

Can the truth be determined by oversimplified statements?: A discourse on the controversy of Mr Anandayya's herbal medicine to Covid 19 patients

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Abstract: *This paper explores the rationality of the contradictory views of intellectuals erupted (in May 2021) both for and against the controversial herbal medicine made and supplied generously at no cost by Mr Anandayya of Krishna Patnam, Nellore district, Andhra Pradesh, India. This paper hypothesises that the synthesis of modern medicine and herbal medicine ideas by the administrative research authorities of the country would lead to the progress of public health in India. The research objectives of this paper are, (i) to understand the significance and relevance of modern medicine and herbal medicine in the context of the current controversy, (ii) to study and understand, in this context, the philosophical assumption that the confluence of different spheres of knowledge and expertise would help mankind resolve its problems, and (iv) to suggest an action plan to determine the efficacy of the herbal medicine of Mr Anandayya. The limitation of this research is that the discourse is not held on the technical aspects of the two methods of medical treatment, i.e., this is not experimental research because it is beyond the researcher's abilities. Thereby this research remains analytical research evaluating the collected general information. This analytical study is carried out from the Marxist dialectical materialistic perspective. The analysis of the collected data is carried out in light of the Marxist dialectical materialistic principles: the unity between opposites and the Generality Vs the Particularity.*

Key Words: *scientific authenticity – herbal medicine – James Lind's experiment – Interdisciplinary research.*

1. INTRODUCTION:

The present controversy on the efficacy of the herbal medicine being made and supplied generously at no cost to Corona patients by the herbal medicine practitioner, Mr Anandayya, Krishna Patnam, Nellore district, Andhra Pradesh, India, brought several questions before society. Initially, the media persons who visited the place where the medicine was being distributed to the patients reported that the herbal therapy produced a favourable outcome. The electronic media also have noted that Mr Anandayya is rescuing the patients who were about to die. However, while the poor, the middle class, and even the affluent class have shown immense faith in his medicine, the intellectuals were divided into two sections, taking entirely contradictory sides. The modern medicine practitioners say that the herbal treatment of Mr Anandayya is not proved scientifically, and so it will harm the users in the long run. On the other hand, a group of scholars such as atheists and some good-intentioned social activists who miserably view the existing phenomenon from a mechanistic perspective are posting comments on social media belittling the indigenous methods of treatment asserting that modern medicine has no alternative. This kind of perception and evaluation of the physical reality is an extreme end.

At the same time, the other group of conservatives claims with a complete exaggeration that it is the Ayurveda medicine (in fact, herbal medicine is different from Ayurvedic medicine) that has an excellent capability of curing humans of all diseases! This perception of the physical reality is another extreme end. Thus, these two contradictory arguments placed themselves at two different extreme ends. Amidst all these discussions and debates, the government of Andhra Pradesh is waiting (while this research is being carried out) for the approval of the AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy) to free this medicine from legal restrictions. Furthermore, regardless of class and caste, all the people are optimistically looking forward to hearing the announcement of the AYUSH that the herbal medicine of Mr Anandayya has scientific authenticity. So, the discourse on the contradictory perspectives of the phenomenon of the controversial herbal medicine is relevant and necessary to wipe out the confusion among people.

This research mainly discourses the two contradictory perspectives, which have a struggle between them, intending to find a converging point for bringing both the ideas together for carrying out the collaborative efforts for the wellbeing of mankind. The argumentative in this paper is made based on the prima facie evidence, i.e., the users' oral

feedback, which was/is being telecast on TV news channels and shared on social media. However, this research does not aim to draw conclusions in support of Mr Anandayya's herbal medicine. The scope of this research is limited only to the discourse of the oversimplified statements of the intellectuals of both sections.

The contradictory views mentioned above naturally raise some questions like (i) How far is it justifiable for modern medicine practitioners to deny the efficacy of traditional and regional methods of medical treatment without empirical, measured evidence? (ii) How far is it justifiable for those who make oversimplified statements supporting herbal medicine, belittling the significance, relevance and amazing victories of modern medicine? (iii) why is it necessary for both of them to synthesise modern medicine and herbal medicine ideas? The discourse is held around these research questions. Drawing generalised conclusions based on the electronic media inputs on one phenomenon is not a correct approach because any hypothesis that has to be considered a scientific theory must be proved deductively. This deductive logic has been absent in the essence of the statements being made against Mr Anandayya's herbal medicine. When these statements are viewed in the light of the definition of science, they are proved unscientific.

2. Science and unscientific statements :

Unlike metaphysics, the scientific pursuit of understanding the physical world is systematic, rational and reliable. According to Science Council, the definition of science is that "Science is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence" This organisation further mentioned some aspects of scientific methodology to determine the scientificity of anything. They are as follows: (i) Objective observation: Measurement and data (possibly although not necessarily using mathematics as a tool), (ii) Evidence, (iii) Experiment and/or observation as benchmarks for testing hypotheses, (iv) Induction: reasoning to establish general rules or conclusions drawn from facts or examples, (v) Repetition, (vi) Critical analysis, and (vii) Verification and testing: critical exposure to scrutiny, peer review and assessment" (Our definition of ...). The conclusive statements of either the modern medicine practitioners or the other contenders are not based on scientific observation and empirical evidence.

Mr Anandayya is indeed unable to prove the scientificity of his herbal medication with any theoretical explanation. However, it is not a significant issue because if the practitioners like Mr Anandayya fail to prove their herbal medicine theoretically according to the definition and rules of the Science Council. Because his knowledge of the herbal therapy acquired by him through his practice may not be as systematic as that of modern medicine practitioners. However, modern medicine and Ayurveda medicine practitioners are naturally expected to prove their statements in this context. In this context, the researcher must mention the fundamental difference between herbal medicine and Ayurvedic medicine. According to the study of a website, *Difference Between*, "Ayurveda is a form of medicine involves the use of tablets made from naturally occurring plants with the inclusion of metals, plants, oils as well as massages ..." while "herbalism consists of using extracts from plants for the purpose of curing certain deviations of health" (*Difference between ...* 2014). The undue statements of some Ayurvedic medicine manufacturers are worsening the situation causing the prevalence of chaotic socio-intellectual conditions in the country. Based on the study of *Difference Between*, this research views herbal medicine as a different method of cure for a set of diseases. So, even if the scientificity of the controversial herbal medicine is not yet proved, its efficacy cannot be ruled out with some oversimplified statements.

Productive discourse is essential at this hour as the pandemic is haunting humanity and compelling the research circles to develop an efficient, safe and feasible solution. Every viable and possible method of cure has to be studied and restudied in the backdrop of the existing rampage of Corona disease. Contrary to this civic obligation, there is a heat exchange of debate that is taking place on all the public platforms. The conceptual and methodological differences between modern medicine and herbal medicine cause the intellectuals to embrace extreme ends. According to Marxist philosophy, besides struggle, unity too exists between opposites. Some historical, social conditions necessitate the application of this law. In one way, it suggests the necessity of dialectical synthesis of the progressive elements or ideas existing in two opposite things. However, most of the comments on social media either support the controversial herbal medicine from the Hindutva religious outlook or rule it out as an unscientific method of cure from the atheistic perspective or an anti-Hindutva political perspective. Both of these perspectives are equally regressive and in no way can contribute to the wellbeing of society. Modern medicine practitioners relentlessly question the scientific theory behind herbal medicine without collecting feedback from the same users systematically and without any objective observation and scientific experimentation of the phenomenon. So, only a productive discourse can contribute to the elimination of the prevalent uncertainty.

It is an indisputable fact that modern medicine is the most advanced method of treatment, and the drugs prescribed by doctors are always scientifically tested before patients use them. It is true that the life expectancy of people is increased because of modern medicine. The study of the National Centre for Biotechnology Information [ncbi]

attributed this favourable increase to three factors, and one among them is that "a wave of global drug and chemical innovations: penicillin, streptomycin, vaccines, the discovery of DDT, etc." (Mishra. 2016). According to the same study, the "worldwide life-expectancy at birth was 30.9 years in 1900, 46.7 in 1940, and 61.13 in 1980" (Mishra. 2016). These numbers testify to the efficacy of modern medicine in curing humans of several diseases by various methods, including surgical operations, and it is the major hope for humanity. So, the comments by the Ayurvedic medicine practitioners or the manufacturers that modern medicine has no potential to cure humans the deadly diseases like Covid 19 are nonsensical.

However, it is also a fact that herbal medicine has been in vogue globally for ages. The herbal remedy practice is not confined just to India or some other country. It had been present everywhere in the world before the invention of modern medicine. It is present in the world. According to WHO Global Report on Traditional and Complementary Medicine 2019, "T&CM is used by at least 80% of the Member States [179 Member States according to the same report] across all WHO regions, with more than 90% of Member States in the Eastern Mediterranean, South-East Asia and Western Pacific regions reporting use of T&CM" (WHO Global Report ...2019). Countries like Cuba and the Democratic People's Republic of Korea [North Korea], alienated from the rest of the world due to economic embargo imposed by the dominant nations, are using traditional and complementary medicine and modern medicine. It was mentioned in this report that "in Cuba, "Natural and Traditional Medicine" is practised within the national health system by professionals and sanitary technicians, according to their speciality and practice scope profiles" (ibid. p. 45 -46). This report further mentioned that the Democratic People's Republic of Korea issued an "exclusive national policy on T&CM, titled "Developing Koryo Traditional Medicine" in 1979" itself (ibid. p. 45 – 46). Besides these developing countries, the developed country, Germany, also is encouraging its people to use traditional medicine. According to the same report, "...the data from 2000, 60-79 % of the population in Germany uses indigenous TM" (ibid. p. 45-46). These facts reported by WHO testifies that Traditional Medicine, which includes herbal medicine besides the others, also needs to be considered while viewing and assessing the potential of herbal medicine for curing humans of various diseases. So, it is not justifiable for modern medicine practitioners to fling the words of scathing criticism against traditional and complementary therapies.

Herbal medicine, however, is not as efficient as modern medicine. This statement can be asserted to be rational in the light of the life-expectancy statistics mentioned above. At the same time, herbal medicine remains a significant hope for millions of people, especially those who habitat in the hilly regions of the world due to the absence of modern medicine and its practitioners. The herbal remedy is not a solution to all ailments, but it can cure some diseases. Ashok. D. et al. write that "more than 70% of India's 1.1 billion population still use non-allopathic systems of medicine" (Ashok. 2007). They also mention in their research paper titled "Current status of herbal drugs in India: An overview" that "the Council of Scientific and Industrial Research (CSIR) in India has initiated sizeable and meaningful efforts for the development of herbal-based formulations for diabetes, arthritis and hepatitis by a national network programme" (Ashok. 2007). These findings testify that the research in herbal medicine has been sped up in the country. The same indicates that herbal medicine has the potential to heal several other diseases. If herbal medicine had been ineffective in all cases and did not yield any progressive outcomes, it would have disappeared by now. Similarly, if the herbal treatment of Mr Anandayya had done any harm even to a small number of people or had been talked of negatively even by a few people that the medicine is ineffective, Mr Anandayya's medicine would not have ushered in serious discussions and debates on TV channels and social media.

Mankind's scientific enquiry started with the method of 'trial and error', which is a universally known fact. When James Lind, the English physician, carried out clinical trials and subsequently discovered the cure for the deadly disease of scurvy in 1747, there was no modern medicine in the world. According to Marcus White, James Lind achieved the desired outcome when he prescribed "two oranges and one lemon a day" to those who were affected with the disease of scurvy. He carried out his experiment on six pairs of patients. While the five pairs were given different input substances, the sixth pair was given "two oranges and one lemon a day" (White. 2016). White further says, as part of the experiment, James Lind used six independent variables viz. "(i) a quart of cider a day, (ii) 25 drops of elixir of vitriol, three times a day, (iii) half a pint of sea-water a day, (iv) a nutmeg-sized paste of garlic, mustard seed, horse-radish, balsam of Peru, and gum myrrh three times a day, (v) two spoonfuls of vinegar. Three times a day, and (vi) two oranges and one lemon a day" on six different groups (pairs) of patients simultaneously and observed the outcomes. In the cases of the five experimental sections, no change was found in dependable variables, but in the sixth pair, there was a considerable change in the dependable variable, i.e., the patients of the sixth pair were able to restore their health. Later, though he recorded his research findings in his book, *Treatise of Scurvy*, it was only after forty-two years that the distribution of lemon fruits to sailors on board was made mandatory by the naval authorities (White. 2016). This incredible invention was possible only through the method of trial and error.

The outcome of any human endeavour cannot be ruled out because of the mere reason that it was not scientifically explained and proved. James Lind's experiment with natural and chemical substances on the scurvy patients on board the ship is an example of it. He did not know Vitamin C when he prescribed 'two oranges and one lemon a day to the patients. Anyone could not use this as "the term vitamin was originally coined after one hundred sixty-five years by Casimir Funk in 1912" after James Lind's experiment (Semba. 2012). Can anyone rule out the research findings of James Lind, saying that he did not have any scientific theoretical knowledge of vitamins? Can his prescription of orange and lemon juice dosage be belittled just based on a point that he was unable to explain, during his lifetime, the vitamin constituents in these fruits? Though theoretically remained unexplained then, the effective treatment of James Lind saved the lives of several sailors on board the ships in the 18th and 19th centuries. Had there been any objection from anyone to his experiment, he could not have rescued the lives of his sailors on board the naval ship of England in 1742.

Contradictions exist in everything, and, at the same time, these contradictions pave a path for the emergence of something new phenomena. Lenin explains that contradictions do exist in every phenomenon. He defines the law of unity between opposites as "the recognition (discovery) of the contradictory, mutually exclusive, opposite tendencies in all phenomena and processes of nature (including mind and society)" (Mao. 1937). Mao interprets this phenomenon reexplaining the Leninist understanding that "the interdependence of the contradictory aspects present in all things and the struggle between these aspects determine the life of all things and push their development forward" (Mao. 1937). Contradictions are existing between the ideas of herbal medicine and modern medicine. Still, there is potentiality in this phenomenon for the unity of the specific possible necessary aspects in both of them under the current rigorous conditions prevalent in society due to the rampage of the pandemic. Humanity is struggling to produce the medicine to cure humans of Corona, which is essential for its survival. Its endeavours are being carried out by scientific experimentation. The current burning intellectual phenomenon needs to be viewed in light of Mao's thought, the expansion of Marxist dialectical and historical materialism.

The phenomenon of Mr Anandayya's herbal medicine needs to be viewed as a part of scientific experimentation which does not harm people in any aspect. Therefore, if it is proved to have the potential to cure humans of Corona disease, it is to be recommended. However, modern medicine practitioners like Dr Prabhakar, the Cardiologist, rejects Anandayya's herbal medicine saying that the medication is not scientifically proved to be authentic (TV9. 22 May at 7:20. 2021), while Dr Samaram, the famous sex specialist in Andhra Pradesh says that "the herbal medicine of Mr Anandayya is entirely 'bogus'[a humbug]" (22 May at 10:22. 2021). These statements are entirely antagonistic to the expected scientific temper in the persons who were highly educated in science and medicine.

At the same time, some other modern medicine practitioners opine that the bitter criticism being expressed against Mr Anandayya's medicine is unnecessary. Dr D.V.G. Sankara Rao, Professor, the Department of Anaesthesiology, Maharaj's Institute of Medical Sciences, Vizianagaram, opines, while strongly supporting the sincere endeavours of the modern medicine scientists and practitioners in treating Corona patients, that "...Much noise has been made on the herbal medicine of Mr Anandayya leading to confusion... It is unnecessary to resort to scathing criticism against him when there is no harm due to the medicine he is supplying without profit mindedness. But the eye drops prescribed by him are harmful to eyes, so it has to be avoided" (Sankara Rao. 25 May 2021). Dr Rama Krishna Prasad, though not endorsing the concept of alternative medicine in the era of modern medicine, agrees that herbal medicine paved a path for the origin of a new medication for high blood pressure in modern medicine (Rama Krishna Prasad). He exemplifies the discovery of Reserpine in the roots of the *Sarpagandha* plant, whose scientific name is *Rauvolfia serpentina*. A Wikipedia study reveals that "Reserpine was isolated in 1952 from the dried root of *Rauvolfia serpentina* (Indian snakeroot), which had been used for centuries in India for the treatment of insanity, as well as fever and snakebites" (Reserpine). The same study asserts that "Reserpine is recommended as an alternative drug for treating hypertension" today (Reserpine). In light of this understanding, analytical research on the authenticity of the feedback given by the users of his herbal medication needs to be carried out. Suppose the feedback given by more than 90% of Mr Anandayya's herbal medicine users favours his medicine. In that case, the experimental research, by modern medicine scientists, on his herbal medication is to be rapidly carried out, i.e., without any bureaucratic obstacles.

The context in which James Lind conducted his experiments and the current context in which Mr Anandayya has come up before society with his herbal medicine are not far different. The immediate goal of James Lind, who was the physician of the ship crew, was to save his men from impending death, while the selfless aspiration of Mr Anandayya, in this context of difficult times, is to try his best in protecting the lives of the victims of Covid 19. Then a question comes onto the forefront of society: Can the personality attribute of a person, i.e., the selfless aspiration of a person, be considered the empirical evidence to determine the scientific authenticity of any medicine or a method of cure? The answer to this question is undoubted "no". Because any scientific theory, unlike one of metaphysics, is an objective and provable truth, and this truth is not determined by the status or admirable personal qualities of its proponent. In Mr

Anandayya's medicine, there is no such interference of metaphysics. Therefore, if Mr Anandayya's herbal medicine has no efficacy in curing humans of this deadly disease, society does not lose anything anew. If his medication is, however, proved to be efficient but not allowed to be prescribed to the needy, the people, especially the downtrodden, will have to suffer the miserable consequences of this pandemic. So, the academic and industry researchers need to take up the responsibility of researching his herbal medicine voluntarily.

The educated elite who are condemning the use of Mr Anandayya's herbal medicine without any empirical data in their hands seems to have lacked the knowledge of the dialectical materialistic perspective of the worldly phenomena. Modern science is far superior to all other traditional and complementary medicines. This is a general truth. However, the story behind the invention of Reserpine testifies that sometimes the aspects of herbal medicine pave the path for the innovation of some other modern medication. According to Dr Rama Krishna Prasad, herbal medicine practitioners prescribed the roots of *Sarpagandhi* plants to their patients in general. However, it did not work in some people, whereas it did work in others who said they felt better after consuming these dried roots. In the later experiments by modern medicine practitioners, it was revealed that the dried root of this plant has 15 alkaloids, and Reserpine is one among them being a causative factor for the wellness among the consumers of it prescribed by herbal medical practitioners (Rama Krishna Prasad). So, though not as developed as modern medicine, the traditional methods can cure some diseases or are worthy of being considered for further research and development under specific historical conditions. It is a particular truth.

According to dialectical materialism, Generality has universality while Particularity has its due significance. Though the efficacy of modern medicine is a generally accepted truth, the herbal treatment of Mr Anandayya, too, according to its users (a prima facie evidence), is efficient. The difficult times of the Covid 19 pandemic compel humanity to search for a solution as immediately as possible. Herbal medication is not as efficient as modern medication in the general context, but, according to Mr Anandayya telecast's oral feedback on electronic media, the herbal remedy seems efficient in the context of Corona rampage. Hence, this medicine cannot be ruled out without a scientific experiment and an analysis of the feedback of its users.

3. The necessity of multidisciplinary/interdisciplinary research :

Multi-disciplinary research is to be promoted and encouraged among research circles by administrative research authorities in the country. The concept of rigid specialisation needs to be shunned for further progress of science and technology. The multi-disciplinary research is carried out by researchers "from different disciplines to work independently on a common problem or research question," sharing their research goals, looking at the research problem "from their own discipline's perspective" (The difference ...). Multi-disciplinary research facilitates researchers to use the scientific findings of the other disciplines of knowledge while working on a research problem. Jagadevappa Patil writes that "by making a collaborative team of multidisciplinary experts, it becomes conceivable to think beyond the routine knowledge" (Jagadevappa Patil. 2016), exemplifying the "identification of approximately 25,000 genes in human DNA", a remarkable multidisciplinary research outcome of modern medicine scientists, "engineers, bioinformatics and other scientists" (Jagadevappa Patil. 2016). According to National Academics' report that "Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialised knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice" (What is interdisciplinary ...). This definition has widened the boundaries of scientific enquiry. According to Marxist dialectical materialism, all things are interdependent. Stephen Hawking asserts the same in his foreword to his book, *A Brief History of Time*, saying that everything in the universe either directly or indirectly depends on everything. This dialectical materialistic law applies to every sphere of social life. Modern medicine scientists need to consider Mr Anandayya's herbal medicine for further research in compliance with this understanding.

4. Some feasible suggestions :

A committee with experts in modern medicine and herbal medicine is to be constituted to study and determine the scientific authenticity of the herbal treatment of Mr Anandayya. The committee needs to take the following aspects into its consideration:

- The herbal medicine made and prescribed by Mr Anandayya is to be deductively tested using the survey method.
- The deductive method of testing a theory or a process requires a large sample size, so the sample is preferred to be as large as possible.
- The required samples are to be collected from only those who consulted the herbal medicine practitioner, Mr Anandayya, and had his herbal medicine.

- The samples need to be collected from various age groups employing quantitative and qualitative research methods.
- The data collection and its processing are to be carried out with some essential objectives like (i) to study the health history of the users and their respective families, (ii) to find out the success rate of the herbal medicine and to find out what other factors contributed to their recovery (iii) to study the side effects, if any, in the recovered persons, (iv) to determine whether it is a partial remission or a complete remission of Covid 19 in the users, and (v) to assess the potential of the ingredients used in the production of the medicine for understanding whether they can remain a significant source for the invention of new medical products which can heal the current pandemic or the other diseases in future and so on.
- The quantitatively collected data is to be qualitatively ascertained by conducting structured and/or semi-structured interviews with the survey participants.
- Finally, in case the herbal medicine practitioners fail to explain the theoretical aspects of the formula scientifically and the produced medicine, which has currently been supposed by people to have the healing capability, the experts and researchers of modern medicine should shoulder the responsibility of researching to determine the efficacy of this herbal medicine.

5. CONCLUSION:

As long as any product or process yields progressive results, it must not be viewed from an extreme, sceptical perspective. But, at the same time, one need not be too generous to accept anything without questioning it. So far, there have been no reports complaining that the patients are being subject to harmful side effects due to his herbal medicine. On the contrary, modern medicine doctors are making statements that herbal medicine would cause harm to the users in the long run. However, the same allegation has long been made by the Ayurvedic medicine practitioners against modern medicine. The oversimplified statements of some individuals cannot determine the truth. Therefore, Mr Anandayya's herbal medicine cannot be ruled out by assuming the probable occurrence of long-run repercussions. The outcome of the proposed research on the scientific authenticity of herbal medicine may or may not come up with the findings that can make people happy in the present times of crisis, but this proposed research is expected to sow the seeds of a new era of scientific pursuit in which the cooperation, and the sharing of knowledge and expertise among various methods of medicine would become a natural phenomenon. Hence, it is reiterated that the synthesis of modern medicine and herbal medicine ideas by the administrative research authorities of the country would lead to the progress of public health in India.

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