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Beyond Borders: Mindol Qutuytu and His Early Approach to Combined Medical Practice

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Abstract

The spread of Tibetan Buddhism in Mongolia brought with it a wealth of Buddhist knowledge. Over time, Mongolian scholars and practitioners engaged with this knowledge and produced numerous works encompassing Buddhist learning, particularly in medicine. A prominent figure in this intellectual landscape is the Fourth Mindol Nomun Khan, Jambalchoijidanzanperenley (1789-1839), commonly known as Mindol Qutuytu (or Mindol Hutugtu). Despite being recognized for his remarkable contributions to the development of Mongolian medicine, considerable uncertainty has surrounded Mindol Qutuytu's ethnic identity. This article aims to clarify Mindol Qutuytu's ethnic origin and examine the broader medical context of his seminal work, The Treasury of All Precious Instructions (Man ngag rin chen 'byung gnas'), highlighting the visionary concepts he presented. While the basis of Mindol Qutuytu's work lies in Tibetan medicine, he boldly introduced treatment methodologies from other medical traditions, including Indian (Ayurvedic), Chinese, and European medicine, into the realm of Mongolian medicine. His insightful work reflects both intellectual ambition and practical occupation on increasing healing efficacy, as evidenced by his influential contributions to a combined and multicultural approach to medicine. Today, his innovative and inceptive contributions remain essential in understanding the historical development and current diverse character of Mongolian traditional medical practices.

Keywords: Mongolian traditional medicine; Tibetan medicine; combined medical practice; traditional healing; medical history; cultural exchange; medical knowledge transmission



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1. Introduction

The spread of Tibetan Buddhism in Mongolia in the 16th century brought with it a profound spiritual and intellectual transformation to a society long dominated by shamanic traditions. As Buddhism took root, Mongolian scholars actively contributed to its development, producing a wide range of works in doctrinal, philosophical, and medical fields. These contributions not only enriched Buddhist practices but also played a vital role in localizing and shaping its expression within Mongolian society. Among the many factors that facilitated this transformation, one of the most significant, yet often overlooked, was the role of Tibetan medicine.

As Batsaikhan (2021) emphasizes, Tibetan medicine was instrumental in the early acceptance and spread of Tibetan Buddhism in Mongolia, particularly by the ruling elites. During the height of the Mongol Empire, Tibet was one of the many regions that had

been subjugated. Godan Khan (1206–1251), who held power over Northern China, sought advice from Sakya Pandita (1182–1251), a Tibetan spiritual leader, regarding an illness that shamanic treatments were unable to cure. Godan Khan's recovery after using the treatment that Sakya Pandita suggested not only reinforced political ties between Mongolia and Tibet but also laid the foundation for Buddhism's broader acceptance among Mongol elites. Centuries later, a similar episode occurred with Altan Khan (1508–1582) of the Tümed. Suffering from gout, Altan Khan turned to Buddhist medicine which helped him recover. Recognizing the efficacy of Tibetan medicine, in 1577, Altan Khan titled Sonam Gyatso (1543–1588), head of the Gelug tradition, as the "Dalai Lama", formally recognizing Buddhism as the state religion of Mongolia.

These encounters illustrate that the success of Buddhism in Mongolia was not driven solely by spiritual appeal. Instead, it was motivated by a sense of medical pragmatism as the Mongols claimed to recognize the benefits of adopting Tibetan medical practices. Consequently, healing practices facilitated religious conversion, revealing the complex interconnections between religious and spiritual belief systems and medical care. Tibetan medicine functioned as a crucial mechanism through which Buddhism came to be trusted by the Mongols.

However, Mongol adoption of medical theories and practices from Tibet still involved the development of considerable changes to the original ideas. Over time, the Mongols expanded and refined these traditions, contributing original insights and cultivating a sophisticated body of medical knowledge. Batsaikhan (2021) identifies three major stages in the development of Buddhist medicine in Mongolia: the initial translation of Tibetan and Ayurvedic texts (14th–17th centuries), the production of commentaries for the texts by Mongolian scholars (17th–18th centuries), and the emergence of original written works and innovative practice in medicine (18th–beginning of the 20th centuries). This article will now build on this outline by drawing insight from the life and work of Mindol Qutuytu Jambalchoijidanzaperenley (1789–1839), a prominent Mongolian monk and medical scholar of the time.

Mindol Qutuytu's life and writings reflect the blending of diverse medical traditions into Mongolian medicine: Tibetan, Chinese, Indian, and European. Yet despite Mindol Qutuytu's significant contributions to the development of Mongolian medicine, there is some disagreement surrounding his identity. Historically, Mindol Qutuytu was assumed to have been Mongolian. However, Yongdan (2011, 2016) argues that Mindol Qutuytu was Tibetan, challenging this presumption. Beyond biographical interest, understanding Mindol Qutuytu's identity matters, as it shapes our understanding of his intellectual and cultural positioning. It challenges narratives that depict Mongolian medical knowledge as merely derivative of Tibetan traditions. Further, it highlights the original contributions of Mongolian scholars and their innovative synthesis of diverse medical systems. Establishing his identity reinforces the case for a distinct Mongolian medical tradition and affirms the country's cultural heritage, both historically and in contemporary practice.

Although detailed biographical information about Mindol Qutuytu (1789–1839) is limited, the studies of Uspensky (2009) and Yongdan (2016) offer important insights into his life, scholarly pursuits, and the influence of European medicine on his work. Further perspectives on his personality and his strong interest in European culture and global geography are found in the diary of O. M. Kovalevsky (1801–1878), a pioneering Russian scholar of Mongolian studies who visited Beijing in 1830 (Shamov 1983).

According to Uspensky (2009) and Yongdan (2016), Mindol Qutuytu was born in 1789 in Ulan Murun (Red River), a nomadic region in present-day Qinghai. He was officially recognized shortly after birth as the fourth incarnation of Mindol Nomun Khan (Nomun Khan being a Mongolian term for the King of Dharma). Throughout the passage of time

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and across diverse languages and cultures, Mindol Qutuytu has been recognized under numerous names, including Mindol Nomun Khan and Mindol Qutuytu in Mongolia, Minjul Qutuytu (Uspensky 2009), and Minjur Gegen (Kovalevsky 2019) in Russian accounts and in Inner Mongolia. Additionally, Tibetans have referred to him as Hor "smin grol no mon han (Mongolian Mindol, King of Dharma)" or Tsenpo no mon han (Tsenpo, King of Dharma). It is worth noting that Mindol Qutuytu called himself Mañju (Jambalchoijidanzanperenlei 2007), and among Mongolians, he was believed to be a reincarnation of Mañjuśrī, the bodhisattva symbolizing wisdom (Kovalevsky 2019). This article will consistently use the name Mindol Qutuytu for the sake of clarity and consistency.

Appointed as Head of Serkhok Monastery at age thirteen, Mindol Qutuytu studied both the Gelug curriculum and Tibetan medicine. His scholarly and religious journeys took him to Amdo, Lhasa, Doloon Nuur, and Beijing. In Lhasa, Mindol Qutuytu studied at Drepung Monastery, and from 1821 until his death in 1839, he served as the Chief Administrative Lama at the Eastern Yellow Temple (Dong Huang Si) in Beijing, where he maintained close ties with Chinese intellectuals and members of the Russian Orthodox Mission.

During the 1830s, Mindol Qutuytu authored two major works: A Detailed Description of the World ('Dzam gling rgyas bshad), a geographic treatise, and *The Treasury of All Precious Instructions* (Man ngag rin chen 'byung gnas), a significant medical text. This article focuses on the latter, using it as a primary source for investigating Mindol Qutuytu's scholarly and practical approach to medicine.

Although documentation on Mindol Qutuytu's medical activities is limited, it is clear that he found value in knowledge from outside of Mongolia. As Uspensky (2009) notes, Mindol Qutuytu referenced *opodeldoc*, a liniment originally formulated by Paracelsus for treating rheumatism. Yongdan (2016) also highlights Mindol Qutuytu's engagement with Edward Jenner's smallpox vaccination. These references thus point to a notable influence of European medicine in his work. However, while such acknowledgments suggest the presence of external medical influences in the text, these fragmented episodes of recognition do not make clear the more sustained and systematic exchange between Mongolian, Tibetan, Chinese, Indian, and European medical traditions. Therefore, these early indications of engagement with Western therapeutics provide a critical entry point for examining how foreign medical knowledge was received, interpreted, and potentially adapted within the evolving framework of Mongolian medicine. By analyzing these cross-cultural references of his work in depth, this study aims to uncover the wider networks of knowledge and practical exchange that shaped innovative medical thought in this context which is an area still largely overlooked in current research.

Overall, while engaging in debates over his ethnic identity, this analysis also highlights the rich intellectual foundations of Mindol Qutuytu's work, *The Treasury of All Precious Instructions*. This text played a key role in the development of modern Mongolian medicine, a field that has been shaped through the blending of multiple and diverse healing traditions.

2. The Origin of Mindol Qutuytu

As mentioned previously, Mindol Qutuytu's (1789–1839) identity has been disputed by Lobsang Yongdan who claims that Mindol Qutuytu may in fact have been Tibetan. Yongdan's view is primarily based on Mindol Qutuytu's use of the phrase "our Tibetans" when referring to Tibetans (Yongdan 2011, 2016). However, Mongolian scholars like Jigmed (2009) argue that Mindol Qutuytu was a Mongolian, as he was born near Ulaan Murun in the Kökönor region (modern-day Qinghai). Mindol Qutuytu's nephew's undeniably Mongolian name, Khan-üe (Kovalevsky 2019), further supports this claim. In this assessment, Mindol Qutuytu's reference to Tibetans as "our Tibetans" may be understood as an expression of religious belonging because the Mongols had embraced Tibetan Buddhism.

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Therefore, it does not express a national or ethnic belonging as Yongdan has understood it to mean.

Even within Tibetan sources, Mindol Qutuγtu is referred to as *Hor*, a term used for Mongols (Yongdan 2011), affirming Mindol Qutuγtu's Mongolian identity. This is further supported by Mindol Qutuγtu's position as *jasaγ terigün blam-a* (Chief Administrative Lama) at the Eastern Yellow Temple (Uspensky 2009), one of the Qing tri-ethnic temples in Beijing designated for Mongols (Berzin 1994). Additional information that further corroborates this idea is found in Russian scholar Osip Kovalevsky's diary. According to Kovalevsky, indigenous Buryat Mongols in Buryatia held Mongolian books in high regard, using these texts as blessings on their heads (Polyanskaya 2011). Among the texts in question are Mindol Qutuγtu's manuscripts, indicating that Buryat Mongols viewed Mindol Qutuγtu as Mongol also.

Chinese scholar Kung (2018) adds that Mindol Qutuytu was one of four Mongolian lamas from Kökönor invited to Beijing as representatives of the Khoshut Mongols, as part of the Qing dynasty's broader political strategy to strengthen their relationship with the Mongols. Mindol Qutuytu is also recognized today as one of the "Eight Prominent Reincarnations in Beijing", four of whom, including Mindol Qutuytu, are confirmed to be of Mongolian origin (Kung 2018).

Given these factors, it is most plausible that Mindol Qutuytu was in fact Mongolian. Claims for a Tibetan identity rest primarily on cultural and religious ties rather than concrete genealogical data unless compelling new evidence emerges.

3. The Medical Work of the Mindol Qutuytu and Its Sources

Mindol Qutuytu was the author of two significant works, one on geography and one on medicine—both of which have attracted the attention of modern scholars. The production of these texts was highly unusual for his time and region, primarily due to their innovative and unorthodox content. The origin of his geographical work can be traced to an incident in which the Daoguamg Emperor (1782–1850) mockingly compared Mindol Qutuytu's limited knowledge of the local terrain to that of other monks (Vasiliev 1895). This urged Mindol Qutuytu to study this field, resulting in the composition of his geographical work. On the other hand, Mindol Qutuytu's engagement with medicine was motivated by a personal desire to demonstrate his medical competence, resulting in the creation of *The Treasury of All Precious Instructions*.

The Treasury of All Precious Instructions was printed around the 1830s using woodblocks in Doloon Nuur (Seven Lakes), Inner Mongolia. In the preface, Mindol Qutuytu states that the aim of this book was to compile essential teachings from Indian and Tibetan scholars in a form accessible to "those who are less familiar with" the abundance of existing healing methods (Jambalchoijidanzanperenlei 2007, p. 3). However, a closer examination of the text reveals that his sources were not limited to Indian and Tibetan traditions; they also encompass elements of Chinese and European medicine.

Mindol Qutuytu's medical work hence reflects his intellectual curiosity and his desire to provide effective healthcare to his people while asserting his status as a medical scholar. The work draws heavily on established Ayurvedic and Tibetan medical sources, many of which are considered foundational to the tradition of Mongolian medicine. By incorporating both indigenous Mongolian healing practices and the advanced medical theories of Tibet and other more distant cultures, Mindol Qutuytu's book demonstrates the dynamic nature of medical thought during his time.

Mindol Qutuytu's extensive research incorporated a wide variety of respected sources, including Vagbhaṭa's Essence of Eight Branches (Yan lag brgyad pa'i snyng po bsdus pa, Skt. Aṣṭāngahṛdayasaṃhita), Candranandana's Moonbeams Commentary (Tshig don zla zer, Skt.

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Padārthacandrikā), Zur mkhar mnyam nyid rdo rje's The Millions Relics-like Instructions (Man ngag bye ba'i ring bsre), and the Extended Commentary on the Instructional Tantra of the Four Tantras (Man ngag lhan thabs) by Desi Sanggyé Gyatso. Mindol Qutuytu expanded upon this foundational medical knowledge in his own writings. In addition to these Tibetan sources, Mindol Qutuytu also incorporated Mongolian-specific treatments, demonstrating his comprehensive understanding of this cultural context.

Mindol Qutuytu's approach to medicine was notable due to the blend of Tibetan medical traditions, each with its own unique historical significance and applications. These traditions included the Drangti, Jangpa, Zurkhar, and Gongmen schools. In this way, Tibetan medicine, during Mindol Qutuytu's lifetime, was a diverse system with several distinctive schools, each contributing to the medical canon in its own way. Desi Sangye Gyatso (1653–1705), a key figure in Tibetan medicine, noted that despite their differences, these schools agreed on several core ideas, especially on the body's system and the interconnectedness of health and spirituality (Sangye-Gyatso 2010).

The Drangti Tradition of Tibetan Medicine: The Drangti tradition was one of the earliest traditions of Tibetan medicine. This maintained a strong affiliation with Tibetan royalty and prominent political figures since the Tibetan Empire. Prior to the influence of other medical traditions (such as the northern Jang, southern Zur, and Gongmen in the fifteenth century), Drangti was exclusively used for the medical needs of the royal court and the leaders of the Sakya sect (Garrett 2014). Notable contributions to Tibetan medical practices from the Drangti tradition include preventive measures for infectious fevers (Jambalchoijidanzanperenlei 2007, p. 118), remedies for "gnyan" diseases¹ (ibid., pp. 143–44), mantras for smallpox prevention (ibid., p. 214), and prescriptions for gout (ibid., p. 452)—all of which are recorded in Mindol Qutuytu's book.

The Jangpa Tradition of Tibetan Medicine: The Jangpa medical tradition began under the scholar Namgyal Draksang (rNam rgyal grags bzang, 1395–1475). Born in the Tibetan region known as Jang (Byang), Namgyal Draksang founded a medical tradition that is renowned for its extensive literary legacy. Among Namgyal Draksang's significant contributions are his commentaries on The Essence of the Eight Branches (Aṣṭāṅgahṛḍaya) and the Four Medical Tantras (Kalsang et al. 2024). According to the Jang tradition, Mindol Qutuytu's book investigates illnesses caused by the wind humor (Jambalchoijidanzanperenlei 2007, p. 7), the bile humor (ibid., p. 19), as well as treatments for edema (ibid., p. 56), the common cold (ibid., p. 241), general liver fever (ibid., p. 385), kidney diseases (ibid., p. 392), and obstructive uropathy (ibid., p. 440).

The Zurkhar Tradition of Tibetan Medicine: The Zurkhar tradition of Tibetan medicine was built on the work of Zurkhar Nyamnyi Dorje (Zur mkhar mnyam nyid rdo rje, 1439–1475), a medical scholar famous for his work *The Millions Relics-like Instructions* (Man ngag bye ba'i ring bsrel). Zurkhar's nephew, Zurkharwa Lodro Gyalpo (Zur mkhar ba blo gros rgyal po, 1509–1572), further enriched this tradition by writing celebrated texts like *Oral Instructions of the Ancestors* (Mes po'i zhal lung), serving as a comprehensive commentary on the Four Medical Tantras within the Zurkhar school (Garrett 2014). Mindol Qutuytu's book draws ideas from the Zurkhar tradition through varied topics such as the treatments of headaches (Jambalchoijidanzanperenlei 2007, p. 157), nosebleeds (ibid., p. 334), toothaches (ibid., pp. 343–44), the three-step approach to pneumonia (ibid., pp. 381), lice eradication methods (ibid., pp. 493–94), the management of rectal tumors (ibid., pp. 554), and so on.

The Gongmen Tradition of Tibetan Medicine: This tradition was founded by Gongmen Könchok Delek (gong sman dkon mchog bde legs, 1447–1506). This legacy was continued by Gongmen Könchok Phendar (dkon mchog phan dar) and a devoted circle of disciples known as "the Four Pillars and the Eight Beams". Together, they played a crucial role in the expansion and popularization of the Gongmen tradition (Sangye-Gyatso 2010). In Mindol

Qutuytu's book, Gongmen's teachings encompass a wide range of medical scenarios, including lung diseases (Jambalchoijidanzanperenlei 2007, p. 366), disorders induced by alcohol-related phlegm (ibid., p. 513), suffocation (ibid., p. 349), urinary obstructions (ibid., p. 567), and numerous other medical conditions.

Importantly, he also cited the works of Yuthok Yönten Gönpo, who was regarded as the father of Tibetan medicine. He refers to several treatments from Yuthok's approach, such as a purgative medicine for liver disease (ibid., p. 385), an herbal formula called "herbs composition-13" (ibid., p. 342), and a compound remedy used to treat diseases such as diphtheria, anthrax, gout, rheumatism, parasites, ulceration with spreading infection, chest pain, gnyan, and cough (ibid., p. 530). He also mentions a formula for treating smallpox (ibid., p. 226), medicine for lung disease (ibid., p. 368), and a remedy specifically for relieving gout (ibid., p. 450), among many others.

Despite all being rooted in Tibetan medical practices, these traditions developed over centuries in varying contexts, each leading to a unique approach to performing healing treatments. Mindol Qutuytu adapted these individual techniques for practical use within the context of Mongolian medicine.

4. Other Medical Influences

As noted, Mindol Qutuytu's comprehensive work examines topics beyond Tibetan traditions, providing insights into diverse medical practices.

4.1. The Influence of Chinese Medicine

Mindol Qutuytu's exposure to Chinese medicine during his time in Beijing and traveling across China had a large impact on his medical approaches. His interactions with Chinese medical practitioners provided him with invaluable insights into Chinese medicine, a tradition with deep philosophical underpinnings and a long history. One of the most significant areas of Chinese medicine that Mindol Qutuytu engaged with was the treatment of infectious diseases referred to using the term *gnyanrims*, a word of Tibetan origin. These diseases were often associated with epidemics, such as smallpox, and posed a major health threat to Chinese and Mongolian populations. Through his experiences, Mindol Qutuytu learned about several Chinese herbal remedies and therapeutic practices used to treat these conditions. His book includes descriptions of these, which were particularly valued for their efficacy in treating fevers, skin conditions, internal humoral imbalances, and the inoculation of smallpox.

Beyond infectious diseases, Mindol Qutuytu also documented remedies for a variety of other health issues drawn from Chinese medical practices. For example, his work contains treatments for eye conditions (Jambalchoijidanzanperenlei 2007, p. 278). Mindol Qutuytu borrowed from China's long history of specialized approaches to eye care that use herbal formulations and dietary recommendations to relieve conditions like conjunctivitis, cataracts, and other vision impairments. This was significant as eye conditions were common in both Chinese and Mongolian societies.

Similarly, Mindol Qutuytu also demonstrates knowledge about Chinese remedies for toothaches and dental health (ibid., p. 341). Dental care is significant to traditional Chinese medicine as emphasis is placed on the important role of oral health one's on overall well-being. Mindol Qutuytu's understanding and application of these ideas served to be extremely valuable to the Mongolian population, where dental care was relatively rudimentary.

Another notable aspect of Chinese medicine that Mindol Qutuytu recorded was an ointment containing mercury and arsenic (ibid., p. 469). This treatment was used for treating skin conditions, including scabies, a contagious skin condition widespread in both Chinese and Mongolian communities that spread quickly in crowded and unsanitary environments.

Perhaps one of the most important focuses of Mindol Qutuytu's exposure to Chinese medicine was his study of orthopedic treatments, particularly in the procedures of healing broken bones (ibid., p. 512). After observing these practices, Mindol Qutuytu documented some methods used by Chinese practitioners to treat fractures, dislocations, and joint issues.

Mindol Qutuytu's integration of Chinese medical practices into his own work reflects his open-minded approach to medicine, emphasizing the importance of cross-culturally exchanging knowledge. Rather than viewing Chinese medicine as a foreign system, he saw it as an opportunity to enrich the medical care available to the Mongolian people. This wide-ranging exploration of Chinese medical practices in his work is evidence of the dynamic nature of Mongolian medicine during his time and highlights his forward-thinking approach to healing.

Mindol Qutuytu likely had access to Chinese medical texts and guidance of physicians to enhance his practical understanding of Chinese medical principles. This would allow him to effectively incorporate knowledge (such as about herbal medicine, disease prevention, and treatment methodologies) into Mongolian medical understanding, thus building a medical legacy that bridges the gap between these two traditions.

4.2. The Influence of Ayurvedic Medicine

Mindol Qutuytu extensively incorporated elements from Ayurvedic medicine into his practice. Notably, he comprehended information from Vagbhaṭa's *Essence of Eight Branches* and its commentary, the *Moonbeams* composed by Candranandana. These Indic sources greatly informed Mindol Qutuytu's understanding of Ayurvedic surgical techniques. This included surgical procedures like uvulectomy (Jambalchoijidanzanperenlei 2007, p. 519), excisions for rectal tumors or cancer (ibid., p. 551), the drainage of abdominal fluid (ibid., p. 78), and the technique of cataract couching (ibid., pp. 313–32). In relation to this, his recommendation to extract cataracts hints at a likely influence from contemporary surgical practices in Europe. For instance, in 1747, the French ophthalmologist Jacques Daviel (1696–1762) pioneered an inaugural surgical technique for cataract removals, marking a significant milestone in the development of ophthalmic surgery (Rucker 1965).

Further, influenced by Ayurvedic medical systems, Mindol Qutuytu introduced a classification system for eye diseases (Jambalchoijidanzanperenlei 2007, p. 259). The Ayurvedic tradition identifies ninety-four types of eye diseases, primarily categorized according to their causes (Batsaikhan et al. 2022). Drawing on this framework, Mindol Qutuytu incorporates and adapts Ayurvedic principles in his own work, initially classifying eye diseases into five distinct groups based on their anatomical location in the eye and their specific underlying causes.

While mirroring Ayurvedic medical sources, Mindol Qutuytu's classifications diverged significantly from the Tibetan medical framework, as investigated by Batsaikhan et al. (2022). In Tibetan medicine, the *Four Medical Tantras* and the accompanying commentaries, such as the *Blue Beryl* (rgyud bzhi'i gsal byed baidūrya sngon po) by Desi Sangye Gyatso (1677–1705) and *Golden Annotations to the Treatise on Medical Investigations and Prescriptions* (gser mchan rnam bkra gan mdzod) by Darmo Menrampa Lobzang Chodrak (1638–1710), categorized thirty three eye diseases based on their symptomatic presentation, rather than their underlying causes. However, some overlaps of Mindol Qutuytu's approach did occur with Tibetan understanding, as evidenced by Mindol Qutuytu's use of terminology from the *Four Medical Tantras*. This demonstrates Mindol Qutuytu's broadminded approach to the integration of medical traditions that prioritizes a pragmatic approach to knowledge compilation.

4.3. The Influence of Gosains' Healing Practices

During his study in Lhasa, Tibet, between 1808 and 1815, Mindol Qutuytu had the opportunity to interact with the nomadic Gosains coming from India. These Gosains, primarily residing in the expansive northern regions of India, were predominantly involved in trade. Their enduring presence facilitated the creation of highly efficient networks among them. It is worth noting that some of these enterprising Gosains ventured into Tibet during the 18th century, amassing substantial wealth through the trade of coveted items such as corals and pearls from tropical regions, which were highly demanded among Tibetan society (Cohn 1964). Intriguingly, Mindol Qutuytu's book thoroughly records several aspects of the Gosains' healing methods. These encompass treatments for scalp yeast infections, hair loss (Jambalchoijidanzanperenlei 2007, p. 472), eye diseases (ibid., p. 284), lung ailments (ibid., p. 478), as well as preservation techniques for books susceptible to insect damage (ibid., p. 494), and solutions for reducing armpit odors (ibid., p. 508). The incorporation of such diverse insights from the Gosains adds depth and diversity to Mindol Qutuytu's comprehensive exploration of medical practices.

4.4. The Influence of European Medicine

One of the remarkable regions of Mindol Qutuytu's work lies in its comprehensive coverage of European medical practices—a rarity in Mongolian and Tibetan literature of his time. Uspensky notes that Mindol Qutuytu's book provides insights into various European treatments. Found in his writings, the opodeldoc (Linimentum saponatocamphoratum) preparation method had been widely used by the Swiss physician Paracelsus (1493–1541) to address problems like sprained joints, bruises, arthritis, and pleurisy (Uspensky 2009). Furthermore, Mindol Qutuytu's book insightfully contained information about Edward Jenner's groundbreaking discovery of the smallpox vaccine from cowpox in 1796 (Yongdan 2016).

Mindol Qutuytu's exploration of European medicine extends beyond opodeldoc methods and the smallpox vaccine. His work explores diverse treatments, including skin inflammation plasters (Jambalchoijidanzanperenlei 2007, p. 532), surgical innovations, such as superior thyroid artery ligation for goiter (ibid., p. 358), the utilization of fermented mare's milk (mong. *airag*) in treating pulmonary tuberculosis (ibid., p. 478), and scabies ointment (ibid., p. 515).

A notable remedy from his writings involves melting larch tree sap, beeswax, and wild garlic, then evenly spreading this mixture on thick paper or cloth and applying it to the affected area.² This treatment, passed down from a Russian doctor Osip, harnesses the anti-inflammatory properties of beeswax, knowledge dating back to ancient Greek and Roman physicians like Aristotle, Dioscorides, and Galenos (Bellik and Boukraâ 2014). During the early modern period in Europe, beeswax played a vital role in wound care, serving as an effective agent for wound disinfection and as a key component in medicinal plasters (Baeten et al. 2010). Larch tree sap (Laireiter et al. 2014) and wild garlic (Ivanova et al. 2009) also contribute natural antiseptic and antibacterial properties to this remedy.

Inspired by foreign practitioners, Mindol Qutuytu, also performed various surgical procedures himself. Among these practices was the technique of severing the blood supply to the thyroid to heal an individual suffering from goiter, an advancement in European medicine at the time. A similar surgery had been attempted by English surgeon William Blizard (1743–1835) in London in 1813, although this unfortunately resulted in secondary bleeding. However, in the following year, Walther of Landshut achieved a successful ligation of the bilateral superior arteries of a woman with thyroid disease (Rogers 1929). Mindol Qutuytu's performance of this surgery demonstrates an adaptation, in which the patient is required to drink a soup made from wolf and bird thyroid glands for three days,

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followed by the precise ligation of the thyroid vein behind the ear.³ This procedure has not been recorded in other traditional medical works.

Mindol Qutuytu's contributions extend further, learning from European treatments for conditions like scabies and chronic lung diseases. These insights effectively integrated methods from Russian medicine into Mongolian practice. Considering the nomadic herders' close ties to livestock, zoonotic diseases like scabies, rabies, and plague posed significant threats. Mindol Qutuytu helped to relieve these concerns by spreading Russian doctors' scabies treatment methods.⁴ Components from this recipe remain in use today for parasite eradication. For instance, baking soda remains a key ingredient in scabies treatment in certain regions. Its ability to influence the skin's acid–alkaline balance effectively combats scabies. Additionally, slaked lime continues to play a crucial role in pest and parasite control.

Moreover, Mindol Qutuytu's observations advocated for the use of mare's milk-infused vodka to manage chronic lung diseases, a practice rooted in European medicine. Fermented mare's milk therapy had been widely employed in 19th-century Russia to combat lung diseases such as pulmonary tuberculosis. Globally prominent figures such as A. P. Chekhov (1860–1904) and Leo Tolstoy (1828–1910) benefited from this treatment (Kononova and Sychyeva 2010), and this method found its place within Mindol Qutuytu's writings.

Mindol Qutuytu acquired much of his European medical knowledge from Osip Pavlovich Wojciechowski, a member of the Russian Orthodox Mission, whose influence on Mindol Qutuytu's European medical experience has been noted by Uspensky (2009) and Yongdan (2016). Dr. Osip (Josep) Pavlovich Wojciechowski (1793–1850) was a medical doctor and a member of the Tenth Russian Orthodox Mission in Beijing from 1821 to 1831 (Skachkov 1977). Mindol Qutuytu mentioned "O shib", the name he used to refer to Osip Pavlovich Wojciechowski, in his medical writings. The first reference to "O shib" appears in a treatment involving the use of opodeldoc to treat arthritis (Jambalchoijidanzanperenlei 2007, p. 512). He mentioned "O shib" again in treatment for abscesses, proving him to be a skilled practitioner of the Kilaka (possibly Kalki) medical tradition (ibid., p. 532–33).

5. Discussion

Examining Mindol Qutuytu's contribution to Mongolian medicine reveals his wideranging and innovative legacy within the field. Clarifying Mindol Qutuytu's identity is more than biographical; it is for acknowledging the Mongolian scholar's active contribution to regional knowledge systems development rather than merely transmitting Tibetan ideas. It is not only for historical accuracy but also reinforces the case for a distinct Mongolian medical tradition and affirms the country's cultural heritage in broader questions of cultural authority and historical narrative, where claims of legacy and intellectual inheritance carry significance.

As a weight of evidence suggests he was Mongolian, his medical and scholarly innovations reflect not only engagement with Tibetan sources but also the active role of Mongolian thinkers in shaping regional knowledge systems. Furthermore, establishing Mindol Qutuytu's Mongolian identity positions him as a creative agent in a cosmopolitan Qing landscape who demonstrates how knowledge was adapted and transformed across cultural boundaries and why figures like Mindol Qutuytu matter not just as historical curiosities but as models of transregional thought and practice development.

His life and works represent an early and insightful mode of cross-cultural and national medical exchange, one that offers a vital perspective on the historical development of healthcare practices in Inner Asia. By studying and synthesizing a wide range of medical traditions, across linguistic, regional, and doctrinal boundaries, Mindol Qutuytu exemplified the dynamic and reciprocal nature of knowledge transmission. His work demonstrates that knowledge can be combined despite the alternative approaches between

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communities, revealing the existence of medical pluralism through historical, social, and practical dimensions.

Historically, his work illustrates the vibrant intellectual activity of Inner Asia, challenging the assumption that Mongolia was a passive recipient of Tibetan medical knowledge. Instead, the innovation, reinterpretation, and original synthesis found in his writings confirm that Mongolian scholars did contribute to shaping regional medical development both scholarly and practically. Our investigation of his ethnicity and biography reveals interesting information about the authority of religious institutions, revealing potential topics for investigation.

On a social level, Mindol Qutuytu's legacy offers a compelling case study in the flow of transregional knowledge, as it provides an example of broader patterns of cultural transformation, religious exchange, and scientific advancement in early modern Asia. By incorporating Tibetan, Mongolian, Ayurvedic, Chinese, Indian, and European medical traditions, Mindol Qutuytu empowered practitioners to adapt and transform existing systems according to the local community's needs and values. This process produced not a mere transmission but a reconfiguration of knowledge. His work highlights critical issues of cultural ownership, adaptation, and the intellectual agency of Mongolian healers in constructing and evolving their own medical systems.

The innovation presented in *The Treasury of All Precious Instructions* provides one of the earlier structured models of multicultural medicine in an era where traditional and biomedical systems often were kept separate. Rather than prioritizing a single tradition, Mindol Qutuytu recognized the complementary strengths of multiple systems, an approach that aligns with contemporary efforts in pluralistic healthcare. This mix of diverse sources highlights his commitment to expanding the medical landscape and being open to alternative approaches to healing. The integration of such a broad spectrum of medical thought was a deliberate effort to create a holistic system of medicine that could address the evolving needs of Mongolian society.

Extending the analysis of a single figure's ethnic background engages with broader questions of cross-cultural exchange, historical legacy, and the dynamics of combined medicine. It examines how medical systems transform through intercultural contact and how historical models of synthesis can inform both present-day and future healthcare frameworks. Mindol Qutuytu's lasting legacy lies not only in his practical innovations and meticulous documentation of diverse therapeutic and surgical methods but also in his role in enriching the global tapestry of medical knowledge.

Mindol Qutuytu's extensive use of Tibetan and Ayurvedic texts, along with Chinese practices and the unexpected inclusion of European medical techniques, set his work apart from earlier Mongolian medical literature. This exploration of medical knowledge, drawn from rich and diverse sources, affirms the profound scope and originality of his contribution.

His methodical use of multiple sources reflects exceptional scholarly rigor and innovation. Unlike earlier Mongolian medical works that primarily relied on Tibetan frameworks, Mindol Qutuytu's engagement with Western methods marked a watershed moment in Tibetan medical publishing. His foresight in anticipating the convergence of diverse medical systems was not merely theoretical. By stepping beyond the confines of prevailing Tibetan religious orthodoxy, he demonstrated a keen awareness of the medical transformations of his time. The Treasury of All Precious Instructions stands apart for its innovative structure and content, moving beyond the traditional frameworks of the Four Medical Tantras. A detailed examination of Mindol Qutuytu's text reveals a rich blend of therapeutic techniques drawn from various traditions. This intellectual openness enabled him to advance Mongolian medicine in ways distinct from previous models, highlighting the unique identity of Mongolian traditional medicine.

Today, the combined use of Mongolian and Tibetan medicine with external systems has become increasingly common in Mongolia, where traditional healing is often paired with other methods like Chinese acupuncture and European diagnostic methods. This evolving approach reflects a vision anticipated by Mindol Qutuytu two centuries ago, highlighting the importance of medical pluralism.

This increasing academic and practical integration has been supported and reinforced by institutional developments in Mongolia's healthcare education and service delivery since the early 1990s. Following the resurgence of traditional medicine in Mongolia after 1990, this spirit of integration has become increasingly institutionalized. Medical universities have expanded their curricula beyond restricted standards, while combinational medical approaches are also now routine in Mongolian hospitals. As the former WHO Director, Dr. Chan (2008) stated, "The two systems of traditional and Western medicine need not clash. Within the context of primary health care, they can blend in a beneficial harmony, using the best features of each system, and compensating for certain weaknesses in each." This is an ethos that aligns closely with that exemplified by Mindol Qutuytu.

Despite ongoing efforts, scholars agree that the integration of traditional and Western medical systems remains incomplete due to practical and intellectual barriers. These challenges often keep practitioners confined to their respective fields, leaving patients to decide on their own medical pathways. Nevertheless, some attempts have been made to bridge this gap by reinterpreting traditional concepts through modern scientific frameworks. For instance, Mongolian scholars such as Ambaga (2001) have sought to explain the traditional theory of the three fundamental humors, which consist of wind (khii), bile (shar), and phlegm (badgan), by using modern biology. This approach identifies "structuralfunctional units" in the body, such as the cell, that potentially correlate with these humors. The cell membrane's double layer can exist in varying physical states depending on the balance of saturated and unsaturated fatty acids, which are interpreted as corresponding to phlegm, bile, and the balanced wind, respectively. In relation to this, Dagvatseren (1996) applied von Bertalanffy's (1968) General Systems Theory to the fundamental principles of the combined Mongolian and Tibetan medicine and concluded that the traditional medical system is a perfect harmonic integrative system that was founded on natural laws. Such interdisciplinary efforts exemplify how traditional knowledge and modern science can be brought together to foster a more holistic understanding of health. Revisiting historical figures like Mindol Qutuytu further supports this rethinking, as his work offers early models for medically merged and patient-centered care. As Dagvatseren (2015) notes, although the full integration of Eastern and Western medicine has yet to be achieved, ongoing developments continue to move towards a more harmonized medical framework.

This ongoing divide prompts us to revisit historical figures such as Mindol Qutuytu, whose approach may offer valuable insights. This raises a significant question: Can the life and writings of Mindol Qutuytu serve not only as a historical example but as a conceptual and practical guide for advancing integrative medicine today? Might his methods, principles, and cross-disciplinary thinking help bridge the persistent divide between medical systems in contemporary healthcare? Exploring these questions could reframe this article not just as a contribution to intellectual history but as a note on our current medical discourse.

6. Conclusions

Mindol Qutuytu's contributions to medicine provide an insight into the development of Mongolia's contemporary practice of combined medicine. Clarifying his Mongolian ethnicity is essential, not only for historical accuracy but also for affirming the important roles that Mongolian scholars played in shaping this intellectual landscape. In short, Min-

dol Qutuytu creatively and critically integrated Tibetan medical traditions into a Qing context—demonstrating the active stance Mongolian scholars held in transforming transregional knowledge.

His major work, *The Treasury of All Precious Instructions*, he offers one of the earliest structured models of combined medicine in Inner Asia. By incorporating Tibetan, Chinese, Ayurvedic, and European medical principles, Mindol Qutuytu contributed to the development of a pluralistic medical system that overcame national boundaries. This approach was a deliberate act of cultural and intellectual reconfiguration whilst simultaneously tailoring it to the needs of Mongolian society. His recognition of the complementary strengths of diverse traditions reflects a deep awareness of both medical efficacy and contextual demands.

Today, the ethos embodied in Mindol Qutuytu's work finds renewed relevance in Mongolia's healthcare landscape, where the combination of traditional and contemporary practices is increasingly normalized in the educational curricula and clinical practice. While this full integration remains a challenge, Mindol Qutuytu's historical case study offers a lesson for overcoming the intellectual borders that persist.

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Notes

gnyan nad. In Tibetan Buddhism, gNyan is considered to be the owner of the land in the environment and is considered to be a non-human species that watches over nature.

- yang gcig lhan skyes rma rigs yod do cog sel byed bdud rtsi 'byar sman sbyor ba ni shel ta srang gang spra tshil de dang mnyam ge 'u srang do bcas pa lhan cig tu ma tshig bar bzhus de nyed 'kheng ba dang ras sam gos dar shog bu la sogs par srab mthug ran par bcug la nad mig thog sbyar la zhag gcig song tshe gsar ba brjes 'di ni sha lpags rtsa dang rgyu ba'i nad ma lus sel byed 'phrul 'khor 'dzin pa'i lugs sbyor ba 'di nas ki la ka'i lugs kyi gso rig mthar phyin o shib bya ba las bla gzugs m nyadzu'i ming can bdag gis zhus (Jambalchoijidanzanperenlei 2007, p. 532).
- shin tu yung ring nang nas har ba la spyang gi'i lba sha bsdus pa'i thang gis phul zhag gsum bsten rjes rnam rgyal lba rtsa de gcad nas mig ste zum du 'jug go rna rgyab lba rtsa bcad rjes khab so legs la khyi spu drangs pas mig de zum du lba ba bug pa dang 'dra bar skud pa rgyu mi gzhug (Jambalchoijidanzanperenlei 2007, p. 358).
- For scabies, one should apply a mixture of rhubarb root, soda, and slaked lime (rdo zho). Moreover, Mindol Qutuytu wrote, "drink natural yogurt, fermented mare milk, acid whey and ghee oil as this supposedly can treat scabies, no matter the severity, like it was blown away by the wind. This was the European doctors' method. Keep it in mind that it was the most effective instructions for treating scabies" (Jambalchoijidanzanperenlei 2007, p. 515).
- Mindol Qutuytu wrote, "to heal chronic lung disease, the use of bee honey and guinea pepper created a very precious treatment. Yet as the disease can diminish physical strength, reduce lifespan and also inhibit the effectiveness of medicine, it was advised to be treated by fermented mare milk. This is European doctors' technique." (Jambalchoijidanzanperenlei 2007, p. 478).

References

Ambaga, Miyegombo. 2001. Khii, shar, badgan—"membrant baiguulamj" shine sanaa [A new idea of "Wind, Bile, and Phlegmmembrane structure"]. *Mongolian Medicine* 1: 3–8.

- Baeten, Jan, Kerlijne Romanus, Patrick Degryse, Wim De Clercq, Hilde Poelman, Kristin Verbeke, Anja Luypaerts, Marc Walton, Pierre Jacobs, and Dirk De Vos. 2010. Application of a multi-analytical toolset to a 16th century ointment: Identification as lead plaster mixed with beeswax. *Microchemical Journal* 95: 227–34. [CrossRef]
- Batsaikhan, Norov. 2021. *Mongol Ulamjlalt Anagaakh Ukhaan: Zarim Ekh Survaljiin Nyagtlan Shinjlel [Mongolian Traditional Medicine: Analysis of Some Sources]*. Ulaanbaatar: Nom Khur Press, pp. 103, 309.
- Batsaikhan, Norov, Dorjkhuu Amgalanbaatar, and Begzsuren Dagvatseren. 2022. The influence of Ayurvedic medicine on Mongolian medical ophthalmology. *Mongolian Journal of Integrated Medicine* 12: 76–88.
- Bellik, Yuva, and Laïd Boukraâ. 2014. Honey: An Ethnomedicine. In *Honey in Traditional and Modern Medicine*. Edited by Laïd Boukraâ. London: CRC Press, p. 8.
- Berzin, Alexander. 1994. Tibetan Buddhism in Han China. Available online: https://studybuddhism.com/en/advanced-studies/history-culture/buddhism-in-east-asia/tibetan-buddhism-in-han-china-1994 (accessed on 14 September 2023).
- Chan, Margaret. 2008. Address at the WHO Congress on Traditional Medicine, Beijing. [Internet]. Available online: https://www.who.int/director-general/speeches/detail/address-at-the-who-congress-on-traditional-medicine (accessed on 7 June 2023).
- Cohn, Bernard S. 1964. The Role of the Gosains in the Economy of Eighteenth and Nineteenth Century Upper India. *The Indian Economic and Social History Review* 1: 175–82. [CrossRef]
- Dagvatseren, Begzsuren. 1996. Mongol Tövd Anagaakh Ukhaany Onol Arga Züin Ündes [Mongolian Tibetan Medical Theory and Methodology]. Ulaanbaatar: Shuvuun Saaral.
- Dagvatseren, Begzsuren. 2015. Tsog zali tögöldör "dörvön ündes"-iin "nomlokhuin ündes" tailbar, tailal: Tögs zokhirolt togtoltsoot negtgemel anagaakh ukhaany ündes [Commentary on the Explanatory Tantra of the Four Tantras: Fundamentals of Integrative Medicine in a Perfect System]. Ulaanbaatar: Jicom Press, p. 157.
- Garrett, Frances. 2014. The Making of Medical History, Twelfth to Seventeenth Century. In *Bodies in Balance: The Art of Tibetan Medicine*. Edited by Theresia H. Seattle. London: University of Washington Press, pp. 179–83.
- Ivanova, Antoaneta, Bozhanka Mikhova, Hristo Najdenski, Iva Tsvetkova, and Ivanka Kostova. 2009. Chemical Composition and Antimicrobial Activity of Wild Garlic Allium ursinum of Bulgarian Origin. *Natural Product Communications* 4: 1059–62. [CrossRef] [PubMed]
- Jambalchoijidanzanperenlei ['jam dpal chos kyi bstan 'dzin 'phrin las]. 2007. [1830s]. In *Man ngag rin chen 'byung gnas [The Treasury of All Precious Instructions Assembled from the Essences of All Medical Treatises*]. Beijing: mi rigs dpe skrun khang, pp. 512, 532.
- Jigmed, B. 2009. Mongol anagaakh ukhaany tüükh bolon ertnii survalj bichgiin shinjilgee [The History of Mongolian Medicine and Analysis of Ancient Sources]. Ulaanbaatar: Soyombo Printing, p. 233.
- Kalsang, Tsultrim, Rigzin Sangmo, and Namdol Lhamo, eds. 2024. Fundamentals of Tibetan Medicine. Dharamsala: Mentseekhang Docpub, pp. 9–10.
- Kononova, L. V., and O. V. Sychyeva. 2010. Pyerspyektivy poluchyeniya i pyeryerabotki kobyliyego moloka [Prospects for the production and processing of mare's milk]. Collection of Scientific Papers of the All-Russian Research Institute of Sheep and Goat Breeding 1: 42–45.
- Kovalevsky, O. M. 2019. OROS-MONGOL-KHYATAD: Mongoloor dairan Orosoos Khyatad uruu khiigeed ergen ayalsan mongolch erdemten O.M.Kovalyevskiin ayany temdeglel, 1830–1831 [Russia-Mongolia-China: Diaries of a Mongolian Scholar O.M. Kovalevsky 1830–1831]. Edited by P. M. Valeev. Translated by D. Ganbat. Ulaanbaatar: Erdem Gegeerel Press, pp. 82, 104.
- Kung, Ling-Wei. 2018. The Transformation of the Qing's Geopolitics: Power Transitions between Tibetan Buddhist Monasteries in Amdo, 1644–1795. *Revue d'Etudes Tibétaines* 45: 110–44.
- Laireiter, Christina M., Thomas Schnabel, Andreas Köck, Patrick Stalzer, Alexander Petutschnigg, Gertie J. Oostingh, and Markus Hell. 2014. Active Anti-Microbial Effects of Larch and Pine Wood on Four Bacterial Strains. *BioResources* 9: 273–81. [CrossRef]
- Polyanskaya, O. N. 2011. «Dnevnik Zanyatiy v 1832 g.» Vostokoveda O. M. Kovalevskogo kak Istochnik po Etnografii Mongolo Yazychnykh Narodov [«Diary or Exercises in 1832» by O. M. Kowalewskiy, the orientalist, as the Source on Ethnography of Mongolian Peoples]. *Vestnik Buryatskogo Gosuniversiteta* 7: 42–46.
- Rogers, Lambert. 1929. The Thyroid Arteries Considered in Relation to their Surgical Importance. *Journal of Anatomy* 64: 50–61. [PubMed]
- Rucker, C. W. 1965. Cataract: A historical perspective. *Invest Ophthalmology* 4: 377–83.
- Sangye-Gyatso. 2010. *Mirror of Beryl: A Historical Introduction to Tibetan Medicine*. Translated by Kilty Gavin. Sommerville: Wisdom Publications, pp. 261–322.
- Shamov, G. F. 1983. Professor O.M. Kovalevskiy: Ocherk zhizni i nauchnoy deyatel'nosti [Professor O.M. Kovalevsky: Essay on Life and Scientific Activity]. Kazan: Kazan University Publishing House, pp. 45–59.
- Skachkov, P. E. 1977. Ocherki Istorii Russkogo Kitayevedeniya [Essays on the History of Russian Sinology]. Moscow: Nauka, p. 195.

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Uspensky, Vladimir. 2009. Josef Kowalewski and Minjul Hutugtu (1789–1839). Rocznik Orientalistyczny 62: 222–27.

Vasiliev, V. P. 1895. *Geografiya Tibeta*. Perevod iz tibetskogo sochineni Min'chzhul Khutuktu. [Geografiya Tibeta. Translated from the Tibetan essay of Min'chzhul Hutuktu]. Saint Petersburgh: Imperial Academy of Sciences, pp. 1–95.

von Bertalanffy, Ludwig. 1968. General System Theory: Foundations, Development, Applications. New York: Braziller.

Yongdan, Lobsang. 2011. Tibet charts the world: The Btsan po No mon han's Detailed description of the world, an early major scientific work in Tibet. In *Mapping the Modern in Tibet*. Edited by Gray Tuttle. Switzerland: International Institute for Tibetan and Buddhist Studies GmbH, vol. 1, pp. 73–134.

Yongdan, Lobsang. 2016. The Introduction of Edward Jenner's Smallpox Vaccination to Tibet in the Early 19th Century. *Archiv Orientální* 84: 577–93. [CrossRef]

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