- Zandifar A, Badrfam R. COVID-19: Considering the prevalence of schizophrenia in the coming decades. *Psychiatry Res.* 2020; 288: 112982.
- Badrfam R, Zandifar A. From encephalitis lethargica to COVID-19: Is there
 another epidemic ahead? Clin. Neurol. Neurosurg. 2020; 196: 106065.
- Berni A, Malandrino D, Parenti G, Maggi M, Poggesi L, Peri A. Hyponatremia, IL-6, and SARS-CoV-2 (COVID-19) infection: May all fit together? *J. Endocrinol. Invest.* 2020; 43: 1137–1139.
- Novac AA, Bota D, Witkowski J, Lipiz J, Bota RG. Special medical conditions associated with catatonia in the internal medicine setting: Hyponatremia-inducing psychosis and subsequent catatonia. *Perm. J.* 2014; 18: 78–81.
- Sharma D, Sharma A, Kumar R, Sharma S. Capgras syndrome, diarrhoea, and hyponatremia. Ann. Indian Psychiatry 2018; 2: 150.
- Yousaf Z, Al-Shokri SD, Al-soub H, Mohamed MF. COVID-19-associated SIADH: A clue in the times of pandemic! Am. J. Physiol. Endocrinol. Metab. 2020; 318: E882–E885.
- Caan MP, Lim CT, Howard M. A case of catatonia in a man with COVID-19. Psychosomatics 2020; 61: 556–560.
- Gouse BM, Spears WE, Archibald AN, Montalvo C. Catatonia in a hospitalized patient with COVID-19 and proposed immune-mediated mechanism. *Brain Behav. Immun.* 2020; 89: 529–530.
- Cooper JJ, Ross DA. COVID-19 catatonia—Would we even know? Biol. Psychiatry 2020; 88: e19–e21.

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Staying home is NOT 'staying safe': A rapid 8-day online survey on spousal violence against women during the COVID-19 lockdown in India

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With a recommendation to 'Stay home, stay safe!,' the nationwide lockdown in India began on the 25 March 2020 in a quest to fight the COVID-19 pandemic. Following global trends, ¹ India too received increased complaints of domestic violence from across the country during this period. ² Here we report results of an online survey that was conducted to assess the prevalence and characteristics of spousal violence experienced by Indian women during the lockdown.

This survey was conducted between 11 and 18 May 2020 (lockdown Phase 3 ended 17 May 2020). The study was approved by the Institutional Ethics Committee of the All India Institute of Medical Sciences, Raipur (Ref-997/IEC-AIIMSRPR/2020) and conformed to provisions of the Declaration of Helsinki; all the responders provided e-informed consent. Table S1 describes study specifics as per the CHERRIES Checklist.³ Of the 654 total responses received, 560 were used for analysis after screening for duplication, responses from single, separated/divorced women, and incongruent responses. Table 1 shows the demographic characteristics of the responders.

The rate of current spousal violence was found to be 18.1% (101/560). Of the 101 positive responses, the rates of physical, sexual,

verbal, and emotional violence (for definitions see Table S2) were 34.7%, 10.9%, 65.3%, and 43.6%, respectively. While 13.6% (n = 76) reported spousal violence to have been experienced before the lockdown, 4.5% (n = 25) reported it to have begun since the lockdown. This indicates a 33.1% increase in the rates since lockdown. Of those who reported spousal violence to be present before lockdown, 77.6% (n = 59) reported an increase in violence since the lockdown was enforced. The following were the five most frequently reported responses for perceived spousal reasons for the newly occurring or increased levels of spousal violence:

- 1 Financial constraints: 60.0% (includes 'loss of job.' 26.2%).
- 2 Inability to socialize/too much time spent at home: 23.8% (includes work from home, 21.8%).
- 3 Sharing responsibility of children: 17.8%.
- 4 Sharing responsibilities of the elderly: 14.8%.
- 5 Inability to indulge in addiction as before: 11.9%.

While 12.9% (n=13) of the positive responders reported to have made emergency hospital visits due to resultant injuries, 76.2% (n=77) reported to be sad and depressed due to violence. Responders with thoughts of harming themselves (including suicidal thoughts) and of harming the perpetrator were 36.6% (n=37) and 32.7% (n=33), respectively. While 38.6% (n=39) reported not to have ever resorted to any safety/rescue measure, neighbors (21.8%, n=22), parents' family (18.8%, n=19), friends (12.9%, n=13), and children (5.9%, n=6) were commonly sought for safety. Police, local welfare groups/nongovernmental organizations, and helplines were sought only by 3% (n=3) of positive responders reported having difficulty in reaching their usual safety/rescue measure. For items and response choices of the CoViDoVi Questionnaire and the frequency of each response obtained in the survey, see Table S3.

The responses we received reflect an increase in spousal violence since the COVID-19 lockdown in India. Predictably, restrictions (such as social isolation leading to more time spent in close contact) and disruption of jobs and livelihoods (which have been implicated as possible pathways for risk of violence⁵) were the foremost perceived reasons by the victims. Intriguingly, we show that one-fifth of the victims perceived the increased or new violence as being due to 'working from home,' thus suggesting that the 'work from home experiment' not only has various social and economic implications, but also potential negative mental health outcomes. This negative outcome was also perceived to be due to an increase in the spouse's sharing of responsibilities of children and the elderly in the household. This finding reveals the widely prevalent gender inequality and conflict in work-family roles⁷ and its worsening due to the pandemic restrictions. As the inability to indulge in an addiction as before was perceived as another reason for increased or new violence by the victims in the present study, spousal violence might therefore be added to the list of problems that pose ethical dilemmas due to COVID-19-restrictions-led 'forced' abstinence from substances.8

The rates of physical and mental health consequences reported in our study are in accord with earlier reports. Conforming to the suggestion that disruption of social and protective networks is also a pathway of risk for violence against women, our study found one-quarter of the victims to have faced difficulty in reaching their usual safety/rescue measures due to the COVID-19 lockdown restrictions. Moreover, the findings that only a meager percentage of victims use police, local welfare groups/nongovernmental organizations, and helplines, and that about 40% of victims do not resort to any safety measure may relate to perceived dangers of attempting to access these means, especially when the lockdown has led to restricting oneself to constantly sharing the same space with the violent spouse. This calls for creative methods of making various means available to the victims.

With greater levels of spousal violence, the COVID-19 pandemic seems to have posed more problems to the still 'unfinished' agenda¹⁰ of addressing domestic violence against Indian women.

The limitations of our study are shown in Table S4.



S.no	Variable		Mean (SD)/n (%)
1	Age (years)		37.6 (9.38)
2	Religion	Hindu	511 (91.3%)
		Islam	13 (2.3%)
		Christianity	11 (2.0%)
		Other	25 (4.5%)
3	Education	Professional degree	153 (27.3%)
		Graduate/postgraduate degree	259 (46.3%)
		Intermediate or post-high-school diploma	19 (3.4%)
		High school certificate	56 (10.0%)
		Middle school certificate and below	73 (14.0%)
4	Employment	Essential services	153 (27.3%)
		Non-essential services	100 (17.9%)
		Homemaker	234 (41.8%)
		Self-employed/others	73 (13.0%)
5	Socioeconomic strata [†]	Upper	234 (41.8%)
		Upper Middle	153 (27.3%)
		Lower Middle	66 (11.8%)
		Upper Lower	101 (18.0%)
		Lower	6 (1.1%)
6	Family type	Joint	253 (45.2%)
		Nuclear	307 (54.8%)
7	Habitat	Urban	406 (72.5%)
		Suburban/slums	89 (15.9%)
		Rural	65 (11.6%)
8	Corona zone (third-phase lockdown)	Red or hotspot	271 (48.4%)
		Orange	118 (21.1%)
		Green	171 (30.5%)
9	Number of family members		5.28 (3.14)
10	Duration of marriage (years)		13.91 (10.95)
11	Number of children - self/whole family, if joint		1.41 (0.99)/2.18 (2.8
12	Number of family members aged >60 years		1.26 (3.22)
13	Ailing/sick persons cared for in the family	Yes	154 (27.5%)
		No	406 (72.5%)

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References

- Chandan JS, Taylor J, Bradbury-Jones C, Nirantharakumar K, Kane E, Bandyopadhyay S. COVID-19: A public health approach to manage domestic violence is needed. *Lancet Public Health* 2020; 5: e309.
- Dixit R. Domestic violence against women on the rise amid nationwide lockdown. [Cited 26 April 2020.] Available from URL: https://www. theweek.in/news/india/2020/04/02/domestic-violence-cases-againstwomen-on-the-rise-amid-nationwide-lockdown.html
- Eysenbach G. Improving the quality of web surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES). J. Med. Internet Res. 2004; 6: e34.

- Wani RT. Socioeconomic status scales-modified Kuppuswamy and Udai Pareekh's scale updated for 2019. J. Family Med. Prim. Care 2019; 8: 1846–1849.
- Roesch E, Amin A, Gupta J, García-Moreno C. Violence against women during COVID-19 pandemic restrictions. BMJ 2020; 369: m1712.
- Kramer A, Kramer KZ. The potential impact of the Covid-19 pandemic on occupational status, work from home, and occupational mobility. *J. Vocat. Behav.* 2020; 119: 103442.
- Cerrato J, Cifre E. Gender inequality in household chores and workfamily conflict. Front. Psychol. 2018; 9: 1330.
- Nadkarni A, Kapoor A, Pathare S. COVID-19 and forced alcohol abstinence in India: The dilemmas around ethics and rights. *Int. J. Law Psychiatry* 2020; 71: 101579.
- Kalokhe A, Del Rio C, Dunkle K et al. Domestic violence against women in India: A systematic review of a decade of quantitative studies. Glob. Public Health 2017; 12: 498–513.
- Kaur R, Garg S. Addressing domestic violence against women: An unfinished agenda. *Indian. J. Community Med.* 2008; 33: 73–76.

Supporting information

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Table S1. Study methodology details as per the CHERRIES Checklist.



Table S2. What means spousal violence? Definitions provided to study participants.

Table S3. Items and response choices of the CoViDoVi Questionnaire and frequency of each response obtained in the survey.

Table S4. Limitations of the study.

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Early attention impairment in a patient with COVID-19

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The angiotensin-converting enzyme (ACE2) serves as the main entry into cells for SARS-CoV-2.¹ ACE2 receptors are found in the central nervous system and angiotensin II is an active product of the renin-angiotensin system (RAS).² Previous studies have implicated the brain RAS in cognitive functions.³ Recently, neurologic events and delirium have been described in COVID-19.^{4,5} However, no previous research has investigated attention performance. A signed informed consent was obtained from the patient authorizing publication.

A 47-year-old physician suddenly noticed a persistent difficulty maintaining attention while driving. After 2 h, he developed fever, ageusia, and anosmia. On admission, the patient was awake, alert, and oriented to person, place, date, and situation (AAOX4). He denied psychiatric illness, fatigue, excessive workload, or exposure to any recent traumatic event, such as recent death of a patient, friend, or family member. The Mini-Mental State score was 30,6 body temperature 36.6°C, blood pressure 122/68 mmHg, pulse 72 b.p.m., respiratory rate 16 breaths/min, and oxygen saturation 99% (ambient air). Lung auscultation and laboratory tests were unremarkable (Supplementary Appendix). The antigen test for influenza A and B was negative. A high-resolution computed tomography of the chest was normal (Supplementary Appendix). Nasopharyngeal and throat swab specimens on reverse transcription-polymerase chain reaction analysis tested positive for SARS-CoV-2.

During the disease, the patient remained AAOX4 and without symptoms of depression or anxiety. Although the Mini-Mental State scores always reached the maximum value, he continued to report 'difficulties to stay focused' from Day 1 to Day 10 of the illness. On Days 3, 6, 10, and 16, attentional performance was objectively assessed with the Continuous Visual Attention Test (CVAT; Fig. 1), a go/no-go task (Supplementary Appendix) that evaluates attention and its subdomains. ^{7,8} Impaired performance is explained by slow reaction times (alertness subdomain); high variability of reaction times, indicating lapses in attention as the test progresses (sustained-attention subdomain); omission errors (focused-attention subdomain); and commission errors (response-inhibition subdomain). The test lasts 15 min, and normative values are available. ^{6–8}

On Day 3, the CVAT performance corroborated the patient's subjective attention complaints. He exhibited a moderate attentional impairment in two out of the four attention subdomains as compared to the normative values (males, 45–50 years old).

On Day 6, the patient reported a subjective worsening in his concentration, and the second CVAT was performed. Although his physical examination remained normal, the CVAT performance was worse than the Day-3 result. He was impaired in three out of the four attention subdomains. As to the sustained-attention subdomain, he performed above the 95th percentile as compared to age- and-sex matched normative data (a higher percentile indicates a worse performance). Thus, his attentional performance was severely impaired. Eight hours after the worsening of his attentional performance, there was a change in the respiratory status when the patient's oxygen saturation dropped to as low as 94% while breathing ambient air. This illness progression is consistent with previous reports on signs of worsening of respiratory symptoms in the second week after disease onset.

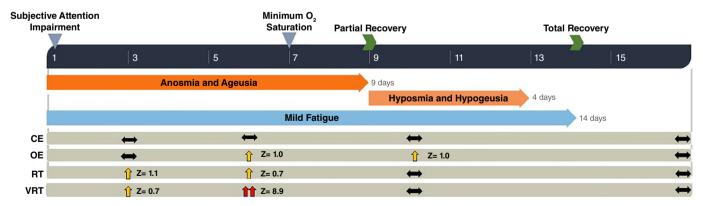


Fig.1 Timeline showing general symptoms and impaired attention functioning. The Continuous Visual Attention Test (CVAT) was used to assess objective attention performance on Days 3, 6, 10, and 16. For each variable of the CVAT, the population mean for the same age and sex of the patient (male, 45 to 50 years old) is set to zero (percentile 50%). The use of a standardized unit (Z-scores) allows direct comparisons across the different variables. Performance between the 75th and 25th percentiles is considered normal (horizontal arrows). Moderate impairment is defined by performance between the 75th and 95th percentiles (vertical yellow arrows). A value higher than the 95th percentile is considered a severe impairment (double vertical red arrow). On Day 1 of illness, the patient reported a subjective attention impairment. On Day 3, the patient performed worse than the 75th percentile in two subdomains (variability of reaction times [VRT] and reaction times [RT]), indicating a moderate attention impairment. On Day 6, the patient performed worse than the 75th percentile in all variables of the CVAT except commission errors (CE), indicating a severe impairment. VRT is