

Does BAMS stand for Bachelor of Ayurveda and Medical Superstitions?

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The *Gazette of India: Extraordinary* published "The National Commission for Indian System of Medicine Notification." on February 17, 2022 [1]. This official document of the Government of India is worrying as it institutionalises a world view that has been gradually turning the ancient science of Ayurveda into a pseudoscience.

Table 2 of the Notification enumerates the subjects taught in the first professional Bachelor of Ayurvedic Medicine and Surgery (BAMS) course. The names of the subjects are in Sanskrit and their equivalent terms, in English. The way *Padartha Vigyan*, a subject dealing with the philosophical bases of Ayurvedic concepts, has been rendered in English is hugely problematic. According to the notification, this subject deals with the "fundamental principles of Ayurveda and quantum mechanics"!

The detailed syllabus of *Padartha Vigyan* is available on the website of The National Commission for Indian System of Medicine [2]. A cursory glance through the syllabus is enough to see that its aim is to acquaint the student with Indian philosophical systems in their relation to Ayurvedic concepts. The Ayurvedic pioneers, in an endeavour to systematise their medical experience, relied heavily upon the philosophical systems - the *Sankhya* and the *Nyaya-Vaisheshika*, especially [3]. An understanding of these systems is imperative to get a sense of the evolution of Ayurvedic concepts. The study of *Padartha Vigyan* is therefore perfectly necessary and valid.

The subject however has nothing at all to do with quantum physics. The notification's inclusion of quantum mechanics within the purview of *Padartha Vigyan* springs from a presupposition that ancient Indian philosophical literature contains advanced science couched in pithy utterances. This presupposition leads to dangerous pseudoscience. It fossilises outdated medical conjectures contained in ancient texts with the sad hope that as science advances, the truth of those conjectures would be proved! Well-known scholars of Indian philosophy have always denounced this approach. Professor M Hiriyanna, for instance, says it point-blank: "The value of the science contained in the (philosophical) systems cannot be great now when experimental methods of investigation have advanced so much." [4]

However, the fad of "discovering" the ideas of advanced science in ancient Indian philosophical texts continues unabated. It receives support not only from jingoistic propagandists of "Vedic science" in India but also from New Age enthusiasts in the West. The fad has nevertheless been repeatedly called out by well-known scholars and scientists [5]. In fact, even in the specific context of Ayurveda, the emptiness of its claims has been outed by commentators [6].

Brushing aside these commentators as anti-traditional, and uncaringly pursuing a line of thought that is wholly opposed to the evidence-based character of classical Ayurveda is a disservice to this valuable medical heritage. As explained elsewhere, such an approach produces bad science, badly trained professionals, and bad healthcare [3]. BAMS is supposed to mean Bachelor of Ayurvedic Medicine and Surgery. May it not degenerate into becoming "Bachelor of Ayurveda and Medical Superstitions"?

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Ethical implications of online healthcare data sharing in the Indian context

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Technology is not only changing the way doctors and patients communicate, but also how physicians interact with other healthcare providers. This interaction has increasingly begun to be over online media such as telemedicine networks/instant messaging apps/social media/emails. The Covid-19 pandemic has further spurred the rapid adoption of these digital healthcare technologies, amplifying the potential risks for data breach of sensitive personal information.

Patient privacy and confidentiality are considered the cornerstones of medical ethics. These encourage the patient to provide the doctor with relevant information which forms the basis for making correct diagnoses and offering treatment. Physicians, in turn, have a moral, ethical and legal obligation to keep all patient information confidential. To this end, the Supreme Court of India, in 2017, ruled that privacy is an intrinsic element of the fundamental right to life and liberty [1].

The general attitude towards patient privacy and confidentiality remains a major problem in India. Neurologists, for instance, have frequently started using online platforms that are not designed to protect privacy, placing the security of patient information under constant threat of data breaches. It has become commonplace to see patients' MRI images, clinical videos and other investigation results being shared among physician groups on these media with the intention of seeking an expert/second opinion. De-identification is often not observed in such circumstances because of a lack of awareness about what constitutes a breach of confidentiality. Alarming, in a recent survey, 13% of participating doctors expressed no reservations about sharing identifiable patient data [2]. Lack of awareness amongst patients about the possible risks involved in providing their own personal data over the internet complicates matters further. Patients often have limited understanding of how their data entrusted to third party healthcare apps is being shared and used. A recent study in this regard from the University of Massachusetts and Stony Brook University revealed that over 70% of smartphone apps send users' personal data to third-party tracking companies [3]. These apps can be used to track users across multiple platforms and can harvest unique identifiers that can be misused for identity theft, posing significant financial and health risks.

Moreover, the laws governing health data privacy are still in their infancy in India. Currently, collection, storage and transfer of sensitive personal data in electronic form is subject to the Information Technology Rules, 2011[4]. This law is, however, only limited to obtaining consent prior to collection or transfer of the data. More recently, telemedicine guidelines were issued by the Ministry of Health and Family Welfare (MoHFW) in March 2020. Under these guidelines, a registered medical practitioner (RMP) would be required to fully abide by Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002, for protecting patient privacy and confidentiality. Additionally, a new bill proposed by the Ministry of Health and Family Welfare, still under review, known as the Digital Information Security in Healthcare Act ('DISHA'), focuses primarily on healthcare data privacy, confidentiality, security and standardisation. A negligent breach of healthcare data that is not de-identified or anonymised is, in fact, considered a serious violation under this Act, with the person responsible being punishable with imprisonment up to 5 years [5].

Although stringent rules, laws and regulation are urgently called for, there are definitely other ways of minimising risk, even though it cannot be completely eliminated. It is important for doctors to educate themselves to be vigilant and aware while sharing patient related information over any online medium even if it is de-identified. Doctors also need to make sure that the data being communicated is shared only

within the circle of care and that too with the patient's explicit consent. Additionally, this discussion with the patient needs to be documented in patient records. Physicians need to be mindful that they are governed by the same legal and professional standards when consulting online/sharing information as would apply in an in-person setting. Appropriate use of encryption software would prove valuable in protecting electronic messages. From the patients' perspective, campaigns educating patients on the impact of sharing sensitive health information can be carried out through social media or during first contact with the health care agency [6]. Frequent discussions about protecting privacy and confidentiality need to take place between physicians, involved third-parties, patient advocates and various other stakeholders.

In conclusion, despite the convenience of online platforms, these methods of communication are often the least secure and the least private. Both physicians and patients should be mindful of what is being shared online and with whom. Doctors need to become ardent advocates for patients in this regard. These data sharing challenges necessitate implementation of additional laws to help patients and doctors in navigating this complex data sharing landscape with greater confidence.

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