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Can the AYUSH system be instrumental in achieving universal health coverage in India?

JANMEJAYA SAMAL, RANJIT KUMAR DEHURY

Abstract

Universal health coverage (UHC) in the Indian context is understood as easily accessible and affordable health services for all citizens. The Planning Commission of India constituted a High Level Expert Group (HLEG) in October 2010 for the purpose of drafting the guidelines of UHC. While the primary focus of UHC is to provide financial protection to all citizens, its delivery requires an adequate health infrastructure, skilled health human resources, and access to affordable drugs and technologies so that all people receive the level and quality of care they are entitled to. This paper attempts to link the ayurveda, yoga and naturopathy, unani, siddha and homoeopathy (AYUSH) systems of medicine with UHC. Here, the AYUSH system refers to the AYUSH workforce, therapeutics and principles, and their individual role in delivering UHC to the citizens of India. In outlining the role of AYUSH, the paper lays stress on the 10 guiding principles of UHC, as proposed by the HLEG. However, as the AYUSH system is not the principal health service provider in India, the dominant system being that of allopathic medicine, a few components of UHC may not fit neatly into the AYUSH system. This paper has adopted the definition of UHC quoted by the HLEG.

Introduction

The High Level Expert Group (HLEG) constituted for Universal Health Coverage (UHC) by the Planning Commission of India in 2011defines universal health coverage as "ensuring equitable access for all Indian citizens, resident in any part of the country, regardless of income level, social status, gender, caste or religion, to affordable, accountable, appropriate health services of assured quality (promotive, preventive, curative and rehabilitative), as well as public health services addressing the wider determinants of health delivered to individuals and population, with the government being the guarantor and enabler, although not necessarily the only provider, of health and related services" (1). The HLEG report emphasises 10 guiding principles which were instrumental in framing the recommendations for the introduction of a system of UHC in India. These are as follows: (a) universality; (b) equity; (c) non-exclusion and non-discrimination; (d) comprehensive care that is rational and of good quality; (e) financial protection; (f) protection of patients' rights such that appropriateness of care, patients' choice, portability and continuity of care are guaranteed; (g) consolidated and strengthened public health provisioning; (h) accountability and transparency; (i) community participation; and (j) putting health in people's hands (1). This paper attempts to appraise the role of the ayurveda, yoga and naturopathy, unani, siddha and homoeopathy (AYUSH) system in delivering UHC, and to look into the links between the above definition and guiding principles and the AYUSH workforce, therapeutics and principles.

Ayurveda, yoga and naturopathy, unani, sidha and homoeopathy are the six indigenous systems of medicine practised in India. Although homoeopathy is of German origin, the system is being practised in India together with the indigenous forms of medicine. A department called the Department of Indian System of Medicine and Homoeopathy was created in March 1995 (2,3) and renamed AYUSH in November 2003 (4). Its aim was to give greater attention to the development of these systems of medicine. Such a department was considered necessary so that these systems could have a stronger presence vis-à-vis their dominant counterpart, ie the allopathic system of medicine. This development led to an "architectural correction" in the health service, as envisaged by the National Rural Health Mission (NRHM), renamed as National Health Mission (NHM) after the addition of Urban Health Mission within its ambit. Before the introduction of the NRHM, most of the indigenous systems, including their workforces, therapeutics and principles, were limited to their own field, with a few exceptions in some states, as health is a state subjects in India. This situation was reversed after the introduction of the NRHM and the AYUSH systems were brought into the mainstream of healthcare. The NRHM, which

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came into the picture in 2005 and began implementation at the ground level in 2006, introduced the concept of "mainstreaming of AYUSH and revitalisation of local health traditions" to strengthen public health services (5,6). This helped in the utilisation of the untapped AYUSH workforce and its therapeutics, as well as the adoption of its principles, for the management of community health problems at different levels of the health system (7).

Role of AYUSH system in the light of 10 guiding principles of UHC

It is a fact that the mere co-location of the AYUSH system with the modern allopathic system, in the sense of sharing the same work space, does not really serve the purpose of UHC. The AYUSH workforce and therapeutics are doing well in several areas. A study in Odisha reported that AYUSH doctors are involved in public health activities a good amount of the time, ie around 12–16 days a month. For this reason, they are unable to provide the specialised services for which they were recruited. Since there are no standard treatment guidelines, AYUSH doctors practise in an unstructured manner. There should be some standard treatment guidelines, as in the case of the allopathic system, to help AYUSH doctors practise in a more effective and efficient manner (8). The terms of reference (TOR) of AYUSH doctors are a little ambiguous, making the doctors vulnerable to certain unintentional complications. An example is the TOR relating to the AYUSH doctor's duty to assist the allopathic doctor in handling an extra case load with respect to emergency cases (9). This duty may not allow the former to practise his/her own system of medicine, and he/she would follow the latter's instructions. The AYUSH doctor will act similarly in the absence of the allopathic doctor if the situation so requires. It would thus be difficult to say whether AYUSH doctors practise allopathic medicine, whether they *should* practise it, and when they should and should not practise it. Initiatives have been taken at the governmental level to train these doctors to practise allopathic medicine in remote tribal areas, where allopathic doctors are not available or do not want to go (10). These problems sometimes create confusion in the mainstreaming of AYUSH and standard guidelines are definitely required for each and every aspect to ensure better implementation.

In the light of the above, we have made an effort to understand the contribution of the AYUSH system to UHC. In doing so, we have laid particular emphasis on the 10 guiding principles of UHC, as proposed by the HLEG. However, as it is the allopathic system and not the AYUSH system that is the country's principal health service provider, a few components may not fit within the limits of AYUSH system. For example, AYUSH may not be able to provide some recommended biomedical practices.

Universality

According to the HLEG report, universality implies "that no one (especially marginalised, remote and migrant communities, as well as communities that have been historically discriminated against) is excluded from a system of UHC" (1). It may be noted that the AYUSH system, especially the AYUSH doctors, contributes effectively to meeting the requirement of a rural health workforce inequality by means of co-location of services in peripheral health institutions, primary health centres (PHCs) and community health centres (CHCs) (11). Further, an observational study in West Bengal shows that people use AYUSH services during different episodes of illness. In addition, cases are sometimes referred to AYUSH doctors (12). This indicates that the AYUSH system is being utilised as a part of universal care, owing to the rural population's faith in the system. A study in Meghalaya also testifies to the widespread acceptance of AYUSH services among the tribal population. However, the policy for the implementation of the system needs to be strengthened, taking the local cultural context into account. The people's awareness and utilisation of AYUSH services may be described as satisfactory (13). The philosophical bases and holistic approach of the AYUSH system are well accepted by the Indian population. As is evident by the above, these systems of medicine have features that would make it easy to adapt them to the national health programmes, provided these are carefully designed to account for local factors (14). A study was carried out recently among 1352 patients in West Bengal with the aim of learning whether patients would like homoeopathy to be integrated with the standard therapy. Forty per cent of the respondents felt that homoeopathy can be used side by side with standard therapy; 68.2% used homoeopathic medicine; and 76.6% used it to treat their children's ailments (15). The universality of the AYUSH systems of medicine has become clearly evident since the implementation of the NRHM. According to the reports of the National Health System Resource Centre, most states have been promoting medical pluralism in the delivery of healthcare by establishing AYUSH facilities alongside allopathic facilities in the same premises (16).

Equity

Indigenous systems of medicine were popular and were adopted by everybody when the practice of the allopathic system of medicine had not become widespread. AYUSH treatment is much less expensive than modern allopathic medicine, both in the government and private sectors. It would be wrong to say that AYUSH medicines are always cost-effective and cheaper than allopathic medicines because some of the treatment modalities, such as *Panchakarma* therapy in ayurveda, are relatively costly. However, there are few instances of AYUSH medicines being more expensive than allopathic medicines. Two recently published studies in two different parts of India report that traditional medicine, especially ayurvedic therapy, is more cost-effective than allopathic medicine. A household survey in Meghalaya showed that during the three months preceding the survey, the expenditure incurred on traditional treatment was only Rs 189, whereas families availing themselves of allopathic health services spent Rs 1417 during the same period (17). To cite another example, a 65-year-old with rheumatoid arthritis,

interstitial lung disease and cholesterol crystal embolism was treated successfully by an ayurvedic practitioner in Kerala. He underwent this treatment together with allopathic treatment. He spent Rs 25,000 per annum on the ayurvedic treatment, while the allopathic treatment, which included tests, hospitalisation and amputation of the toe, cost him Rs 350,000 (18). One of the advantages of some AYUSH systems, such as yoga, is that only a trainer is required for the realisation of benefits. The homoeopathic, unani and siddha systems of medicine are also more cost-effective than the allopathic system. Hence, AYUSH, as a system, is oriented towards equity. The major limitation of these systems of medicine is that they might not of benefit in the case of all ailments, whereas the allopathic system might. In addition to AYUSH, there are local health traditions that are equally important and many common ailments are treated in accordance with these. These modalities are cost-effective as well (13).

Non-exclusion and non-discrimination

Non-exclusion and non-discrimination refer to the provision of health services to all (inclusive), without any discrimination based on caste, creed, religion, gender, economic status and geographical distribution. AYUSH services are based on the principles of non-exclusion and non-discrimination since under the aegis of the NRHM, most of these services are concentrated in rural areas at the PHC and CHC levels. A study in Chandigarh revealed that when an AYUSH unit is co-located within an allopathic centre, it results in a sense of satisfaction among the women who use the services of the centre (19). The co-location of AYUSH units with allopathic centres under the NRHM in various states has improved the access of the population at large to health services. Despite infrastructural problems, these centres have had a good impact on different communities. This speaks of the acceptability of AYUSH among the masses. However, for the AYUSH system to progress, there is a need for better coordination and greater propagation of the system, and the required infrastructure must be put in place. Several studies across the states have revealed that despite the potential for the integration of AYUSH, the lack of coordination among various departments poses an obstacle (12,19). However, others hold that the integration of AYUSH services has not been so unsuccessful and it has resulted in general gains in health for the population of India, especially in the rural and remote areas (20).

Comprehensive care that is rational and of good quality

In the context of a healthcare system, the term "comprehensive" refers to a holistic approach whereby solutions can be provided for most health problems. Although the AYUSH system is not equipped to handle cases of acute medical and surgical emergency, it has solutions for most health problems. It is claimed that ayurveda can tackle many lifestyle-related and non-communicable diseases more successfully than modern medicine (18). It has been recommended that ayurveda alone should not be used for treating serious conditions, and that it should be used in conjunction with conventional medical care (21). The AYUSH systems of medicine have always adopted a comprehensive approach towards human beings. The AYUSH system has proved effective in the treatment of patients over centuries, even before the establishment of modern allopathic medicine. The role of the latter was very limited during the colonial era, and it was available only to military personnel and government servants. It was the AYUSH practitioners who helped in maintaining the health of the general society during that period. Hence, the AYUSH systems are time-tested, and have strong scientific and quality parameters, which qualify them for inclusion in UHC (22). In addition, the AYUSH systems can be instrumental in providing quality healthcare through their intuitionally trained workforce and their therapeutics, which are scientifically validated and prepared in quality-assured pharmacies that are GMP-certified. It is reported that around 83% of AYUSH pharmacies are GMP-certified (22).

A few randomised controlled trials have shown that ayurveda can be just as beneficial as modern allopathic medicine in some medical conditions. In 2011, a double-blind, placebo-controlled trial involving 45 patients proved that a particular ayurvedic preparation was as effective as methotrexate in treating rheumatoid arthritis and had fewer side-effects (23, 24). Similarly, ayurvedic medicines have proved effective for the treatment of lymphatic filariasis in endemic villages of southern India. A study found that in the case of 730 of the 1008 patients who completed three months of treatment, there was a statistically significant reduction in the volume of lower limb and cellulites episodes in patients, which fell from 40% to 12.8% (25). Some of the AYUSH system's therapeutics are relatively more useful in controlling the problems of the masses. One of the commonest examples is an ayurvedic herbo-mineral preparation, named *Punarnavadi Mandura* under the NRHM, to control anaemia at the community level. This is part of the drug kit of accredited social health activists (ASHAs) (26).

Financial protection

The Central government's initiative to mainstream AYUSH and revitalise the local health traditions by co-locating AYUSH services under the roof of peripheral health institutions has helped not only to ensure greater coverage of the population, but also to minimise the financial burden of the healthcare system (27). Further, many AYUSH medicines and preparations are cheaper than modern allopathic medicines, and are easily accessible to people in need. There is no question of incurring a high expenditure on the import of AYUSH medicines, as many drugs are locally available and grown in India. Hence, adopting the AYUSH system of medicine affords greater financial protection. To gain a better understanding of the costs of treating patients, one may consider the following example from the stream of ayurveda. The chief of technical services at the Arya Vaidya Sala, Kottakkal, Kerala, reports that the cost of treatment for a minor ailment, such as the common cold or a stomach upset, would be Rs 50–100. A major ailment requiring a couple of months' treatment may cost around Rs 500 (18).

Protection of patients' rights: appropriateness of care, patients' choice, portability and continuity of care

The holistic AYUSH systems honour the patient's rights during the entire period of treatment. As AYUSH practitioners are well trained and acquire their specialised knowledge and skill sets in formal universities, they comply with the healthcare practices and policies of India. Since the co-location of AYUSH services within a modern allopathic establishment in the last few years, AYUSH physicians have not been found to violate patient-related policies, both in preventive and curative care. It has been observed that the co-location of the AYUSH system has given patients a greater choice regarding the line of treatment. Further, the gaps in manpower and infrastructure are being bridged, and this has resulted in an improvement in the continuum of care. The AYUSH system always contributes to the totality of care and does not compete with other systems of medicine. A recent study in the state of Odisha on AYUSH services for maternal health showed that these services are relatively more patient-friendly and patient-oriented (8).

Consolidated and strengthened public health provisioning

To ensure that the AYUSH services maintain proper standards (in their infrastructure, manpower and operations), the Government of India adopted the Indian Public Health Standards. The various roles and responsibilities of AYUSH doctors are mentioned in their terms of references (TOR) (28–30). This has had a positive impact on the functioning of AYUSH doctors. Postgraduates may perform necessary procedures if technical support is provided to them. Sufficient fiscal allotment could help to solve the infrastructural problems. It has been observed that the AYUSH workforce partly makes up for the shortage of allopathic doctors in rural areas, in terms of the provision both of public health and clinical services (7). Further, one must consider that the shortage of allopathic doctors is likely to remain a constant problem in the coming decade. In this situation, the involvement of AYUSH doctors in the delivery of UHC would be of great help in augmenting human resources for health.

A study has revealed that collegiality among practitioners, and the recognition of the status of AYUSH physicians and their efforts help in improvement of the overall status of AYUSH (31). Another factor that would benefit the AYUSH system and help in the provision of services to the masses is the political will to integrate AYUSH. Although health is a state subject in India, there was a major policy shift in 2005, when the NRHM was launched (7). Since then, various models of delivery have been adopted to utilise the untapped resources of AYUSH. Three trends relating to the functioning of AYUSH providers have been identified: self-regulation together with governmental linkages; governmental regulation and provisioning; and hybrid/parallel models (32). The potential of AYUSH could be explored by utilising these modalities within the government health centres.

Accountability and transparency

It was highlighted in a study that certain skills and expertise are required to practise a particular AYUSH system of medicine optimally. The knowledge and skill of each system of AYUSH is important rather than possessing mere academic degrees for the effective implementation of AYUSH through the national health programmes (33). It is evident that given the requisite government assistance, experts in individual AYUSH systems can help to address the community's health problems. Since there are numerous AYUSH medical colleges that produce half-baked doctors, it may be difficult to enhance the quality of doctors in the short term. However, it is easy to recruit good AYUSH physicians from a large pool of AYUSH graduates (34). India was strongly influenced by the colonial medical system, with the result that the modern allopathic system of medicine was able to transform the indigenous system of medicine (35). However, ayurveda and unani have strong roots and well-codified documents on their therapeutic values, and the systems were still being practised during the colonial period. A difficulty in professionalisation also emerged among a few as a byproduct of the limitation of textual knowledge, an aspect that requires attention (36–39). The past attests to the robustness of the AYUSH system, which lasted over centuries and even through adverse times. It would be beneficial for the people at large to integrate the knowledge contained in these systems with the modern system of medicine.

Community participation

Since its inception, the NRHM has enlisted the services of ASHAs to propagate the message of AYUSH. Further, AYUSH medicines are available in the ASHAs' drug kit so that they can provide immediate treatment and preventive care for maternal health problems (7). The services of AYUSH doctors are utilised by various health camps organised by the district health units for the screening and treatment of patients in the far-flung areas. These doctors' services are required both for domain-specific treatment and public health interventions. AYUSH physicians have been found to be good at monitoring and evaluating several public health activities under the NRHM. Their technical inputs help in making timely interventions and in achieving the targets set by the mission, both at the micro and macro levels (8).

Inter-sectoral coordination is an important component of UHC. Various departments, such as education, women and child development, water and sanitation, food and civil supplies, and local government, need to work with the health department to improve the public health system in the country. The involvement of AYUSH doctors brings all departments into service of people and thus paves the path for integrative planning. AYUSH doctors also work as coordinators for many programmes, for which they use their understanding of public health and the indigenous knowledge system.

Putting health in people's hands

The concept of putting people's health into their own hands is based on a bottom-up approach, according to which policy-making is not the sole preserve of a central organisation, but the local community is also given an opportunity to

take part in the decision-making process. This approach is given great emphasis in the implementation of the NRHM and consequently, the AYUSH system, as this system has been mainstreamed under the NRHM. Moreover, people take relatively greater interest in the indigenous systems of medicine as they are deeply rooted in their cultural beliefs. Considering this, it can be argued that people would take part in decision-making about their health if they are given a choice of AYUSH system. This sort of model has been tried and tested by integrating health with Panchayati Raj institutions (40). In many states local bodies have enormous role in providing health services. If AYUSH is integrated it will create more value for the suffering populations.

Conclusion

The age old indigenous system of medicine has been reincarnated in the form of the AYUSH system, a system that caters to the health needs of the Indian population. The holistic approach of practice has to be adopted for better outcome in the health care system. However, governmental patronage is required to reach more people and improve the quality of care. The common man's faith in AYUSH could be established further with faith in the services and user-friendliness. To improve the delivery of services by dedicated AYUSH doctors, measures must be taken to better equip the rural health centres with medicines and equipment. In addition, political will is required to monitor AYUSH services so that they become more effective and serve the purpose of UHC. Training at the AYUSH colleges and universities should be rigorous. Moreover, the colleges should have the required strength of well-qualified faculty members to meet the needs of the burgeoning population. The existing AYUSH physicians must be kept up to date with modern scientific developments and tools. AYUSH services also need to be integrated with some national health programmes as a complementary system of medicine. The few national health programs where it cannot be integrated could be kept outside. Different systems of AYUSH are better at managing different types of diseases. For example, some systems or therapeutic approaches of AYUSH are effective in the management of chronic diseases, while others are effective in the control of epidemics. There can be dual benefit, both for the AYUSH system and UHC, if the two go hand in hand. While the AYUSH system would be revived further and its service delivery improved, the people would receive services that are not always available to them in the modern system of medicine.

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