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COVID-19 Worriers: A Global to Local Review with Special Reference to India and Uttar Pradesh

¹Manjari Kushwaha, ²Piyush Telang

¹Ph.D. Research Scholar, Department of Women's Studies, Mahatma Gandhi Antarashtriy Hindi Vishwavidyalaya (MGAHV), Wardha.

Email: manjarikushwaha18@gmail.com

²Assistant Professor, Sir Parashurambhau College (Empowered Autonomous), Pune.

Email: prtelang2010@gmail.com

ABSTRACT:

The COVID-19 pandemic, which originated in Wuhan, China in late 2019 and was declared a global pandemic by the World Health Organization in March 2020, has not only resulted in an unprecedented public health crisis but has also triggered profound psychological distress worldwide. While the physical impacts of COVID-19 have been extensively documented, the hidden “parallel pandemic” of anxiety, fear, stigma, and grief remains a critical area of concern. This review paper synthesises existing global, national, and regional literature on COVID-19-induced psychological stress, with a particular focus on India and its most populous state, Uttar Pradesh. Drawing on empirical studies, meta-analyses, and community reports, the paper explores the concept of “COVID Worriers” including the individuals and groups experiencing persistent anxiety due to infection fears, social isolation, financial insecurity, and collective trauma. The paper highlights how frontline healthcare workers, migrant labourers, students, infected patients, and bereaved families faced unique psychological burdens, often in the context of limited mental health resources. By systematically reviewing more than fifty genuine sources, this study maps key patterns, regional disparities, and coping challenges while identifying significant gaps in research, especially at the local level in districts such as Prayagraj. The paper underscores the urgent need to mainstream mental health into pandemic response planning and calls for strengthened community-based psychological support to address the lingering impacts of COVID-19 anxiety in India's socio-economically diverse population.

Keywords: COVID-19, COVID Worriers, Mental Health, Anxiety, Pandemic Stress.

1. Introduction:

The outbreak of the novel coronavirus disease (COVID-19) marked a turning point in the history of public health crises in the twenty-first century. The earliest known cluster of pneumonia-like cases was reported in December 2019 in the city of Wuhan, Hubei Province, China (Zhu et al., 2020). Within weeks, the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) had spread beyond national borders, and by March 11, 2020, the World Health Organization (WHO) formally declared COVID-19 a global pandemic (WHO, 2020). What began as a local outbreak soon spiralled into an unprecedented worldwide health emergency that would eventually infect more than 600 million people and claim over six million lives by mid-2022 (WHO, 2022).

The historical context of COVID-19 is situated among other large-scale infectious disease outbreaks such as the 1918 influenza pandemic, the SARS outbreak of 2002–2003, and the H1N1 influenza of 2009, but its speed, scale, and social impact far surpassed these earlier crises (Morens & Fauci, 2020). Global supply chains were disrupted, schools and universities were shuttered, international travel ground to a halt, and strict lockdowns reshaped social life in every country. While the physical health impacts of COVID-19 have been widely studied and documented, it has become equally clear that its psychological consequences are profound and enduring. As Brooks et al. (2020) and Pfefferbaum & North (2020) emphasized, the mental health dimension of COVID-19 represents a “parallel pandemic,” characterized by anxiety, depression, loneliness, fear, stigma, grief, and post-traumatic stress. In India, the world's most populous democracy, the pandemic arrived officially in late January 2020 when the first confirmed case was reported in Kerala (Andrews et al., 2020). India's massive population density, patchy healthcare infrastructure, widespread poverty, and large informal economy created unique challenges for controlling the virus and managing its social fallout. The nationwide lockdown announced in March 2020 which became one of the world's most stringent, left millions of migrant workers stranded, halted economic activities, and forced families indoors for months at a time (Lahiri et al., 2021). According to Rajkumar (2020), early studies suggested that nearly one-third of the Indian population experienced moderate to severe anxiety during the first wave, and the mental health burden only deepened during the catastrophic second wave in April to May 2021, which overwhelmed hospitals, caused severe oxygen shortages, and created collective trauma (Sengupta et al., 2021).

Among India's states, Uttar Pradesh (UP) holds special relevance in any analysis of the pandemic's psychological impact. As India's most populous state, home to over 240 million people, UP faced unique structural challenges: a large rural population with limited access to mental health services, dense urban centres vulnerable to rapid spread, and significant economic dependence on daily wage labour (Sharma & Arya, 2021). Localised studies from various districts, including Prayagraj, Ghaziabad, Etawah, and Lucknow, reveal that frontline healthcare workers, suspected and confirmed COVID

patients, families, students, and migrant labourers were severely affected by pandemic-related anxiety and stress (Vaibhav et al., 2020; Pandey et al., 2021; Dixit et al., 2022). News reports and community observations during the Delta variant surge further highlight how collective grief, fear of infection, and prolonged uncertainty shaped daily life and mental health in UP's cities and villages alike (Hindustan Times, 2021).

It is within this backdrop that the concept of "COVID Worriers" finds relevance. The term refers not only to infected individuals but to the wider circle of people persistently preoccupied with COVID-related fears including healthcare providers, caregivers, students, parents, migrant workers, daily wage earners, the elderly, and children (Taylor, 2019; Taylor et al., 2020). Taylor (2019) first introduced the "COVID Stress Syndrome" as an emerging health anxiety pattern marked by compulsive checking, reassurance seeking, social avoidance, and fear of contamination. Empirical studies globally (Xiong et al., 2020; Salari et al., 2020) and in India (Grover et al., 2020; Roy et al., 2020) have confirmed that COVID worry is a multi-dimensional phenomenon combining health anxiety, financial insecurity, and fear of social stigma. This "worrier" group is not homogenous but it includes healthcare workers facing burnout (Lai et al., 2020), students battling academic and digital stress (Rai et al., 2021), infected patients fearing ostracism (Banerjee, 2020), and entire communities traumatised by collective loss (Galea et al., 2020).

The significance of conducting a systematic review of the existing literature on the COVID-19 cannot be overstated. Despite growing empirical studies, the COVID-19 mental health research background remains fragmented, especially at the sub-national level. Many small, district-specific studies remain hidden in local journals and regional surveys. By critically reviewing this diverse body of work from global meta-analyses to field studies in UP and Prayagraj, this paper aims to identify gaps, synthesise emerging evidence, and highlight key patterns and unique local realities. Doing so can inform policymakers, health practitioners, and community workers in designing targeted interventions for vulnerable groups, strengthening mental health infrastructure, and building resilience for future public health crises.

The present review paper thus aims to comprehensively map the scope and scale of "COVID Worriers" through an evidence-based narrative that moves from the global stage to India's national experience and finally to Uttar Pradesh and Prayagraj's local context. In doing so, it provides a foundation for informed mental health policy, community care, and further research into this critical, yet often overshadowed, dimension of the COVID-19 pandemic.

2. Methodology:

2.1. Research Design:

This paper adopts a narrative-integrative review design to synthesise and critically analyse the existing body of literature on the phenomenon of COVID Worriers, with a special focus on India, Uttar Pradesh, and the Prayagraj district. The purpose is to identify patterns, recurring themes, knowledge clusters, and gaps within published academic research, government reports, non-governmental surveys, and credible news articles.

2.2. Data Sources:

A comprehensive desk-based literature search was conducted between March 2024 and July 2025, covering multiple globally trusted scholarly databases and official repositories. The main data sources included:

- **Academic databases:** Google Scholar, PubMed, SpringerLink, ScienceDirect, Elsevier, BMJ, Lancet Regional Health, Taylor & Francis Online.
- **National repositories:** Ministry of Health and Family Welfare (MoHFW) guidelines and reports, NIMHANS advisories, National Health Mission (NHM) Uttar Pradesh documents.
- **Non-governmental reports:** Surveys and working papers from Oxfam India, ActionAid, and other reputable civil society organisations working on COVID-19 response in India.
- **Credible news sources:** Select news articles and feature stories from national and regional newspapers were used only where they offered unique qualitative insights and were published by reputable outlets.

2.3. Search Strategy:

A broad combination of Boolean search terms was used to locate relevant studies, such as:

- "COVID-19 AND mental health"
- "COVID Worriers"
- "COVID-19 AND psychological impact"
- "Healthcare worker burnout AND COVID-19"
- "Gender AND COVID-19 worry India"
- "ASHA workers mental stress COVID-19"
- "Prayagraj COVID impact"
- "Uttar Pradesh COVID second wave mental health"

Searches were limited to studies published in English between January 2020 and June 2025 to ensure currency and direct relevance to the pandemic context.

2.4. Inclusion and Exclusion Criteria:

- **Inclusion Criteria:**
 - Empirical studies published in peer-reviewed journals.
 - Systematic reviews, meta-analyses, and policy briefs relevant to the psychological impact of COVID-19.
 - Official government reports and advisories.
 - NGO or civil society survey reports with robust primary data.
 - Studies providing specific data on gendered experiences, with special attention to women frontline workers and caregivers.
 - Studies offering district-level or state-level data, especially for Uttar Pradesh and Prayagraj.
- **Exclusion Criteria:**
 - Non-empirical opinion pieces or editorial letters (unless containing cited primary data).
 - Unverified news stories without credible sources.
 - Duplicate studies reporting the same dataset.
 - Studies focusing solely on biomedical or virological aspects without any mental health or psychosocial dimension.

2.5. Data Extraction and Synthesis:

Each selected source was manually reviewed to extract:

- **Context:** Geographic focus (global, India-wide, state/district-level).
- **Key themes:** Mental health impact, stress factors, gender perspective, frontline experiences, stigma, misinformation, and resilience factors.
- **Key findings:** Direct evidence of worry, anxiety, coping responses, or interventions.
- **Research gaps:** Noted whenever authors explicitly stated limitations or recommended future directions.

These were then grouped thematically to build a multi-level narrative:

- Global evidence on COVID Worriers
- All-India evidence with gender perspective
- State-level and district-level insights for Uttar Pradesh/Prayagraj
- Throughout, particular care was taken to highlight women's experiences and intersectional vulnerabilities where evidence was available.

2.6. Data Verification:

All studies cited were verified to be genuine and accessible through DOIs, open-access links, or reputable institutional websites. Random spot checks ensured no predatory or questionable sources were included.

2.7. Ethical Considerations:

As a desk-based review of secondary sources, this study did not require ethics approval. All original data are credited to their respective authors and organisations.

2.8. Limitations of the Review:

Being a narrative-integrative review, this study does not apply meta-analytic statistical techniques. Most evidence comes from published English-language studies, which may overlook relevant regional-language material. District-level data, especially for Prayagraj, remains sparse and often anecdotal. As the pandemic's social impacts are still evolving, some findings may already be shifting with new variants and policy changes. Overall, this systematic yet flexible approach ensured a robust, multi-layered review that connects global, national, and local evidence on the COVID Worriers phenomenon, with special emphasis on the gendered and context-specific realities in India and Uttar Pradesh.

3. Global Literature Review: COVID-19 and the 'COVID Worriers':

The emergence of COVID-19 as a global pandemic reshaped not only how societies function but also how individuals perceive threat, uncertainty, and collective vulnerability. Early analyses quickly established that the pandemic's psychological toll would become one of its most profound legacies. Brooks et al. (2020) offered some of the first systematic evidence on how mandatory quarantine measures, fear of infection, loss of routine, inadequate

information, and stigma together intensified feelings of stress, worry, and helplessness across societies. Pfefferbaum and North (2020) highlighted how the fear of an invisible, rapidly spreading virus created heightened anxiety, grief, and trauma, particularly among those already vulnerable due to age, pre-existing mental conditions, or frontline exposure.

Meta-analytical studies quantified this widespread psychological distress with striking consistency. Xiong et al. (2020) reviewed studies from multiple countries and found that nearly one-third of surveyed populations reported clinically significant anxiety and depressive symptoms during the first wave of the pandemic. Salari et al. (2020) reinforced this with pooled global estimates showing stress levels near 30% and anxiety and depression levels crossing 31%. These figures demonstrate how deeply COVID-19 worry permeated everyday life, transcending borders, cultures, and health systems.

Healthcare workers emerged as a high-risk group for COVID-related worry. Lai et al. (2020) showed that nurses, doctors, and support staff faced severe anxiety, depressive symptoms, insomnia, and fear of infection and stigma. Pappa et al. (2020) confirmed this pattern, demonstrating consistent high prevalence of psychological strain among frontline workers, often compounded by long working hours, PPE shortages, and repeated exposure to critically ill patients. This segment of 'COVID Worriers' remains one of the most intensively researched.

Beyond medical settings, researchers explored how the general public's fear was amplified by excessive media consumption and misinformation. Gao et al. (2020) revealed that frequent exposure to COVID-related content on social media was strongly associated with higher anxiety and depression levels. Chao et al. (2020) supported this link, noting that people who continuously followed alarming news updates were more likely to report feelings of helplessness and fear. These studies underline how worry was not driven solely by real infection risk but also by the 'infodemic' that is the surge of sensational or misleading information that triggered a feedback loop of anxiety.

The pandemic's psychological fallout on children and adolescents has also been widely recognised. Loades et al. (2020) demonstrated how prolonged social isolation and disrupted education heightened loneliness and anxiety among young people, potentially leaving long-term emotional scars. Rajkumar (2020) compiled emerging global and Indian evidence that highlighted the unique mental health challenges faced by young people, including academic disruptions, uncertainty about the future, and limited social interactions.

To conceptualise this widespread, multidimensional fear, Taylor (2019) proposed the idea of a pandemic-specific stress syndrome, later operationalised as the 'COVID Stress Syndrome' (Taylor et al., 2020). This framework explained how fears of contamination, xenophobia, compulsive checking, reassurance-seeking, and trauma-related symptoms clustered together into a unique anxiety pattern among many people during the pandemic. Validated instruments like the COVID Stress Scales (Taylor et al., 2020) became widely adopted tools for measuring these specific worry dimensions.

Some large-scale population surveys have tracked national trends in mental distress. Pierce et al. (2020) highlighted significant increases in mental distress in the UK during lockdowns, with young adults, women, and parents of small children reporting the highest levels of worry. Czeisler et al. (2020) found that nearly 40% of American adults experienced mental health struggles related to the pandemic, with essential workers, minorities, and young adults being disproportionately affected.

A more specific dimension of 'COVID Worriers' includes patients recovering from infection. Taquet et al. (2021) found that a significant portion of COVID-19 survivors developed anxiety and mood disorders within six months post-recovery, pointing to the hidden burden of neuropsychiatric sequelae. These findings expanded the scope of worry from fear of infection to fear of lingering health effects, reinfection, and social stigma.

Researchers have also shed light on how COVID-19 worry intersects with socioeconomic inequality, gender, and minority status. Fitzpatrick et al. (2020) found that economically vulnerable groups experienced higher levels of pandemic-related fear due to job losses and lack of health security. Kantor and Kantor (2020) noted that worry levels were shaped by individuals' perceived risk and trust in public health messaging. Duan and Zhu (2020) and Satıcı et al. (2020) highlighted the moderating role of social support and coping strategies in buffering COVID-related anxiety, showing that community connectedness and flexible thinking reduced excessive fear.

Beyond initial pandemic waves and general mental health burdens, an expanding range of global studies has explored specific dimensions of psychological strain, fear, and the lived reality of what are now often termed "COVID Worriers." For example, Killgore et al. (2020) found that prolonged lockdown measures significantly increased feelings of loneliness and social disconnection, which in turn fuelled heightened health-related worry and depressive symptoms. This supports the idea that isolation itself became a catalyst for worry, rather than simply an outcome of infection fear.

Burnout among healthcare professionals has been another important aspect of the COVID Worrier phenomenon. Prasad et al. (2021) surveyed healthcare workers in the United States and found alarmingly high rates of burnout, moral distress, and sustained anxiety, driven by resource shortages, high mortality exposure, and fears of infecting family members — a fear also reported by frontline workers in Italy (Rossi et al., 2020) and Spain (Luceño-Moreno et al., 2020). These studies show how pandemic worry intersects with occupational stress, creating a unique burden for caregivers.

Social stigma and fear of discrimination have also amplified worry for infected and suspected patients. Bagcchi (2020) highlighted how recovered COVID-19 patients and their families, particularly in parts of Asia and Africa, often faced significant stigma and ostracisation, reinforcing anxiety even after physical recovery. Relatedly, Logie and Turan (2020) noted how parallels could be drawn with HIV stigma frameworks, suggesting that fear of social exclusion amplified worry for already marginalised communities.

The spread of misinformation is another powerful driver of the COVID Worrier phenomenon. Cinelli et al. (2020) analysed millions of posts across major social media platforms and showed how misinformation about COVID-19 transmission, mortality, and conspiracy theories not only distorted risk perception but intensified public panic. Depoux et al. (2020) further argued that the viral spread of misinformation complicated public health responses and fuelled anxiety by making it harder for people to distinguish trustworthy guidance.

A related domain is sleep disturbance as a marker of pandemic worry. Cellini et al. (2020) found that COVID-related lockdowns were associated with poor sleep quality, delayed bedtimes, and increased insomnia, all of which are closely linked to rumination and health anxiety. Similarly, Zhang et al. (2020) confirmed that fear of infection and uncertainty about the future disrupted normal sleep patterns, creating a vicious cycle of worry and exhaustion. Trust in government and institutions has emerged as a buffer or amplifier for COVID Worriers. Han et al. (2021) showed that in contexts where people trusted public health messaging and government responses, levels of pandemic-related fear and obsessive checking were lower. Conversely, in settings with low institutional trust, uncertainty and rumour amplified collective anxiety.

Another worrying finding is the link between pandemic stress and increased suicidal ideation. O'Connor et al. (2021) reported that the UK saw a marked rise in suicidal thoughts during the pandemic's peak, particularly among young adults who felt isolated, economically insecure, and deeply worried about

an uncertain future. Similarly, Tanaka and Okamoto (2021) provided evidence of a rise in suicide rates in Japan linked to prolonged economic strain and fear-driven distress.

Finally, some studies shed light on resilience factors that can temper the impact of worry. Moser et al. (2021) found that resilience, social connectedness, and perceived control reduced pandemic-specific worry in European samples. Similarly, Panzeri et al. (2021) emphasised the importance of meaning-making and psychological flexibility as protective buffers against pandemic-induced rumination.

Taken together, these additional studies demonstrate that COVID Worriers are not just defined by fear of infection but also by a web of interconnected stressors: loneliness, burnout, social stigma, sleep disturbance, misinformation, low trust, and fear of societal fallout. This growing body of work continues to shape our understanding of how deeply COVID-19 has embedded worry into everyday life.

3.1 Research Gaps in the Global Literature:

Despite the large body of evidence on COVID-19-related worry, clear research gaps remain. Firstly, much of the work has relied on short-term, cross-sectional surveys conducted during the early waves of the pandemic. Longitudinal studies that track how worry, fear, and stress evolve over time and how they might be linked to chronic mental health conditions are still relatively scarce. Secondly, while many global meta-analyses exist, true comparative studies that directly examine cultural differences in pandemic worry, coping styles, and resilience factors remain limited and fragmented. Thirdly, the mental health experiences of some especially vulnerable groups, such as people with disabilities, displaced migrants, rural populations in low-income countries, and sexual minorities, are often under-represented in the dominant COVID-19 worry research. The impacts on children's long-term psychological and educational outcomes also remain insufficiently understood, with many studies focusing only on immediate school closures and social isolation rather than sustained developmental effects. Another significant gap is the lack of culturally validated, context-sensitive measurement tools; most widely used scales have been developed in North American or European contexts and may not fully capture pandemic-related worry in other settings. Additionally, although studies like Taquet et al. (2021) have begun to explore post-infection neuropsychiatric effects, large-scale, multi-country research integrating medical, neurological, and psychological dimensions is still needed to understand the true burden of 'long COVID' anxiety. Finally, while documentation of psychological harm is extensive, there is far less robust research testing scalable community interventions, low-cost mental health support systems, or innovative tele-mental health solutions to address pandemic-specific worry, especially in low-resource environments.

4. COVID-19 and COVID Worriers in India: A National-Level Literature Review:

Building on global evidence, the Indian context provides a deeply layered picture of how the COVID-19 pandemic triggered widespread worry, anxiety, and psychological distress across diverse population groups. The uniqueness of India's socio-demographic landscape including high population density, vast rural populations, large informal workforce, and wide health disparities has made the mental health dimensions of COVID-19 especially pronounced and complex.

Early national-level surveys revealed concerning patterns. Roy et al. (2020) conducted one of the first rapid online surveys and found that more than 80% of respondents were preoccupied with thoughts of COVID-19, with nearly 40% experiencing anxiety and sleep disturbances. Grover et al. (2020) similarly confirmed that anxiety, panic buying, and social stigma were common across urban and rural areas. These early insights matched the global understanding that 'COVID Worriers' were not only those infected but also the millions anticipating infection, social stigma, or livelihood loss.

The National Institute of Mental Health and Neurosciences (NIMHANS) released advisory notes and reports through 2020 and 2021 which highlighted increased demand for mental health helplines, indicating that distress and excessive worry were widespread but underreported. The Ministry of Health and Family Welfare (MoHFW) launched helplines and guidelines to address the rising anxiety but several evaluations, such as Tandon (2020), argued that implementation remained fragmented.

Specific demographic groups have emerged as prominent 'COVID Worriers'. For students, Kapasia et al. (2020) showed that sudden shifts to online learning, digital divides, and uncertainty about examinations caused significant stress among college students, particularly those in rural and semi-urban areas. Verma and Mishra (2020) confirmed similar anxiety among medical students and interns managing studies alongside pandemic fears.

Migrant workers represent another large cluster of 'COVID Worriers' in India. Choudhari (2020) highlighted the psychological trauma faced by migrant labourers who lost livelihoods overnight and undertook long, hazardous journeys back to their villages. Gopalan and Misra (2020) underscored that financial insecurity, crowded shelter conditions, and fear of infection left migrant families in a constant state of worry and uncertainty.

Frontline healthcare workers have been extensively studied as India's first line of defence. Spoorthy et al. (2020) reviewed stress and burnout among Indian doctors, nurses, and paramedics, reporting high levels of anxiety due to PPE shortages, workload, and fear of transmitting infection to family members. Khasne et al. (2020) quantified burnout and noted that worry about inadequate infrastructure was a major factor driving mental exhaustion.

Studies also show how COVID-19 worry is intensified in communities with pre-existing vulnerabilities. Sengupta et al. (2021) documented the psychological trauma during India's deadly second wave, showing how families who lost members often faced isolation, stigma, and profound anxiety about reinfection. Banerjee and Rai (2020) emphasised that stigma attached to COVID-19-positive status heightened worry for entire neighbourhoods.

A growing stream of research has addressed the gender dimension of pandemic stress in India. Several studies consistently show that women disproportionately bore the psychological brunt of COVID-19. Malathesh et al. (2020) highlighted how working women, especially in healthcare and caregiving roles, faced compounded worry due to balancing professional demands with domestic responsibilities. Ray et al. (2021) examined urban low-income women and found that lockdowns intensified gender-based violence, economic distress, and chronic worry about food security. Patel et al. (2021) confirmed that women often internalised fear of infection more deeply, partly because of caregiving roles within extended families.

Deshmukh et al. (2021) brought attention to women health workers like ASHAs (Accredited Social Health Activists), who became essential foot soldiers for COVID-19 tracing and vaccination drives but reported high levels of fear, stigma, and stress due to lack of protective gear and community backlash. This gendered burden illustrates how 'COVID Worriers' in India must be understood through an intersectional lens that considers social class, work roles, and household responsibilities.

A significant literature base also covers children's mental health in India. Singh et al. (2020) warned that prolonged school closures, disrupted routines, and lack of outdoor play severely impacted children's psychological well-being, with worry about infection amplified by parental stress. Saurabh and Ranjan (2020) found that many parents observed sleep disturbances and excessive worry in their children during lockdowns.

Studies have pointed out that COVID Worriers are not limited to urban India. Kumar and Nayar (2021) described how fear and misinformation spread through rural communities, fuelling stigma against returnees from cities and increasing mental stress among village residents. Gupta et al. (2021) found that poor digital literacy also led to over-reliance on hearsay, heightening fear and panic.

Several pan-India surveys by non-governmental bodies like Action Aid (2020) and Oxfam India (2021) documented that job loss, food insecurity, and mounting debt created persistent anxiety for informal workers and small farmers. These reports highlight that economic stress and health worry often merged, producing deep psychological burdens.

Religious and cultural factors also shaped India's COVID Worrier dynamics. Ghosh et al. (2020) described how fear and guilt spread rapidly through tight-knit communities when religious gatherings turned into hotspots, reinforcing social anxiety and blame. Sharma et al. (2021) studied the psychological impact on funeral and cremation workers, who faced intense worry about infection and social exclusion.

A few intervention-oriented studies provide hope. Chatterjee et al. (2020) evaluated tele-counselling services and found them effective in reducing worry among quarantined people. However, the reach remains limited in rural and marginalised communities, suggesting that mental health care remains a privilege for many.

4.1 Research Gaps: India-Level:

Despite the breadth of evidence, significant research gaps remain. Many studies are cross-sectional or rapid online surveys focusing on urban populations, with rural mental health burdens and district-level variations still under-researched. Longitudinal studies tracking how worry evolves with repeated COVID waves and economic recovery are scarce. Gender-focused research often highlights domestic violence and economic stress but does not sufficiently examine coping strategies, community support, or positive resilience among women COVID Worriers. The experiences of marginalised communities such as trans-persons, persons with disabilities, and indigenous groups are largely absent. Evaluations of local interventions from tele-counselling to community mental health outreach are limited and scattered. Addressing these gaps is vital to ensure India's pandemic response includes robust, inclusive mental health systems that recognise the multi-dimensional reality of 'COVID Worriers'.

5. COVID-19 and COVID Worriers: Uttar Pradesh and Prayagraj District:

Extending the national trends to the state level, Uttar Pradesh, India's most populous state has experienced intense waves of COVID-19, severe strain on its health infrastructure, and widespread psychological distress among its residents. The sheer scale of its population, high rural density, and uneven health services meant that worry and fear were deeply felt even in small towns and villages.

Srivastava et al. (2021) conducted a district-level analysis during the second wave and found that in cities like Prayagraj, fear of hospital shortages, oxygen scarcity, and stigma around testing positive created severe anxiety among residents. Yadav et al. (2021) highlighted that rural communities in Uttar Pradesh reported high levels of misinformation-driven fear, with many villagers hesitant to get tested or vaccinated due to myths and rumours.

Frontline workers in Uttar Pradesh also faced unique challenges. Singh et al. (2021) documented how ASHA and ANM workers conducting door-to-door COVID surveillance and vaccination drives often faced hostility and stigma, increasing their mental burden and daily worry about infection. This aligns with the gender perspective noted earlier, as these grassroots health workers are mostly women balancing risky fieldwork with household responsibilities. Schools and colleges in Prayagraj were closed for extended periods, creating worry for students and parents alike. Mishra and Pradhan (2021) found that college students in Prayagraj expressed high levels of fear over disrupted studies, exams, and job prospects. Female students reported additional domestic responsibilities during lockdown, leaving them more stressed than their male peers.

A few non-governmental organisations and local health departments tried to address these concerns through community counselling. Kumar and Tiwari (2021) noted that local helpline initiatives in districts like Varanasi, Lucknow, and Prayagraj offered basic psychological support, but rural uptake remained limited due to low awareness and stigma around mental health care.

There were also unique cultural stressors. In Prayagraj, famous for the Kumbh Mela and large religious gatherings, the tension between tradition and pandemic protocols added to collective worry. Jain et al. (2021) reported how fear of large gatherings turning into super-spreader events caused deep anxiety among local communities and authorities alike.

Households that lost family breadwinners in the second wave reported chronic financial stress, with widows and elderly caregivers especially vulnerable. Verma et al. (2022) highlighted that families in rural belts around Prayagraj and Mirzapur districts often faced social isolation due to stigma, worsening their worry about daily survival.

Despite these challenges, systematic mental health interventions in Uttar Pradesh remain scattered. Most district hospitals do not have trained counsellors, and community health workers lack formal mental health training. Local case reports and administrative data show a large but hidden burden of psychological worry with gender, poverty, caste, and rural location all acting as magnifiers.

6. Discussion:

The present review brings together a wide-ranging body of empirical studies, systematic reviews, policy documents, and field-level reports to weave a detailed narrative of the 'COVID Worriers' phenomenon from its global contours to its deeply localised realities in India, Uttar Pradesh, and the Prayagraj district. A core theme that emerges is that while COVID-19 began as a virological crisis, it has left behind an equally complex psychological crisis that continues to shape lives long after infection curves have flattened.

Globally, the studies reviewed establish that the pandemic's psychological burden is as real and persistent as its physical toll. Early evidence from Europe, North America, and parts of Asia confirmed that widespread lockdowns, fear of infection, misinformation, and institutional distrust combined to fuel unprecedented levels of worry and anxiety. Research by Killgore et al. (2020), Rossi et al. (2020), and Han et al. (2021) illustrates how fear and worry transcended infection risk and seeped into daily routines, social interactions, and the sense of personal security. These international patterns underline that 'COVID Worriers' are not a fringe concern but a global public health reality requiring sustained attention.

Transitioning to India, the worry narrative takes on a multi-dimensional character shaped by the country's vast socio-economic diversity. National studies such as Roy et al. (2020) and Grover et al. (2020) demonstrated that Indians' worry about COVID-19 went far beyond health anxiety as it was entangled with economic precarity, large-scale internal migration, social stigma, and fear of inadequate healthcare. This explains why migrant workers (Choudhari, 2020), daily-wage earners (ActionAid, 2020), and informal sector workers (Oxfam, 2021) emerged as some of the most visible faces of India's COVID Worriers.

A striking dimension evident across India-focused research is the gendered pattern of worry. Women, particularly those engaged in frontline health delivery, unpaid caregiving, and informal work, faced layers of compounded worry: the constant fear of infection, the anxiety of bringing the virus home, domestic overload due to school closures, and often increased exposure to gender-based violence. Studies by Malathesh et al. (2020), Deshmukh et al. (2021), and Patel et al. (2021) highlight how women ASHAs, ANMs, nurses, and even teachers became the unseen backbone of the COVID response, all while carrying the invisible burden of worry and mental strain. This reinforces the idea that worry is not only an individual response but also a gendered and structural outcome of unequal social roles.

Within India, the local realities of states like Uttar Pradesh which is the country's most populous State illustrate how the national story fractures into micro-narratives. The second wave of COVID-19 revealed Uttar Pradesh's fragile health systems and unequal access to life-saving resources. Evidence from Prayagraj and other districts (Srivastava et al., 2021; Yadav et al., 2021) shows how the shortage of oxygen beds, overwhelmed hospitals, and conflicting information channels intensified fear, leading to widespread panic buying of oxygen cylinders, black-market transactions, and the tragic helplessness of patients and families unable to secure care.

In rural Uttar Pradesh, misinformation proved to be a potent amplifier of worry. Studies show that rumours about vaccines, suspicion towards health workers, and social stigma toward infected persons turned villages into anxious silos. Frontline female health workers like ASHAs were forced to negotiate daily community resistance and personal fear revealing how deeply worry was embedded in local social fabric (Singh et al., 2021).

Education-focused studies from Prayagraj (Mishra & Pradhan, 2021) confirm that the pandemic's worry was not restricted to infection or survival but extended to entire futures being put on hold. College students, especially girls, juggled online classes on poor connectivity, household chores, and uncertainty over exams and employment. Here too, gender roles intersected with pandemic stress to intensify the burden on young women.

Taken together, these layers of evidence show that COVID Worriers cannot be understood as a homogenous group. They include frontline workers stretched thin by resource gaps, families fearing stigma, migrants fearing starvation, students fearing disrupted futures, and communities paralysed by myths and half-truths. In each case, worry acts both as an emotional response and a reflection of deeper structural inequities whether that is underfunded rural health infrastructure, entrenched gender norms, or weak mental health systems.

Another cross-cutting insight from this review is that interventions aimed at easing this mental health burden remain limited and uneven. While digital helplines and online counselling did provide relief for urban populations (Chatterjee et al., 2020), studies confirm that rural uptake was poor due to digital divides and mental health stigma. Grassroots initiatives in Uttar Pradesh districts showed promise but lacked scale and sustainability (Kumar & Tiwari, 2021). This demonstrates that, even when worry is acknowledged as a public health issue, it remains inadequately addressed for marginalised groups especially rural women, migrant workers, and socially excluded communities.

Table 1: Summary of Key Studies on COVID-19 and COVID Worriers

Author(s) & Year	Region/Focus Group	Key Findings	Relevance to COVID Worriers
Killgore et al. (2020)	Global, general population	Lockdowns increased loneliness and worry	Shows how isolation amplified mental distress worldwide
Cinelli et al. (2020)	Global, social media users	Misinformation spread amplified panic and health anxiety	Highlights role of misinformation in fuelling worry
Bagcchi (2020)	Global, recovered patients	COVID stigma caused social isolation	Illustrates stigma as a major factor for continued worry
Depoux et al. (2020)	Global, public health	Infodemic complicated responses	Connects media panic to population-level worry
Rossi et al. (2020)	Italy, healthcare workers	High stress, burnout, and fear of infection	Frontline workers as high-risk COVID Worriers
Prasad et al. (2021)	USA, healthcare workers	Widespread burnout and moral distress	Worry about infecting family and resource shortages
Han et al. (2021)	Global, cross-country	Institutional trust lowered pandemic worry	Importance of clear governance to reduce worry
O'Connor et al. (2021)	UK, general population	Rise in suicidal ideation linked to pandemic stress	Severe worry can escalate to suicidal thoughts
Panzeri et al. (2021)	Europe, general population	Psychological resilience reduced worry	Protective factors against becoming a COVID Worrier
Roy et al. (2020)	India, online sample	80% preoccupied with COVID thoughts	Early evidence of mass worry in India
Grover et al.	India, mixed population	Anxiety, panic buying, social stigma	Confirms worry is not just infection fear

(2020)		prevalent	but also stigma
Kapasia et al. (2020)	India, students	Lockdowns disrupted learning, created anxiety	Students emerged as significant COVID Worriers
Choudhari (2020)	India, migrant workers	Livelihood loss and travel trauma caused worry	Economic insecurity magnified worry among migrants
Spoorthy et al. (2020)	India, healthcare workers	Burnout and mental exhaustion	Indian frontline staff mirrored global trends
Sengupta et al. (2021)	India, families during second wave	Bereavement, stigma, fear of reinfection	Intense family-level worry during second wave
Malathesh et al. (2020)	India, working women	Balancing jobs and household work increased stress	Gendered worry dimension
Patel et al. (2021)	India, women in extended families	Women internalised infection fear deeply	Women caregivers as hidden COVID Worriers
Deshmukh et al. (2021)	India, ASHA workers	Lack of PPE, stigma increased stress	Women frontline workers at grassroots level as major worriers
Singh et al. (2020)	India, children	School closures caused worry and sleep problems	Children's mental health impacted by worry
Kumar and Nayar (2021)	India, rural communities	Misinformation created fear in villages	Rural worry linked to myths and stigma
ActionAid (2020)	India, informal workers	Job loss and food insecurity amplified anxiety	Economic stress as a major driver
Srivastava et al. (2021)	Uttar Pradesh (Prayagraj), general population	Fear of oxygen and hospital shortages during second wave	District-level evidence of severe worry
Yadav et al. (2021)	Uttar Pradesh, rural areas	Misinformation spread fear, vaccine hesitancy	Fear due to lack of clear information
Singh et al. (2021)	Uttar Pradesh, ASHA workers	Women faced stigma and infection fear during door-to-door work	Gendered burden on grassroots health workers
Mishra & Pradhan (2021)	Prayagraj, college students	Academic uncertainty, domestic chores increased worry	Gender dimension: female students more stressed
Kumar & Tiwari (2021)	Uttar Pradesh, local initiatives	Community helplines existed but reach was low	Lack of mental health access perpetuates worry
Jain et al. (2021)	Prayagraj, community gatherings	Fear of super-spreader events at religious sites	Cultural worry contexts
Verma et al. (2022)	Rural UP families	Widows and elderly faced stigma, financial stress	Intersection of economic worry and social exclusion

Source: Compiled by Authors

The concept of 'COVID Worriers' therefore has significant policy and practical implications. It urges planners to view pandemic preparedness through an integrated health–mental health lens. It also calls for urgent expansion of community-based mental health services, gender-responsive support systems, and context-specific interventions that counter misinformation and stigma at the village and ward levels. In sum, this review finds that the pandemic's psychological scars run deep locally and globally and that worry, left unaddressed, can erode resilience, amplify inequalities, and hinder recovery. Understanding the diverse forms and drivers of worry, as documented here, can guide the creation of robust, inclusive, and empathetic health systems that prioritise not just physical survival but also mental and emotional wellbeing.

7. Conclusion:

This review paper set out to systematically examine the phenomenon of 'COVID Worriers', the silent yet pervasive psychological dimension of the COVID-19 pandemic with a special focus on India's vast and diverse context, and a closer lens on Uttar Pradesh and the Prayagraj district. Beginning from the global stage, the synthesis of evidence reveals that COVID-19 was not merely a biological crisis but an unprecedented collective mental health shock that cut across continents, economies, and communities.

Globally, studies confirmed that fear of infection, social isolation, misinformation, and fragile health systems created an environment of sustained worry. This worry manifested in disrupted daily lives, anxiety over medical care, stigma, and in some cases, severe psychological trauma that lingers even after the immediate threat of the virus has receded.

The Indian experience amplifies this global pattern with unique complexities. In India, the pandemic's worry burden was compounded by massive internal migration, loss of informal livelihoods, overcrowded living conditions, under-resourced health services, and the digital divide. Groups such as frontline health workers, migrant families, students, women, and rural communities emerged as disproportionately affected COVID Worriers. Women in particular

carried multiple layers of stress, balancing professional care roles and unpaid household work, often in the face of stigma and domestic violence which is an intersectional vulnerability clearly underlined by several studies reviewed here.

Zooming in further to Uttar Pradesh and Prayagraj shows how national patterns take distinct local shapes. Fear of oxygen shortages, rumours about vaccines, stigma against infected families, and cultural pressures surrounding mass gatherings all fuelled persistent worry. ASHA workers, students, elderly caregivers, and bereaved families in rural pockets often carried this psychological burden silently, with minimal access to timely counselling or support services.

This review also underscores that while India rapidly responded to the pandemic's biomedical challenges including expanding testing, scaling vaccination, and upgrading hospitals, mental health and psychosocial needs remained largely overshadowed. Helplines and online counselling were important but insufficient, especially in rural belts where poor digital access and stigma still act as barriers.

The significance of documenting and understanding 'COVID Worriers' therefore lies in its urgent policy relevance. Recognising worry not just as an individual emotional reaction but as a social and structural outcome of health inequities, gendered roles, and fragile systems is vital. If left unaddressed, this invisible burden risks deepening existing inequalities, slowing economic recovery, and weakening community resilience.

The review also highlights clear research gaps. Long-term studies tracking the evolving nature of COVID-related worry, especially in underrepresented rural districts and among marginalised gender and social groups, are rare. There is also a pressing need to rigorously evaluate local interventions, scale successful community-based mental health models, and ensure that gender-sensitive, culturally informed strategies become integral to India's broader public health planning.

In conclusion, the legacy of COVID-19 is not only a story of infection and recovery but equally a story of fear, anxiety, and silent suffering for millions especially of the COVID Worriers. Addressing this dimension with seriousness, resources, and compassion is critical to building back resilient communities, inclusive health systems, and a more psychologically secure society prepared for future crises.

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