**Narrative Authority, Pseudoscience, and Kabiraji Medicine in Bangladesh**

**Authors:**

**First Author:**

Fahmida Hossain, HCE-C

Ph.D. candidate

Center for Healthcare Ethics

Duquesne University  
300 Fisher Hall  
600 Forbes Avenue  
Pittsburgh, PA USA 15282

Cell: +14128863183

**Second Author (Corresponding Author):**

Kiarash Aramesh MD, PhD

Assistant Professor

Department of Biology and Health Sciences

The James F. Drane Bioethics Institute

College of Science and Health Professions

Edinboro University of Pennsylvania

164 Cooper Hall, 230 Scottland Road

Edinboro, PA 16444, USA

Tel: +1(814)732.2147

Email: karamesh@edinboro.edu

**Abstract**

As a type of traditional medicine, Kabiraji Medicine (KM) is popular in the rural areas of Bangladesh. KM practitioners are believed to possess a spiritual power to heal. There is little or no evidence supporting the medications and interventions of KM. The pseudoscientific aspects of KM, in many ways, exploit the uneducated and the poor.

KM practices built upon a traditional and pre-scientific belief system and are wedded into the culture of the community. To address KM effectively, it is critical to understand the narrative of the people who believe in the Power of Kabiraji.

This paper argues that Narrative Authority (NA) can be used as a method to build a bridge between public health officials and those who trust KM. NA can be applied to build trust, introduce scientific practices, and avoid pseudoscience while honoring local and traditional beliefs and norms.

**Keywords**

Traditional medicine, Kabiraji medicine, Bangladesh, Narrative authority, Pseudoscience

**Introduction**

Medical pluralism is common in Bangladesh, as in most developing countries. According to the World Health Organization (WHO), 80% of people in developing counties, including Bangladesh, rely upon traditional or “folk” healing practices.1

A prevalent form of traditional medical practice in Bangladesh is Kabiraji Medicine (KM). Kabiraji practices generally include the application of local medicinal plants or substances derived from local flora and fauna. The theoretical bases of KM are inherited from the Unani and Ayurveda medicines.2 Due to overpopulation, poverty, and insufficient healthcare in many geographic areas, the health sector in Bangladesh remains inaccessible to the vast majority of the population. Only 25% of the country’s population has access to the publicly funded healthcare system, and 80% of the populace are essentially denied the benefits of modern medicine and rely on traditional medicine.5

Those who cannot access the healthcare system remain dependent on indigenous and traditional medicine, which is rooted in Bangladeshi values and culture. A prominent and popular example of such schools of traditional medicine is KM. Most of the treatments and interventions offered by KM practitioners are not researched or supported by any evidence-based methodology. As described below in this article, KM can be classified as a branch of medical pseudoscience. The government of Bangladesh had taken too few steps to regulate the KM practitioners or to make it possible for the people to replace their services with modern and scientific medicine. This is seriously problematic and only further serves to promote the pseudoscientific aspects of KM. Also, this problem is understudied. A literature search shows that there is little in the international literature on the introduction of KM and its effects on Bangladeshi healthcare.

This paper provides a situation analysis and suggests Narrative Authority (NA) as a powerful approach to bridge the gap between modern medicine and the pseudoscientific grounding of KM. NA is an approach that recognizes the value-laden and historical trust people place in KM. Therefore, NA can play a useful and critical role in responding to the problem of pseudoscientific schools of medicine inflicted on the health and well-being of Bangladesh and other developing countries.

**Bangladesh**

Located in South Asia, Bangladesh is about half the size of Germany. With a population of more than 164 million, it is the tenth most populated country in the world.4 A vast majority of its people live in poverty. While Bangladesh has expanded its national healthcare infrastructure to the rural village level, the system remains limited and ineffective.5 The lack of resources combined with mismanagement and corruption severely challenges the healthcare system.6 The government does not provide the needed attention, and the healthcare sector is mostly unaddressed. In Bangladesh, there is virtually no universal health coverage.7 Even government employees do not receive health protection, other than limited community-based health insurance.8 Also, there is inadequate access to private health insurance; currently, NGOs run these efforts.9 Healthcare needs far exceed available resources and the capacity of the infrastructure. Without a visionary plan, the situation will only continue to deteriorate for the Bangladeshi people. Given this situation, in the absence of available and affordable modern healthcare, traditional medicine is likely to remain the option of the first resort for many people, into the foreseeable future.10

**Kabiraji Medicine (KM)**

Generally, this therapeutic practice prevails and is most prevalent in rural areas, where the populace remains uneducated and has little to no contact with modern medicine. Thus, rural Bangladeshis remain entirely dependent on traditional medical practices like KM. The practitioners of KM are called Kabiraj. They are believed to be saints. There are 86,000 villages in Bangladesh, and almost every village has one or more Kabirajs.11

KM, in part, is a plant-based medicine, derived its remedies from the lush flora of Bangladesh. Some 5,000 species of plants grow in the Bangladeshi woodlands, and more than 1,000 are considered to carry medicinal properties. Almost all these plants and associated remedies have not been scientifically studied in terms of effectiveness or safety. For example, Tulshi leaves are prescribed for coughing. Neem leaves for malaria. And the juice of raw watermelon is recommended to counter the effects of typhoid.2

More so, the particular plant or animal product used to treat a particular disease varies by and depends upon the individual Kabiraj. So, within the practice of KM there is no standardization—only local lore and norms—as to which remedy is properly suited for a specific disease. There are three factors that the Kabirajs follow to legitimate their role: (1) the Kabiraj's own beliefs, (2) the anecdotes about the successes of their actions, and (3) the faithful acceptance of the practice by the community. There are no standard or consensual literature, guidelines, or best practices for the treatment; it solely depends on the particular kabiraj.11

Sometimes, applying one remedy for one disease creates unintended side effects which, then require a countermeasure—the application of another type of plant or oil to neutralize the side effects. These traditional practices have been applied for thousands of years; they are pre-modern and are integrated into the lore and narratives of the people. Historically and because of their so-called "special knowledge," Kabirajs, in many cases, have the full and unquestioned trust of the people.5

In most cases, if a patient is cured, credit is given to the powers of the Kabiraj. If the patient remains ill or dies, often the family and community lay blame on bad luck or the will of higher powers. Rarely is the healer or the prescribed healing method questioned or suspected as the source of the negative outcome. Given the proclaimed supernatural nature of their healing methods and being intertwined with religious beliefs, the validity and authority of the Kabirajs are rarely questioned. Therefore, KM is not only the only healing method available but also a crucial part of the worldview of the community.12 The ubiquitous presence of KM in Bangladesh rests on the integration of these beliefs and methods into the worldviews and therefore identities of the populace.

The fact that there is no scientific evidence to back up the claims made by the Kabirajs is never questioned because the notion of scientific proof does not exist within the worldviews and narratives of the rural people.This method of healing is believed to be miraculous, a gift of nature, and attests to the ineffable wonders of being. Given the methods used by the Kabirajs, the recovery rates are not systematically documented or known. However, currently, an overwhelming percentage of the population of Bangladesh believe that KM is real medicine, which also an affordable option available for desperately poor people.2

**Cultural Influence on KM**

For most Bangladeshis, KM is a type of holistic medicine in terms of beliefs, accessibility, and values. Many people still believe that illness results from the possession of the body by an evil spirit. The belief that the supernatural intervenes in everyday life is engrained in the conventional worldview. Even though many families could take advantage of modern healthcare, they defer and continue to call on and believe in KM.13

In the rural areas of Bangladesh, a medical decision is most often made by the oldest male member of the family. Belief in collective autonomy guides this cultural norm. Grandparents or great grandparents are the primary healthcare decision-makers for the family. Rural women have little voice and are encouraged not to venture beyond the community or village. Rural women almost always defer to decisions made by the head of the family. In terms of healthcare, this method of decision-making is rarely outward-looking or investigates other methods or options for treatment beyond those available within the local community. This social norm feeds “patients” into KM. There is a tight cultural loop to support and perpetuate the unquestioned status quo.14

Many lesser health issues that subside with time appear to be cured by Kabiraji treatments. However, with major diseases such as cancer, KM has no answers or cures. In these cases, evidence-based medicine is the only reliable option. Nevertheless, many people in Bangladesh—even in the direst medical circumstances—continue to rely on KM. The belief in Kabirajs is simply too entrenched into the local narrative to accept another alternative.

**National and International Literature about KM**

As mentioned earlier, traditional medicine in Bangladesh has been mostly overlooked in international literature. Only a few articles have been published on the subject, among them, one authored by Akter, et al. in 2018, focuses on breast cancer patients in Bangladesh and the consequences of delayed seeking treatment. This research studied 200 respondents in Bangladesh. The finding of this study cites the primary reasons for the delay in seeking treatment as convenience, accessibility, and hierarchy. They found that there is a substantial delay in seeking the attention of evidence-based medicine among patients with breast cancer because they believe in alternative medicine like KM. People simply move first to alternative practices because it is part of their worldviews and is readily accessible. According to this study, if patients sought scientific-based medicine in a timely manner, the mortality rate for breast cancer patients could be lessened by one-third of the current rate seen in Bangladesh.15

There are a few texts which are distributed by the Kabiraj, all in the local language, Bangla, which describes how “their” medicine works and offers prescriptions for particular diseases and ailments. But the authors provide no scientific evidence to its efficacy. These books read as storytelling. Among the very few books on KM, the most popular and readily available is “কবিরাজি শিক্ষা” (Kabiraji Sikha) by Kabiraj Narandronath Shen Gupto.14 There also are several small, descriptive handouts that the Kabiraj provide, but overwhelmingly the practice dependence on oral communication. KM goes on in the background of everyday life. The media attention given to KM has been so sparse that it is hard to find a column in the newspaper that covers the subject now. The sense is that no one wants to highlight the issue of fear of retribution or being socially chastised.

Also, these varied traditional practices have no agreed-upon or consistent “medical” text, nor any scientific evidence to found or validate their claims. The Kabirajs does not follow any standard procedures or documented best practices. They operate within a different worldview. Knowledge and practices are localized. Each of the Kabiraj names his successor, and they pass their knowledge from generation to generation. Knowledge is transmitted orally or via story, without any significant documentation.14 The Kabiraj maintain, protect, and expand their “markets” through superstition, social position, and fear. Generally, the local population believes—given their worldviews—that the wisdom and healing power the Kabiraj possess has been passed down from the time of immemorial, is spirit-based, and sacred.

**KM as a Branch of Pseudoscience**

Although there is no definitive line to separate science from pseudoscience, in many cases, it is quite obvious that a claim is scientific or pseudoscientific.16

In the realm of medical sciences, in most cases, pseudoscience can be identified by looking for two main features:

1. The theoretical principles and explanations, including anatomy, physiology, and pathophysiology, that are far from the standard scientific accounts of them in scientific medicine.
2. The practices (remedies, interventions, treatments, or claims) that are not supported by evidence-based methodology. In most cases, there are no accepted efficacy or safety studies available for such treatment procedures.

In many cases, the practice of medical pseudoscience is more popular in areas of illiteracy and minimal formal education.17 In the realm of healthcare, pseudoscientific practices are highly dangerous; they are detrimental to the general health and well-being of the people.18 Pseudoscientific claims create false hopes. Because of such, people delay effective “modern” treatments by using them. In addition, people spend their valuable financial resources on such baseless and mostly futile treatments. The delay in receiving evidence-based healthcare can be and often is lethal in cases of serious diseases such as cancer.

KM can be considered a branch of pseudoscience in terms of both the abovementioned features: Their supportive theories, rooted in the obsolete schools of Ayurveda and supernatural claims, are estranged to the scientific medical science. Also, there is no evidence to support their remedies or procedures.

Even though KM claims to be a “harmless,” these practices inhibit patients from seeking treatment through modern, evidence-based treatment options.19 Thus, the patient who could be cured via modern medicine remains ill. The breast cancer study is one prominent example of this quandary.

Parkhurst and Rahman reveal how reliance on non-profession health practitioners is a key reason for the high mortality rate of mothers during childbirth, and, in part, for the poor state of maternal health within Bangladesh. A prime example is a 16-year-old Muslim woman who, during her first pregnancy, suffers from complications and does not have access to proper care or facilities. The woman who survived the birth describes how difficult it was for her to access proper care and deliver her baby in an appropriate facility. The reliance on KM consistently places the rural, pregnant women in mortal danger. Most complications involving pregnancy can be routinely resolved through evidence-based medical interventions. Thus, KM places the women in danger, and the practice endangers the lives of their babies.20

As an example, a widespread and prominent claim by the Kabirajs is that KM can cure diabetics, which is clearly a pseudoscientific claim. *Mangifera indica* is the scientific name for the local plant-based remedy, “Aam,” which is prescribed widely used to control and heal people with diabetes. The medicine is prescribed as follows: "One seed pulp of *Mangifera indica* is macerated. One teaspoon corn flour is mixed with it. Thirty pills are prepared from the mixture. One pill is to be taken in the morning on an empty stomach for one month.” 11

A very recent claim made by a few Kabiraj is how to combat COVID-19. For instance, the following claim was posted on the Facebook page of proponents of KM in Bangla language, but subsequently was deleted by Facebook: “simply eat garlic, honey, and nigella by mouth with hot water, and they will kill the virus within the throat and will not let them enter the lungs.”

This pseudoscientific practice of therapeutic medicine in many ways—generally unintentionally but sometimes intentionally—exploits the uneducated, the poor, or those whose agency is usurped by patriarchal decision-making norms. KM offers false hopes of miraculous, spirit-influenced cures and plays on deep-rooted beliefs that stem from pre-scientific worldviews. The Kabirajs remain determined to maintain the prominent roles they hold within society. By doing so, they will continue to exploit and mystifying the underprivileged, poor, and uneducated.17

**How to Bring Light to the Darkness**

Changing the broad dependence on indigenous, pseudoscientific practices must be addressed by policymakers. But this will be no easy task; these practices arise from and rest upon deeply-held belief systems and are supported by unquestioned communal norms. To bring light to “this darkness,” it is critical to understand, appreciate, and respect the narratives of the people who believe in the *power* of KM. Policymakers cannot, as a means to eliminate KM, simply declare these embedded practices pseudoscientific, then pronounce them invalid. Such an approach will meet harsh resistance, and the story for reform will fall on deaf ears. KM is an integral component of the worldviews of millions of people. The practice of and belief in this medicine is rooted in their fundamental understandings of the world; it is woven into their identities. Most people who rely upon KM have never had the opportunity to take advantage of and have never be exposed to contemporary medicine. In many cases, individuals and families have never ventured far from their villages of birth. Discarding these traditional beliefs and practices will require a means to influence, reshape, and rënarrate their worldviews. To do this will require persuasion and respect. The consequence of trying to simply dislodge KM by force or fiat will prove counter-productive, worsen the problem, and create a more significant breakdown in the already weak healthcare system in Bangladesh.2

Before attempting to radically alter these traditional medical practices, policymakers must first understand the values of the people—their stories—if they hope to have the rural populace hear their pleas for change. Narrative Authority can be used as a valuable asset in this quest for change.

Narrative Authority is an approach to support and guide policymakers, and a means to gain access to how and why the narratives of the rural people create their sophisticated worldviews. This approach and associated narrative-based research methodology fundamentally shift the understanding of healthcare (and human) relationships from the abstract and privileged *consumer-provider* model and reinterpret it as one that is shared and other-oriented, where one sees the *other-as-self.*21 From there, it becomes possible to construct strategies and solutions to guide the rural populace of Bangladesh to embrace modern healthcare practices without forsaking their heritage or violating social norms.

**Practicing Narrative Authority in the Changing Landscape**

The solutions proposed through the lens of Narrative Authority are intended to (1) overcome the “superstitious” beliefs that give the Kabirajs their powerful social role, and (2) introduce the strength and efficacy of evidence-based medicine to the rural areas of Bangladesh. By practicing NA, policymakers first can recognize the role KM plays in the healthcare practices of Bangladesh then respond with a clinical groundwork to reposition and to re-narrate how KM is applied.

Narrative Authority builds upon and expands an approach to healthcare that is currently prevalent in the West: *Narrative Medicine*. Narrative Medicine utilizes individual narratives in clinical practices, research, and education to promote healing. Narrative Medicine rests on the three-domain: attention, affiliation, & representation.22 Like NA, Narrative Medicine is other-oriented, narrative-centric, socially constructive in nature. It is proven and gaining more adherents in varied medical settings. Like Narrative Medicine, Narrative Authority is an emerging concept that can be helpful in reshaping Eastern practices along with strengthening the value of stories with Western medical practice. What NA adds to the power of Narrative Medicine is a broader narrative perspective.

Narrative Authority is positioned to interpret the narrative basis through which structural and organizational components of healthcare arise, as well as how narratives make possible particular identities to emerge and have significance within a narrative constructed setting. Below are some approaches that policymakers can take within the light of NA.

* **Build Relationship with the Local People:** As a story-sharing approach, NA by nature, serves to build relationships. Relationship building serves as a concrete means to ethically craft or re-narrate individual and group stories in ways that offer sense-making to alter normative healthcare (or social) practices. These re-narrated, “accepted” stories then become integrated as lore and will be further documented and shared, thus standardizing the way in which healthcare information is dispensed and taught. NA can bring about a reconfiguring of everyday practices by helping to reshape the stories that give rise to both the significance and meaning of normative practices and individual and group identities. Policymakers who recognize and respect the expansive role KM plays currently can seize the opportunity to shape and influence the direction of the future health system of Bangladesh. NA offers a perspective and associated tool to guides healthcare professionals and policymakers to establish trusting relationships with rural communities, which is paramount if any change is to occur. This means viewing and addressing the other as an equal who is in possession of a valid, sophisticated, and belief-based worldview that is constructed on cultural guides and economic conditions. NA is designed to avoid such privileging mistakes.
* **Understand the Lived Experience of the Other:** Complementary to and necessary for building relationships is the necessity to understand and respect the lived experience of rural people. Doing such is built into both the perspective and associated tools of NA. Opening oneself to the other’s lived experience is the fundamental starting point for dialogue and trust-building. NA accomplishes this important step in a similar fashion to Gastman’s normative standard of care—lived experience is the first step towards approaching any problem. The purpose of such an approach is not to fix the problem but to first understand the issues.19 This is why NA relies on a not-knowing approach to any situation.
* **Practice Non-judgmental Communication:** As mentioned above, holding or coming to a situation with a presumptive conclusion generally hinders and taints the process of an open conversation. Through communication that is open, not knowing, non-prescriptive, and founded on what is revealed through the lived experience of the other, healthcare professionals and policymakers can trust a process which guides them not to judge or adjudicate, but rather to offer access to the healing possibilities of evidenced-based medicine without eradicating the belief structures that found KM. All the queries and questions that come from change-agents should be non-judgmental, empathetic, sensitive, and respectful to uphold and reinforce the dignity and norms of those with whom they are speaking.13 Adopting a narrative-founded, other-as-self, non-judgmental communications approach will help change-agents, from all walks, gain the people’s trust, which is fundamental to introducing alternative practices that will be accepted and embraced by the populace.
* **Interview & Gather Stories:** NA guides policymaker to recognize and accept the role KM plays in healthcare and as an integral component of the worldview of most people who are living in rural villages. Policymakers should be trained in NA interviewing and story-gathering and documentation practices. These change-agents can then build respectful and strong relationships with key village influencers to establish trust and offer an alternative and complementary understanding of healthcare. The key is the fundamental NA-guided shift of the perspective and approach by which healthcare workers and policymakers come to *see* rural, poorly educated people.
* **Policy-focused Program:** NA provides a system of thinking and action that should be incorporated into medical training and policy-focused programs with the goals of including a narrative, humanistic, dialogical, and ethical foundations to these “professions.” The voices of those who hold a different worldview must be heard and recognized as valid in order to bring a meaningful, non-coercive change to the current landscape.

NA offers a hermeneutical approach to change. It presumes a given historical configuration that can be reshaped and re-narrated through stories that imagine desired futures. It is a mistake to go to “war” with the Kabirajs. Bangladesh will never effectively or ethically reshape healthcare through this approach. To integrate modern medicine in the current healthcare practice requires reconfiguring the worldviews and narratives of the populace through compassion, trust-building, and shared understanding. Of course, these efforts will take time and require ongoing conversations and consistent, respectful engagements. Such change also will require an investment in infrastructure and making healthcare practitioners and facilities available to the rural people. More so, modern healthcare must be made affordable to those who are extremely poor and uneducated.

Thus, the policymakers in Bangladesh must implement a comprehensive, context-sensitive narrative model to establish faith and trust in evidence-based medicine and to ensure healthcare services are easily accessible, operationally viable, and affordable. We believe Narrative Authority is one such model. The first step, regardless of model, is for all to (1) hold empathy for others, and (2) tend the needs with compassion and without judgment.

KM presents an ethical crisis for Bangladesh. In conjunction with the suggestions above, the rampant use of traditional medicines in Bangladesh and other developing countries must be brought to the attention of international media and health organizations globally. This can be achieved by encouraging and funding research and the generation of academic papers and related reports.NA offers the means to drive this needed change.

**Conclusions**

Due to the lack of access to modern healthcare, insufficient regulation, lax enforcement of existing regulations, poverty, and illiteracy, most Bangladeshis call upon traditional medicines, such as KM, when they are ill. The dependence on KM delays or makes it impossible for the ill to find access to contemporary treatments. As a result, untold numbers of people suffer who might otherwise find relief from their ailments. Also, since there is little research on the scope of this problem, policymakers have little incentive to enforce existing laws or upset traditional social norms, even though traditional medicines are generally ineffective, and the Kabirajs exploit the uneducated and vulnerable. This pseudoscientific practice needs to be stopped if effective healthcare is to be established in Bangladesh. The worldview of most village people in Bangladesh incorporates KM. A direct, one-way intervention or attempting to dictate change will prove counterproductive. This paper recommends NA as a means to guide and help the policymakers to make inroads with the populace in the attempt to shape the future well-being of the village people. NA is a guide to help change-makers appreciate the worldviews and stories of those who will benefit most from the change. This understanding will lead to dialogue, trust-building, and persuasion; the populace will come to embrace modern medicine, not as something that extinguishes their traditional ways, but means to strengthen their communities and allows them to continue to build lives that are rich, value-driven, and spirit-based.

**A statement of competing interests and funding support**

The authors of this paper don’t have any conflict of interest. They have not received any specific funding for this study.

**Acknowledgement**

The authors would like to thank the fellowship program of the Bioethics Institute of Edinboro University of Pennsylvania for its non-financial help and support in conducting this study and preparing this paper.

**References**

1. World Health Organization. WHO traditional medicine strategy: 2014-2023. Geneva: WHO2013.

2. Haque MI, Chowdhury A, Shahjahan M, Harun MGD. Traditional healing practices in rural Bangladesh: a qualitative investigation. BMC complementary and alternative medicine. 2018;18(1):62.

3. Mahmood SAI. Health Systems in Bangladesh. Health Systems and Policy Research. 2012;1(1):1-4.

4. Worldometers.info. Bangladesh Population. Dover, Delaware, U.S.A. [cited 2020 5/9/2020]; Available from: https://www.worldometers.info/world-population/bangladesh-population/.

5. Mahmudur Rahman AHM, Rafieian-Kopaei M. An ethno-pharmacological study of plants used for traditional medication in Tangail district, Bangladesh. Electron Physician. 2017;9(7):4759-65.

6. Chaos, corruption persistent in health sector. New Age. [cited 2019 01/19/2019]; Available from: http://www.newagebd.net/article/62172/chaos-corruption-persistent-in-health-sector/.

7. Chaudhury TZ, Mannan I. Universal Health Coverage in Bangladesh: Activities, Challenges, and Suggestions. Advances in Public Health. 2019;2019:1-12.

8. Siddiquee MSH, Rahman MH. A Survey on Available Health Protection Schemes for the Formal Sectors in Bangladesh. Dhaka, Bangladesh2017.

9. Molla AA, Chi C. Who pays for healthcare in Bangladesh? An analysis of progressivity in health systems financing. Int J Equity Health. 2017;16(1):167-.

10. Shafique S, Bhattacharyya DS, Anwar I, Adams A. Right to health and social justice in Bangladesh: ethical dilemmas and obligations of state and non-state actors to ensure health for urban poor. BMC medical ethics. 2018;19(Suppl 1):46.

11. Maema LP, Mahlo SM, Potgieter MJ. Ethnomedicinal uses of indigenous plant species in Mogalakwena Municipality of Waterberg District, Limpopo Province South Africa. International Journal of Traditional and Complementary Medicine. 2017;2(18).

12. Rashid S. Heritage, Folk Medicine and Kaviraji Treatment in Bangladesh. In: Falk E, editor. Traditional Medicine. Republic of Korea: ICHCAP. p. 53-62.

13. Galante L, French C, Grace KB. Nursing Perspectives in Managing Patients with Substance Abuse. In: Kaye AD, Vadivelu N, Urman RD, editors. Substance Abuse. New York, NY: Springer; 2015. p. 229-48.

14. কবিরাজি শিক্ষা. Kolkata, India: Sri Shaktipada Sen; 1894.

15. Akhtar K, Akhtar K, Rahman MM. Use of Alternative Medicine Is Delaying Health-Seeking Behavior by Bangladeshi Breast Cancer Patients. Eur J Breast Health. 2018;14(3):166-72.

16. Lilienfeld SO. Foreword: Navigating a Post-Truth World: Ten Enduring Lessons from the Study of Pseudoscience. In: Kaufman AB, Kaufman JC, editors. Pseudoscience: The Conspiracy Against Science. Cambridge: The MIT Press; 2019. p. xi- xix.

17. Aramesh K. Science and Pseudoscience in Traditional Iranian Medicine&nbsp. Arch Iran Med. 2018;21(7):315-23.

18. González-Méijome JM. Science, pseudoscience, evidence-based practice and post truth. J Optom. 2017;10(4):203-4.

19. Gastmans C. Dignity-enhancing nursing care: a foundational ethical framework. Nursing ethics. 2013;20(2):142-9.

20. Parkhurst JO, Rahman SA. Non-professional health practitioners and referrals to facilities: lessons from maternal care in Bangladesh. Health policy and planning. 2007;22(3):149-55.

21. Hossain F. Narrative authority: A key to culturally competent healthcare. In: Gielen J, editor. Dealing with bioethical issue in a globalized world. Switzerland: Springer; 2020. p. 157-94.

22. Charon R. What to do with stories: the sciences of narrative medicine. Can Fam Physician. 2007;53(8):1265-7.