

Loneliness, Resilience and Distress of Indian adults during COVID-19 : Age-dependent Gender Differences

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Abstract

On March 24, 2020, a nationwide lockdown was implemented on the 138 million-strong population of India as a preventive measure against the COVID-19 Pandemic. Such global social isolation and fear of uncertainty are capable of producing psychological adversities, challenging people's ability to adapt to a new way of life. This study examines gender differences in loneliness, resilience, and distress among different age groups (students: 17–22, young: 23–40, middle: 41–60) as there is a lack of research that explores how disproportionately the pandemic affects each gender. In the midst of the lockdown, an online survey on loneliness, resilience, and distress was conducted on the adult Indian population. A total of 243 responses were collected and analyzed. The findings revealed that 51% of the population was already lonely, and a significant number of people were distressed, particularly among students ($F(2,243) = 4.78, p = .004$). Males ($M = 8.09$) were significantly more distressed than females ($M = 4.93$) in the middle-aged population ($F(1,59) = 8.08, p = .006$). Even though no significant gender differences were found in the loneliness scores, there were significant gender differences in the resilience scores of the population. $F(2,243) = 5.65, p = .030$ states that the male population ($N = 101, M = 3.39, SD = 0.53$) was more resilient than the female population ($N = 145, M = 3.23, SD = 0.62$). Thus, the results show that the pandemic has already disproportionately affected girls, women, and middle-aged men, for whom gender-sensitive provision of mental health services, support, and resources is necessary to alleviate the challenges of gender equity.

Keywords: COVID-19; age; resilience; loneliness; distress.

Introduction

In January 2020, the first case of COVID-19 was reported, which made the public alert but not panic until March 25th, when a nationwide 21-day lockdown was declared. The COVID-19 Pandemic proved to be a serious threat to not only the economic and political but also the social and psychological aspects of life. Within the first week, as the number of positive cases rapidly increased and overwhelmed the healthcare systems, it became an immediate necessity to assess and provide psychological first aid to prevent long-term damage to an individual's resilience. As there were no prior research studies that were conducted in India at

that time, there was no information regarding how and to what extent the pandemic was affecting the mental health of different strata of the population. Hence, the purpose of this research was to study the psychological impact of COVID-19 and its restrictions on different genders and age groups in the Indian population. The psychological impact is measured by variables like loneliness, resilience, and overall distress during the initial weeks of the first lockdown. Loneliness is defined as a person's distress caused by a perceived lack of quality and quantity in their social relationships in comparison to what they desired.

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Resilience is the ability to adapt to and promote well-being by adapting to the adversities and stressors in life. And psychological distress is the overwhelming unpleasant feeling that hampers the quality of life and disrupts mental health.

When this study began in the initial weeks of lockdown in India, the Indian Psychiatric Society reported in their survey that reported cases of mental illness had increased by 20%. But then in the following year, 2020, many kinds of research were published that not only emphasised the general population but also the minorities.

Even vulnerable groups in India, such as lower socioeconomic groups (Gopalan & Misra, 2020), migrants (Choudhari, 2020), healthcare providers (Chatterjee et al., 2020), LGBTQIAP+ individuals (Banerjee & Nair, 2020), children (Parekh & Dalwai, 2020), women vulnerable to domestic violence (Krishnan TR et al., 2020), This could be due to the amalgamation of psychosocial issues like uncertainty in livelihood, fear of infection, infodemic, multiple conspiracy theories, xenophobic attitudes (Mamun & Griffiths 2020), financial risks, stigma about infection, boredom, physical abuse (Krishnan et al., 2020), boredom, anxiety (Wang et al., 2020; Ahorsu et al., 2020; Bao et al., 2020), depression (Jakovljevic, 2020), suicidal ideations (Panigrahi, 2021), etc. Failure to deal with these issues can lead to mental illness and death by suicide. In December 2020, there was a 67% increase in suicidal behaviour during the lockdown (Pathare et al., 2020).

When the timelines of lockdown become uncertain, social isolation leads to chronic loneliness and boredom. As we know, loneliness has detrimental effects on social and mental well-being (Cacioppo & Patrick, 2008); people are at risk of developing mental disorders like depression, insomnia, chronic stress, etc. (Wilson et al., 2020). Some studies emphasise how during and after enforced isolation ends, children and adolescents are more susceptible to experiencing higher rates of depression and anxiety (Loades et al., 2020). Hence, it has become essential to study the extent to which loneliness contributes to psychological distress and the way it impacts each age group to offer preventive support and early interventions.

Similarly, patients with lower resilience have greater difficulties in emotional regulation, which then leads to higher levels of stress and anxiety (Vaughan et al., 2019). Hence, resilience capacity plays a vital role during a pandemic as its intensity can predict the risk

of psychological distress in individuals (Asmundson & Taylor, 2020). Especially when women's and men's experiences and responses to adversity are extremely different because of their gender roles, societal expectations, and environmental factors, it becomes all the more crucial to study its impact distinctively during the pandemic (Hirani, Lasiuk & Hegadoren, 2016).

In India a predominantly patriarchal society, the division of household labour is considered to be a woman's role. Thus, it becomes inevitable to ignore the burdens on women during lockdown to run the house, juggle multiple roles, and balance work and home life equally. Various studies have also shown how there is a rise in domestic violence, divorce, and separation rates during pandemics (Wray, 2020). Researchers thus state that pandemics have a gendered impact (Gopal, Sharma & Subramanyam, 2020).

While there is a global need for psychosocial support during the pandemic, the impact on different groups varies based on age, gender, religion, social class, resident location, financial class, etc. Similarly, each age group varies in their degree of vulnerability as their experiences differ drastically from one another. While children experienced psychological distress due to schools being closed, lack of extracurricular activities and altered lifestyles, adolescents suffered from behavioural problems like being distracted, anxiety, inattention, fear of uncertainty of COVID-19, clinging, boredom, etc. (Parekh, & Dalwai, 2020).

Students and young adults were found to be worried over future insecurities that arise over updating on COVID-related news, the impact of social media, internet addiction, etc. (Gupta et al., 2021; Huang & Zhao, 2020). Additionally, younger people were also apprehensive about uncertainty about their educational prospectus as admissions and results were delayed. Similarly, with the career prospectus, there were a lack of job opportunities and recent employees were laid off. There is a lack of research that studies the psychological impact of COVID-19 on middle-aged adults who are considered to be the caretakers of Indian society. Even the study conducted on middle-aged adults and elderly populations in Haryana, North India supports the importance of the need for many more studies on this age criterion (Joseph, 2020).

Materials and Method

From March 29th, 2019 to April 16th, 2020, an online "COVID-19 Pandemic's Effect on Mental Health" cross-sectional survey was conducted through Google

Form links sent through WhatsApp. Using snowball sampling, a total of 264 responses was collected, out of which 18 were excluded due to age criteria. The final analysis was done on the rest of the 246 respondents. Participants were divided into 3 different age groups: students aged 17–22 years, young adults aged 23–40 years, and middle-aged adults aged 41–60 years. There were 87 students, 98 young adults, and 62 middle-aged adults in the study, respectively. Of those, 59% ($n = 145$) were female, and 41% were male ($n = 101$), with a mean age of 30.71 years old ($SD = 12.37$; range = 17–60).

The Brief Resilience Scale (BRS) developed by Smith et al. (2008) was used in this study. The BRS consists of six items: three negative items and three positive ones. According to Smith et al., items 1, 3, and 5 are positively worded and items 2, 4, and 6 are negatively worded. Respondents were asked to answer each question by indicating their agreement with each statement by using the following scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Smith et al. (2008) also reported good reliability and validity of the instrument. The BRS demonstrated good internal constancy, with the value of Cronbach's alpha ranging from 0.80 to 0.91.

The three-item Loneliness scale by Hughes et al. (2004) measures social isolation and was developed by R-UCLA. Each question is rated on a three-point scale: 1 = Hardly ever, 2 = Some of the time, and 3 = Often. All items are added up to give a total score of between 3 and 9. People who score 3–5 are considered not lonely, and people with scores of 6–9 are considered lonely. This scale demonstrated good reliability with a value of coefficient alpha ranging from 0.89 to 0.94 across the sample, with a test-retest correlation of 0.73.

K-6 Kessler The psychological distress scale (2002) is scored using the unweighted sum of responses – “0 none of the time,” “1 a little of the time,” “2 some of the time,” “3 most of the time,” and “4 all of the time.” Thus, the total scores range from 0 to 24; a K6 score of 0 to 7 indicates low distress, 8–12 indicates moderate distress, and 13 to 24 indicates high risk of psychological distress (Hilton & Whiteford et al., 2010; Hozawa et al., 2009; Kessler et al., 2002). Furukawa et al. (2003) found that the K6 has overall discriminatory power in detecting depressive and anxiety disorders better than the General Health Questionnaire 12 and also has a Cronbach's alpha of 0.89 (Fassaert et al., 2009).

Statistical analysis was performed using SPSS Statistic 26.0 (IBM SPSS Statistics, New York, United States). The one-way ANOVA test was used to determine whether there are any significant gender and age differences in resilience, loneliness, and distress scores. Similarly, Pearson correlation was conducted among all age groups gender-wise to find the relationship between each variable. All the tests were two-tailed, with a significance level of $p < 0.05$ and $p < 0.01$.

Results

This study examines gender differences in loneliness, resilience, and distress among different age groups (students: 17–22, young: 23–40, middle: 41–60). The initial psychological impact of the COVID-19 outbreak, as measured by BRS-6, 3-item loneliness scale, and K-6, revealed a mean score of 3.29 ($SD = 0.59$), 5.33 ($SD = 1.61$), and 8.24 ($SD = 4.76$), respectively.

According to the loneliness scores, the results show that 51% ($N = 126$) of the population were already feeling lonely. And in terms of resilience, around 61 (24.7%) had low resilience (BRS score of 1.00–2.99), 164 (66.6%) had normal resilience (BRS score of 3.00–4.30) and only 21 (8.5%) had high resilience (BRS score of 4.31–5.00). However, when it came to psychological distress, 43 (17.47%) reported high distress as an initial impact of COVID-19, whereas around 88 (35.7%) and 115 (46.7%) had experienced moderate and low distress, respectively.

Although there was no significant age or gender difference in the loneliness scores of the population, there was a significant gender difference in the resilience scores of the population ($F(2,243) = 5.65, p = .030$) and a significant age difference in the distress scores of the population ($F(2,243) = 4.78, p = .004$) which states that the female population ($N = 145, M = 8.48, SD = 4.88$) was more resilient than the male population ($N = 101, M = 7.89, SD = 4.57$) and students were more distressed than other age groups ($N = 87, M = 9.18, SD = 4.82$). However, in the middle-aged population, males ($M = 8.09$) were significantly more distressed than females ($M = 4.93$), $F(1, 59) = 8.08, p = .006$.

To examine the relationships more closely, correlations were computed on all three scales. The results showed that there were significant negative correlations between loneliness and resilience scores ($r(246) = -0.23, p .01$, two-tailed); and significant negative correlations between distress and resilience

scores ($r_{246} = -.42, p .01$, two-tailed). There was a moderate positive correlation between loneliness and distress scores, indicating that the higher the loneliness scores, the higher the distress scores ($r_{246} = +0.34, p.01$, two-tailed).

Because there was a significant positive correlation between loneliness and distress scores ($r(56) = +.41, p.01$, two-tailed) and a significant negative correlation between resilience and distress scores ($r(56) = -0.30, p 0.05$, two-tailed), the findings indicated that the higher the distress scores in the female student population, the lower the resilience scores and the higher the loneliness scores.

When it comes to the male student population, highly significant correlations were found between all three scales' scores. There were significant negative correlations between loneliness ($r_{31} = -0.60, p.01$, two-tailed) and distress ($r_{31} = -0.71, p.01$, two-tailed) and resilience scores. Similarly, a significant, strong positive correlation was discovered between female student population loneliness and distress scores ($r_{31} = +0.75, p.01$, two-tailed).

In the female ($r(60) = -0.40, p .01$, two-tailed) and male young adult populations ($r(38) = -0.38, p .05$, two-tailed), the resilience scores were significantly negatively correlated to the distress scores. Similarly, a significant positive correlation ($r(38) = +0.43, p.01$, two-tailed), was discovered between loneliness and distress scores of male young adult population.

Males have a significant negative correlation in resilience and distress scores in the middle-aged adult population ($r(32) = -0.54, p.01$, two-tailed). But in female adults, all the three scale scores are significantly correlated. Scores of resilience are significantly negatively correlated with the scores of distress ($r(29) = -0.40, p .05$, two-tailed) and loneliness ($r(29) = -0.37, p .01$, two-tailed). And distress scores were positively correlated with loneliness scores: $r(29) = +0.67, p.01$, two-tailed.

Discussion

When the lockdown was declared, the number of concerns increased day by day, affecting the lifestyle and mental health equilibrium. The findings of this study can then be used to come up with mental health programmes for people who are at risk. The concerns that trouble us the most can be tackled first to ease the mental distress. This study thereby helps in informing the officials regarding the deployment of services according to the need of the hour.

Overall, among the 246 respondents, 51% had already started experiencing loneliness and 53% experienced moderate-to-high psychological distress within the first month of the lockdown. According to another nationwide study (Lahiri, et al., 2021), this increased over time within the next month. During a pandemic, psychological first aid is very important right from the start.

In terms of resilience, this study showed that females were less resilient than males. The resilience mean score was 3.22, which shows their coping ability is moderate and can be strengthened by adopting adequate measures. A similar finding can be seen in a global study, where significant gender differences were observed, with a higher risk in women versus men for resilience and psychological disturbance factors (Plomecka et al., 2021). This also corresponds to extensive epidemiological literature which shows that women are at a higher risk (Xiao, et al., 2020).

In terms of the age difference, it was found that students aged 17–22 years were more psychologically distressed than the rest of the Indian adult population, which can be attributed to the closure of schools and colleges, a lack of extracurricular and outdoor activities, altered eating and sleeping habits, and a lack of peer-time. Similar results can be found in other studies like Parekh, and Dalwai, (2020), Kazmi et. al. (2020), Bijoy (2021), where this age group has fostered monotony, anguish, irritation, anxiety, depression, and diverse neuro-psychiatric symptoms.

Results also showed that young adults experience distress more than older adults. Especially in male young adults, there was a significant correlation between distress, resilience, and loneliness. However, when it comes to females, low resilience played a significant role in their high distress. This can be due to their concerns about the pandemic, fear of losing community support, discrimination against their families if they get infected, and restrictions felt on work, housing, and other social obligations.

Even though middle-aged adults were less distressed than students and young adults, middle-aged men were significantly more distressed than middle-aged women. The reasons behind it must be further explored in future research. This can be due to high levels of intolerance to the uncertainty of the future, financial insecurity, lower levels of occupational activity, work-life imbalance, working from home lifestyle, fear of contamination, etc. (Glowacz & Schmits, 2020). This study thus spotlights middle-aged men, as there isn't

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much research on this age criterion that emphasises gender difference.

The limitation of the study is that the sample was restricted to people who had access to the internet and a basic understanding of English. But despite that, this study is one of the first cross-sectional studies that studies not only three different age groups but also emphasises the gender differences in the Indian adult population.

Implications

As there is a lack of research that focuses on these aspects and gathers data right from the first week of lockdown, this study significantly contributes to further research that can explore in-depth the factors that contribute to the loneliness, resilience, and distress of each gender in their particular age criteria. There is a scope for longitudinal studies in the current scenario which can help in studying the prognosis of the impact of the COVID-19 pandemic on the Indian population.

To conclude, the findings of this study suggest that the pandemic affects individuals belonging to each gender and age group differently and highlight the significance of early identification of risk factors to maintain mental health equilibrium. It helps in prioritising the deployment of psychological aids and targeting

interventions and resources for individuals in need. While planning these interventions, policymakers can then address the needs and concerns of the people who contribute to their mental health issues. For example, raising awareness that distress is a normal reaction to the pandemic, using effective media to introduce tools for self-care, particularly for students and young adults, supporting mental health relief services to provide free community resources (helplines, support groups, shelter homes, etc.), protection services for domestic abuse, resources for substance abuse management, and financial aid for psychological emergency services to minorities with AIDS. Hence, to mitigate the mental health stigma, there is a need to build psycho-social mental health infrastructures that are equipped to provide differential interventions to different strata of the Indian population, thereby ensuring that Indians do not succumb and continue to fight resiliently against the global pandemic.

Declaration of interest

Both the authors declare no conflict of interests and that they have no competing financial interests that could have appeared to influence the work reported in this paper.

References

- Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The Fear of COVID-19 Scale: Development and Initial Validation. *International Journal of Mental Health and Addiction*, 1–9. Advance online publication. <https://doi.org/10.1007/s11469-020-00270-8>
- Asmundson, G., & Taylor, S. (2020). How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *Journal of Anxiety Disorders*, 71, 102211. <https://doi.org/10.1016/j.janxdis.2020.102211>
- Banerjee, D., & Nair, V. S. (2020). “The Untold Side of COVID-19”: Struggle and Perspectives of the Sexual Minorities. *Journal of Psychosexual Health*, 2(2), 113–120. <https://doi.org/10.1177/2631831820939017>
- Banerjee D. (2020). The impact of Covid-19 pandemic on elderly mental health. *International Journal of Geriatric Psychiatry*, 35(12), 1466–1467. <https://doi.org/10.1002/gps.5320>
- Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: address mental health care to empower society. *Lancet (London, England)*, 395(10224), e37–e38. [https://doi.org/10.1016/S0140-6736\(20\)30309-3](https://doi.org/10.1016/S0140-6736(20)30309-3)
- Chhetri, B., Goyal, L. M., Mittal, M., & Battineni, G. (2021). Estimating the prevalence of stress among Indian students during the COVID-19 pandemic: A cross-sectional study from India. *Journal of Taibah University Medical Sciences*, 16(2), 260–267. <https://doi.org/10.1016/j.jtumed.2020.12.012>
- Cacioppo, John & Patrick, William. (2008). Loneliness: Human Nature and the Need for Social Connection. *American Journal of Psychiatry* - AMER J PSYCHIAT. 166.
- Chatterjee, S. S., Barikar C, M., & Mukherjee, A. (2020). Impact of COVID-19 pandemic on pre-existing mental health problems. *Asian Journal of Psychiatry*, 51, 102071. <https://doi.org/10.1016/j.ajp.2020.102071>
- Choudhari R. (2020). COVID 19 pandemic: Mental health challenges of internal migrant workers of India. *Asian Journal of Psychiatry*, 54, 102254. <https://doi.org/10.1016/j.ajp.2020.102254>

- Fassaert, T., De Wit, M. A., Tuinebreijer, W. C., Wouters, H., Verhoeff, A. P., Beekman, A. T., & Dekker, J. (2009). Psychometric properties of an interviewer-administered version of the Kessler Psychological Distress scale (K10) among Dutch, Moroccan and Turkish respondents. *International Journal of Methods in Psychiatric Research*, 18(3), 159–168. <https://doi.org/10.1002/mpr.288>
- Feng Z, Xu L, Cheng P, Zhang L, Li LJ, Li WH. (2020) The psychological impact of COVID-19 on the families of first-line rescuers. *Indian Journal of Psychiatry*, 62, Suppl S3:438-44
- Furukawa, T. A., Kessler, R. C., Slade, T., & Andrews, G. (2003). The performance of the K6 and K10 screening scales for psychological distress in the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*, 33(2), 357–362. <https://doi.org/10.1017/s0033291702006700>
- Glowacz, F., & Schmits, E. (2020). Psychological distress during the COVID-19 lockdown: The young adults most at risk. *Psychiatry Research*, 293, 113486. <https://doi.org/10.1016/j.psychres.2020.113486>
- Gopal, A., Sharma, A. J., & Subramanyam, M. A. (2020). Dynamics of psychological responses to COVID-19 in India: A longitudinal study. *PloS one*, 15(10), e0240650. <https://doi.org/10.1371/journal.pone.0240650>
- Gopalan, H. S., & Misra, A. (2020). COVID-19 pandemic and challenges for socio-economic issues, healthcare and National Health Programs in India. *Diabetes & Metabolic Syndrome*, 14(5), 757–759. <https://doi.org/10.1016/j.dsx.2020.05.041>
- Hilton, M. F., & Whiteford, H. A. (2010). Interacting with the public as a risk factor for employee psychological distress. *BMC Public Health*, 10, 435.
- Hirani, S., Lasiuk, G., & Hegadoren, K. (2016). The intersection of gender and resilience. *Journal of Psychiatric and Mental Health Nursing*, 23(6-7), 455–467. <https://doi.org/10.1111/jpm.12313>
- Hozawa, A., Kuriyama, S., Nakaya, N., Ohmori-Matsuda, K., Kakizaki, M., Sone, T., et al. (2009). Green tea consumption is associated with lower psychological distress in a general population: the Ohsaki Cohort 2006 Study. *American Journal of Clinical Nutrition*, 90(5), 1390–1396.
- Hughes, M. E., Waite, L. J., Hawkey, L. C., & Cacioppo, J. T. (2004). A Short Scale for Measuring Loneliness in Large Surveys: Results From Two Population-Based Studies. *Research on Aging*, 26(6), 655–672. <https://doi.org/10.1177/0164027504268574>
- Huang, Y., and Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Research*, 288:112954. doi: 10.1016/j.psychres.2020.112954
- Jakovljevic, M., Bjedov, S., Jaksic, N., & Jakovljevic, I. (2020). COVID-19 Pandemia and Public and Global Mental Health from the Perspective of Global Health Securit. *Psychiatria Danubina*, 32(1), 6–14. <https://doi.org/10.24869/psyd.2020.6>
- Joseph, Jaison & Das, Karobi & Dhal, Suryakanti & Sehrawat, Tamanna & Reshamia, Sweety & Huria, Gazal. (2020). Mental health concerns related to COVID19 outbreak in the middle-aged and elderly population: A web-based, cross-sectional survey from Haryana, North India. *Journal of Geriatric Mental Health*. 7. 100. 10.4103/jgmh.jgmh_22_20.
- Kazmi, Syed & Hasan, Kashif & Talib, Sufia & Saxena, Sagar. (2020). COVID-19 and Lockdwon: A Study on the Impact on Mental Health. *SSRN Electronic Journal*. 10.2139/ssrn.3577515.
- Kessler, R. C., Barker, P. R., Colpe, L. J., Epstein, J. F., Gfroerer, J. C., Hiripi, E., Howes, M. J., Normand, S. L., Manderscheid, R. W., Walters, E. E., & Zaslavsky, A. M. (2003). Screening for serious mental illness in the general population. *Archives of General Psychiatry*, 60(2), 184–189. <https://doi.org/10.1001/archpsyc.60.2.184>
- Krishnan T.R., Hassan, S.H., Satyanarayana, V.A., & Chandra, P.S. (2020) Domestic violence during the COVID-19 pandemic: Lessons to be learned. *Indian J Soc Psychiatry*, 36, Suppl S1:120-5.
- Kumari, P., Gupta, P., Piyooosh, A. K., Tyagi, B., & Kumar, P. (2021). COVID 19: Impact on mental health of graduating and post graduating students. *Journal of Statistics and Management Systems*, 24(1), 67-79.
- Lahiri, A., Jha, S. S., Acharya, R., Dey, A., & Chakraborty, A. (2021). Has loneliness and poor resilient coping influenced the magnitude of psychological distress among apparently healthy Indian adults during the lockdown?

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- Evidence from a rapid online nation-wide cross-sectional survey. *PloS one*, 16(1), e0245509. <https://doi.org/10.1371/journal.pone.0245509>
- Loades, M. E., Chatburn, E., Higson-Sweeney, N., Reynolds, S., Shafran, R., Brigden, A., Linney, C., McManus, M. N., Borwick, C., & Crawley, E. (2020). Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. *Journal of the American Academy of Child and Adolescent Psychiatry*, 59(11), 1218–1239.e3. <https://doi.org/10.1016/j.jaac.2020.05.009>
- Mamun, M. A., & Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. *Asian Journal of Psychiatry*, 51, 102073. <https://doi.org/10.1016/j.ajp.2020.102073>
- NDTV. (2020). Domestic Violence Cases Have Risen Since COVID-19 Lockdown: Women's Panel. *The NDTV*. <https://www.ndtv.com/india-news/domestic-violencecases- have- Risen-since-covid-19-lockdown-womens-panel-2205133>
- Panigrahi, M., Pattnaik, J. I., Padhy, S. K., Menon, V., Patra, S., Rina, K., Padhy, S. S., & Patro, B. (2021). COVID-19 and suicides in India: A pilot study of reports in the media and scientific literature. *Asian Journal of Psychiatry*, 57, 102560. <https://doi.org/10.1016/j.ajp.2021.102560>
- Parekh, B. J., & Dalwai, S. H. (2020). Psychosocial Impact of COVID-19 Pandemic on Children in India. *Indian Pediatrics*, 57(12), 1107. <https://doi.org/10.1007/s13312-020-2060-y>
- Pathare, Soumitra & Vijayakumar, Lakshmi & Fernandes, Tanya & Shastri, Manisha & Kapoor, Arjun & Pandit, Deepa & Lohumi, Isha & Ray, Somidha & Kulkarni, Arti & Korde, Palak. (2020). Analysis of news media reports of suicides and attempted suicides during the COVID-19 lockdown in India. *International Journal of Mental Health Systems*. 14. 10.1186/s13033-020-00422-2.
- Plomecka, M. B., Gobbi, S., Neckels, R., Radziński, P., Skórko, B., Lazzeri, S., ... Jawaid, A. (2020, May 5). Mental Health Impact of COVID-19: A global study of risk and resilience factors. *Frontiers in Psychology*, 11, Article 581426. <https://doi.org/10.3389/fpsyg.2020.581426>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
- Vaughan, E., Koczwara, B., Kemp, E., Freytag, C., Tan, W., & Beatty, L. (2019). Exploring emotion regulation as a mediator of the relationship between resilience and distress in cancer. *Psycho-oncology*, 28(7), 1506–1512. <https://doi.org/10.1002/pon.5107>
- Wang, C., Horby, P. W., Hayden, F. G., & Gao, G. F. (2020). A novel coronavirus outbreak of global health concern. *Lancet (London, England)*, 395(10223), 470–473. [https://doi.org/10.1016/S0140-6736\(20\)30185-9](https://doi.org/10.1016/S0140-6736(20)30185-9)
- Wilson, J. M., Lee, J., Fitzgerald, H. N., Oosterhoff, B., Sevi, B., & Shook, N. J. (2020). Job insecurity and financial concern during the COVID-19 pandemic are associated with worse mental health. *Journal of occupational and environmental medicine*, 62(9), 686-691.
- Wray, M. (2020). China's divorce rates rise as couples emerge from coronavirus quarantine. *The Global News*. April 2. <https://globalnews.ca/news/6767589/china-divorce-rates-coronavirus/>
- Xiao, X., Xiao, J., Yao, J., Chen, Y., Saligan, L., Reynolds, N. R., & Wang, H. (2020). The Role of Resilience and Gender in Relation to Infectious-Disease-Specific Health Literacy and Anxiety During the COVID-19 Pandemic. *Neuropsychiatric disease and treatment*, 16, 3011–3021. <https://doi.org/10.2147/NDT.S277231>

