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Impact of the COVID -19 Pandemic on Ayurveda Practice & Research: An Observational Output

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ABSTRACT: Impacts of diseases can be assessed through various changes in society after an insurgence of new disease. It remarkably influences the existing system and can be interpreted as positive, negative or neutral based on the sensible variables. Although negative impacts are noted in terms of lock down of Ayurveda hospitals, clinics, *Ksharasutra* clinics (Para-surgical practice for anorectal diseases) and panchakarma centers. There is a significant drop of OPD strength due to lock down and shut down process. IPD services of most of Ayurveda hospital is closed down or running with very less patients. There is a mass drop out/partial drop out of research subjects from ongoing clinical trials and new patient's recruitment is not possible for close down of clinical laboratories. But positive impact is more as it creates awareness to opt Ayurveda *kwatha*, *nasya*, *pranayama* and *yogasana* to prevent COVID-19 which reached every house of India. More funds are diverted for clinical trials of Ayurveda formulations in COVID-19, purchase of sanitizer, masks, PPE kits etc and awareness. AYUSH Sanjeevani app is much successful procedure to monitor the AYUSH advocacy in COVID-19. Ayurveda Kits for corona have been distributed in venerable groups and front-line warriors by different Ayurveda Colleges and Institutes. Many Institutes conducted Webinars on Practice of Ayurveda Immuno-booster in COVID-19 from unlock-3 onwards to aware the practicing doctors. Controversies raised for evidence of the efficacy and safety of Ayurveda formulations in COVID-19 but preliminary evidences showed Ayurveda formulations like AYUSH-64 and others showed better clinical output compared to conventional standard therapy in clinical trials. It was concluded that Positive impact is more than the negative Impact on Ayurveda practice and research in the COVID-19 pandemic situation.

Key words- Positive impact, Negative impact, COVID-19, AYUSH Sanjeevani app, AYUSH advisories

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INTRODUCTION

Impact is the remarkable influences on the existing system by forced invade of a new think as like-pandemic disease. This impact can be interpreted as positive, negative or neutral based on the sensible variables. It is an essential exercise to assess impact of serious illness in pandemic form for its negative and positive influence on the economy, society, public policy, preventive, promotive and curative health, quality of life, environment and to allocate research project for maximum benefit with minimum waste of funds and manpower¹. Health impact assessment (HIA) is a combination of procedures, methods and tools used to evaluate the potential health effects of a policy, programmer or project. Using qualitative, quantitative and participatory techniques, HIA aims to produce recommendations that will help decision-

makers and other stakeholders make choices about alternatives and improvements to prevent disease/injury and to actively promote health². COVID -19 pandemic has a significant remark in many areas which are reflected in Wikipedia. But its impact on Ayurveda practice and research is not found either in Wikipedia or another search engine in internet platform. Therefore, an attempt was taken to assess the impact of COVID -19 pandemic in Ayurveda practice & Research.

Ayurveda is a live traditional system of health care with an unbreakable practice since 3000 years. Ayurveda gained importance in its own country where it was originated after the establishment of Department of AYUSH in 2003. Then National Rural health mission (NRHM) includes Ayurveda (one of the components

of AYUSH) as alternative therapy option to integrate with western medicine to serve the people of India in better way in 2005. Ayurveda health care is more focussed after the establishment of AYUSH ministry in 2014³. Central council of Research in Ayurveda Sciences (CCRAS) has also intensified the specific research-based programme and project and renamed its institute as specific system based to create more data on practice of Ayurveda & initiate research in 2016. Herbal medicine is used by 75–80% of the world population, mainly in developing countries for primary health care². But only 6.9% of Indian population favored AYUSH system of medicine as evident in NSSO survey in 2014⁴. Many committees recommended that more awareness and research are required to Popularize the system. Many patients prefer Ayurveda after dissatisfied or frustration with contemporary medicine, low cost of Ayurveda medicine in comparison to allopath, easy excess to Ayurveda physician, last option and less side effect⁵. More over some patient choose Ayurveda primarily based on their personal experience and strong recommendation of other people^{6,7}. The Ayurveda diagnostic process is subjective and patient oriented, some of diagnostic tools such as *Prakruti*

(Constitution) assessment and *Nadi Parikshya* (Pulse diagnosis) are also patient centric. The treatment always personalized and classified as *Sodhana* (Purificatory) and *Samana* (Palliative). The *Sodhana therapy* is also called as *Panchakarma* therapy or detox therapy where *snehana* (oleation) and *swedana* (Sweating) are preparatory therapy which need personal contact of panchakarma technician and Ayurveda physician. *Ksharasutra*, leech therapy and *uttaravasti* are para surgical procedures mostly practice in Ayurveda hospitals. The researches in Ayurveda are academic research in post graduate centers and special research in Research centers. Some of the academia and Institutes have been conducting clinical trial, animal experiments and other researches like-Clinical epidemiology, Pharmacology epidemiology etc^{8,9}.

MATERIALS AND METHODS

The Impact is measured by observing different activities of Ayurveda Institutes and following leading newspapers, Journals and wave site.

Impact of COVID-19 Pandemic

COVID-19 Pandemic impact on almost all sectors of India and lock down impact on supply chain, decrease government income,

collapse tourism, reduce consumer activities and raised unemployment. Government has announced variety measures and release extra budget to handle the impact from food security to health care sector. COVID-19 Pandemic has political, educational, religious (closed down of temple, churches, Masjids), psychological impacts and found increase of domestic violence. The positive impact of covid-19 on environment is that 25% reduction of carbon emission and 50% reduction of nitrogen oxide emission which save COPD patients from execration¹⁰. If health care sector is considered, then various clinical guidelines are issued for management of COVID-19 patients as well as normal patients. Research Councils under the Ministry of AYUSH, Government of India have also issued advisory based on the Indian traditional medicine practices i.e. Ayurveda, Homeopathy and Unani before the outbreak in India¹¹. A consensus statement in Ayurveda management and prevention was developed for COVID-19¹².

Impact on Ayurveda Practice & Research – In the first & 2nd phase of lockdown, many Ayurveda hospital discharged their IPD patients. The private Panchakarma hospitals and message centers are completely closed down which are partial depend on tourism¹³. All para-surgical procedures and invasive panchakarma procedure are stopped due to outbreak of COVID-19. In this stage more asymptomatic cases and carriers are found, which would amplify the chances of infection, therefore Ayurveda doctors managed the research and general cases by wearing surgical mask, hand wash by sanitizers. After that PPE kit was provided to some doctors those are doing COVID duty¹⁴. Ayurveda doctors postponed the wellness therapy and medication to non-urgent cases. IPD services of most of Ayurveda hospital is closed down from Lock down -1 or running with a smaller number of patients. In the Unlock process, some of the Ayurveda hospital and Medical colleges converted to COVID hospital by its State government. Some of AYUSH doctors sacrificed their life also.

Table No-1. Milestone of lock and unlock process in COVID-19 pandemic and its impact in Ayurveda Practice and Research

Time line	Activities	Impact
Lock down 1 (25 th March to 14 th April (21days)	Public Transport system stopped, strict on mobilities of person. Strict enforcement of law and order.	Most hospital's IPD & OPD services closed. only service provided for urgent case. Mask and snitizer supplied to Covid warrior. OPD strength less, subject dropped out in clinical trial
Lock down -2 15 th April to 3 rd May (19 days)	Some relaxation for patients, doctors	Ayurveda hospital converted to COVID hospital. Doctors worked with Mask & sanitizer
Lock down -3 4 th May to 17 may (14 days)	Some relaxation for patients, doctors	OPD of Ayurveda hospital with Social distance. Doctors paramedics are wearing PPE kit
Lock down -4 18May to 31st May	Some relation	Promotion of Sanjeevani app with PPE kit
Un lock 1 1 st June to 30 th June	Some relaxation, social distancing, hand wash, Mask use is compulsory with weekly two days shout down	Clinical labrotory open, patient recruitment in some project started .and promotion of AYUSH sanjeevani app.
Un lock 2 1 st July to 31 st July	social distancing, hand wash, Mask use is compulsory with weekly two days shout down	Promotion of AYUSH Sanjeevani app, Tele Medicine Practice in some Institutes
Un lock 3 1 st August to 31 st Aug	social distancing, hand wash, Mask is use is compulsory with weekly two days shout down	Webinar of Ayurveda Immuno boosters, Tele medicine practice
Un lock 4 1 st Sep to 30 th Sep	Full relaxation on mobilities with Mask, Public transport services are reappeared.	Webinar of Ayurveda Immuno boosters, Telemedicine, Corona Kit distribution to Vulnerable group
Un lock -5 1 st Oct-31 st Oct	Full relaxation on mobilities with Mask, Public transport services are reappeared	OPD functioning with Mask use, social distancing, Tele medicine stopped in some Institute, Corona Kit distribution to Vulnerable group, IPD services of some Institute reopened, Press conference and news in press and electronic media.

The impact on Ayurveda Research is also noted in many centers, the trial subject cannot continue the clinical trials due to lock down and shut down principle of government and unavailable of public transport. There is a mass drop out/partial drop out of subjects from ongoing clinical trials and new patient's recruitment is not possible for close down of clinical laboratories. There is more ongoing research on Immuno boosting properties and preclinical studies¹⁶. In the midst of the Pandemic, MoHW, in collaboration with Niti Aayog, released Telemedicine Practice Guidelines enabling Registered Medical Practitioners to provide healthcare in remote settings using telemedicine. These guidelines are recognized by some of the Ayurveda hospitals. The patient's attendance dropped up to 80% of most of Ayurveda hospitals. The clinical trials cases dropped out the trial due to lock down process. Whereas new trials on COVID-19 was encouraged, but clearance from state government to conduct trial on covid-19 was a top job in many states. More positive impacts were generated when Prime Minister Narendra Modi endorsed traditional ways to boost the immune system, directing people to follow the guidelines issued by the AYUSH ministry

to avoid contracting Covid-19. The prime minister also asked those practicing traditional medicines to utilize the platform of tele-medicine and reach out to the people to generate awareness in the fight against the Covid-19 pandemic. Phyto therapeutic agents containing higher concentration of sesquiterpene, poly phenols and flavonoids have inhibited the production of inflammatory cytokines and prostaglandin which are more produced in COVID-19. *Yastimadhu, Gilay and Aswagandha* has equal effect on cough as codeine. The *Anu taila nasya* has special power to prevent COVID-19. More than 70% of Indian population has been using Ayurveda *Kwatha (Decoction), Haldi milk, Use Chaubanprash and practice Yogasana and pranayama* for prevention of COVID-19. More clinical research studies on Ayurveda interventions have been undertaken as prophylaxis and as an add-on to standard care to COVID 19. A Collaborative clinical study was proposed as a joint initiative of Ministry of AYUSH, Ministry of Health and Family Welfare (MoHFW) and the Ministry of Science & Technology through Council of Scientific & Industrial Research (CSIR) with technical support of ICMR. The Interdisciplinary AYUSH R&D Task Force has formulated

and designed clinical research protocols for prophylactic studies and add-on interventions in COVID-19 positive cases through a thorough review and consultative process of experts of high repute from different organizations across the country for studying four different interventions viz. Ashwagandha, *Yashtimadhu*, *Guduchi* +*Pippali* and a polyherbal formulation (AYUSH-64) developed by CCRAS. Ayush Sanjivani application-based study for impact assessment of acceptance and usage of AYUSH advisories in its role in the prevention of COVID 19 is initiated in all Ayurveda Institutes and hospitals. The Ministry of AYUSH has developed *Ayush sanjeevani* mobile app, for generating data of large population with a target of 5 million people¹⁶. The Researchers are worked hard to reach to expected outcomes include to generate data on acceptance and usage of AYUSH advocacies and measures among the population and its impact on the prevention of COVID-19. Various Webinar has been conducted by different Ayurveda medical colleges and research Institutes to sensitize the Ayurveda doctors regarding the usefulness of *Rasayana* drugs (Immuno boosters) in COVID-19 situation. The corona kits are distributed to venerable groups by many Ayurveda colleges and

Institutes. The time line with different impact is presented in Table no1.

DISCUSSION

Although negative impacts are more noted in terms of lock down of Ayurveda hospitals and *Ksharasutra* and *panchakarma* centers. There is a significant drop of OPD strength due to lock down and shut down process. As Ayurveda diagnostic process is subjective and patient oriented, some of diagnostic tools such as *Prakruti* (Constitution) assessment and *Nadi Parikshya* (Pulse diagnosis) are need direct patient contact and treatments are also patient centric so more drop in patient's ratio are observed in Ayurveda Hospitals. But positive impact is more as it create awareness to opt Ayurveda *kwatha*, *nasya*, *pranayama* and *yogasana* to prevent COVID-19. Ayurveda reached every house of Indian.

CONCLUSION

Positive impact is more than the negative Impact on Ayurveda practice and research in the COVID-19 pandemic situation.

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