



PHYSIATRY DURING COVID-19: A SURVEY BASED ANALYSIS

Medical Science

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ABSTRACT

Introduction: The declaration of COVID 19 pandemic by WHO on 11th March 2020, is the defining global health crisis of the past 100 years. The following Nationwide survey was conducted to ascertain the sea changes this pandemic has brought in the physiatrist practice, patient management and preparing oneself to the challenges of rehabilitation in the POST COVID world. The survey covers the role and importance of social media in medical education and consultation in a POST COVID world. It also sheds light on the financial implications and personal lifestyle changes that physiatrists are witnessing. **Material & Methods:** A Google form comprising of 74 questions, divided in 3 sections, was used to gather the requisite data on :-

- A) PRECOVID practice, management and lifestyle;
- B) Life during COVID pandemic; and
- C) Anticipated changes in POST COVID era.

The survey was circulated to 400 physiatrist via various interactive groups who have been practicing either independently or in govt setups and associated hospitals nationwide. They were requested to submit their responses in a period of 30 days. **Result:** In PRECOVID era an average physiatrist was finely balancing his profession, personal lifestyle, learning and recreation. The LOCKDOWN clamped their practice which lead to financial drought but hardly made a dent in productivity by engaging in webinars, reading and researching. The POST COVID time demands implementation of newer safety protocols like changes in setup, regulating the patient traffic, limiting daily procedures, engaging in distance learning through virtual conferences, maintaining a healthy lifestyle and constructing proper protocols for pulmonary, neurological and musculoskeletal rehabilitation programs for patients post recovery from COVID19, especially the patients weaning from ventilators. **Conclusion:** The effect of COVID19 demands major change in physiatrist professional practice like limiting consultation, following safety protocols, COVID testing, preparing consolidated program for POSTCOVID sequel. Social media is rightly poised to be a major tool for education, consultation, marketing and awareness. The role of teleconsultation needs to be reprised, recognised and regularised. Webinars and virtual conferences will find more takers in future.

KEYWORDS

physiatry, COVID19, survey, rehabilitation, physical medicine and rehabilitation, PMR

INTRODUCTION

The declaration of covid-19 pandemic by WHO on 11th March 2020 is one of the defining Global Health crisis of the past hundred years.¹ Since the declaration of pandemic all the countries in the world went into lockdown of various intensities, with some still reeling under lockdown. All non-essential services and activities came to a halt. As of today, there are nearly 120 million active cases and 2.6 million deaths around the world due to it.

Covid-19 is a highly contagious disease affecting multiple systems of the human body as the ACE receptor on which this virus attaches is present throughout the body in particular lungs intestine and endothelium.² This has far-reaching implications in the form of post Corona sequel. Physiatry will play a central role in combating these implications.

Physiatry is a branch of medicine that aims to enhance and restore functional ability and quality of life to people with physical impairments and disabilities. In 1944 after the World War 2 the Baruch Committee (USA) was established to develop the field of PMR.³ IAPMR was formally registered in 1972. Since then it has been playing a pivotal role in creating opportunities, awareness, conducting fellowships, streamlining residency format and encouraging research among fellow physiatrist.

Today in the face of ongoing Global pandemic the situation is graver than World War II and the Physiatrists have found themselves standing in the front line.

The challenges that were faced by the veterans in treating the wounded and disabled soldiers during and after the world war in mitigating disability and optimising their ability to lead a functional role in society. Similar challenges lie in front of all the physiatrist and IAPMR as rehabilitation will play a key role to combat pulmonary neurological, psychological and musculoskeletal sequel of covid-19.

Physiatry, is still striving to gain ground in Indian health care because of fewer established clinics and teaching departments, fewer

postgraduate seats, limited resources, lack of awareness among fellow doctors and general public. Rehabilitation services provided by rehab specialists was among the most affected health service due to pandemic.

Apart from financial implications, the burden of disability has also risen in the society as covid-19 has resulted in cancellation of elective procedures, limiting consultation, cost of PPE, halt in inpatient rehabilitation activity, changing Hospital floor plan, lack of resources and loss of follow-up, especially among disabled.

We have designed an online questionnaire to explore the sea changes that happened during the pandemic in physiatrist's practice, patient management, planning consultation and personal lifestyle change.

This survey also throws light on the challenges faced by physiatrists in adapting to these changes due to resource gap, lack of knowledge and standard protocol. Through the survey we have also explored the emerging role of social media in physiatrist's practice, lifestyle, teaching and telemedicine.

The survey also elucidates what all physiatrist can potentially anticipate in post Corona world across India.

AIMS

The aim of the study is to explore the changes that COVID pandemic has brought into physiatrist's practice, management and lifestyle and predict the challenges that lie in front of them.

OBJECTIVES

1. To see practice, growth and lifestyle of a physiatrist in the pre-covid era.
2. To analyze new information this pandemic has brought to assess the changes in physiatrist's lifestyle and patient management and predicting the impact and relevance of these changes in future practice of physiatry.
3. To demonstrate the role of social media and telemedicine and its impact as a tool for medical education, consultation and leisure

during covid and in the post-covid world.

MATERIAL AND METHODS

A questionnaire comprising seventy four questions was rolled out to around four hundred physiatrists across the country, using Google forms, via various interactive groups. The physiatrists were picked on random basis from all the parts of the country. We received total one seventy four responses, the respondents provided us their names and email address for correspondence. It is kept confidential and is used to clarify entries.

The questionnaire is attached as annexure (No. 1).

It has three section

1. Pre-covid practice and lifestyle
2. Life during lockdown
3. Anticipated changes in the post- covid era

Most of the questions have two responses while a small number have three options. The option with maximum responses is plotted on the graph and in some questions responses from two options are combined and plotted as a single bar.

**OBSERVATIONS
DEMOGRAPHY**

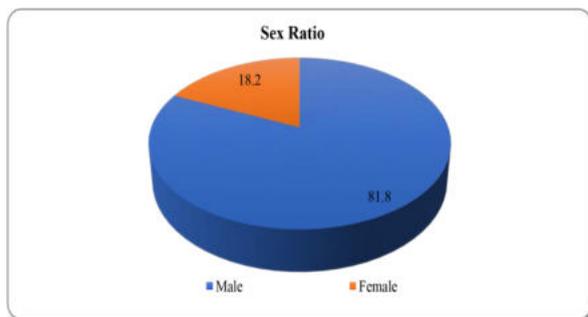


FIG. 1: SEX RATIO

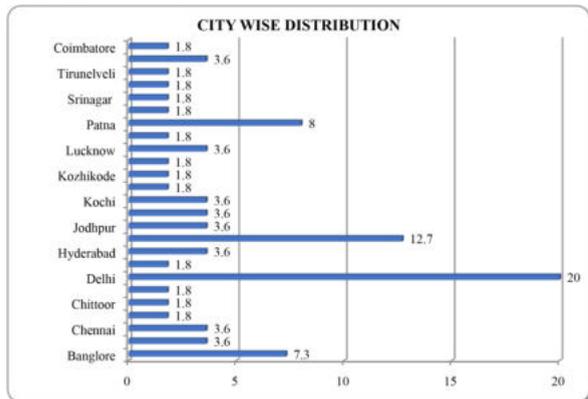


FIG. 2: CITY WISE DISTRIBUTION

82% physiatrists were males while women were 18%. Our study included physiatrists all around the nation with more than 125 physiatrists from Metro cities. 65% of physiatrists were young with less than 15 years of experience. (Fig. 1 & Fig. 2)

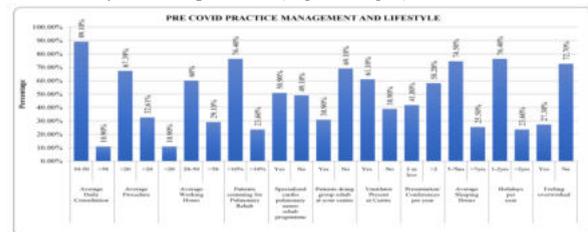


FIG. 3: PRE COVID PRACTICE MANAGEMENT AND LIFESTYLE

PRE COVID PRACTICE MANAGEMENT AND LIFESTYLE

Majority of physiatrist were working 30-50 hours per week while 30% working more than 50 hours per week. Average daily consultations

were 40- 50 for most and procedure performed per month were 15-20 for majority of phsiatrists. On an average 80% physiatrists had a waiting period of less than a week. (Fig.3)

Half of the centers did not have specialised program for cardio pulmonary rehabilitation. Outpatient consultation for pulmonary rehabilitation is less than 10%. Around 31% physiatrists were hosting group rehabilitation for patients at their centres. Only 60% of centers are equipped with ventilators.

Majority, that is 75% of physiatrists are having 5 to 7 hours of sleep and were able to pursue their hobbies on weekends with 1-2 long holidays a year. An average physiatrist was finely balancing life and work with more than 70% having enough family time. 30% of physiatrists felt overworked and complained about having less family time.

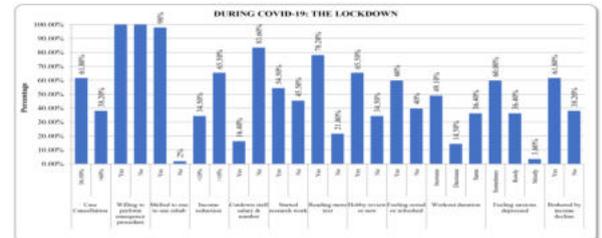


FIG. 4: DURING COVID-19: THE LOCKDOWN

DURING COVID-19: THE LOCKDOWN

With the declaration of pandemic and subsequent lockdown, all non-essential services came to a halt. Our survey showed more than half of the future appointments were cancelled. Most of the rehab specialists estimated more than 10% reduction of income in the upcoming financial year. Yet most neither cut the number of staff nor their salaries. (Fig. 4)

The lockdown also created a different perspective towards personal Lifestyle. More than 50% have either taken up new or have revived their old hobbies and have increased duration, intensity and frequency of their workouts. Majority, that is more than 80% physiatrists, resumed or started reading text pertaining to their specific fields.

The lockdown also saw increase in internet usage and participants were spending average 3-4 hours online in various ways.

60% of our participants felt anxious and depressed during this period and were bothered about the decline in their income.

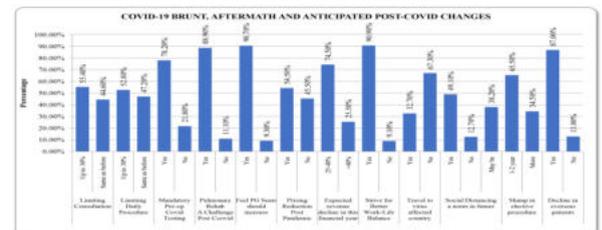


FIG. 5: COVID-19 BRUNT, AFTERMATH AND ANTICIPATED POST-COVID CHANGES

COVID-19 BRUNT, AFTERMATH AND ANTICIPATED POST-COVID CHANGES

Seventy eight percent of the participants were encouraged and keen to embrace the guidelines and protocols issued by WHO, CDC and ICMR for covid testing, personal protection, social distancing and adequate methods of sanitization.⁴ In sync with CAN report for in-patient rehabilitation facilities for navigating coronavirus,³98% of physiatrist followed social distancing norm and focused on one to one rehabilitation. 50% of the participants agreed on limiting OPD consultations and daily procedures by 30%. 71% of our participants plan to change the office set up. (Fig. 5)

The adaptation of newer guidelines also have financial implications as the cost of PPE, renovation/change of setup and one to one rehabilitation are not minuscule. 65% participants anticipated more than 35 % decline in the revenue with significant reduction in pricing and increase in expenditure. Around 60% felt that there will be 1 to 2 years slump in elective procedures with 87% decline in overseas patients further adding to the financial distress.

With covid-19 affecting lungs and pulmonary function 89% Rehab specialists felt that pulmonary and musculo-skeletal rehabilitation will be major challenges in the post covid world, especially for patients weaning from ventilator.

63% of participants are hoping that people in India will be more sensitive towards rehabilitation. Majority, that is 90%, felt that PG seats should increase considering the burden of disability, upcoming future challenges of cardio pulmonary, neurological and musculoskeletal rehabilitation in post covid patients and state of rehabilitation in India.

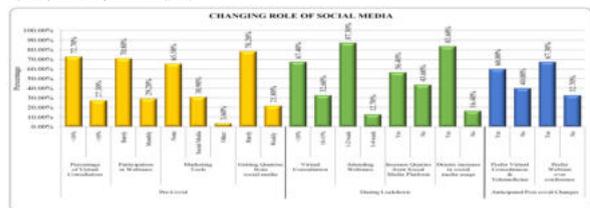


FIG. 6: CHANGING ROLE OF SOCIAL MEDIA

CHANGING ROLE OF SOCIAL MEDIA

Social media has become a powerful tool for learning, interaction, recreation, education and consultation. During pandemic mandatory social distancing has made telemedicine the safest interactive system between patients and clinicians. (Fig. 6)

During pre-covid era 70% participants rarely took part in webinars. Virtual consultations were less than 10% for 75% of physiatrists. Around 66% were not employing any marketing tools and only 31% were using social media for the same. Of those using social media for marketing, 15% had hired professional agency to manage Social Media/Website. About 85% had no YouTube or Instagram handles and were rarely getting any queries directed from such platforms.

More than 50% of physiatrists in India feel that they are now getting more queries directed from such platforms. 83% participants feel that there is a drastic increase in social media usage. Circulating videos on social media for rehabilitation, virtual consultations and other means of telemedicine were preferred by 60% of physiatrist. Unlike earlier, when majority physiatrist were rarely taking part in webinars, now 67% physiatrist prefer webinar over conferences to avoid traveling to virus affected areas.

DISCUSSION

Physiatrists, who were finally starting to balance work and life during pre covid times experienced cancellation of appointments, routine procedures and decrease in OPD consultations. Majority are aligned to adopt new protocols of patient management and safety including limiting consultations, following social distancing norms and changes in office setup. This has personal and financial implications with 60% of physiatrist feeling anxious and concerned about the slump in economy and practice. World bank estimated the impact of pandemic at 2.2% to 4.8% of global GDP.⁶

The survey highlighted lack of standardized cardio pulmonary rehabilitation program at 50% of centers, where 89% participants agreed that rehabilitation will play a central role in post covid rehab and thereafter.

There is a dire need to build resources and standardise the protocols and guidelines for cardio pulmonary rehabilitation nationally.

Due to decrease in OPD consultation and loss of follow up the burden of disability has increased in society majorly affecting paediatric population. Despite having limited resources, knowledge, fewer centers, difficulty of Logistics and decreased remuneration, majority Rehab Specialists around the nation adopted telemedicine, virtual consultation and video forwards for combating the hurdles. Results reflect that physiatrists who were rarely taking part in webinars during pre-covid times, saw a substantial increase in takers since the imposition of lockdown.

A survey based analysis conducted by Jaime c uet all⁷ assisted The Canadian Association of PMR in creating webinars to help fellow physiatrist to adapt to this new era of telemedicine and to cope with changes in professional practice. Indian Association of PMR should

also hold such webinars for education and assistance.

Study conducted by Adam S Tenforde et al. to measure the patient experience with the tele-rehabilitation found high patient satisfaction, measured across age condition for both adult and paediatric patients.⁸ Such survey quantifying the patient contentment and improvement with tele-rehabilitation in India is essential to see patient compliance and work required to be done to improve Healthcare delivery via such platforms.

When the world was using social media platform to showcase their work and attract clients, majority of physiatrist in India were not using social media for marketing and did not have any social media presence. This new era has ushered an increase in usage of social media for marketing queries, leisure, recreation and learning among physiatrist across India. This survey helped us to look into personal lifestyle modifications such as adopting new or resuming old hobbies, usage of social media for leisure, increasing focus on fitness, giving more time to reading and research and more family time, owing to the resilient and inquisitive spirit of our fellow physiatrists.

Survey based analysis conducted by Miguel et al⁹ to study the impact of covid-19 and resulting adaptation in PMR, while producing similar result as our survey regarding tele-healthcare, also highlighted the individual perspective of resident health care students and program directors, which is worth mentioning here. This survey do provide a comprehensive answer to personal modification, financial implications, changes and challenges of physiatrist practice across the nation at glance.

CONCLUSION

Covid-19 pandemic came as a jolting blow in the face of the whole world which made the health care workers as Frontline workers and revealed the deplorable state of health care system across the world. World faced cessation of most activities, crash of economies and an unprecedented era of lockdown.

Charles Darwin said, "It is not the most strongest species that survive nor the most intelligent that survives, it is the one that is most adaptable to change". It is to this unbending human spirit and indefatigable energy of Health Care professionals that we were able to see the light amidst darkness.

This study has revealed following conclusions :-

- The covid-19 pandemic has affected physiatrists personally, professionally and financially. The present circumstances demand changes in physiatrist's practice and lifestyle like limiting consultations, changing office setup, following guidelines of personal protection, sanitization and social distancing.
- Physiatrists will play a central role in mitigating pulmonary neurological and musculoskeletal sequel of covid-19 especially in patients weaning from ventilator. There is a need to build resources and capacity, increase post graduate seats and standardize cardio pulmonary and musculoskeletal Rehabilitation protocols nationally.
- Social media has emerged as a major tool for recreation, education, learning, consultation and marketing. Webinars will find more takers in future. Telemedicine and virtual consultations are gaining ground and needs to be reprised and regularized.

Compliance with ethical standards

Conflict of interest Mrinal Joshi and Aayushi Choudhary declare that they have no conflict of interest.

Ethical approval The Institutional Ethics Committee has confirmed that no ethical approval is required.

Consent to participate Participants in the survey consented for publication of the results.

Consent for publication upon submission, all authors consent to the publication of the manuscript in the international journal of scientific research.

Annxure-1: https://docs.google.com/forms/d/13qUNP-t7fUNUtAy_DCKw9ostcw4tuNvZtAzNdK6A74/edit

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