On Hygiene Practices in Ancient India and its Relation to Ritual Purity

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Abstract

The practice of medicine was quite advanced in ancient India as exemplified by texts such as $\hat{S}u\hat{s}ruta$ and $Caraka\ Samhitas$. In addition to such specialized texts, we see evidence of medical practice in the corpus of $Itih\bar{a}sa$ - $Pur\bar{a}na$ literature also, often cloaked in metaphors and stories. With the worldwide Covid-19 pandemic, public-health concerns such as social distancing, masking and enhanced hygiene to prevent spreading of the virus is widely practiced. Lesser known is that ancient Indians were well aware of public health and had systems in place for the same. In this paper, we make the following contributions:

- 1. We examine Western claims on Indian indebtedness to Greek medicine, and show otherwise.
- 2. We examine *Itihāsa-Purāṇa* literature for evidence of knowledge of disease transmissions.
- 3. We examine evidence for public health practices prior to colonial rule.
- 4. We advance the notion that overarching concerns about immunity and public health manifested in society via ritual purity rules, rather than the so-called 'caste' chauvinism.

Full paper

From ancient times, different civilizations have practiced medicine in varying degrees of complexity, given the importance of individual and public health to societies. The practice of medicine was quite advanced in ancient India as exemplified by texts such as Súsruta and Caraka Samhitās. In addition to specialized texts, we see evidence of medical practice in the corpus of *Itihāsa-Purāṇa* literature also, often cloaked in metaphors and stories.

Despite the vast advances made by ancient Indians, there are sections of Western academia that still maintain the influence of Greek medicine on India, using the example of Unāni [1],[2]. The Western narration of Indian advances in medicine is further colored by a distorted representation of Indian history and social dynamics. With the worldwide Covid-19 pandemic, public-health concerns such as social distancing, masking and enhanced hygiene to prevent spreading of the virus is widely practiced, greatly increasing public awareness. Lesser known is that ancient Indians were well aware of public health issues and had systems in place for the same.

In this paper, we make the following contributions:

- 1. We address the corruption of Indian Knowledge Systems by Europeans
- 2. We examine *Itihāsa-Purāna* literature for evidence of knowledge of disease transmissions
- 3. We examine evidence for public health practices prior to colonial rule.
- 4. We advance the notion that overarching concerns about immunity and public health manifested in society via ritual purity rules, rather than the conflict-model of "caste" chauvinism/ oppression/discrimination.

The Corruption of Bhāratīja Culture, Heritage, History and Knowledge Systems

Much of Indian advances in the past in many areas of knowledge have been poorly presented. Thanks to a corrupted version of ancient Indian history (or deep history) that is enforced in our textbooks, media and administration. At least five agencies are complicit in corrupted historiography of India [3]: (1) the Colonial historiography enterprise; (2) Eurocentric assertions on racial theories and linguistic theories positing invasion of Aryans from Central Asia; (3) Missionaries with misleading interpretations of

Sanskrit works, colored by Christian thought; (4) Leftist Socialist academia that imposes outsider lenses to view all of Indian social dynamics in the context of conflict dynamics; (5) Marxist lobbies in the education sector that seek destruction of Indian social orders to usher in its goal of a classless future.

The impact of these five agencies on historiography and consequently on the Bhāratīya identity is enormous, thanks to the unrestricted infiltration of their ideological content in high school education, in popular media and policies of the government, where we see the interweaving of the ideologies of these agencies embedded in their narration of history. These inimical forces continue to exert undue influence today, preventing the correction of their failed assertions by attacking and pejorative pigeon-holing of the researchers who question their assertions, and prohibiting their voices from being heard via academia gate-keeping. Multi-disciplinary, evidence-based research on the deep history of the Bhāratīya civilization shows an ancient civilization that made major advances in several fields of study [4].

The enforced narrative of Indian history positions India as being invaded by illiterate Āryans from 1500 BCE who destroyed the ancient Harappa civilization, and become literate much later around Ashokan times in Magadha after contact with the Greeks. Consequently as a result of their recent literate status, Indians are positioned as students of the apparently more ancient civilizations of Babylon and Greece, learning advanced math, astronomy and medicine from them. The denial of agency in the narration of our history prevents scholars from challenging the erasure of scholarship, civilization and antiquity of Indians.

Indian history is witness to invasions that destroyed much of the Indian knowledge systems and society, all through the Muslim period and colonial period. While the Islamic period was marked by destructive violence and extreme prejudice towards Hindu practices and society, the colonial period wreaked destruction in an insidious manner via the ethnocide enacted by them accompanied by overt violence.

The British practiced ethnocide by at least five mechanisms [5]: (1) The creation of widespread poverty in all classes of society resulting in several famines, destruction of livelihoods, industries and markets; (2) destruction of the Bhāratīya identity of *Jati-Varna-Kula* by manufacturing and enforcing caste, creating false immobile hierarchies, generating tremendous disunity among the masses and breakdown of society; (3) destruction of identity via corruption of Indian history, thereby denying the antiquity of the civilization and authority of its ancient texts; (4) destruction of religion via missionary activities, thereby sowing enormous discord in society as witnessed by the atrocity literature generated by missionaries to alienate entire sections of society from Hindu faith & the bigoted slants in their translations of Sanskrit texts; and (5) destruction of Bhāratīya learning systems via enforcement of English, distancing Indians from Sanskrit and creating a class of elites who looked down upon Indic culture. As a result of this ethnocide, Indians today have lost almost all knowledge of their ancient ancestors, their advances in knowledge systems, their practices and way of life, their history, and more. This state of ignorance is enforced in our textbooks, and worse, has resulted in a distorted view of all of Indian practices.

One such spurious notion that has gained widespread notoriety by virtue of Goebbels-style *ad nauseam* repetition is positioning the practices of "ritual purity" that is followed by people of different *Varna*, as "evil", "inhumane", "oppressive" and "discriminatory". Such a positioning has been effected via the creation of "hierarchical caste" with "upper" and "lower", and gratuitous translations of *Smṛtis* such as Manusmṛti as the eternal law of the Hindus.

In this paper, "ritual purity" is interpreted as practices with awareness of public health by people of different *Varṇas*, in sharp contrast to the conflict-dynamics lens that is imposed on such by the agencies noted earlier.

Evidences of Public Health Awareness in the Ancient Past

In ancient India, wisdom was often woven as metaphors in entertaining stories, because people readily remember infotainment rather than dry subject matter – evidenced by the persistence of *Purāṇa* stories – for example – over thousands of years. If one has the key to unlock the metaphors in stories, then one can appreciate the wisdom communicated. Failure to appreciate the metaphors leaves one at a pedestrian level of understanding, dismissing these stories as "mythologies". As an example, ancient Indians were not fools in anthropomorphizing the Moon and wedding him to the 27 Nakṣatras [6], but intended to communicate information about the stars spread across Moon's path as a means of tracking the passage of Sidereal time. A fascinating story from *Yoga-Vasiṣṭha* [7] reveals knowledge of germs in the transmission of disease and the need for a hygienic lifestyle.

The Story of Karkați

Vasiṣṭha-Gītā is a discussion between young Rāma and Sage Vasiṣṭha to lead Rama in a path to Self-realization. Also called Yoga-Vasiṣṭha and Jñāna-Vasiṣṭha, Vasiṣṭha-Gītā is a collection of 32,000 sìlokas independent of the main Rāmāyaṇa storyline. Yoga-Vasiṣṭha consists of six segments. In the first, called 'Vairagya' segment, Rṣi Vasiṣṭha and Visvāmitra are asked hundreds of questions by Rāma, which are answered in the other five segments. On the request of Rṣi Visvāmitra, Vasiṣṭha narrates a series of stories highlighting various aspects such as qualifications of a true seeker, true nature of creation, existence, dissolution and liberation. Since Rāma is young, the narration is told through stories. The story here is from Karkatopākhyānam, in the 'Utpatti' segment, i.e., true nature of creation.

Karkați is a monster, gigantic in size, demonic in appearance and has unparalleled might. She can break anybody into pieces and eat one by one or can eat all at once. However, insatiable hunger is her biggest weakness, such that even after feeding on the inhabitants of *Jambu Dweepa*, she is not satiated. The story says that she doesn't eat everyone, but avoids people who are guarded by their *mantras*, medicines, austerities, devotions and charities.

To get over her weakness, she performed $Tapasy\bar{a}$ for a thousand years, and is granted a boon by Brahmā. Karkaṭi asks for $An\bar{a}yasi$ - $\bar{a}yasi$. $An\bar{a}yasi$ means iron like substance and $\bar{A}yasi$ means the size of a pin $(Suchik\bar{a})$. She is able to get into any substance like an iron needle and suck blood and kill whoever been attacked. The name of the disease is called $Vis\bar{u}chik\bar{a}$. The transformation of Karkaṭi from gigantic demonic size to tiny virus-like form did not happen all at once instead it happened in stages. It is very similar to the life cycle of a butterfly but with 8 stages.

The body of $Suchik\bar{a}$ is described to be tiny and containing so little substance that light is able to pass through it and make it shine. The scriptures describe this tiny size very poetically. They relate that it can be seen when we squint. The verses also reveal whom the $Suchik\tilde{a}$ would attack and how it spreads. Intemperate Diets: She attacks the people who do not follow eating habits that are prescribed by scriptures. Several scriptures, such as \tilde{A} yurveda, yoga etc, describe healthy eating habits and control on what to eat, when to eat, where to eat, how to eat, and how much to eat.

How it attacks: With a size comparable to the tip of a needle, the virus enters the body through our nostrils and ears. It then enters the heart and disturbs our sleep. It affects the liver, intestines, and other organs. It does not distinguish between the wise and unwise and attacks the intemperate among both.

Boon to the wise: While Brahma gave a pandemic causing boon to Karkati, he also gave a remedy in the form of a *Mantra* to the wise to chant, to be rescued from the virus.

A detailed list is provided where the virus can be found on the human body.

• Those with defective arteries, pulses, and other body parts

- In the bones, glands, intestines, entrails, and genitals
- In the pores, lines, and lineaments, under the fisted fingers, on naked and uncovered bodies
- Those with high blood pressure, who are drinkers and smokers, with less pigment in the skin
- Dirty clothes and unclean areas of the home
- Tourist places, densely populated and dusty areas
- Places with poor drainage and improper sanitation
- In tree trunks, on fallen leaves, roads of snow, forests
- With flies, crows, honeybees, and the like
- On land and in the air

As with most Indian texts we cannot yet reliably state the date of this work, but it suffices for our purposes to note that much before the microscope era ushered by Leeuwenhoek, ancient Indians were aware of the germ theory of causing diseases as well as ways to prevent contracting them by temperate diets and hygiene.

Immunology in Āyurveda

The ancient texts of Śuśruta Saṃhitā, Caraka Saṃhitā and several others demonstrate that ancient India had a well-developed system of medicine, encompassing prevention and cure. The antiquity of these sciences and their impact on the ancient world is discussed in [8]. Ayurveda which derives from Atharvaveda has been the bedrock of Indian medicine over thousands of years, and is one of the few disciplines of ancient India that continues to the present day, owing to its widespread practice and acceptability. The notion of immunology is identified as *Vyādhikshamatva* in Ayurveda [9], and the related *Oja* [10], and their antecedents and practice adds to the evidence of ancient Indian understanding of disease agents, prevention, hygiene, and immunology.

Inoculation & Vaccination in Colonial India

Indians practiced variolation and vaccination to protect against smallpox. Variolation refers to the practice of infecting a healthy person by pricking with a needle coated with smallpox matter of another person, while vaccination is done using cowpox. There is evidence from British records that both were practiced in different parts of India to immunize against smallpox. In a 1767 publication [11], the author notes that inoculation is performed in Hindustan by a particular tribe of Brahmins who are delegated annually for this service. The author further notes that dividing themselves into small parties of three or four each, they plan their travelling circuits so as to arrive at their destinations some weeks before the usual return of the disease in the Bengal Provinces.

In another publication [12] from 1819, the author notes that an ancient work attributed to Dhanvantari describes nine species of small-pox, of which three are incurable, while rules of inoculation are laid down to cure the remaining. Describing a Sanskrit procedure, the author notes, "take the fluid of the pox on the udder of a cow (vaccine), or on the arm between shoulder and elbow of a human subject (variolation), on the point of a lancet till the blood appears; then mixing the fluid with the blood, the fever of the Small-pox will be produced". After inoculation (or vaccination), the author notes the onset of a fever lasting two to three days, and an attendant swelling which will disappear in 3 days. In a third publication in 1827 [13], the author notes that inoculation is performed by the Odiah Brahmins to the inhabitants of villages north of Vishakhāpaṭanam, as follows: "a certain quantity of cotton to be wetted with the matter of a favorable small-pox, and from 200 to 400 people assembled in Sunday and Thursday; a cut to be given upon their arms with an instrument". Following this the inoculated people follow a prescribed diet, rub their bodies with oil and turmeric and in three days time, are free of fever and other symptoms.

These practices were prevalent much before Jenner-era of vaccination in Europe. From [8], we see the spread of medical knowledge from India to Muslim Arabia from the 8th century onwards, and from Arabic texts to Latin texts via Aleppo in Syria, Sicily and Toledo to Europe (see also [14]). In fact, the British brought their form of vaccination in the 19th century to India, but it was not widespread yet, with the majority of the population preferring the traditional variolation, till the British outlawed the practice in 1865 [14], thereby killing the ancient Indian practice of immunization entirely.

Several points can be inferred from these colonial eye-witness accounts. The colonial eye-witness accounts show a mature practice of variolation and vaccination indicating a far greater antiquity than the colonial times. They show public health awareness in the face of seasonal onset of epidemics, planning ahead of seasonal outbreaks, awareness that entire villages have to be inoculated, rather than just individuals. They also show Brahmins performing the inoculation for all classes of society. In [16, p.266], we note that inoculation was performed by Tikadars who included Brāhmins, Āchāryas, Potters, Shell-cutters, and more.

We have presented evidence for the following (1) public and widespread awareness of germ-based transmission of disease from very early times as exemplified in the story of *Karkaţi*; (2) evidence of advanced knowledge of medical practice, hygiene, prevention, cure and immunology in ancient Indian medical works; (3) evidence of knowledge of public health, inoculation and vaccination against deadly diseases. India being a tropical country must have suffered for thousands of years with recurrent spells of tropical diseases such as cholera, small-pox, malaria and more, accentuated during monsoons. Such epidemics would have been the driver for innovations in public health leading to inoculation.

From ancient times, Indians had good knowledge of disease transmission, causes, and accorded high importance to hygiene and immunity. The "Sauca" practices demonstrate the encoding of this knowledge in everyday practices

The Spurious Notion of "Caste"

Colonial construction of "caste" has been studied by several authors [15, 16, 17]. It is now clear to most scholars that the classical fluid Jati-Varna/Kula system has been perverted into the immobile, hierarchical "caste" system by the Colonial and Missionary enterprise and avidly held up today by Socialist and Marxist elements who control academia, and position all of Indian social dynamics using conflict-models. In such ideologically-aligned works we see accusations of "oppression and discrimination" by the "upper castes" on the "lower & backward castes" and on "untouchables".

To prop up this narrative, a marquee reference is the Rig Veda's Puruṣa Sūkta, 10.90.11 [18], and verses from Manusmṛti. The Puruṣa Sūkatam Rk that translates to "His mouth became the Brāhmaṇa, his arms became the Rājanya, his thighs became the Vaiśya; the Śūdra was born from his feet" is positioned as divisive and discriminatory. Even a cursory reading of the context of the neighboring verses shows the intent of the Rks as a metaphoric description of creation, emphasizing functional organization of society, rather than division.

In an evidence-based investigation of such oft-quoted allegations, rationality and logic demands seeking at least three viewpoints and examining the evidence: (i) a top-down traditional aspirational view that reveals the goals of the civilization through its philosophies; (ii) the bottom-up "subaltern" practitioner's view that shows how the practices impacted society; and (iii) historical view that seeks an evidence-based bridge of the top-down and bottom-up views [19]. Only such an understanding helps to get a 360-degree view of the social institutions that are demonized today. Unfortunately, in present times, a shallow ahistorical bottom-up subaltern viewpoint alone is privileged, with other viewpoints positioned as "fascist/Hindutva", thereby enforcing a bigoted ideological narrative.

As examples of a top-down understanding, in the Bhagavadgītā 4.13 and 18.42, we see that Varna is not by birth but determined by the *Guṇas* or disposition of the individual. In the work Vajra-Sūchi Upaniṣad attributed to (but disputed) Adi Shankara, rhetorical questions are asked about who is a Brāhmaṇa. Is he chief as stated by *Smṛti* or is there something special about his *jiva* or *deha* or color or *jati*, or *jñāna*, or *karma*, or *dharmic* actions. The work concludes that these aspects are common for all people, but a Brāhmaṇa is one who is a realized Ātman, devoid of jealousy, greed, want, negativisms and has benevolence towards all creation.

Whether it is a description of occupations of Kapilavastu's residents in Buddhist records, or Megesthenes observations of 7 categories of people in Magadha, the historical tradition is silent on the supposed discriminatory hierarchy. The social organization of Indic society contributed greatly to its wealth over thousands of years, as noted by scholars such as Angus Maddison, which could hardly have been possible in an exploitive or discriminatory social system. History records Kings often inviting Brahmanas to settle in their kingdoms to spread learning and knowledge (see also Dharampal) which enabled artisans to create goods of value, and to usher in prosperity. The historic record also shows the concentration of power and wealth for thousands of years among the so-called "lower castes", while the so-called "upper caste Brāhmins" had neither power nor wealth [19]. The historical record thus belies the claims of a discriminatory hierarchy.

Following a deep study of European construction of "caste", Sudha Mohan [16] shows how Varna/Kula was defined by the Achara practices, Sauca and aSauca which have been perverted as untouchability, and how mobility across Varna/Kula was possible by adopting appropriate Achara and Sauca practices. Interestingly, [16, p.67] also documents how pariahs disallowed Brāhmaṇas cross their streets, and vice-versa. Another interesting tidbit is that Brāhmaṇas considered it good luck to cross streets of the "low-caste" Holiars, whereas Holiars would beat the Brāhmaṇas who attempt to do so. Quoting P.V.Kane, [16, p.96], Sauca practices are not aimed to discriminate against anyone. Neither were they meant for racial nor bloodline "purity" (as practiced by Europe), but to keep the body and mind clean, pure and stable. From these, we infer that Sauca practices were ritualized with greater emphasis on practice by Brāhmaṇas and lesser among other Varṇas. For a civilization that had the Mahā-Vākyas that emphasized oneness of all creation with Brahman, it is paradoxical and incredibly shallow to have a discriminatory approach towards sections of their population.

Brāhmanas settled in Agraharams, centered on a temple with learning activities, on the invitation of rulers. They would attract an entire ecosystem to grow organically, with well-planned vāstu townlayouts, with different localities to separate people of different occupations. The deep understanding of germ theories, disease transmission and hygiene would have given insight into the biohazards of different occupations: the metal workers are exposed to breathing disorders due to metal vapor, the farmers and potters would be exposed to soil corona-virus complexes, the weaver would be exposed to cotton fibers/dust and breathing disorders, the butcher would be exposed to assorted bacteria such as E-coli. Each profession would develop some immunity to their unique hazards, but the Brāhmana who spent his time in *japa* and prayers and little physical activity would have the least immunity. It would make sense that such a person should have the highest practices of hygiene and purity, washing after contact with people of other professions. We propose that such practices have become ritually codified into Sauca practices. Scavengers, sewage workers and cremation workers who are exposed to the hazards of all professions, would have the greatest immunity, but also pose health dangers to people with poor immunity, and would have been required to live at some distance away from the towns. This model of public health, hygiene and immunity being the drivers of *Sauca* practices is a far better fit for the Indian social order than the conflict-model of "oppression and discrimination" proposed by Colonial, Eurocentric, Missionary, Socialist and Marxist scholars.

Concluding Remarks

We have shown evidence of ancient Indian understanding of germ theory, disease transmission, hygiene, prevention of disease and more. We discussed the European notion of "caste", manufactured for the purpose of social-engineering the entire Indian population, perverting the traditional *Jāti-Varṇa/Kula* frameworks into "oppressive and discriminatory" systems. Along with British induced ethnocide, this has resulted in enormous turmoil in Indian social dynamics over the past 150 years, leading to much violence, alienation, conversion, mistrust, anger and unleashing destructive forces. While many commentaries exist to explain the "caste" and *Jāti-Varṇa* phenomenon, we have shown that public health and hygiene were the most likely driving factors behind the ritual codification of much of the *Sauca* practices, which is positioned today in Socialist-Marxist works as "oppressive and discriminatory".

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