

# COVID-19's Psychological Impact On Ophthalmologists In India

Dr. Anitha C<sup>1</sup>, Dr. Suresh R<sup>2</sup>

<sup>1</sup>Associate Professor, Meenakshi Academy of Higher Education and Research

<sup>2</sup>Associate Professor, Meenakshi Academy of Higher Education and Research

Email: <sup>1</sup>anithac@mmchri.ac.in

**Abstract:** *To evaluate the psychological impact on ophthalmologists of the COVID 19 crisis during lock-ups in India. An online study was carried out during the lockdown on ophthalmologists. The details collected included population information, address, current professional status, form of activity, marital status, effect on training or practises of COVID-19, and effect on income and living cost power. The Patient Health Questionnaire-9 measured psychiatric anxiety. Altogether 2,215 ophthalmologists replied. Multivariable research found that at younger age depression was considerably greater. For an age rise of 1 year, the risks of depression declined by 2.86%. Non-practicing ophthalmologists were more concerned about their schooling or professional development, in particular those with difficulties covering living costs. An extraordinarily significant number of ophthalmologists suffer from psychiatric disorders and will need customised psychological treatment of health.*

**Keywords:** *COVID-19, depression, Ophthalmologists, psychological, treatment*

## 1. INTRODUCTION

The coronavirus outbreak has affected masses worldwide.<sup>1</sup> COVID-19 not only impact the physical wellbeing of those who have the infection but also persuades physiological signs, namely, tiredness, fear, fatigue, sleeplessness, rejection, frustration and annoyance. Mental repercussions for livelihoods and working environments can be linked to overt or indirect symptoms of the disease.<sup>2</sup> Asymptomatic illness transmission contributes to uncertainty and anxiety.<sup>3</sup> In comparison, the shortage of personal protective equipment and racial inequality raise health practitioners' tension and anxiety levels.<sup>3</sup> The impact of coronavirus on Chinese mental health is well studied. In China, in a survey to determine psychiatric and nursing health status in Wuhan 36.9 percent have mental health condition underlying thresholds, including 6.2 percent with serious disorders.<sup>4</sup> COVID-19 impacted not just the psychological well-being of health care staff, nonetheless including non-front workers in health care sector, namely, ophthalmologists. There are no studies about the mental wellbeing of those health practitioners who do not work actively in COVID treatment. Specialty ophthalmology is at greater risk and most of the treatments place the patient in direct touch with the faces and eyes. Various parts of the face of the patient are impaired by vision equipment and therefore raise the likelihood of infection spreading from respiratory gout and touch with aerosol particles.<sup>5</sup> SARS-CoV-2 records are often present in moans or cries and that has resulted in sickness among ophthalmologists.<sup>6</sup> <sup>7</sup> In a study, 80 per cent of respondents found COVID-19 to be extremely fragile by clinicians at Eye Hospital in Moorfield, London.<sup>8</sup> Stigmatization among health workers during an outbreak is well established.<sup>9</sup> It is also important to consider the mental wellbeing effect of COVID-19 on health practitioners and to draw up additional global plans to deliver effective mental health resources.<sup>10</sup> In this sense, we have developed this analysis to examine the COVID

19's crisis impact on the psychological wellbeing among practitioners functioning in India when locks are being carried out with a validated questionnaire on mental wellbeing.

## 2. METHOD

An online poll was performed over 6 days (June 7 to June 11, 2020) for ophthalmologists and ophthalmology trainees during locking. The survey was structured to explain and use the results to create strategies and services and to offer useful alternatives to the state of ophthalmologists' mental wellbeing. The participants' person identification was held anonymous and secure. The details gathered included the community, domicile, occupational position, style of work, marital status, the ophthalmology effected from COVID-19; effect on income and living expenses capability. A standardised "Patient Health Questionnaire-9" prescribed for mental health. Patient Health Questionnaire-9 is a report on the self-test that determine depressive intensity over the past 2 weeks.<sup>[15]</sup> Data have been evaluated using STATA programme (version 13). The study applied frequencies and percentages for count details. Reference point figures of descriptive statistics provided a distinction of those who have depression (mild, moderate and severe) relative to those who have no depression; Descriptive statistics and multivariate regression were used for the evaluation. For the depression risk factor, the multivariate approach was used at a confidence Interval of 95 percent for each risk factor. The acceptable significance of  $P < 0.05$  was determined (two-tailed).

## 3. RESULTS

2,215 ophthalmologists surveyed under the study. The ophthalmologists were 53.7 years of age with 'no depression' (SD:13.05 and range: 23-76 years). There were 791 (56.7%) males and 844 (51.6) were females. 1333 (81.5 percent) performed the study practised ophthalmologist and ophthalmologist under 183 instruction (11.2 percent); In governmental services 202 (12.4%), 951 (58.2%) served as private practitioners and 299 (18.3%) worked as NGOs. As regards marital status, there were 1422 (87.0%) married and 231 (13.0%) married. When asked about the effects of COVID-19 on their preparation or jobs, 1,076 (65%) were very professional. 1003 (61.3%) were willing to comfortably cover their living costs.

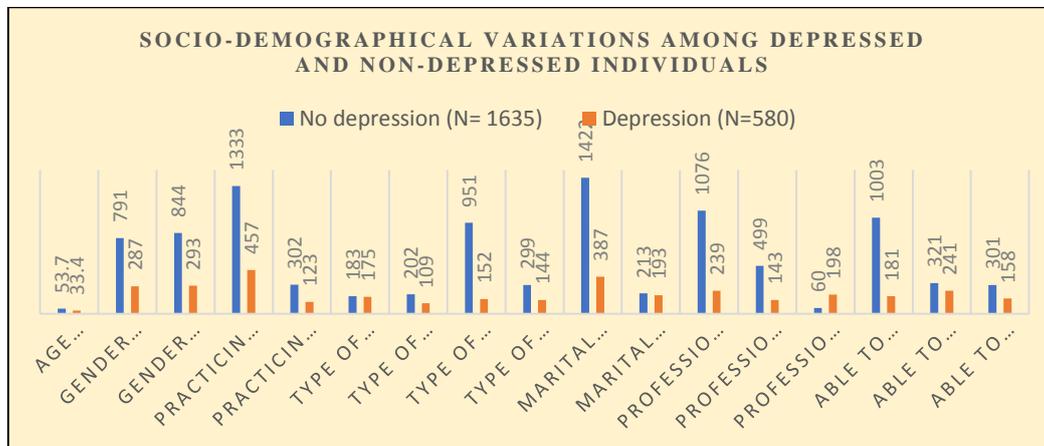
In 'depression' the ophthalmologists were 33.4 era (SD:11.02 and range: 33-62 years). There were 287 (49.5%) males and 293 (50.5%) females. Of those who conducted the study were 457 (78.8%) ophthalmologists and ophthalmologists who obtained instruction, 175 (30.1%); public facilities were employed by an ophthalmologist, 109 (18.8%), 152 (26.2%) were private, and 144 (24.8%) were employed by NGOs. Marital status: 387 (66.7%) were married and 193 (33.3%) were unmarried. 239 (41.2 percent) became somewhat professional when questioned what impact COVID-19 might have on their preparation or professional practise. 241 (41.6 percent) were challenging to reach their living expenses.

Table 1: Multivariate Analysis & Socio-demographical Variations among Depressed and Non-Depressed Individuals

Dimensions	No depression (N= 1635)	Depression (N=580)	Multivariate Analysis
Age (Years): Mean (SD)	53.7 (13.05)	33.4 (11.02)	0.97
Gender (male)	791(48.4)	287 (49.5)	1.13
Gender (Female)	844(51.6)	293 (50.5)	1.67
Practicing ophthalmologist (Yes)	1333 (81.5)	457 (78.8)	2.95

<b>Practicing ophthalmologist (No)</b>	302 (18.5)	123 (21.2)	1.66
<b>Type of services (In training)</b>	183(11.2)	175 (30.2)	0.34
<b>Type of services (Government)</b>	202 (12.4)	109 (18.8)	0.51
<b>Type of services (Private)</b>	951(58.2)	152 (26.2)	0.65
<b>Type of services (NGO)</b>	299 (18.3)	144 (24.8)	0.53
<b>Marital status (Married)</b>	1422 (87.0)	387 (66.7)	2.29
<b>Marital status (Unmarried)</b>	213 (13.0)	193 (33.3)	0.17
<b>Profession (Somewhat)</b>	1076 (65.8)	239 (41.2)	4.82
<b>Profession (Considerable)</b>	499 (30.5)	143 (24.7)	2.37
<b>Profession (Seriously)</b>	60 (3.7)	198 (34.1)	0.17
<b>Able to meet living expenses (Easily)</b>	1003 (61.3)	181 (31.2)	1.79
<b>Able to meet living expenses (With difficulty)</b>	321 (19.6)	241 (41.6)	1.23
<b>Able to meet living expenses (Barely)</b>	301 (18.4)	158 (27.2)	1.14

Figure 1: Socio-demographical Variations among Depressed and Non-Depressed Individuals



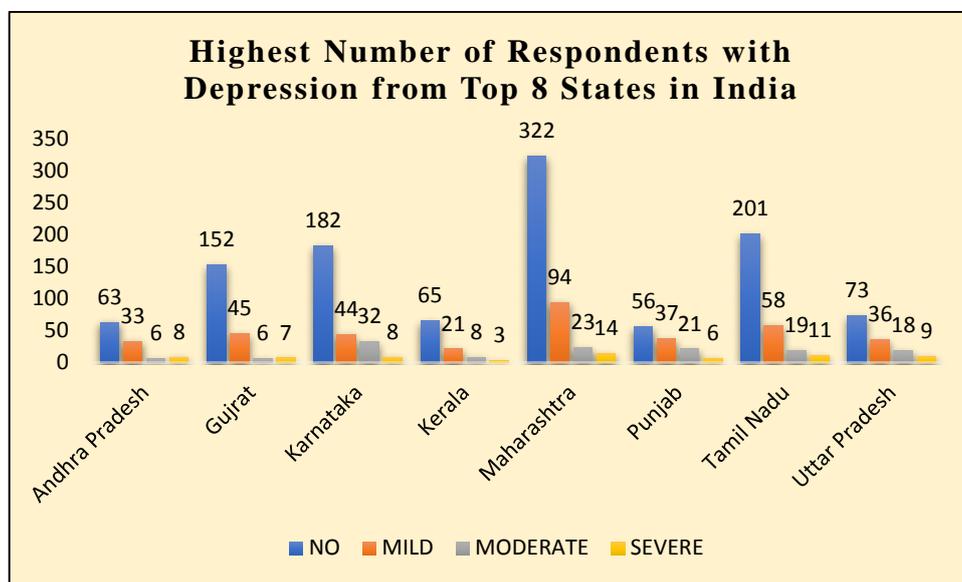
Of the overall respondents from all nations, 1,681 (75.8%) came from eight states in India. Table 2 indicates the distribution in these 8 countries of varying degrees of depression in India. In total, there are 567 (33.7 percent) ophthalmologists in these eight states in India with any depression degree.

Table 3 demonstrates the multivariable study of depression risk factors. In multivariate study, depression in young people is considerably higher. The risk of depression declined by 2.86% and the age increased by one year. It was even higher for non-practitioners and for those severely impaired with their education, career advancement; who had trouble covering living costs.

Table 2: Highest Number of Respondents with Depression from Top 8 States in India

Basis of Distinction	Andhra Pradesh	Gujarat	Karnataka	Kerala	Maharashtra	Punjab	Tamil Nadu	Uttar Pradesh
No	63	152	182	65	322	56	201	73
Mild	33	45	44	21	94	37	58	36
Moderate	6	6	32	8	23	21	19	18
Severe	8	7	8	3	14	6	11	9
Total	110	210	266	97	453	120	289	136

Figure 2: Highest Number of Respondents with Depression from Top 8 States in India



#### 4. DISCUSSIONS

There are reports of elevated anxiety and depression in young adults, particularly in healthcare.<sup>11</sup> Younger ophthalmologists are expected to attempt to develop themselves with their current practises and others will have debts to be paid back. With a projected drop in footfalls for eye care facilities, these ophthalmologists are likely to have a sense of vulnerability. Depression has often grown among non-practitioners as well as others who are more anxious with their training or career development and who have trouble covering living expenses.<sup>12</sup> Almost 45.6 percent had difficulties or couldn't afford to survive, which means that the financial strain may be a significant reason for depression.<sup>3</sup>

COVID-19 will survive long in our society Which is going to have a major long-term impact on healthcare workers, particularly ophthalmologists. This topic must be dealt with effectively and with an effective and continuing systematic mental wellbeing action plan.<sup>13</sup> Psychological support teams must be set up to offer different psychological resources, including pharmacological treatment.<sup>14</sup> Ophthalmology may interact with the psychiatric community or the communities of psychology to establish methods to help the most fragile. Clinics and hospitals may also develop partnerships with experts in mental wellbeing to help people in need.<sup>2</sup> Popular psychiatric conditions including anxiety and depression may be detected easily

and handled with specific guidelines specified in primary care based on evidence.<sup>15</sup> Social networking and news media will also aid spreading reliable disease risk information and collaborating with health practitioners to exchange factual details. The government could therefore build policies to adequately meet the concerns of all healthcare staff. Measures can be made to recognise people that need to be vigilant quickly and to use robust and quick solutions.

There were certain drawbacks to our analysis. Unlike personal interviews, self-reporting is focused on the criteria. In the study, participants can think and see the problems in a different way, rendering the outcome difficult to accurately assess the exactness of the responses. Among 3,894 eye doctors in the country who accessed the study, only 2,215 replied. It is possible that the respondents could vary from those who did not respond and therefore minimise the findings. In the final review, the Patient Health Questionnaire-9 employed only by means of an investigation instrument. While it offers cut-off ratings that may equate to scientific rigour, the final evaluation must be made by a clinical diagnostics instrument performed by a clinician.<sup>16</sup>

## 5. CONCLUSION

In brief, the data indicate a large proportion of ophthalmologists impacted by the COVID-19 crisis in a psychological context. Psychologists and psychologists provide customised mental treatment, particularly for people with mild to moderate depression. This research indicates that health professionals functional in the frontline and non-frontline grounds of prevalent pandemic also suffer from various variables in mental health. Global, government, state and community and ophthalmic societies need to be conscious for promoting and sustaining the psychological well-being among the health care professionals and not only those on the front lines with COVID-19 infection management.

## REFERENCES

- [1] Chen Y, Liu Q, Guo D. Emerging coronaviruses: Genome structure, replication, and pathogenesis. *J Med Virol.* 2020;92(4):418-423. doi:10.1002/jmv.25681
- [2] Lee SM, Kang WS, Cho AR, Kim T, Park JK. Psychological impact of the 2015 MERS outbreak on hospital workers and quarantined hemodialysis patients. *Compr Psychiatry.* 2018;87:123-127. doi:10.1016/j.comppsy.2018.10.003
- [3] Semaan V, Nouredine S, Farhood L. Prevalence of depression and anxiety in end-stage renal disease: A survey of patients undergoing hemodialysis. *Appl Nurs Res.* 2018;43(April 2018):80-85. doi:10.1016/j.apnr.2018.07.009
- [4] Kang L, Ma S, Chen M, et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain Behav Immun.* 2020;87(March):11-17. doi:10.1016/j.bbi.2020.03.028
- [5] O'Neil CA, Li J, Leavey A, et al. Characterization of aerosols generated during patient care activities. *Clin Infect Dis.* 2017;65(8):1342-1348. doi:10.1093/cid/cix535
- [6] Loon SC, Teoh SCB, Oon LLE, et al. The severe acute respiratory syndrome coronavirus in tears. *Br J Ophthalmol.* 2004;88(7):861-863. doi:10.1136/bjo.2003.035931
- [7] Li J-PO, Lam DSC, Chen Y, Ting DSW. Novel Coronavirus disease 2019 (COVID-19): The importance of recognising possible early ocular manifestation and using protective eyewear. *J Infect Public Health.* 2020;13(3):418-422. doi:10.1016/j.jiph.2019.04.011

- [8] Minocha A, Sim SY, Than J, Vakros G. Survey of ophthalmology practitioners in A&E on current COVID-19 guidance at three Major UK Eye Hospitals. *Eye*. 2020;34(7):1243-1245. doi:10.1038/s41433-020-0857-5
- [9] Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: Mental health consequences and target populations. *Psychiatry Clin Neurosci*. 2020;74(4):281-282. doi:10.1111/pcn.12988
- [10] Torales J, O'Higgins M, Castaldelli-Maia JM, Ventriglio A. The outbreak of COVID-19 coronavirus and its impact on global mental health. *Int J Soc Psychiatry*. 2020;66(4):317-320. doi:10.1177/0020764020915212
- [11] Huang Y, Zhao N. Mental health burden for the public affected by the COVID-19 outbreak in China: Who will be the high-risk group? *Psychol Heal Med*. 2020;00(00):1-
- [12] Goh ZS, Griva K. Anxiety and depression in patients with end-stage renal disease: Impact and management challenges – A narrative review. *Int J Nephrol Renovasc Dis*. 2018;11:93-102. doi:10.2147/IJNRD.S126615
- [13] Chen N, Zhou M, Dong X, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *Lancet*. 2020;395(10223):507-513. doi:10.1016/S0140-6736(20)30211-7
- [14] Kang L, Li Y, Hu S, et al. The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus. *The Lancet Psychiatry*. 2020;7(3):e14. doi:10.1016/S2215-0366(20)30047-X
- [15] Kocalevent RD, Hinz A, Brähler E. Standardization of the depression screener Patient Health Questionnaire (PHQ-9) in the general population. *Gen Hosp Psychiatry*. 2013;35(5):551-555. doi:10.1016/j.genhosppsy.2013.04.006
- [16] Huang C, Wang Y, Li X, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 2020;395(10223):497-506. doi:10.1016/S0140-6736(20)30183-5