions, and spiritual beliefs. While modern medicine has made significant advancements in technology and treatment modalities, it continues to draw inspiration from ancient healing traditions, integrating their wisdom and practices into contemporary healthcare. One of the key ways ancient healing practices have influenced modern medicine is through their emphasis on holistic approaches to health and wellness. Ancient healing traditions such as Ayurveda, TCM, and indigenous healing practices recognize the interconnectedness of mind, body, and spirit and seek to address the root causes of illness rather than just the symptoms.<sup>[1]</sup> Modern healthcare providers increasingly embrace this holistic perspective and recognize the importance

of treating the whole person rather than just the disease. For example, Ayurveda, the traditional medicine of India, emphasizes the importance of balance and harmony within the body and with the natural environment. Ayurvedic treatments, which include dietary recommendations, herbal remedies, massage, and meditation, aim to restore balance within the body and promote overall well-being.<sup>[2]</sup> In recent years, there has been growing interest in Ayurvedic principles among Western healthcare providers, who recognize the value of personalized, holistic approaches to health and wellness.

Similarly, TCM views health as a balance between yin and yang, 2 opposing forces representing different aspects of the natural world. TCM treatments, such as acupuncture, herbal medicine, and qigong, aim to restore harmony within the body and with the external environment.<sup>[3]</sup> Acupuncture, in particular, has gained widespread acceptance in Western medicine as an effective treatment for a variety of conditions, including chronic pain, anxiety, and nausea.<sup>[4]</sup> Another way in which ancient healing practices have influenced modern medicine is through their emphasis on preventive healthcare and lifestyle interventions. Many ancient healing traditions advocate for healthy living practices, such as proper nutrition, regular exercise, stress management, and mind-body techniques, to maintain health and prevent illness.<sup>[5]</sup> These principles are increasingly being incorporated into modern healthcare practices as healthcare providers recognize the importance of addressing underlying lifestyle factors in preventing and managing chronic diseases. For example, mindfulness-based stress reduction, a program developed by Jon Kabat-Zinn based on Buddhist mindfulness practices, has been shown to reduce stress, anxiety, and depression and improve overall well-being.<sup>[6]</sup> Mindfulness-based stress reduction is now being used in healthcare settings around the world as an adjunctive therapy for various medical conditions, including chronic pain, cardiovascular disease, and cancer. In addition to holistic approaches and preventive healthcare, ancient healing practices have influenced modern medicine by discovering and developing pharmacological agents derived from natural sources. Many of the drugs used in modern medicine originate from plants, minerals, and other natural substances used by ancient healers for medicinal purposes.<sup>[7]</sup> For example, aspirin, one of the most widely used drugs in the world, is derived from the bark of the willow tree, which has been used for centuries as a remedy for pain and fever.<sup>[8]</sup>

Similarly, many chemotherapy drugs used to treat cancer are derived from plants and other natural sources. For example, the chemotherapy drug paclitaxel, used to treat breast, ovarian, and lung cancers, is derived from the Pacific yew tree.<sup>[9]</sup> By studying traditional healing practices and the medicinal properties of plants, scientists have been able to identify and develop new drugs with therapeutic potential, expanding the pharmacopeia of modern medicine.

### 14. Challenges and opportunities in revitalizing ancient healing traditions

Modern healthcare, as societies seek to integrate traditional wisdom with contemporary medical practices. While ancient healing traditions offer valuable insights into holistic approaches to health and wellness, they also face obstacles in adapting to the complexities of modern healthcare systems. By addressing these challenges and embracing the opportunities for collaboration and innovation, we can harness the potential of ancient healing traditions to improve health outcomes and promote well-being in diverse communities. One of the primary challenges in revitalizing ancient healing traditions is the need for more scientific evidence to support their efficacy and safety. Many traditional healing practices are based on empirical observations, cultural traditions, and spiritual beliefs rather than rigorous scientific research.<sup>[1]</sup> While some traditional therapies, such as

acupuncture and herbal medicine, have been studied extensively and shown to have therapeutic benefits, others lack empirical evidence and may carry risks of harm if misused.<sup>[2]</sup> To integrate ancient healing traditions into modern healthcare, it is essential to conduct rigorous research to evaluate their effectiveness, safety, and mechanisms of action. Another challenge is the cultural and linguistic barriers that may hinder the transmission and preservation of ancient healing knowledge. Many traditional healing practices are passed down orally from generation to generation within specific cultural and linguistic communities, making them vulnerable to loss and erosion over time.<sup>[3]</sup> As indigenous languages and cultural practices are threatened by globalization and urbanization, there is a risk that valuable healing knowledge may be lost or diluted. Efforts to document and preserve traditional healing practices, such as through oral history projects, ethnographic studies, and community-based initiatives, help safeguard this knowledge for future generations. In addition to cultural and linguistic barriers, legal and regulatory barriers may impede the integration of ancient healing traditions into modern healthcare systems. Many traditional healing practices, such as herbal medicine and TCM, are subject to different regulatory frameworks and standards of practice than conventional biomedicine.<sup>[4]</sup> This can create challenges for practitioners seeking to integrate traditional therapies into mainstream healthcare settings, as they may face obstacles such as licensure requirements, insurance coverage, and liability concerns. Streamlining regulations and fostering collaboration between traditional healers and biomedical practitioners can facilitate the integration of ancient healing traditions into modern healthcare. Despite these challenges, there are also significant opportunities for revitalizing ancient healing traditions and incorporating them into modern healthcare systems. One opportunity is the growing interest in complementary and alternative medicine among patients and healthcare providers.<sup>[5]</sup> Many people are seeking alternatives to conventional medical treatments. They are turning to ancient healing traditions such as acupuncture, herbal medicine, and mindfulness-based therapies for relief from chronic conditions and improved quality of life. By integrating complementary and alternative medicine therapies into mainstream healthcare settings, providers can offer patients a more comprehensive and holistic approach to health and wellness. Another opportunity is the recognition of the cultural relevance and diversity of healing practices within multicultural societies. As societies become increasingly diverse and multicultural, there is a growing recognition of the importance of culturally competent healthcare that respects and integrates diverse healing traditions.<sup>[6]</sup> By incorporating cultural competence training into medical education and practice, healthcare providers can better understand and address diverse communities' unique health beliefs and practices, leading to more effective patient-centered care. Furthermore, advances in technology and communication offer new opportunities for preserving, disseminating, and adapting ancient healing traditions for modern contexts. Digital platforms, such as online databases, mobile apps, and telehealth services, can access traditional healing knowledge and resources, regardless of geographic location.<sup>[7]</sup> Virtual platforms also enable traditional healers and biomedical practitioners to collaborate and share knowledge, fostering interdisciplinary approaches to health and wellness. By harnessing the power of technology, we can bridge the gap between ancient healing traditions and modern healthcare, ensuring that traditional wisdom continues to enrich and inform our understanding of health and healing.

## 15. Technological innovations and medical instruments

Technological innovations in medical instruments have revolutionized healthcare delivery, diagnosis, and treatment, leading to

improved patient outcomes and increased efficiency in healthcare systems. From the invention of the stethoscope in the early 19th century to the development of advanced imaging techniques and robotic surgical systems in the 21st century, technological advancements have transformed the practice of medicine and expanded the possibilities for diagnosis and treatment across a wide range of medical specialties. One of the most significant technological innovations in medical instruments is the development of diagnostic imaging techniques, such as X-rays, computed tomography scans, MRI, and ultrasound. These imaging modalities allow healthcare providers to visualize internal structures of the body, detect abnormalities, and guide surgical procedures with unprecedented precision.<sup>[1]</sup> For example, X-rays, discovered by Wilhelm Roentgen in 1895, revolutionized the diagnosis of bone fractures, lung diseases, and other conditions by allowing physicians to see inside the body without invasive procedures.<sup>[2]</sup>

Similarly, MRI and computed tomography scans provide detailed images of soft tissues, organs, and blood vessels, enabling early detection of tumors, strokes, and other life-threatening conditions.<sup>[3]</sup> In addition to diagnostic imaging, technological innovations have transformed surgical procedures and techniques, leading to safer, more precise, and less invasive surgeries. Minimally invasive surgical techniques, such as laparoscopy and robotic-assisted surgery, allow surgeons to perform complex procedures through small incisions, reducing patient pain, scarring, and recovery times.<sup>[4]</sup> Robotic surgical systems, such as the da Vinci Surgical System, use advanced robotic technology to enhance surgical precision, dexterity, and control, enabling surgeons to perform delicate procedures with greater accuracy and fewer complications.<sup>[5]</sup> These technological advancements have revolutionized the field of surgery, expanding the range of procedures that can be performed minimally invasively and improving patient outcomes. Another area of technological innovation in medical instruments is the development of wearable devices and remote monitoring technologies that allow for continuous monitoring of patient's vital signs and health parameters outside traditional healthcare settings. Wearable devices, such as fitness trackers, smartwatches, and medical-grade monitors, can track heart rate, blood pressure, blood glucose levels, and other metrics in real time, providing valuable data for disease management, preventive care, and remote patient monitoring.<sup>[6]</sup> Remote monitoring technologies, such as telemedicine platforms and mobile health apps, enable patients to consult with healthcare providers, receive medical advice, and manage chronic conditions from their homes, reducing the need for in-person visits and improving access to care.<sup>[7]</sup>

Furthermore, advances in nanotechnology and biotechnology have led to the development of novel medical devices and therapies with unprecedented precision and specificity. Nanomedicine, which uses nanoscale materials and devices for diagnosis, drug delivery, and tissue engineering, holds promise for revolutionizing cancer treatment, regenerative medicine, and personalized medicine.<sup>[8]</sup> For example, nanoparticle-based drug delivery systems can target cancer cells with high specificity, minimizing side effects and improving therapeutic outcomes.<sup>[9]</sup> Similarly, 3D printing technology allows the fabrication of custom-designed medical implants, prosthetics, and tissues, offering new possibilities for personalized medicine and regenerative therapies.<sup>[10]</sup>

## 16. Global perspectives on ancient healing traditions

Global perspectives on ancient healing traditions offer a rich tapestry of diverse cultural practices, beliefs, and therapeutic modalities that have evolved over millennia to address the health needs of different societies and communities. From TCM in East Asia to Ayurveda in South Asia, and from shamanic

healing practices in indigenous cultures to Hippocratic medicine in ancient Greece, each tradition reflects the unique cultural, environmental, and historical contexts in which it developed. Despite their differences, these ancient healing traditions share common holistic health, balance, and harmony themes, offering valuable insights into the interconnectedness of mind, body, and spirit. In East Asia, TCM has been practiced for over 2000 years and continues to play a prominent role in healthcare in China and other Asian countries.<sup>[1]</sup> TCM encompasses a range of therapeutic modalities, including acupuncture, herbal medicine, massage (tui na), dietary therapy, and qigong exercises, all aimed at restoring balance and harmony within the body.<sup>[2]</sup> TCM views health as a state of balance between yin and yang, 2 opposing forces representing different aspects of the natural world, and seeks to address the root causes of illness rather than just the symptoms. In South Asia, Ayurveda, the traditional medicine of India, has a similarly long history and remains an integral part of healthcare in India and neighboring countries.<sup>[3]</sup> Ayurveda emphasizes the importance of balance and harmony within the body and with the natural environment and offers a comprehensive system of diagnosis and treatment based on the individual constitution (dosha), lifestyle factors (diet, exercise, sleep), and herbal remedies.<sup>[4]</sup> Ayurvedic treatments aim to restore balance within the body and promote overall well-being through dietary changes, lifestyle modifications, herbal medicines, and detoxification therapies.

In indigenous cultures worldwide, shamanic healing practices have been practiced for millennia, drawing on spiritual beliefs, ritual ceremonies, and plant medicines to treat illness and promote healing.<sup>[5]</sup> Shamans, or spiritual healers, serve as intermediaries between the human and spirit worlds, using divination, trance states, and energy healing techniques to diagnose and treat illness. Shamanic healing traditions vary widely across different cultures and regions but share common themes of connection to nature, reverence for ancestral wisdom, and respect for the healing power of plants and spirits. In ancient Greece, the birthplace of Western medicine, Hippocratic physicians laid the foundation for modern medical ethics and practice.<sup>[6]</sup> The Hippocratic Corpus, a collection of medical texts attributed to the ancient Greek physician Hippocrates, emphasized the importance of observation, clinical reasoning, and ethical conduct in medicine. Hippocratic physicians viewed health as a balance of the 4 humors (blood, phlegm, yellow bile, and black bile). They sought to restore balance through dietary changes, physical therapies, and herbal remedies. Despite their historical and cultural differences, ancient healing traditions influence modern healthcare systems and practices worldwide. In recent years, there has been growing interest in integrating traditional healing modalities into mainstream healthcare settings as policymakers, healthcare providers, and patients recognize the value of holistic approaches to health and wellness.<sup>[7]</sup> Integrative medicine, which combines conventional biomedicine with complementary and alternative therapies, seeks to provide patients with a more comprehensive and personalized approach to healthcare that honors the diversity of human healing traditions.

Furthermore, advances in scientific research and technology have provided new opportunities for studying and validating the efficacy of ancient healing practices, leading to a growing body of evidence supporting their use in modern healthcare.<sup>[8]</sup> Studies have shown that acupuncture is effective for treating chronic pain, herbal medicines have therapeutic benefits for various health conditions, and mindfulness-based interventions can reduce stress, anxiety, and depression. By integrating ancient healing traditions with modern medical science, we can create a more holistic, patient-centered approach to healthcare that addresses individuals' and communities' physical, emotional, and spiritual needs.

## 17. The future of healing: integrative and holistic approaches

The future of healing lies in integrative and holistic approaches that combine the best of modern medical science with ancient healing wisdom to address the complex needs of individuals and communities. As our understanding of health and wellness continues to evolve, there is a growing recognition of the interconnectedness of mind, body, and spirit and the importance of addressing the root causes of illness rather than just the symptoms.<sup>[31]</sup> Integrative and holistic approaches to healing offer a comprehensive and personalized approach to healthcare that honors the diversity and richness of human healing traditions while harnessing the power of modern medical technology and research. One of the key principles of integrative and holistic healing is the recognition of the interconnectedness of mind, body, and spirit and the importance of addressing the underlying causes of illness. Rather than solely treating symptoms, integrative and holistic practitioners seek to identify and address the root causes of illness, including physical, emotional, psychological, social, and spiritual factors.<sup>[1]</sup> By taking a whole-person approach to healing, practitioners can create personalized treatment plans that address each individual's unique needs and preferences, leading to better outcomes and improved quality of life. Another fundamental principle of integrative and holistic healing is the emphasis on preventive healthcare and lifestyle interventions. Rather than waiting until illness, integrative and holistic practitioners promote health and wellness through healthy living practices, such as proper nutrition, regular exercise, stress management, and mind-body techniques.<sup>[2]</sup> By empowering individuals to take an active role in their health and well-being, practitioners can help prevent chronic diseases, reduce healthcare costs, and improve overall quality of life. Integrative and holistic healing also recognizes the importance of cultural competence and diversity in healthcare. By honoring the diversity of human healing traditions and respecting the cultural beliefs and practices of individuals and communities, practitioners can create a more inclusive and welcoming healthcare environment that meets the needs of all patients.<sup>[3]</sup> Cultural competence training, diversity initiatives, and community partnerships can help healthcare providers better understand and address the unique health challenges and disparities different populations face, leading to more equitable and effective care.

Furthermore, integrative and holistic healing embraces complementary and alternative therapies in conjunction with conventional medical treatments to enhance healing and promote well-being. Modalities such as acupuncture, herbal medicine, massage therapy, chiropractic care, and mind-body therapies offer valuable tools for managing pain, reducing stress, improving sleep, and supporting overall health and wellness.<sup>[4]</sup> By integrating these therapies into mainstream healthcare settings, practitioners can offer patients a more comprehensive and personalized approach to healing that addresses health's physical, emotional, and spiritual dimensions. Medical technology and research advances also provide new integrative and holistic healing opportunities. From genomic medicine and personalized nutrition to biofeedback and telemedicine, technology is revolutionizing how we understand and approach health and wellness.<sup>[5]</sup> By harnessing the power of big data, artificial intelligence, and digital health tools, practitioners can personalize treatment plans, predict disease risk, and monitor patient outcomes in real-time, leading to more precise and effective interventions.

## 18. Religious and spiritual dimensions of healing

The religious and spiritual dimensions of healing encompass many beliefs, practices, and traditions that play a central role in how individuals and communities understand and experience health, illness, and well-being. Across cultures and religions, spiritual beliefs and practices have long been



intertwined with healing concepts, offering solace, hope, and meaning in times of illness and suffering. From prayer and meditation to rituals and sacred ceremonies, religious and spiritual traditions provide diverse pathways to healing that address the physical, emotional, and spiritual dimensions of human existence.<sup>[29]</sup> One of the central themes in religious and spiritual dimensions of healing is the belief in a higher power or divine force that guides and sustains life. In many religious traditions, such as Christianity, Islam, Judaism, Hinduism, Buddhism, and indigenous spiritualities, prayer is a central practice that connects individuals to the divine and invokes divine intervention for healing and protection.<sup>[1]</sup> Prayer can take many forms, including silent meditation, recitation of sacred texts, communal worship, and intercessory prayer, and is often accompanied by rituals, symbols, and ceremonies that invoke the presence and blessing of the divine. Another key theme in religious and spiritual dimensions of healing is the belief in the interconnectedness of mind, body, and spirit and the importance of addressing the spiritual dimensions of health and well-being. In many religious and spiritual traditions, illness is seen not only as a physical or psychological condition but also as a manifestation of spiritual imbalance or disconnection from the divine.<sup>[2]</sup> Healing, therefore, involves restoring harmony and alignment within the individual and with the cosmos through practices such as prayer, meditation, confession, forgiveness, and acts of compassion and service. Rituals and ceremonies are also central to religious and spiritual dimensions of healing, providing sacred spaces and moments for individuals and communities to express their faith, seek guidance, and receive blessings for healing and wholeness. Rituals may involve symbolic actions, gestures, objects, and words that evoke spiritual power and presence, such as lighting candles, burning incense, chanting prayers, and making offerings.<sup>[3]</sup> These rituals create a sense of sacredness and sanctity that transcends the ordinary and connects individuals to the divine and one another in a shared journey of healing and transformation. Sacred texts and teachings are another source of inspiration and guidance in the religious and spiritual dimensions of healing, offering wisdom, comfort, and guidance for navigating the challenges of illness and suffering. In traditions such as Christianity, Islam, Judaism, Hinduism, and Buddhism, sacred texts such as the Bible, the Quran, the Torah, the Vedas, and the Sutras contain stories, parables, and teachings that offer insights into the nature of suffering, the meaning of healing, and the role of faith and devotion in finding solace and strength in times of trial.<sup>[4]</sup> These texts inspire comfort and hope for individuals and communities facing illness and adversity. The role of religious and spiritual leaders and healers is also significant in religious and spiritual dimensions of healing, as they serve as intermediaries between the divine and the human realm, offering guidance, support, and blessings for healing and transformation. Religious leaders, such as priests, pastors, rabbis, imams, and shamans, often play a central role in providing pastoral care, counseling, and spiritual support to individuals and families facing illness and loss.<sup>[5]</sup> Spiritual healers, such as shamans, medicine men, and faith healers, may use rituals, prayers, herbs, and other sacred practices to invoke divine healing and protection for those in need. In recent years, there has been growing interest in integrating religious and spiritual dimensions of healing into mainstream healthcare settings, as healthcare providers recognize the importance of addressing the spiritual dimensions of health and well-being for holistic care.<sup>[6]</sup> Studies have shown that religious and spiritual beliefs and practices can significantly affect health outcomes, including reduced stress, anxiety, depression, and improved quality of life.<sup>[7]</sup> By integrating spiritual care into medical practice, healthcare providers can create more compassionate, patient-centered care environments that honor the diversity of human beliefs and experiences.

## 19. Ritual and symbolism in healing

Ritual and symbolism play profound roles in healing across cultures and traditions, offering powerful mechanisms for individuals and communities to navigate the complexities of illness, suffering, and transformation. Rooted in ancient practices and imbued with cultural significance, rituals, and symbols provide frameworks for meaning-making, connection, and healing that transcend the boundaries of language and rational understanding.<sup>[28]</sup> From ceremonies that mark significant life transitions to symbolic objects and gestures that invoke spiritual power, ritual and symbolism serve as potent tools for navigating the human experience of illness and suffering. At the heart of ritual and symbolism in healing lies the recognition of the interconnectedness of mind, body, and spirit and the importance of addressing the spiritual dimensions of health and well-being. Across cultures and traditions, rituals are often performed to create sacred spaces and moments that invite divine presence, offer protection, and facilitate healing.<sup>[1]</sup> These rituals may involve symbolic actions, gestures, objects, and words that evoke spiritual power and presence, such as lighting candles, burning incense, chanting prayers, and making offerings. By engaging the senses and the imagination, rituals create a sense of sacredness and sanctity that transcends the ordinary and connects individuals to the divine and one another in a shared journey of healing and transformation. One of the most common rituals in healing practices is the use of ceremony to mark significant life transitions, such as birth, puberty, marriage, and death. These ceremonies often involve symbolic actions and rituals that honor the transition and provide support and guidance for individuals and communities as they navigate new phases of life.<sup>[2]</sup> For example, traditional healing ceremonies in indigenous cultures may involve rites of passage that mark the transition from childhood to adulthood and prepare individuals for their roles and responsibilities within the community.

Similarly, rituals surrounding death and dying offer opportunities for individuals and families to grieve, remember, and honor the deceased while also providing comfort and support for the journey of the soul into the afterlife. Symbols are also central to the healing process, potent vehicles for meaning-making, transformation, and connection. Symbols are powerful tools for communication, conveying complex ideas and emotions concisely and evocatively.<sup>[3]</sup> In healing, symbols may take many forms, including objects, images, colors, sounds, and gestures, each imbued with cultural, religious, and personal significance. For example, the cross symbolizes sacrifice, redemption, and healing in Christianity, while the lotus flower represents purity, enlightenment, and spiritual rebirth in Buddhism.

By evoking these symbols, individuals can tap into their deeper meanings and associations, finding solace, strength, and inspiration in times of need. Rituals and symbolism also play essential roles in psychological healing and transformation, offering opportunities for individuals to make meaning of their experiences, integrate their emotions, and find closure and resolution.<sup>[4]</sup> In psychotherapy, rituals and symbols are often used to access and process unconscious material, facilitate emotional expression, and promote healing and growth. For example, guided imagery, dream work, and expressive arts therapy can help individuals explore their inner worlds, access their creativity, and work through unresolved issues and traumas. Symbols, such as archetypes, metaphors, and myths, provide rich material for exploring the deeper layers of the psyche and uncovering hidden patterns and meanings.

Moreover, rituals and symbols can create therapeutic environments that promote relaxation, stress reduction, and emotional well-being. In healthcare settings, rituals such as lighting candles, playing soothing music, and engaging in mindfulness practices can help create a sense of calm and comfort for patients and caregivers.<sup>[5]</sup> Similarly, symbols such as healing crystals, sacred images, and religious icons can serve as focal points for meditation, prayer, and reflection,

providing individuals with sources of strength and inspiration during illness and recovery. The use of ritual and symbolism in healing is not limited to traditional or religious contexts but extends to various secular and contemporary practices. For example, weddings, graduations, and funerals often incorporate symbolic actions and gestures that mark the occasion's significance and give participants closure and meaning. Similarly, symbols such as flags, logos, and monuments serve as powerful expressions of collective identity, memory, and values, uniting communities and inspiring shared visions of the future.<sup>[2, 30–35]</sup>

## 20. Conclusion and call to action

The journey through the evolution of ancient healing practices, from shamanism to Hippocratic medicine, reveals a rich tapestry of diverse traditions, beliefs, and techniques that have shaped the healthcare landscape throughout history. From the spiritual rituals of indigenous shamans to the rational principles of ancient Greek physicians, each tradition offers unique insights into the human experience of illness, suffering, and healing. Despite their differences, these ancient healing practices share common themes of holistic health, balance, and harmony, emphasizing the interconnectedness of mind, body, and spirit. As we reflect on the legacy of ancient healing practices, we are reminded of the enduring power of human resilience, ingenuity, and compassion in the face of adversity. The wisdom and knowledge passed down through generations continue to inspire and inform modern approaches to healthcare, offering valuable lessons for addressing the complex needs of individuals and communities in today's world. From integrative medicine that combines the best of ancient wisdom and modern science to culturally competent care that honors the diversity of human beliefs and experiences, there are many opportunities to revitalize ancient healing traditions and integrate them into contemporary healthcare systems. As we look to the future, we must recognize the importance of preserving and honoring the cultural heritage and wisdom of ancient healing practices while also embracing the possibilities for innovation, collaboration, and transformation in healthcare. By fostering interdisciplinary dialogue, supporting research and education, and promoting policies prioritizing holistic, patient-centered care, we can create a more inclusive, compassionate, and effective healthcare system that honors the diversity and richness of human healing traditions. In this spirit, let us continue to explore, learn, and grow together as we navigate the ever-evolving healthcare landscape, drawing inspiration from the past and embracing future opportunities. By bridging the gap between ancient wisdom and modern science, we can create a more holistic, equitable, and sustainable approach to healing that honors the interconnectedness of all beings and promotes health and well-being for generations to come.

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