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Research Article

# The human side of healthcare: A quality-of-life study among Ayurved doctors in COVID-19 pandemic

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## Abstract

The COVID-19 pandemic posed significant challenges globally, with India facing a severe outbreak starting in March 2020. Ayurvedic doctors were integral in managing the health crisis, especially during the second wave, amidst extreme stress, increased patient load, and personal health risks. This study aimed to assess the quality of life (QoL) of Ayurvedic doctors in Pune who served as frontline workers during the pandemic. Conducted from June to July 2021, the cross-sectional observational study involved 100 Ayurvedic doctors who had worked for more than six months during the pandemic. Using the WHOQOL-BREF questionnaire, the study evaluated their QoL across physical, psychological, social relationship, and environmental domains. The findings revealed significant stress, negative emotions, physical fatigue, and challenges in the work environment, with mean scores of 50.04 in the psychological domain, 56.82 in the physical domain, 59.53 in the environmental domain, and 65.58 in the social relationship domain. The study concludes that the pandemic adversely affected the QoL of Ayurvedic doctors, highlighting the need for improved support, resources, and professional development to enhance their preparedness and well-being in future health crises.

**Keywords:** COVID-19 Pandemic, Frontline workers, Ayurved doctors, Quality of life

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## Introduction

India has experienced the outbreak of the COVID-19 virus since March 2020. The virus was first identified in Wuhan, China on December 19. Attempts to seize it there failed, allowing the virus to spread worldwide.(1) The WHO declared a public health emergency of international concern on the 30th of January 2020 and a pandemic on the 11th of March 2020.(2),(3) While the whole world was observing lockdown to protect themselves from being exposed to the life-threatening disease, the entire medical community devoted themselves to tending to the patients in the best possible ways; with actually no clue about medications during the first wave. Till the second wave, the treatments have chartered their paths from HCQ(Hydroxychloroquine), to Remdesivir, to Standard of care using zinc and vitamin supplementations. The second wave was more fatal than the first. In India, due to their pluralistic medical environment, doctors trained in AYUSH systems were available to offer their service. They were trained by the government of India and those who completed the training were given specific responsibilities in COVID wards. (4) The situation was desperate and frustrating for health professionals during the second wave due to the increased number of COVID positive patients, scarcity of medical professionals, constantly modifying treatment protocols, uncertainty of personal safety, fear of transmission of infection to family, and isolation within home which inversely contributed to mental as well as physical health, affecting the quality of life. The impact of the COVID-19 pandemic on the Ayurveda doctors, is an area that has not been fully explored or documented. Despite the significant role of Ayurveda doctors in India's healthcare system, there is a lack of comprehensive data on how many Ayurveda doctors have been affected by the disease. This gap in information leaves us with an incomplete understanding of the pandemic's real impact on this segment of the healthcare workforce. Barring other groups working at different levels in the hospitals and COVID centres, authors decided to review the status of Ayurvedic doctors who contributed as the mainstay of patient care, using quality of life.

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## Materials and Methods

### Study Design, Study Area, and Study Participants

It was a cross-sectional observational study conducted in the Pune district area from June 2021 to July 2021. Ayurvedic doctors of either gender who worked for more than six months as frontline workers in the COVID-19 pandemic were included in the study.

### Sample Size and Sampling Technique

Considering the feasibility aspect of the study, a convenience sampling method was used where the sample size was 100.

### Tools and Technique – Data Collection and analysis

After obtaining permission from IEC, the participants were contacted and briefed about the purpose of the study. The Questionnaire titled World Health Organization Quality of Life Assessment (WHOQOL)-Bref Scale was studied for its components and used as it is without any modification. It is a shortened version of the WHOQOL-100, developed by the WHO to assess individuals' perceptions of their quality of life across different cultures and settings. It comprises two general questions and 24 domain-specific items across four key areas: Physical Health (7 items), Psychological (6 items), Social Relationships (3 items), and Environment (8 items). Responses are recorded on a 5-point Likert scale ranging from 1 (not at all/never/very poor) to 5 (extremely/always/very good), with certain negatively framed items (3, 4, 26 items) requiring reverse scoring . The scoring pattern involves calculating domain means, multiplying by 4, then transforming to a 0-100 scale using the formula: ((Domain score - 4) × 100/16), where higher scores indicate better quality of life. Analysis typically includes descriptive statistics for each domain. (5), (6) It was loaded in the Google form for uniformity of distribution. The questionnaire was administered to the participants who filled the written informed consent before using Google forms. The data was collected and analyzed based on the scoring method and results were drawn. There were no personal identification questions.

### Statistical Method

The data collected was statistically analyzed by using SPSS 25. A descriptive statistical method was used for the analysis of data. Mean, Median, and Standard Deviation were used to summarize the central tendency, spread, and overall distribution of scores in each domain (Physical, Psychological, Social Relationships, and Environmental) while Skewness helped to understand the distribution shape of the scores in each domain.

### Ethical Issues

The ethics approval was obtained from the Ethics committee of Dr. D. Y. Patil College of Ayurved and Research Centre, Pimpri, Pune-18. Approval no. DYPCARC/IEC/504(A)/2021 (See supplementary data).

**Table 1: Descriptive statistics of the domains of QOL**

| Domain | Mean | Median | Std Deviation | Skewness | Std Error |
|---|---|---|---|---|---|
| Psychological | 50.04 | 50 | 13.71 | 0.2561 | 1.3717 |
| Physical | 56.8214 | 53.57 | 17.04 | 0.48 | 1.7049 |
| Environmental | 59.53 | 59.37 | 14.99 | 0.5061 | 1.4992 |
| Social Relationship | 65.58 | 70.83 | 18.75 | -0.1332 | 1.8752 |

**Figure 1: Bar graph representing the mean of responses across physical, psychological, environmental, and social relationship domains**

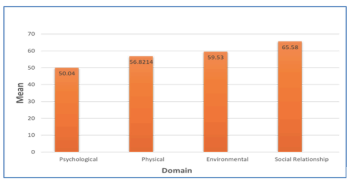
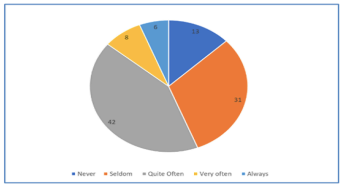



**Figure 2: Pie chart representing the responses to question no. 26 " How often do you have negative feelings such as blue mood, despair, anxiety, and depression?"**




## Results

In terms of demographics, the study included 54 female and 46 male Ayurvedic doctors, with singles significantly outnumbering married participants (80 versus 20). We used the WHOQOL-BREF, a brief and validated version of the WHOQOL-100 with 26 items to evaluate the quality of life (QoL) of Ayurved doctors who worked during COVID-19. The WHOQOL-BREF assesses QoL across four domains Physical Health, Psychological, Social Relationships, and Environment. Four domain score denote an individual's perception of quality of life in each particular domain. Domain scores are scaled in a positive direction i.e. higher scores denote higher quality of life. The mean score of items in each domain is used to calculate the domain score. Each domain contains a different no. of items and each item is measured on a scale of 1 to 5, where respondent 1 indicates disagreement while respondent 5 indicates agreement. In the questionnaire items 3,4 and 26 were ordered negatively.

Psychological and Physical domain both have positive skewness(0.2561 and 0.48 respectively), indicating more respondents scored lower than the mean. The Environmental domain has moderate positive skewness (0.5061), suggesting a similar trend to the physical domain but with a slightly narrower spread. The Social Relationship domain was negatively skewed (-0.1332) with the highest mean and standard deviation, indicating a significant portion of respondents scored higher, but with considerable variability.

A significant portion of respondents experience negative feelings frequently. The combined percentage of those who experience these feelings quite often, very often, or always is 81%. Only 19% of respondents reported seldom or never experiencing negative feelings.(see fig 2) Discussion

The Ayurvedic doctors suffered from apparent health risks, work stress, and psychological distress during the COVID-19 outbreak which had an impact on their physical and mental health. (7) Many doctors who were giving services at hospitals were under constant pressure of self-exposure to virus and also of incidental transmission of the virus to their kins. During the period of the lockdown, some doctors faced physical assaults from the relatives

of deceased patients. A variety of studies lead to the conclusion that stress and anxiety have a substantial impact on all types of healthcare professionals including physicians, nurse, pharmacists, and others such as caterers, linen washers and ambulance drivers attendants etc.. The necessity of suitable safety gear, protocols, and assistance for medical professionals' physical and psychological welfare was emphasized.(8),(9) The psychological burden and overall wellness of healthcare workers (HCWs) have received heightened awareness, with research continuing to show high rates of burnout, psychological stress, and suicide.(10),(11) Numerous research demonstrated the rise in mental health problems among service providers and employees of Healthline. (9),(12),(13) During the COVID-19 pandemic, there was a scarcity of mainstream or conventional doctors in India, which was fulfilled by Ayurvedic doctors who gave their whole and soul to their duties towards the nation. It is well-known that the mental state is crucial because it contributes greatly to a person's quality of life. The demanding nature of the medical profession, with its long hours, high-stakes decision-making, and emotional tenacity, can take a substantial toll on their mental health and personal well-being. Many studies concluded that the mental health of medical professionals was compromised during the pandemic. (9), (14), (15) The covid-19 gave the whole world examples of having issues with psychological, physical, and social factors. The present study also brings to the table the fact that 50% of the participants rated their quality of life as poor during a pandemic. Out of the four domains, the most affected one was the psychological domain with a mean score of 50.4.

**Psychological Domain**

Psychologically, the pandemic has been a source of considerable stress and anxiety for Ayurvedic doctors. The fear of infection, the responsibility of treating infected patients, and the uncertainty surrounding the virus have contributed to heightened levels of stress and anxiety. The distribution of item no 26 indicates that a majority of the respondents are dealing with negative emotions regularly, which could be a point of concern for mental health and well-being. (see fig.no.2) Research has reported similar findings that the COVID-19 pandemic created a unique set of work-life pressures for healthcare workers, increasing the likelihood and incidence of negative mental health outcomes. (16) The doctors were under constant pressure to treat COVID-19 patients due to constantly changing protocols, unavailability of medications, and unconvincing trials of vaccines throughout the second wave of the pandemic while caring for patients. To add to it, in the Indian scenario, the compelling, demanding, and at times condemning nature of relatives towards doctors was testing their patience. The management of COVID hospitals was trying to provide for the doctors to the best of their capacities however, field doctors had to face human errors and inadequacies arising out of it. The cumulative effect lowered their ability to focus and work efficiently to some extent. They experienced low mood, hopelessness, anxiety, hypertension, and dissatisfaction towards their employment as a result of all these factors. (17), (18), (19)

**Physical domain**

In the current study the most affected domain after psychological domain was physical domain with mean score 56.8214. During second wave, the number of affected patients increased substantially during the period from March- April 2021. Many healthcare professionals themselves were infected and recovered but were feeling low on energy and strength, however they reported to their duties. During this phase, the proportion of doctors to patient was inverse. As a result, there was increase in work hours of doctors sometimes leading to continuous 48-hour shifts. Many factors suffered physical pain due to standing, attending to sinking patients, and managing the constant inflow without break led to an imbalance in their sleep routine which made minds unstable. (9) The medical professionals exceeded their working capacity to extent sacrificing their daily activities. The results indicate a significant strain on the physical well-being of Ayurvedic doctors during the pandemic. Long working hours, increased patient load, and the physical demands of wearing personal protective equipment (PPE) have taken a toll. Many doctors reported fatigue, sleep disturbances, and other stress-related physical symptoms. This aligns with global findings where healthcare workers have faced increased physical challenges due to the pandemic. (20)

**Environmental domain**

The environmental domain is important because it has a direct bearing on a person's capacity to lead a happy and healthy life. Unfavourable environmental circumstances can cause stress, health issues, and a general decline in quality of life. On the other hand, a nurturing and salubrious atmosphere can augment well-being and facilitate personal growth. (21) In the current study the environmental domain has moderate mean and median scores, with moderate standard deviation. The positive skewness indicates more lower scores, suggesting that some individuals might be facing challenges in their environment. Environmental factors, including the work environment and access to resources, have also been significantly impacted. Many Ayurvedic practitioners work in settings that are not as resource-rich as their allopathic counterparts, and the pandemic has exacerbated these disparities. Limited access to PPE, medical supplies, and support staff has created additional challenges. Healthcare providers experienced significant social stigma during the pandemic, manifesting as harassment on public transport, physical assaults, and pressure to vacate rented homes. (22), (23)

**Social Relationship domain**

The lower skewness value (-0.1332) in the Social Relationship domain suggests a more symmetrical distribution of scores, indicating that extreme negative impacts were less common in this domain compared to the others. Advances in technology and social media may facilitate maintaining social relationships even during challenging times, (24) reducing the potential negative impact on this domain. Ayurvedic doctors have demonstrated remarkable resilience and adaptability in their social interactions, finding ways to connect and support each other despite the challenges and difficulties.

## Conclusion

During the COVID-19 pandemic, Ayurvedic doctors played a crucial role, contributing significantly to various aspects of healthcare delivery and patient management. The study revealed how the quality of life of Ayurvedic doctors had deteriorated. This resulted in doctors facing an increase in stress levels. anxiety, depression, and mental stress issues. The sacrifices made by Ayurved doctors to serve their patients are significant, impacting their personal lives and mental health. As the world continues to navigate the ongoing impact of the pandemic, it remains crucial to prioritize the mental health and well-being of healthcare workers to ensure a resilient and effective healthcare system. During the COVID-19 pandemic, there was a scarcity of mainstream or conventional doctors in India, which was fulfilled by Ayurvedic doctors who gave their whole and soul to their duties towards the nation. However, there was a need for appraisal concerning the

work they did. This would involve collaboration between healthcare authorities, academic institutions, and professional bodies within the Ayurveda community to ensure that the contributions and challenges faced by these practitioners are adequately recognized and addressed.

**Future prospects**

- Enough safety supplies, procedures, and assistance are required for medical personnel' physical and emotional well-being.
- Providing continuous professional development and training for Ayurveda practitioners on handling pandemics and infectious diseases can enhance their preparedness and response capabilities. This can include workshops, online courses, and seminars focusing on modern healthcare challenges.
- Remedial sessions for doctors should be conducted to manage stress levels. Yoga and meditation sessions can be given according to the individual.
- Certain protocols and precautions should be taken to avoid further pandemics.

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