

A Systematic Review of Mental Health of Elderly during Covid-19 Pandemic in India

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Abstract- This paper is based on systematic review of literature analyzing 15 papers and articles published from December 2019 to December 2021 regarding the mental health of the elderly in India during Covid-19, and identifies three major themes (1) Vulnerabilities of the elderly; (2) Impact of Covid-19 pandemic on the mental health of elderly; (3) Managing mental health issues among elderly during COVID-19 pandemic

Keywords: COVID-19, Elderly, Mental health, Pandemic, Impact, Vulnerabilities

I. INTRODUCTION

According to Indian law, elderly or "senior citizen" is any person who is a citizen of India and has reached the age of sixty years or older. According to the Population Census 2011, there are nearly 104 million elderly people in India, accounting for 8.6% of the total population over 60 years of age (Census, 2011). Ageing brings various psychological, social, and environmental vulnerabilities. The elderly are more vulnerable to infection due to physiological changes associated with ageing, decreased immune function, and the presence of co-morbidity. Furthermore, the lack of adequate mental health services and service utilization, social isolation as a result of lockdowns and quarantine, slow economic growth and broken production cycles, and other issues exacerbate the challenges associated with the mental health of the elderly during the COVID-19 pandemic (Singh *et al.*, 2020).

Mental health is 'a state of well-being in which the individual recognizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community' (WHO, 2021). The rapid spread of the COVID-19 pandemic outbreak, as well as the higher mortality rate, self-isolation, social distancing, and

quarantine, may increase the risk of mental health problems. According to the United Nations Development Program (UNDP), the availability of human resources for the population's mental health remains a challenge in India. In 2019, India had 0.3 psychiatrists for every 100,000 people, compared to 2.2 in China and 10.5 in the United States. Elderly people experience mental health problems just like everyone else, but their problems are exacerbated by prejudice, stigma, and discrimination. In India, they are frequently unable to afford or obtain quality mental healthcare. (Kumar and Bhattacharjya, 2021).

According to the World Health Organization (WHO) Coronavirus disease (COVID-19) caused by the transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) appeared for the first time in Wuhan, China, at the end of 2019. It was declared a global pandemic of enormous proportion by WHO, infecting more than 600 million people and resulting in more than 6 million fatalities worldwide (WHO COVID-19 Dashboard). India reported their first COVID-19 case on January 30, 2020. According to the Ministry of Health and Family Welfare (MoHFW, 2021), India has approximately 40 million confirmed cases of COVID-19, approximately 4.9 lakh deaths, and a case fatality rate of approximately 1.34%. According to a Hindustan Times report, approximately 76% of total deaths in India have occurred in the age group of 50 years and above (Sharma, 2020).

Therefore, the need for this review arises from the fact that the COVID-19 pandemic has affected everyone differently. Similarly, because of various physiological, psychological, social, and environmental vulnerabilities, the elderly have been greatly impacted by this pandemic. Major studies and literature have addressed the physical and biological impact and risk of the COVID-19 pandemic on the

elderly, but very few have addressed the impact of the pandemic on the mental health of the elderly in India, so there is a need for a comprehensive review of the mental health aspect of the elderly in India during this pandemic.

The novelty of this narrative review is that it makes summative and exploratory contributions in an area of knowledge where very few studies have been conducted. This paper reviewed various studies on this topic and then provided a comprehensive understanding of the issue in terms of the vulnerabilities of the elderly, the impact of COVID-19 on the mental health of the elderly, and various care suggestions and solutions to maintain and improve the mental well-being of the elderly during this pandemic and similar future situation. This paper also highlights the areas where further research is required.

The purpose of this paper is to discuss the mental health issues and concerns of the elderly during the COVID-19 pandemic in India, by analysing and synthesizing various relevant studies and highlighting the literature gap in this area. The objectives of this narrative review are as follows:

1. Discuss and summarize the results of studies addressing the Mental Health of the elderly during the COVID-19 pandemic in India.
2. Analyse the impact of the COVID-19 pandemic on the Mental Health of the elderly.
3. Highlight the literature gaps and scope of further research in this field of study.

II. RESEARCH METHODOLOGY

This paper follows a descriptive research design and applied the systematic review method to analyze secondary data sources with a view to summarize useful information of the literature collected. The universe of the study includes all the literature on the Mental Health of Elderly during COVID-19 in India. The search strategy for this review followed a systematic literature search for relevant papers on the major online research database such as MEDLINE (PubMed), Google Scholar, Academia, Science Direct, JSTOR, WHO COVID 19 Global Research Database, Indian databases etc., from December, 2019 (first known case was identified in Wuhan, China) to the December, 2021 was conducted in January 2022. References from the included studies were also

searched for further relevant studies that met the inclusion criteria for this review.

The search strategy combined search times, titles and abstracts containing the search terms in all online published articles. The search string was built according to different database including terms as 'Elderly' and its synonyms (e.g., 'older adults', 'geriatric', 'geriatrics', 'aging', 'senior', 'seniors', 'older people' etc.), 'Covid-19' and its synonyms (e.g., 'coronavirus', 'sars-cov-2', '2019 pandemic' etc.) and 'Mental Health' and its components and synonyms (e.g., 'emotional', 'psychological', 'cognitive', 'behavioral' etc.) and 'India'.

The inclusion criteria for this review were as follows:

- a) Studies and articles focusing on mental health of elderly in India during COVID-19 pandemic, published from December 2019 to December 2021.
- b) Longitudinal studies with data during COVID-19 available are also eligible and only the part conducted during COVID-19 will be included.
- c) Those studies and articles will be included that are published in English language or have an English translation version.
- d) Studies and articles that are accessible and available online.

The exclusion criteria for this review were as follows:

- a) Studies and articles that are unavailable or partially available online, repeated studies in databases, was excluded.
- b) Studies and articles conducted before December 2020 or mental health studies during the COVID-19 pandemic without elderly people will be excluded.
- c) Studies on mental health of elderly in a specialized group (e.g., professionals etc.) or a specific clinical group (i.e., that is defined by having a physical or mental health diagnosis) will be excluded.

The data extraction was done by using MS Excel. Studies identified using the search strategy were being entered into an Excel spreadsheet for screening and data extraction. Information was categorized under the title, authors, period of time, study objective, study design, participants, outcome measure and results. The data analysis followed a thematic synthesis of extracted findings from the studies on the research

topic while developing both descriptive and analytical themes.

III. DISCUSSION

A systematic search of relevant studies has resulted in fourteen studies that met the criteria for inclusion and exclusion. The studies that were included are mentioned in Table I. After analyzing all these relevant studies, three themes were identified and then further categories were divided into sub categories:

psychological; social isolation; family and care giver; role of technology and media and some other categories. The three themes were as follows:

- A. Vulnerabilities of the elderly;
- B. Impact of COVID-19 pandemic on the mental health of elderly;
- C. Managing mental health issues among elderly during COVID-19 pandemic

Table I

Sr. No	AUTHOR	TITLE	STUDY DESIGN/ TYPE OF ARTICLE	STUDY TOOL	PLACE	STUDY POPULATION	RESULT
1	Mukku R. & Sivakumar T., 2020	Mental Health Care of Older Adults during Coronavirus Disease (COVID-19) Pandemic: Challenges and Way ahead in India	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> • Identify underlying vulnerabilities and their impact on Mental Health of elderly and suggested interventions.
2	Mehra et al., 2020	A crisis for elderly with mental disorders: Relapse of symptoms due to heightened anxiety due to COVID-19	Qualitative analysis	Case Study	India	Geriatric	<ul style="list-style-type: none"> • Highlighted the role of media that gave excessive information about COVID-19 that led to development of anxiety. • Highlighted the impact of lockdown that possibly led to social isolation, which increased the sense of vulnerability.
3	Rana 2020	Elderly suicides in India: an emerging concern during COVID-19 pandemic	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> • Identify the risk of relapse of underlying mental health among elderly due to Covid-19 and the lockdown. • Elderly living alone find themselves unprotected due to the lack of social support.
4	Joseph et.al., 2021	Mental health concerns related to COVID-19 outbreak in the middle-aged and elderly population: A web-based, cross-sectional survey from Haryana, North India	Cross-sectional web-based survey	Patient Health Questionnaire-9 (PHQ-9); General Anxiety Disorder-7 (GAD-7) scales	Haryana, North India	Adults and Geriatric (n = 740)	<ul style="list-style-type: none"> • Found a significant association between mental health outcomes with the presence of comorbid illness and physical activeness during the lockdown period
5	Venugopal VC et.al., 2020	Status of mental health and its associated factors among the general populace of India during COVID-19 pandemic	cross-sectional web-based survey questionnaire	General health questionnaire-28 (GHQ-28), Developed by Goldberg and Hillier (1979).	India	Adult and Geriatric (n=453)	<ul style="list-style-type: none"> • Prevalence of mental disorders increased with an increase in age.
6	Mukherjee et.al., 2020	COVID-19 pandemic: Mental health and beyond – the Indian perspective	Narrative review	-	India	General	<ul style="list-style-type: none"> • Lockdown and media reports has heightened anxiety and worry among elderly. • Mental health problems are intricately related to an increase in stress. Anxiety, fear, panic and sleep disturbance seem to be the predominant manifestations.

7	Roy et al., 2020	Mental health implications of COVID-19 pandemic and its response in India	Rapid Review	-	Global and Indian perspective	General	<ul style="list-style-type: none"> The major mental health issues reported were stress, anxiety, depression, insomnia, denial, anger and fear. Elderly with existing mental health illnesses were among the vulnerable.
8	Vahia & Shah, 2020	COVID-19 pandemic and mental health care of older adults in India	Narrative review	-	India	Geriatric	<ul style="list-style-type: none"> Elderly do not have an easy access to the mental health professionals. The older adults who had to stay back in the metros are required to deal with loneliness, anxiety, and depression.
9	Girdhar et al., 2020	Managing mental health issues among elderly during COVID-19 pandemic	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> Elderly population is vulnerable to infection, social isolation and are at a high-risk category for various physical and mental health problems. Pandemic may cause exacerbation of existing or relapse of fears/phobias, anxiety disorders, obsessive-compulsive disorder.
10	Singh et al., 2020	Estimating the Impact of Covid-19 Outbreak on High-Risk Age Group Population in India	Systematic review	Richards model; Autoregressive Integrated Moving Average (ARIMA)	India	Elderly people (with age 50 years and greater)	<ul style="list-style-type: none"> Large percentage of elderly were at a very high fatality risk and virus infection. Supported the extension in countrywide lockdown, mass testing, and social distancing.
11	Dalal et al., 2020	Emerging mental health issues during the COVID-19 pandemic: An Indian perspective	Narrative review	-	India	General	<ul style="list-style-type: none"> Elderly was already at risk due to their preexisting problems: Cardiovascular, neuromuscular, neurocognitive disorders, autoimmune disorders and compromised immunity. Social isolation and enforced lockdowns, the risk of anxiety and depression in the elderly is elevated.
12	Banerjee et al., 2020	Coronavirus disease 2019 and the elderly: Focus on psychosocial well-being, agism, and abuse prevention – An advocacy review	advocacy review	-	India	Geriatric	<ul style="list-style-type: none"> Elderly may also be victims of stigma, prejudice, and abuse. The vulnerabilities of the elderly and their dependencies need to be collectively addressed with organized and systematic efforts at all levels
13	Banerjee, 2020	'Age and ageism in COVID-19': Elderly mental health-care vulnerabilities and needs	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> Under-reporting of the psychiatric symptoms has also been observed during the COVID-19 pandemic in elderly. The effects of the quarantine on elderly can be paramount leading to loneliness, physical distancing from their loved ones, grief, anxiety and chronic stress that can have long-standing psychological effects.
14	Joshi, 2020	COVID-19 and elderly in India: Concerns and challenges	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> The elderly population suffers from co-morbidities and age related and social isolation issues making them vulnerable to COVID-19.

							<ul style="list-style-type: none"> •They also fear of getting infected, loss of livelihood and community spread etc.
15	Mudgal & Wardhan, 2020	The Increased Risk of Elderly Population in India in COVID-19 Pandemic	Literature review	-	India	Geriatric	<ul style="list-style-type: none"> •Elderly amount to just 15% of India's confirmed cases but 53% of deaths due to COVID-19. •The wellbeing of the elderly mandates a multifaceted approach incorporating active collaboration of community, health workers, social workers, government health-care schemes / programs and welfare schemes for self-independence and sustenance.

A. Vulnerabilities of the Elderly

Ageing comes with numerous psychological, social and environmental vulnerabilities. Ageing itself is a disease which requires proper management and care. Not many people reach old age completely disease free. According to Mudgal and Wardhan (2020), ageing causes a decline in the normal functioning of the body, which results in poor mobility, hearing, vision, the inability to properly eat and digest food, a decline in memory, the inability to control certain physiological functions, and a variety of other chronic health problems.

Physical Health Related Vulnerabilities:

According to Mudgal and Wardhan (2020), the common features of ageing include Frailty, which is defined as the age-related sum-total biological and psychosocial vulnerability of the individual that is related to movement restriction, malnutrition, and poor immunity. Frailty in the elderly increases the risk of various infections and reduces all forms of immune response. They also mentioned that the elderly have sensory issues such as difficulties with vision, hearing, smell, and so on.

Furthermore, the elderly have multiple co-morbidities and more hospitalizations, increasing their chances of contracting the infection during a pandemic. Those with co-morbid health conditions are at a higher risk of developing a severe form of illness, so they must exercise greater caution. Joshi (2020) supported this claim in his study, stating that adults 60 and older, particularly those with pre-existing medical conditions such as heart disease, lung disease, diabetes, or cancer, are more likely to have severe coronavirus infection than other age groups. Immune-senescence is a gradual decline in immune function that occurs with

ageing and impairs pathogen recognition, alert signaling, and clearance, making the elderly vulnerable to the virus.

Psychological Vulnerabilities:

Mental health is a taboo subject in India, patients rarely seek help regarding their mental health problems until the situation becomes beyond their control. According to WHO, in India, it is estimated that about 192 million people over the age of 60 have some mental or neurological disorder level. About 7% are affected by Major Depressive Disorder (MDD) or Depression and 3.8% by anxiety. MDD and anxiety are the most prevalent disorders in this age group (Grolli *et al.*, 2021). The elderly might have impaired cognitive abilities (memory, processing speed, thinking, and language) that worsen with age and can make it difficult for them to comprehend and adhere to precautionary instructions.

Dementia is the most common neuropsychiatric illness, aside from depression, and it is a major contributor to disability in people over the age of 60, accounting for one-quarter of all disabled elderly people (Mudgal and Wardhan, 2020). Thus, these psychiatric and neurodegenerative disorders may predispose greater severity to the infectious condition of COVID- 19. (Grolli *et al.*, 2021)

Social Vulnerabilities:

The elderly are also vulnerable in their social lives, whether they live at home or in old care homes. Loneliness, neglect, and isolation may be experienced by the elderly in old care homes or other institutionalized settings, and they may be exposed to the risks of overcrowding, poor hygiene, and a lack of adequate supervision. Those elderly who lives in the

traditional joint family system may be able to rely on the assistance of other family members in dealing with the new demands. However, Biswas (2020), Vahia and Shah (2020), and others have highlighted the risk of aerosol infection as a major public health concern in India. Four to five people live under one roof in the average Indian household. Three generations are frequently housed together, and 75% of Indian households (900 million) have two rooms or fewer. However, they also emphasized the rapid social transformation in Indian society, which has resulted in an ever-increasing trend of nuclear families, resulting in the weakening of the traditional family system. Neglect by the younger generation towards their elderly parents has also become common.

However, many elderly people live alone for a variety of reasons, and those who are isolated must deal with loneliness, anxiety, and depression. Another source of concern for the elderly is their deteriorating health and financial situation. The elderly become even more vulnerable when they live alone. The elderly was also confronted with challenges such as the lack of a domestic helper or attendant to assist them with daily living tasks. Domestic helpers, on the other hand, who is available, run the risk of becoming asymptomatic carriers of the infection. Mudgal and Wardhan (2020) defined this situation as a "dual-edged sword," because elderlies living alone are often reliant on them for daily assistance while also being concerned about infection.

Health-Care Issues:

According to Joshi (2020), the elderly in India face challenges in accessing medical treatments and care due to weak public health systems, inefficient infrastructure, a lack of manpower, an increasing number of patients putting a strain on the available health facilities, and, above all, high reliance on private-sector medical care facilities, resulting in a high expenditure requirement to fight the disease. As a result of the rapid growth of the private healthcare sector, healthcare has become a commercial unit, and the social-welfare objective has taken a back seat, requiring out-of-pocket expenditure, leaving millions of people, particularly those in the poorest groups, without access to basic care. Mukherjee et.al. (2020) stated that nearly 150 million people in India suffer from some form of mental illness. The number of psychiatrists in the country is roughly 9000, which

is approximately 0.7 per 100 000 of the population. Moreover, only about 0.06% of the total healthcare budget is spent on mental health care.

Technological Vulnerabilities:

The elderly also faces a Digital divide due to various reasons such as lack of familiarity, cognitive or sensory deficits, and difficulties in adapting to a new practice. Mukku R. & Sivakumar T. (2020) stated that many elderlies have limited ability to use smartphones and modern methods of technology for communication. They might not be proficient enough to stay in touch with their loved ones through social networking (WhatsApp, Facebook, etc.) and video-conferencing methods, which are recommended worldwide during the COVID-19 crisis for social connectedness. However, these social media platforms are also a bane due to the widespread dissemination of misinformation. The elderly may not be aware of updated and accurate information about COVID-19, which may lead to noncompliance with precautionary measures, faulty treatments, and improper medication. (Vahia and Shah, 2020)

Thus, all these underlying vulnerabilities and issues of the elderly increase the severity of the impact of COVID-19 on the Mental Health of the Elderly in India.

A. Impact of Covid-19 Pandemic on the Mental Health of Elderly

The pandemics had a great psychological impact on the elderly due to various underlying vulnerabilities as well as the elderly have been particularly vulnerable to morbidity and mortality as a result of the COVID-19 pandemic.

Impact of existing physical issues:

According to Dalal et al. (2020), the elderly is already at risk due to preexisting problems such as cardiovascular, neuromuscular, and neurocognitive disorders and they are frequently burdened by autoimmune disorders and compromised immunity as a result of a lack of proper nutrition, making them more vulnerable to developing anxiety and depression. Joseph et.al. (2021) also found a statistically significant association between mental health outcomes and the presence of comorbid illness and physical activeness among elderlies during the COVID pandemic. (Joseph et.al., 2021)

Impact of existing psychological issues:

During the pandemic, the elderly with mental health disorders were more vulnerable and prone to exacerbations. Roy et al. (2020) stated the major mental health issues reported among the elderly were stress, anxiety, depression, insomnia, denial, anger and fear. Venugopal VC et.al. (2020) also identified age as a significant factor in the prevalence of mental disorders, it increased with an increase in age.

Joshi (2020) stated that mental health problems in the elderly, whether new or old, could worsen and impair cognitive and emotional function even more. Banerjee et al. (2020) and Mukku R. & Sivakumar T. (2020) found similar results and suggested that psychosocial vulnerability, particularly during times of lockdown and quarantine, such as loneliness, anxiety, and uncertainty, can lead to depressive disorders, insomnia, and chronic stress in the elderly.

Stress is an understandable reaction to the pandemic. According to Dalal et al. (2020), potential stress-related responses to the coronavirus pandemic include inattention, irritability, anxiety, sleeplessness, decreased efficiency, and conflicts. This may be true for the general population, but it is especially true for the elderly. It is important to emphasize that depression and anxiety are natural reactions to a threatening situation like this pandemic. Stress from psychosocial dysfunction and health problems in the coronavirus pandemic will be a major concern for people with mental illnesses. Furthermore, the risk of transmission may exacerbate the fear of contamination in people with obsessive-compulsive disorder and somatic symptoms, as well as people with a history of suicidal ideation.

Impact of Social Isolation and Lockdown:

To prevent community transmission of infection, most countries have implemented quarantine, lockdown, and curfew measures. All of these techniques encourage members of the community to stay at home and maintain social distance. The Indian government declared a nationwide lockdown to deal with this initial transmission. According to Singh et al. (2020), these preventive measures are effective; however, these measures focus on preventing the spread of infection and looking after the physical health of infected people. In this state of emergency, a

wide range of psychological issues frequently accompanies the pandemic (Girdhar *et al.*, 2020).

Banerjee (2020) defined the social isolation of the elderly as a "serious public health concern." Social connections are critical during a public health breakdown, especially when 'ageism' becomes a factor for stigmatization in this marginalized population. Dalal et al. (2020), daily walks of the elderly in the park or to meet peer groups, as well as the need to obtain daily essentials, can lead to increased exposure to the infection and thus increased fear among the elderly.

Mehra et al. (2020) and Roy et al. (2020) mentioned that those elderly who has poor social support and are living alone are finding themselves helpless during lockdowns. They have a feeling of insecurity like the feeling of being unsafe in the neighborhood, non-availability of essential groceries, financial insecurities, few close relationships, lack of resources to support socializing or attending activities, uncertainty over daily living, contracting the virus or worry about spreading the infection to other family members and non-availability of ongoing medications etc. are responsible for anxiety among the elderly.

Any type of stress is associated with a decrease in immunity, which can exacerbate the elderlies already weakened physiological defense systems and affect their mental well-being. According to

Mehra et al. (2020) stated that lockdown possibly led to marked social isolation and social disconnectedness, which has increased the sense of vulnerability, and greater risk of depression and anxiety among the elderly. According to Rana (2020), social isolation and disconnection have a significant psychological impact. According to them, it is a major cause of loneliness, depression, and anxiety in the elderly. The elderly population's social isolation has exacerbated other concerns, such as neurocognitive, autoimmune, cardiovascular, and mental health, which is referred to as a serious public health concern. Similarly, Mehra et al. (2020) found that elderly with mental illnesses, who are already prone to depression and anxiety, are at much higher risk of relapse due to this emerging scene.

As the disease progresses and the isolation worsens, mental breakdowns become a real possibility. According to Santini et al. (2020), social isolation is a

catalyst for a downward spiral that leads to seclusion. Some disorders, such as Major Depressive Disorder (MDD) and anxiety, can cause or worsen symptoms. With social isolation, a negative cycle occurs; if they remain in the negative spiral, their anxiety and depression symptoms may worsen, harming their mental health (Grolli *et al.*, 2021). Loneliness continues to have an impact on sleep quality in the elderly. Furthermore, it may elicit painful memories, which can later serve as a precursor to a potentially invalidating posttraumatic stress disorder. It may aggravate behavioral styles and symptoms of conditions such as obsessive-compulsive disorder, such as hand washing and sanitizing household items.

According to Girdhar *et al.* (2020), these factors can lead to hopelessness and discouragement, which can progress to depressive disorders and potentially self-destructive behaviors such as suicide in the elderly. According to Rana (2020), in India, more than 300 suicides were reported during the lockdown as “non-coronavirus deaths” due to mental torment.

Death, Grief and Bereavement:

According to Banerjee *et al.* (2020), everyone is concerned about the right to die with dignity, which is jeopardized during the lockdown. A relevant fear arises of a sudden and lonely death in solidarity and loneliness, away from family, and devoid of one's last wishes. Essentially, the context of the suspected "death" becomes a greater source of concern than death itself, which can have an impact on emotional well-being. Similarly, the importance of spirituality among the elderly in India, states that spirituality is an important coping factor for the elderly, and the interruption of religious rituals as part of the deceased's last rites can prevent healthy grieving.

Role of Family:

Elderly people who live with their families are in a better position in this regard; however, some of them may be expected to maintain social distance within their homes due to their existing ailments or COVID-19 symptoms of any other family members. Girdhar *et al.*, (2020) proposed that because the younger generation may be preoccupied with various chores, the elderly may be overlooked even when they are with their families. This causes social and

psychological isolation, which may contribute to poor mental health.

Impact of Technology:

Unlike the younger generation, who are well-equipped with modern devices and internet services, the majority of the elderly have limited access to and understanding of the internet and smartphones. Many elderly people may be unfamiliar with technology, which may lead to increased emotional distance. Because of generational differences and sensory and cognitive deficits, they may be unaware of COVID-19-related updates, making them easy targets for misinformation and inadequate precautionary measures (Joshi, 2020). When it comes to connecting virtually with their families, the elderly, especially those who live alone, may lack the necessary assistance. This can worsen the feelings of helplessness. Even though a digital connection appears to be a rational substitute, previous research has shown that the elderly prefers personal communication and care over virtual interactions. Dalal *et al.* (2020) concluded that the technological gap may exacerbate feelings of alienation and inadequacy among the elderly population.

Impact of Media:

Repeated caution and excessive information about the disease's consequences were publicized via television, social media, and every other channel of communication, leading to an increased sense of helplessness and anxiety among the elderly (Mehra *et al.*, 2020). The majority of the 'information overload' that has essentially turned COVID-19 into a digital 'infodemic' can be extremely counter-productive, increasing health anxiety and possibly fear and stress. According to Vahia and Shah (2020) and Rana (2020), these media platforms can be a curse due to the widespread dissemination of misinformation. The elderly may be unaware and uninformed about current infection information; confusion and misconceptions may lead to non-compliance with precautionary measures, faulty treatments, and overmedication. During the pandemic, misinformation and uncertainty contributed to mass hysteria. Mehra *et al.* (2020) highlighted that some media reports have implied that the life of the elderly is not as important as that, of the younger ones, and this has led to a significant scare among the elderly (Mehra *et al.*, 2020).

Impact of Existing Health Care System:

During the pandemic, issues with Indian health care had a significant impact on the mental health of the elderly. Mukku R. & Sivakumar T. (2020) stated the challenges in delivering mental health care to elderly includes: restriction in terms of travel and mobility, majority of the psychiatric hospitals limiting their services to emergencies, general advisory to the older adults to avoid hospital visits for minor and non-emergency issues, family members prioritizing medical issues and neglecting mental health issues, decreased income of family caregivers, and other challenges which can lead to change in priorities and provision of less importance for mental health issues of the older adults. According to Joshi (2020), COVID-19 lockdowns and concentrations of health resources have marginalized the elderly and created barriers to obtaining health services for their existing underlying conditions, some of which may increase their vulnerability to COVID-19. The current COVID-19 pandemic has created a huge demand for psychiatric assistance. The elderly, on the other hand, do not have easy access to mental health professionals. They are vulnerable to feelings of loneliness and helplessness.

B. Managing Mental Health Issues among Elderly during COVID-19 Pandemic

There are various ways to ensure the mental well-being of the elderly during such pandemics. Girdhar *et al.*, (2020) stated that these interventions could simply involve providing adequate emotional support and ensuring their basic needs, safety and dignity will help the elderly to stay free from stress and fight loneliness, more so in lockdown situations (Banerjee, 2020).

Physical Health:

Mudgal and Wardhan (2020) proposed that to maintain the mental well-being of the elderly, they must ensure good physical health, which includes ensuring periodic health checkups for the management of chronic diseases and screening for early detection of diseases, educating the elderly on the importance of nutrition and healthy eating habits, timely and regular intake of medicine and regular physical activity, and ensuring the availability of affordable physical aids such as hearing aids. Given their vulnerability, the WHO has included Physical and Social Distancing in their COVID-19 guidelines. Banerjee *et*

al., (2020) advocated for extra effort to ensure that their hand and respiratory hygiene are maintained, and that simple directions (written or recorded) in their language are appropriate for the elderly.

Basic Needs:

If elderly people are instructed and required to remain homebound, it is critical that their daily needs, such as groceries and medications, are delivered regularly, and immediate action is required to mitigate the mental and physical health consequences of social isolation (Girdhar *et al.*, 2020). According to Banerjee *et al.* (2020), essential service-delivery helplines (food, water, medications, and other necessary amenities) are beneficial for those who are stranded alone, and caring for the elderly is a collective responsibility at all levels. According to Dalal *et al.* (2020), encouraging community engagement and assisting the elderly by meeting their needs may be beneficial in overcoming feelings of helplessness and hopelessness.

Telephonic or Digital Contact:

According to Banerjee *et al.*, (2020), "physical distancing" rather than "social distancing" should be implemented. Regular use of digital platforms such as teleconferencing or videoconferencing can be used effectively to provide adequate emotional support to the elderly while maintaining social distance. Girdhar *et al.*, (2020) conducted a mixed-methods evaluation and discovered Interacting with family and friends regularly via videoconferencing, particularly for the elderly in isolation or quarantine, helps them foster hope and happiness.

Banerjee (2020) and Mukku R. & Sivakumar T. (2020) proposed and emphasized the importance of Tele-psychiatry or Tele-facilities for health care consultations over physical access. Similarly, Vahia and Shah (2020) proposed that online access for the elderly can aid in the formation of online support groups, the provision of video counselling, and the development of diagnostic and therapeutic services. Online or telephonic cognitive behavior therapy, supportive sessions could be delivered to decrease loneliness, fear of illness and improvement of well-being (Mehra *et al.*, 2020). In the absence of the COVID-19 pandemic, India has already begun to use mental health hotlines and helplines. During the

COVID-19 pandemic, the most common services may include psychological first aid, identification of mental health issues, screening for psychological symptoms, and appropriate referrals. This can reduce the burden of work in hospitals and will be an effective measure to reduce footfall in the facilities, resulting in the continuation of the social distancing protocol (Dalal *et al.*, 2020).

However, Banerjee (2020) also advised that 'Digital screen time' should be limited, especially for the elderly, to avoid misinformation and panic. They must be kept up to date on the COVID-19 situation and the necessary measures. Vivid data and superfluous statistics should be avoided.

Medical and Health Care:

According to Dalal *et al.* (2020), there is a need to improve the existing medical and health infrastructure to provide essential medications and address the needs of the elderly. Availability of psychotropic medications in hospital settings in adequate amounts and ensuring an uninterrupted supply of good-quality medicines. In the absence of family support, well-equipped old care homes are available for the elderly with disabilities or other ailments. They emphasized how crucial it was to have psychiatrists on the task team fighting the COVID-19 outbreak across the nation.

Banerjee (2020) mentioned that those in daycare or old-age homes may require special care. Overcrowding should be avoided, physical activity should be encouraged, family support should be strengthened, and nutrition should be ensured.

Hospital visits should be avoided during the pandemic, according to Banerjee *et al.* (2020). Most institutes have begun to offer teleconsultations. All elective surgeries, such as cataracts, hernia, or knee replacements, are better avoided (unless they are complicated). Professional advice should be sought to avoid self-medication, which can be fatal and should be avoided at all costs. All health care providers involved must have the knowledge and cultural sensitivity regarding the care needs of the elderly; this is also required of volunteers working in emergencies (Girdhar *et al.*, 2020).

Family and Caregiver:

Together with social integration, the elderly's social connectedness with their loved ones is critical.

Families, neighbors, community members, and caregivers must be involved in the care of the elderly holistically, with heightened sensitivity to their mental health issues. They must be alert to the early signs of COVID-19 in the elderly, and any necessary testing should be performed as soon as possible. In addition, they must be sensitive to the increased needs of the elderly with pre-existing disorders such as dementia, depression, and other neurological disorders. (Banerjee *et al.*, 2020). Rana (2020) stated that family interventions with social cohesion may lead to improving the mental health of the elderly, which can be referred to as a phenomenon of resilience. Mukherjee *et al.* (2020) suggested maintaining a normal indoor routine and structure, social interactions and quality time with family members is essential for the mental health of the elderly during the pandemic.

Role of Media:

There is a need for the media, to be more sensitive to the needs of the elderly and promote preventive strategies, but under the garb of promoting prevention, they should not create a scare of the elderly (Mehra *et al.*, 2020). Instead, Mukherjee *et al.* (2020) advised limiting the consumption of news and guidance toward credible sources such as the World Health Organization and Ministry of Health websites may help.

Policy Making:

The geriatric population's autonomy, respect, and dignity must be preserved, especially during the COVID-19 situation. Taking care of their needs in a sociocultural context, tailored to their needs, will be critical, as will their active participation in decision-making. Personal "touch," empathy, and validation of their distress have all been shown to boost psychological resilience (Banerjee, 2020).

According to Vahia and Shah (2020), the government and administration should ensure basic needs and health care, fiscal assistance, an insurance plan, internet banking, and meal supplies for the elderly. They also advocated for public-private partnerships to help ensure that the elderly have access to necessities during the lockdown.

As a result, Mudgal and Wardhan (2020) asserted that in India's diverse socio-cultural contexts, assisting the elderly in personal social connections, ensuring basic needs, respecting their dignity and autonomy, quality

assured health-care services, physical safety needs, and spiritual activity can be a vital source of coping during such times of distress. Fighting misinformation, involving elderlies in decision-making, and keeping them adequately informed can improve their perceived sense of safety and mental well-being.

IV ANALYSIS

After analysing all relevant studies, it was discovered that the mental health of the elderly is greatly impacted during the COVID-19 pandemic due to various physical, psychological, social, and environmental underlying vulnerabilities, as well as the risk of contracting the COVID-19 virus and social isolation due to quarantine and lockdown. The underlying vulnerabilities include physiological changes associated with ageing, decreased immune function, and multi-morbidity, which make the elderly more susceptible to infection and more likely to suffer severely from COVID-19 disease and more serious complications.

Psychological Health

The elderly have various mental or neurological issues such as Major Depressive Disorder (MDD) or depression, anxiety, impaired cognitive abilities, dementia and other mental and psychological vulnerabilities and issues which worsen with age and impact the mental health of the elderly during the pandemic. Synergism in these situations, leads to an increase in severity, both for COVID-19 and for damage mental health of the elderly (Roy et al., 2020; Mudgal and Wardhan, 2020; Grolli et al., 2021; Venugopal VC et.al., 2020).

Similarly, mental health problems in the elderly, whether new or old, during times of pandemic or lockdown could worsen and impair cognitive and emotional function even more and can lead to depressive disorders, insomnia, and chronic stress in the elderly (Joshi, 2020; Banerjee et al., 2020 and Mukku R. & Sivakumar T., 2020).

Social Isolation and Lockdown

Lockdown, curfew and quarantine were implemented to prevent the transmission of infection. While lockdown policies protect against coronavirus transmission, they also include segregation and feelings of loneliness, both of which cause severe

psychological distress and may cause or worsen mental illness. Prolonged periods of social isolation can lead to feelings of anxiety and loneliness among the elderly. Loneliness can become a core component of a variety of psychiatric disorders through a subtly or overtly declared clinical picture during the prolonged lockdown and social distancing. Social isolation has also been linked to increased depression and suicide, increased inflammation, and reduced immune response to viral infections, according to Banerjee et al., (2020); Girdhar et al., (2020); Grolli et al., (2021); Joshi, (2020); Mehar et.al., (2020) and Rana, (2020).

Social isolation is a catalyst for a downward spiral that leads to seclusion. if they remain in the negative spiral, their anxiety and depression symptoms may worsen, harming their mental health (Grolli et al., 2021; Santini et al., 2020). Therefore, during this pandemic, the basic needs of the elderly, particularly those with underlying health conditions and those living alone, must be identified and met. Banerjee et al., 2020; Dalal et al., 2020; Girdhar et al., 2020; and Joshi, 2020 advised that the elderly's needs for diagnostics, isolation and the supply of day-to-day necessities such as medicine and food could be met. A system for providing home care to the elderly in terms of both medical and day-to-day needs must be developed.

Physical Health

Fragility and multiple co-morbidities are common phenomena in the elderly which increases the risk of various infections. Similarly, there is a significant association between poor mental health outcomes and the presence of comorbid illness among elderlies during the COVID-19 pandemic. Joseph et.al. (2021) also found a statistically significant association between the two. Therefore, to maintain the mental well-being of the elderly during the COVID-19 pandemic, they must ensure good physical health, which includes ensuring periodic health checkups for the management of chronic diseases and screening for early detection of diseases, educating the elderly on the importance of nutrition and healthy eating habits, timely and regular intake of medicine and regular physical activity. They should also ensure physical and social Distancing and hand and respiratory hygiene for minimizing the risk of contracting the virus (Mudgal and Wardhan, 2020). The guidelines and directions regarding COVID-19 should be simple

and communicated in a medium and language that are appropriate for the elderly (Banerjee *et al.*, 2020).

Mental Health Care Access

The elderly in India faces numerous challenges in accessing mental health treatment due to weak public health systems, inefficient infrastructure, lack of manpower, high reliance on private-sector medical care facilities and various other reasons. Therefore, nearly 150 million people in India suffer from some form of mental illness. Similarly, during COVID-19 there were various challenges in delivering mental health care to the elderly such as restrictions in terms of travel and mobility, concentrations of health resources, the majority of the psychiatric hospitals limiting their services to emergencies, general advisory to the older adults to avoid hospital visits for minor and non-emergency issues, family members prioritizing medical issues and neglecting mental health issues, decreased income of family caregivers, and other challenges which can lead to change in priorities and provision of less importance for mental health issues of the older adults. These issues have created barriers for the elderly in obtaining mental health services for their existing underlying conditions, some of which may increase their vulnerability to COVID-19 (Joshi, 2020; Mukherjee *et al.*, 2020; Mukku R. & Sivakumar T., 2020).

Therefore, to manage these issues there is a dire need to improve the existing health infrastructure in our country. The elderly should avoid hospital visits during the pandemic instead teleconsultations should be sought (Dalal *et al.*, 2020; Banerjee *et al.*, 2020).

Role Of Family

The role of family members and caregivers is critical in protecting and assisting our elderly COVID-19 pandemic. Maintaining a normal indoor routine and structure, social interactions and quality time with family members is essential for the mental health of the elderly during the pandemic. Families, neighbours, community members, and caregivers must be involved in the care of the elderly holistically, with heightened sensitivity to their mental health issues (Banerjee *et al.*, 2020; Mukherjee *et al.*, 2020; Rana, 2020; Vahia and Shah, 2020 and Mudgal and Wardhan, 2020).

Technology

The elderly face a Digital divide due to various reasons such as lack of familiarity, lack of the necessary assistance, and cognitive or sensory deficits, which may make them easy targets for misinformation and inadequate precautionary measures during the pandemic. The technological gap may exacerbate feelings of alienation and inadequacy among the elderly population (Vahia and Shah, 2020; Joshi, 2020; Dalal *et al.* 2020). However, regular interaction with family and friends regularly via teleconferencing or videoconferencing, particularly for the elderly in isolation or quarantine, helps them foster hope and happiness (Girdhar *et al.*, 2020; Banerjee *et al.*, 2020).

Role of Media

During the pandemic, misinformation and uncertainty contributed to mass hysteria. Repeated caution and excessive information about the disease's consequences were publicized via television, social media, and every other channel of communication, leading to an increased sense of helplessness and anxiety among the elderly, and turning the pandemic into a digital 'infodemic' (Mehra *et al.*, 2020; Vahia and Shah 2020; and Rana, 2020). It is advised to limit the consumption of news and guidance toward credible sources and there is a need for the media, to be more sensitive to the needs of the elderly. (Mehra *et al.*, 2020; Mukherjee *et al.*, 2020)

Research Gap

There is a substantial research gap in the field of geriatric mental health in India. The impact of COVID-19 on the mental health of the elderly in India is rarely studied. As there are very few studies on the impact of COVID-19 pandemic on mental health of the elderly and hence there is a lack of empirical data to help in understanding and generalizing this phenomenon. There is also a scarcity of studies on the mental health of the elderly in non-clinical settings. Further research is required to explain this aspect holistically and at the national level. Cross-sectional and longitudinal studies of the elderly's psychosocial issues and lived experiences during the pandemic will aid in estimating population-based risk for the elderly and shaping future policies. Additional research on the psychological aspects of the COVID-19 pandemic will undoubtedly improve our knowledge and understanding of the issues, impact, and remedies for

the mental health of the elderly during this pandemic and similar future situations.

V. CONCLUSION

The COVID-19 pandemic is far from over, as the virus continues to mutate and the world are dealing with the recent Omicron variant of Covid-19, it is time to pay closer attention to our elderly's mental health, in addition to their physical susceptibility to the ongoing infection (Perappadan, 2021).

The elderly population is vulnerable to COVID-19 because of co-morbidities, age-related issues, and social isolation. They are also concerned about becoming infected, losing their livelihood, and spreading the disease throughout the community, among other things. Chronic disease prevalence, overburdened health facilities, and almost no source of income in old age are some of the major challenges faced by the elderly in the country. Along with that, more psychosocial morbidity is expected in the coming years, and healthcare providers must be prepared.

The Indian Government needs to update The Epidemic Diseases Act 1897, as this might be a good opportunity to include the protection and well-being of the elderly during the pandemics. The elderly's vulnerabilities and dependencies must be addressed collectively through organized and systematic efforts at all levels. To alleviate the elderly's fear and boost their confidence during this pandemic, an awareness of elderly care, needs, and rights should be spread throughout society. During COVID-19, the government think tank NITI Aayog, in collaboration with Piramal Foundation, has already launched a campaign called 'Surakshit Dada-Dadi and Nana-Nani Abhiyan' to ensure the well-being of elderly. These campaigns should also focus on behaviour changes, access to services, and the effective and efficient detection and tracking of COVID-19 symptoms in the elderly. The finance minister announces the "National Tele-Mental Health Program" in the Budget 2022-23. This program will focus on the mental health of people of all ages and will offer telephone counselling. This program will be launched in collaboration with the National Institute of Mental Health and the National Institute of Neuroscience (NIMHANS).

Non-Governmental Organizations (NGOs) and volunteer organizations have played a significant role

in assisting the elderly during the pandemic. The elderly must be assisted in accessing their social security and other protection measures. Due to the risk of a pandemic causing restricted movement, the elderly may be unable to collect their government-provided social security amounts. In this regard, non-governmental organizations (NGOs)/voluntary organizations (VOs) may play a critical role. The government must support non-governmental organizations (NGOs) and other organizations that provide essential services to the elderly.

This study can be referred to by policymakers, health workers, social workers, and other researchers to understand the impact of this pandemic on the mental health of the elderly in a holistic and summarized manner, and how different physical, psychological, social, and environmental vulnerabilities can impact the mental health of the elderly, as well as provide suggestions for the mental well-being of the elderly during this pandemic.

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