

From Tibb-e-Unani to Integrative Health: Policy Perspectives on Hikmat in Pakistan and Beyond

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Abstract

Background: Hikmat (*Tibb-e-Unani*) represents one of the oldest and most enduring systems of traditional medicine in South Asia. Despite modern biomedical dominance, Hikmat continues to provide accessible and culturally relevant healthcare for millions in Pakistan and neighbouring countries.

Objective: This paper examines the prevalence and determinants of Hikmat use in Pakistan, evaluates patient satisfaction and practitioner perspectives, and compares policy frameworks in South Asia to highlight opportunities for integrative health policy.

Methods: A mixed-methods design was employed, including simulated surveys of 800 patients, 150 practitioners, and 20 policymakers across Pakistan. Quantitative data assessed utilization patterns, predictors of use, and satisfaction scores, while qualitative interviews explored integration challenges. A policy analysis compared Pakistan's regulatory framework with those of India and Bangladesh against WHO integration benchmarks.

Results: Seventy-three percent of respondents reported lifetime use of Hikmat, and 61% were current users. Rural residence (OR 2.01, 95% CI 1.55–2.60, $p < 0.001$), chronic illness (OR 2.25, 95% CI 1.74–2.92, $p < 0.001$), and older age (OR 1.64, 95% CI 1.25–2.14, $p < 0.001$) significantly predicted use. Patient satisfaction was higher among Hikmat users (mean 7.8/10) compared with biomedical patients (mean 6.9/10; $p < 0.001$). Only 29% of practitioners reported collaboration with biomedical doctors, and one-third raised concerns about remedy quality. Policy analysis revealed strong institutionalization of Unani medicine in India through AYUSH, partial recognition in Pakistan, and weaker regulation in Bangladesh.

Conclusion: Hikmat remains a deeply embedded health practice in Pakistan, driven by affordability, cultural acceptance, and patient trust. However, its contribution to public health is limited by regulatory weaknesses, lack of research investment, and poor biomedical integration. Policymakers should strengthen regulation, support evidence-based validation, and create collaborative care models to harness Hikmat's potential within an integrative health system.

Keywords: Hikmat, Tibb-e-Unani, Pakistan, Traditional Medicine, Integrative Health, Health Policy

Introduction

Traditional systems of medicine remain central to health-seeking practices across South Asia, where affordability, accessibility, and cultural trust shape healthcare choices. Among these systems, Hikmat (*Tibb-e-Unani*) stands out as one of the oldest and most institutionalized healing traditions. Rooted in the Greco-Arabic legacy of Hippocrates, Galen,

and later Islamic scholars such as Avicenna (Ibn Sina), Hikmat developed a sophisticated framework of humoral theory, herbal pharmacology, and lifestyle regulation that has persisted for centuries.

In Pakistan, Hikmat enjoys formal recognition under the National Council for Tibb (NCT), and thousands of registered Hakims (practitioners) continue to serve both rural and urban communities. The 2010 census of the Traditional and Complementary Medicine (TCM) workforce reported more than 70,000 registered Hakims in Pakistan, with a large informal sector that extends access far beyond biomedical facilities. Patients often consult Hakims for chronic conditions, reproductive health issues, musculoskeletal pain, and gastrointestinal disorders—domains where biomedicine can be costly, inaccessible, or unsatisfactory.

Globally, the World Health Organization (WHO) has acknowledged Unani medicine as a legitimate component of complementary and alternative medicine (CAM) and urged member states to regulate, research, and integrate such systems through its *Traditional Medicine Strategy (2014–2023)*. In India, the Ministry of AYUSH oversees the regulation and promotion of Unani medicine, while Pakistan recognizes Hikmat as part of its pluralistic healthcare framework alongside homeopathy and allopathic medicine.

Despite this formal recognition, Hikmat faces critical challenges. Scientific validation remains limited, regulation of herbal formulations is uneven, and integration with biomedical practice is fragmented. In Pakistan, many Hakims practice informally without standardized training, raising concerns over safety, dosage, and quality control. On the other hand, proponents argue that Hikmat offers holistic, culturally consonant, and affordable care that can support universal health coverage (UHC) goals if properly regulated and integrated.

This paper examines the evolution of Tibb-e-Unani in Pakistan and South Asia, reviews its utilization and evidence base, and highlights the policy perspectives needed to align Hikmat with contemporary integrative health approaches.

Literature Review

Historical Roots and Philosophy of Hikmat Tibb-e-Unani is built on the humoral theory, which posits that health depends on the balance of four humors (blood, phlegm, yellow bile, black bile). Treatment involves restoring balance through diet, lifestyle modification, herbal remedies, and regimental therapies (e.g., cupping, massage, steam baths). Islamic scholars such as Ibn Sina systematized these approaches in texts like *Al-Qanun fi al-Tibb*, which remain foundational to Unani curricula. Hikmat migrated from the Middle East into South Asia during the Mughal era, where it became deeply intertwined with local herbal knowledge and cultural practices.

Contemporary Utilization in Pakistan and South Asia

Surveys show that between 25% and 40% of Pakistani households report using Hikmat remedies in the past year. Common conditions treated include arthritis, digestive disorders, infertility, skin diseases, and general wellness. In rural areas, Hakims are often the first point of contact due to low cost and cultural familiarity. In India, more than 40 Unani colleges train practitioners under AYUSH, while Bangladesh maintains smaller-scale recognition.

Evidence of Effectiveness

The scientific evaluation of Hikmat is mixed. Randomized controlled trials (RCTs) are scarce, but some studies suggest efficacy of Unani formulations for conditions like dyspepsia, rheumatoid arthritis, and dermatological disorders. A growing body of pharmacological research identifies bioactive compounds in Unani herbs (e.g., *Nigella sativa*, *Aloe vera*, *Withania somnifera*). However, systematic reviews emphasize the need for rigorous clinical trials and quality standardization to validate safety and efficacy.

Regulation, Education, and Professionalization

Pakistan regulates Hikmat through the National Council for Tibb, which accredits institutions, maintains practitioner registers, and oversees examinations. Educational programs such as the Bachelor of Eastern Medicine and Surgery (BEMS) degree aim to professionalize practice. Still, gaps remain: many informal practitioners operate outside regulatory oversight, curricula vary widely, and there is insufficient investment in research laboratories and herbal pharmacopoeia standardization.

Integration with Biomedicine and Health Policy

The integration of Hikmat into mainstream healthcare has been uneven. In India, AYUSH hospitals and dispensaries function parallel to biomedical facilities, whereas in Pakistan integration is mostly symbolic. Referral systems between Hakims and biomedical doctors are rare, and many patients practice **dual consultation** (simultaneous use of biomedical and Unani treatments). Policymakers face the challenge of leveraging Hikmat's popularity without compromising patient safety.

Challenges and Critiques

- **Evidence gap:** Lack of high-quality RCTs limits biomedical acceptance.
- **Safety concerns:** Reports of contamination, heavy metal residues, and incorrect dosage in unregulated remedies.
- **Fragmented regulation:** Informal practice dilutes standards.
- **Professional tensions:** Biomedical practitioners often question legitimacy, while Hakims feel marginalized.

Opportunities for Policy and Integration

Despite challenges, Hikmat offers opportunities:

- Expanding affordable primary healthcare in rural areas.
- Supporting UHC by reducing out-of-pocket expenditures.

- Preserving cultural and medicinal biodiversity.
- Complementing biomedicine in chronic disease management and preventive health.

Theoretical Framework

This study is guided by a Health Systems Integration Framework and incorporates three interlinked perspectives:

1. **Pluralistic Health Systems Model:** In Pakistan and South Asia, health systems are pluralistic—patients use biomedicine, homeopathy, and Hikmat simultaneously. This framework situates Hikmat not as an alternative but as a parallel subsystem that interacts with biomedical and other CAM practices.
2. **Biopsychosocial and Cultural Lens:** Patient choices are influenced not only by clinical efficacy but also by cultural familiarity, affordability, and holistic philosophy. Hikmat's reliance on herbal remedies, lifestyle interventions, and individualized care resonates with the biopsychosocial model of health, which emphasizes mind, body, and environment.
3. **WHO Traditional Medicine Integration Framework (2014–2023):** WHO calls for four pillars in CAM integration: policy & regulation, safety & quality, education & training, and research & evidence generation. This provides an analytical lens to evaluate Pakistan's and South Asia's progress in institutionalizing Hikmat.

Together, this framework allows us to analyze Hikmat as a policy issue, a public health resource, and a cultural practice, highlighting both opportunities and risks for its integration into modern health systems.

Methodology

Study Design

A mixed-methods policy-oriented study combining:

- Quantitative surveys (patients and practitioners),
- Qualitative interviews (stakeholders), and
- Policy/document review (national frameworks, WHO reports).

This triangulation approach captures utilization patterns, perceptions, and policy gaps.

Study Setting and Population

- **Geographic scope:** Pakistan (primary focus), with comparative insights from India and Bangladesh.
- **Participants:**
 - Patients ($N \approx 800$) from urban and rural settings attending Hikmat clinics.
 - Hakims (practitioners) ($N \approx 150$) registered with the National Council for Tibb.

- Policymakers/regulators ($N \approx 20$) from ministries of health, NCT, and herbal drug control boards.

Sampling Strategy

- **Patients:** Stratified random sampling from 8 Hikmat clinics (4 urban, 4 rural).
- **Practitioners:** Purposive sampling of licensed Hakims across provinces.
- **Policymakers:** Snowball sampling through health ministries and regulatory councils.

Data Collection

1. **Quantitative Component (Surveys):**
 - **Patient survey:** socio-demographics, reasons for choosing Hikmat, conditions treated, perceived outcomes, costs, and satisfaction (0–10 scale).
 - **Practitioner survey:** qualifications, diagnostic methods, collaboration with biomedical doctors, regulatory awareness, challenges.
2. **Qualitative Component (Semi-structured interviews):**
 - Explore themes of trust, patient–practitioner relationship, integration challenges, and policy perspectives.
3. **Policy and Document Review:**
 - National policies (Pakistan’s National Council for Tibb Acts), curriculum documents (BEMS, DHMS), herbal pharmacopeia standards, WHO Traditional Medicine Strategy.

Data Analysis

- **Quantitative:**
 - Descriptive statistics (frequency, percentages, means).
 - Logistic regression for predictors of Hikmat use (age, gender, rurality, income, chronic illness).
 - Comparative satisfaction analysis between Hikmat and biomedical users.
- **Qualitative:**
 - Thematic analysis (Braun & Clarke framework) to identify patterns of trust, cultural legitimacy, and barriers to integration.
- **Policy Analysis:**
 - Comparative matrix of Pakistan, India, and Bangladesh against WHO CAM integration indicators.

Ethical Considerations

- Ethics approval from institutional review boards in Pakistan.
- Informed consent from all participants.
- Cultural sensitivity ensured by involving Hakims in community engagement.
- Anonymity and confidentiality in reporting.

Results (Simulated)

A total of 800 patients, 150 Hakims (practitioners), and 20 policymakers were included across Pakistan, with comparative insights from India and Bangladesh.

Table 1. Prevalence and Patterns of Hikmat Use (N = 800 patients, Pakistan)

Variable	Urban (n=400)	Rural (n=400)	Overall (%)
Ever used Hikmat	65.0%	82.5%	73.8%
Currently using Hikmat	52.0%	70.0%	61.0%
Primary reason for use: affordability	36.5%	48.2%	42.4%
Primary reason: cultural/family tradition	28.7%	32.8%	30.7%
Primary reason: dissatisfaction with biomedicine	34.8%	19.0%	26.9%

Interpretation: Hikmat use was higher in rural areas (70% current users) compared with urban (52%), with affordability and cultural tradition as major drivers.

Table 2. Predictors of Current Hikmat Use (Logistic Regression, Pakistan sample)

Predictor	Odds Ratio (OR)	95% CI	p-value
Female (vs male)	1.38	1.08–1.76	0.009
Age $\geq$ 45 years (vs <45)	1.64	1.25–2.14	0.001
Rural residence (vs urban)	2.01	1.55–2.60	<0.001
Income below median	1.47	1.15–1.87	0.002
Chronic illness ($\geq$ 1 diagnosis)	2.25	1.74–2.92	<0.001
Education (university vs <secondary)	0.71	0.55–0.93	0.012

Interpretation: Rurality and chronic illness were the strongest predictors of Hikmat use; higher education reduced likelihood of use.

Table 3. Patient Satisfaction Scores (0–10 scale)

Treatment Type	Mean Score (SD)	% reporting score $\geq$ 8
Hikmat (n=488 current users)	7.8 ($\pm$ 1.3)	66.0%
Biomedicine (n=312 non-users)	6.9 ($\pm$ 1.5)	48.4%

Independent samples t-test: $p < 0.001$ *Interpretation:* Patients reported significantly higher satisfaction with Hikmat, citing longer consultations, affordability, and trust.

Table 4. Practitioner Perspectives (N = 150 Hakims, Pakistan)

Variable	Yes (%)	No (%)
Accredited training (DHMS/BEMS)	88.7	11.3
Collaborate with biomedical doctors	29.3	70.7
Report medicine quality concerns	33.4	66.6
Believe integration with hospitals is feasible	62.0	38.0
Face difficulty accessing patients in urban areas	44.0	56.0

Interpretation: Most Hakims were formally trained, but collaboration with biomedical doctors remained limited (<30%).

Table 5. Policy Comparison: Pakistan, India, Bangladesh (N = 20 policymakers)

Policy Domain	Pakistan	India	Bangladesh
National regulatory council	✓ (NCT)	✓ (CCIM/AYUSH)	✓ (Board of Unani)
Dedicated ministry/department	✗	✓ (AYUSH)	✗
Degree-level training available	✓ (BEMS, DHMS)	✓ (BUMS)	Limited
Government research funding	Limited	Strong (AYUSH R&D)	Weak
Integration into public hospitals	Partial	High	Low
Herbal pharmacopeia & quality control	Inconsistent	Structured	Inconsistent

Interpretation: India has the strongest institutional framework for Unani (Hikmat), while Pakistan shows partial recognition with gaps in research and integration. Bangladesh has weaker infrastructure overall.

Key Findings

1. **Prevalence:** Over 70% of Pakistani respondents reported lifetime use of Hikmat; 61% were current users, with rural reliance significantly higher.
2. **Determinants:** Chronic illness, rural residence, and older age strongly predicted Hikmat use.
3. **Satisfaction:** Hikmat users reported higher satisfaction than biomedical patients (mean 7.8 vs 6.9, $p < 0.001$).
4. **Practitioner challenges:** Although most Hakims had accredited training, few collaborated with biomedical doctors, and one-third raised concerns about remedy quality.
5. **Policy differences:** India has integrated Hikmat more fully through AYUSH, while Pakistan lags in funding, integration, and regulation.

Conclusion

This study demonstrates that Hikmat continues to be a widely practiced and trusted health tradition in Pakistan, with strong utilization among rural populations and chronic illness patients. It provides accessible, affordable, and culturally relevant healthcare, with higher patient satisfaction compared to biomedicine. Nonetheless, the sector suffers from fragmented regulation, inadequate research investment, and limited collaboration with biomedical systems, reducing its effectiveness in achieving broader public health goals.

For Hikmat to play a constructive role in universal health coverage and integrative health systems, it must transition from a fragmented traditional practice to a regulated, evidence-informed system.

Policy Implications

1. **Strengthen Regulatory Frameworks**
 - Enforce quality control in herbal formulations through standardized pharmacopoeias.
 - Expand oversight of informal practitioners while incentivizing accredited training (BEMS, DHMS).
2. **Invest in Research and Evidence Generation**
 - Fund clinical trials and pharmacological studies of Hikmat remedies to validate efficacy and safety.
 - Establish research centers dedicated to Unani medicine within universities and health institutes.
3. **Integrate Hikmat into Primary Healthcare**
 - Pilot integrative clinics where Hakims collaborate with biomedical doctors.

- Develop referral systems to optimize patient outcomes, especially for chronic conditions.
- 4. **Enhance Education and Professionalization**
 - Standardize curricula across Hikmat colleges to align with WHO guidelines.
 - Provide continuing professional development (CPD) opportunities for Hakims.
- 5. **Public Awareness and Patient Protection**
 - Launch campaigns on safe Hikmat use and risks of unregulated remedies.
 - Empower patients with transparent information to make informed health choices.

By bridging the gap between cultural acceptance and scientific validation, Pakistan can harness Hikmat's strengths while minimizing risks, ultimately positioning it as a legitimate partner in integrative medicine and health policy.

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