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TECHNO-ECONOMIC EFFECTS OF COVID-19 PANDEMIC ON LOCAL POPULACE OF JAMMU & KASHMIR

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Abstract
This study aims to address the technological, social and economic impacts of COVID-19 on the population of Jammu and Kashmir, India. Existing studies predominantly focus on the effects of the pandemic in more urbanized areas, often overlooking the distinct challenges faced by those living in regions with specific geopolitical and socioeconomic complexities. The need for this study, highlights the scarcity of studies that delve into the consequences of COVID-19 within the context of Kashmir. This study seeks to shed light on the experiences, vulnerabilities, and resilience of the local population during this global health crisis. It strives to provide a comprehensive understanding of the unique challenges and strengths of the people of Jammu and Kashmir as they navigated the complexities of the COVID-19 pandemic. The distinct circumstances of this region demand a tailored assessment of the technological, social and economic implications of the crisis. In the subsequent sections of this paper, we will explore the multifaceted effects of the pandemic and offer insights into the unique experiences of the local population such as adoption of technology, social media etc. This research will not only contribute to a more comprehensive understanding of the global pandemic but will also provide valuable information to inform future preparedness and recovery efforts in this region and beyond.

Keywords: COVID-19, Demography, Pandemic, Urban, Economy.

1. INTRODUCTION

The COVID-19 pandemic, caused by the novel coronavirus SARS-CoV-2, emerged as a global health crisis in early 2020. Originating in Wuhan, Hubei province, China, the virus rapidly spread, leading the World Health Organization (WHO) to declare it a pandemic on March 11, 2020 [1]. This declaration was prompted by the virus's unparalleled capacity to traverse international boundaries and its ability to elude containment efforts. The pandemic set in motion a worldwide transformation, prompting nations to institute a wide range of unprecedented measures in an effort to curb the virus's transmission. As this study centers on Jammu and Kashmir, India, this introduction explores the broader COVID-19 landscape before delving into the specific context and implications within this unique region. Wuhan's emergence as the epicenter of the virus marked the beginning of an extraordinary global crisis. This virus swiftly evolved into a formidable adversary, characterized by its high transmission rate and severe health implications, particularly for vulnerable populations [2]. By March 2020, the pandemic had escalated to such an extent that the WHO deemed it necessary to classify COVID-19 as a pandemic, underscoring the urgency of a coordinated international response.

This marked the first time a pandemic of this scale had been declared since the H1N1 influenza pandemic in 2009.

2. Methodology

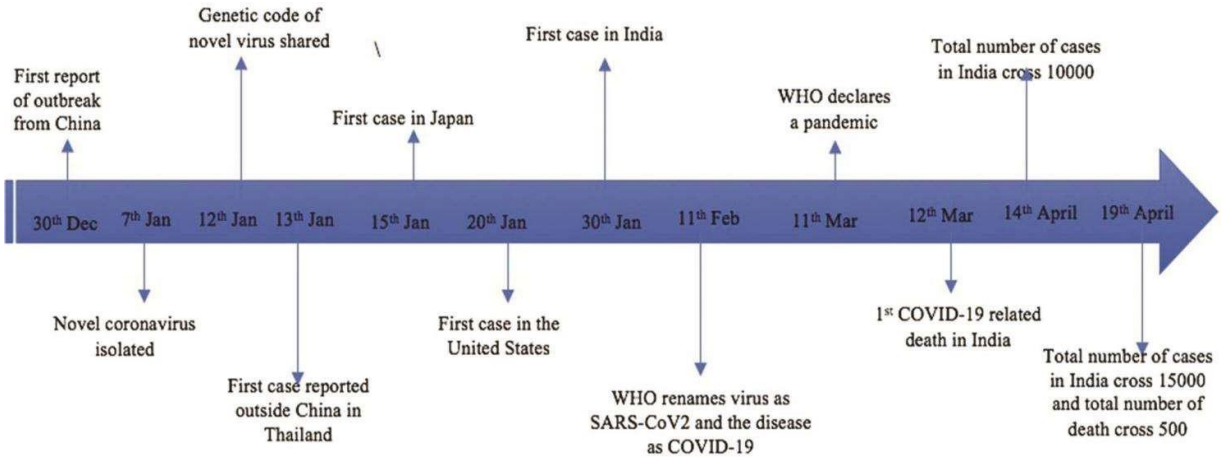
In our pursuit of understanding the unique impacts of COVID-19 in Jammu and Kashmir, we employed a comprehensive research methodology. Our approach involved conducting surveys to collect primary data from residents of the region. We then utilized descriptive statistics to analyze the gathered data and derive meaningful conclusions. Through this rigorous methodology, we aim to offer valuable insights into the distinctive experiences of the people of Jammu and Kashmir during the COVID-19 pandemic, ultimately providing implications that can inform future preparedness and recovery efforts in the region and beyond. This work will contribute to the broader global understanding of pandemics and offer lessons that can inform policy and public health strategies for years to come.

3. OUTBREAK OF COVID-19 PANDEMIC

3.1 Disease Background

The emergence of the coronavirus disease 2019 (Covid-19) in late December 2019 in Wuhan, Hubei Province, China, marked the onset of a global health crisis. Initially linked to a seafood and wet animal wholesale market, the outbreak swiftly transcended these origins. Utilizing unbiased next-generation sequencing, an unknown betacoronavirus was discovered from lower respiratory tract samples, subsequently named 2019–novel Coronavirus (2019–nCoV) [3]. This novel virus, later designated Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), posed a formidable public health threat. Phylogenetic analysis uncovered a genetic connection to bat-derived coronaviruses, exhibiting approximately 88% similarity. Person-to-person transmission rapidly became apparent, extending beyond the confines of the wet animal market and leading to cases within families and individuals not initially linked to the site [4]. The World Health Organization's declaration of Covid-19 as a pandemic on March 11, 2020, reflected its global impact. (Fig 1) The virus's estimated reproduction number (R0) between 2.24 and 3.58 indicated a substantial potential for widespread transmission. The period from symptom onset to death, varying from 6 to 41 days with a median of 14 days, is influenced by factors such as age and immune system status. Phylogenetic analysis classifies SARS-CoV-2 as a beta-CoV of group 2B, closely related to bat-derived strains, sharing 80% identity with SARS-CoV and 50% with MERS-CoV [5]. This classification underscores the genetic similarity of the virus to coronaviruses infecting humans, bats, and wild animals. In February 2020, the International Committee on Taxonomy of Viruses and the World Health Organization announced official names for both the virus and the disease it causes: SARS-CoV-2 and Covid-19, respectively.

Fig. 1 Timeline of important events between December 2019 to April 2020.



Sudipta Dhar Chowdhury , Anu Mary Oommen (2020). Epidemiology of Covid-19. Thieme Journals

In the examination of the global impact of Covid-19 as of May 2, 2023, a pivotal aspect involves a detailed country-wise analysis. This granular assessment allows for a nuanced understanding of the varied trajectories of the pandemic across different nations. It is essential to note that certain countries with negligible case numbers have been excluded for brevity.[6]. (Table 1). As of May 2, 2023, the outbreak of the coronavirus disease (Covid-19) had been confirmed in almost every country in the world. The virus had infected over 687 million people worldwide, and the number of deaths had reached almost 6.87 million. These instances highlight the critical role of early and robust public health responses in mitigating the impact of the global pandemic, offering valuable insights into strategies for future preparedness.

Fig. 2 Country-wise analysis of Covid-19

S.no	Country/Territory	Total Population	Absolute no. of infected people	%
1	USA	339,996,563	103,436,829	30.42
2	India	1,428,627,663	106,678,503	7.47
3	France	64,756,584	44,949,671	69.41
4	Germany	83,294,633	39,991,340	48.01
5	Brazil	216,422,446	38,403,667	17.74
6	Japan	123,294,513	37,449,418	30.37
7	S. Korea	51,784,059	33,725,765	65.13
8	Italy	58,870,762	31,192,401	52.98
9	UK	67,736,802	25,788,387	38.07
10	Russia	144,444,359	24,569,895	17.01
11	Turkey	85,816,199	22,855,451	26.63
12	Spain	47,519,628	17,232,066	36.26
13	Vietnam	98,858,950	13,825,052	13.98

14	Australia	26,439,111	11,563,091	43.73
15	Taiwan	23,923,276	11,441,894	47.83
16	Argentina	45,773,884	10,239,998	22.37
17	Netherlands	17,618,299	10,044,957	57.01
18	Iran	89,172,767	8,610,372	9.66
19	Mexico	128,455,567	7,606,689	5.92
20	Indonesia	277,534,122	7,587,421	2.73
21	Poland	41,026,067	6,775,613	16.52
22	Colombia	52,085,168	6,513,902	12.51
23	Austria	8,958,960	6,364,636	71.04
24	Greece	10,341,277	6,065,711	58.66
25	Portugal	10,247,605	5,999,934	58.55
26	Ukraine	36,744,634	5,580,792	15.19
27	Chile	19,629,590	5,518,614	28.11
28	Malaysia	34,308,525	5,284,258	15.40
29	Israel	9,174,520	5,071,840	55.28
30	Belgium	11,686,140	4,821,891	41.26
31	DPRK North Korea	26,185,795	4,793,425	18.31

Source : John Elflein(2023). Number of coronavirus (Covid-19) cases worldwide as of May 2, 2023, by country or territory.Statista Research Service

3.2 Geographic Origins and Spread

The emergence of the Covid-19 pandemic from its origins in Wuhan, China, has evolved into a global crisis of unparalleled proportions [7]. As the virus spread rapidly, nations worldwide grappled with multifaceted challenges that transcended boundaries, affecting diverse populations. China, being the epicenter, faced the initial wave of the crisis, revealing the intricate difficulties in managing emerging infectious diseases within our interconnected world. The zoonotic transmission of the virus underscored the need for swift and comprehensive crisis management, exemplified by the Chinese government's response characterized by stringent lockdowns and extensive testing. These measures provided valuable lessons on an international scale.

Since the initial report from China, the disease spread rapidly, with the first case outside mainland China reported in Thailand on January 11. Within months, the virus reached all continents except Antarctica. India reported its first case of Covid-19 on January 30, 2020 [8]. By February 3, three cases had been confirmed, with no additional cases reported that month. However, by mid-March, the number of infected cases started to rise, leading to widespread reports from all over India. The first Covid-19 related death in India was reported on March 12, 2020. By the second week of April, the disease had spread to all states in India except Sikkim. As of the current date, there have been 2,170,265 cases and 135,163 deaths globally, with 15,712 cases and 507 deaths in India.

As the Covid-19 pandemic unfolded its impact across the vast expanse of India, the union territory of Jammu and Kashmir, situated in the northern part of the country, did not remain immune to the contagion. The initial incursion of the virus into this region was marked by two suspected cases with a high viral load, detected and isolated on March 4, 2020, at the Government Medical College in Jammu. Both individuals, later confirmed as the first positive

cases on March 9, had a crucial commonality — a travel history to Iran. This underscores the early pattern observed in India, where the genesis of coronavirus cases was intricately linked to international travel, reflecting the globalized nature of the virus's transmission pathways.

Fast-forwarding to the latest available data in October 2023, Jammu and Kashmir has witnessed a significant caseload in the course of its battle against the pandemic. The total reported cases stand at 482,034, a testament to the persistent challenges posed by the virus. However, a glimmer of hope emerges in the form of 477,242 individuals who have successfully navigated the journey from diagnosis to recovery, underscoring the resilience and efficacy of healthcare efforts in the region. Unfortunately, the toll of the virus is also reflected in the reported deaths, numbering 4,792, highlighting the gravity of the situation and the imperative to continually enhance public health measures.[8]

The proactive response of health authorities, as evidenced by the isolation and testing protocols initiated in Jammu and Kashmir in March 2020, mirrors the collective efforts undertaken nationwide to curb the virus's advance.

To curb the spread, the Ministry of Health and Family Welfare (MoHFW) issued travel advisory restrictions, imposing self-quarantine rules for 14 days on all international travellers entering the country. Travel visas were restricted until April 15 for other countries. The first phase of a 21-day lockdown commenced on March 24, reducing mobility in grocery and pharmacy, recreation, retail, transit to station visits to parks, and workplaces by significant percentages. Due to the growing infestation from Covid-19, on April 14, the Indian government declared an extended second-phase lockdown until May 3, further extended until May 17, and later imposed until May 31. To make the lockdown and social distancing effective, India also invoked the quarantine law under the Epidemic Disease Act, 1897.

4. PUBLIC RESPONSE/ RESILIENCE TO PANDEMIC

4.1 Implications of Covid

Published research that examined the influence of Covid-19 on the community's mental health clearly pinpoints its negative psychological impact [9]. For instance, the research conducted during the early stages of the Covid-19 pandemic (March, 2020) indicated that 36.6% of the 3055 participants experienced psychological distress. Similarly, another research conducted highlighted the impact of the pandemic on the mental health of individuals. These researchers found that the mental health of 78% of their sample deteriorated since the outbreak of Covid-19.

Existing literature suggests that in periods of a pandemic, family and friends' perceived support increases. The increase in social support acts as a significant "cushion" protecting participants from negative mental health impact. The literature suggests that females are more susceptible to experience negative mental health impact, such as higher levels of distress, anxiety, and depression, during stressful situations. More specifically, in a cross-sectional study of the UK population [10]. A recently published report of CARE International of almost 10,000 people in 38 countries shows the striking differences between men and women regarding mental health. Additionally, the area of residency appears to influence the experience of the pandemic. Existing literature suggests that the risk of mental health problems varies depending on whether people live in rural or urban areas. However, there are contradicting results in the literature,

and therefore, it is still unclear whether residents in rural or urban areas are more negatively affected by the pandemic. [3]

4.2 Individual Protective Measures and Health Practices During the Covid-19 Pandemic

The Covid-19 pandemic triggered a global response, prompting individuals worldwide to adopt an array of preventive measures in a collective effort to safeguard their health and that of their communities. Central to this response was the guidance provided by the World Health Organization (WHO), offering comprehensive recommendations aimed at mitigating the spread of the virus [10].

A critical dimension of the Covid-19 response was the swift and widespread adoption of vaccination campaigns. Beyond official guidelines, there emerged a noteworthy trend of individuals proactively taking steps to enhance their overall health during the pandemic. This included a heightened emphasis on consuming clean and nutrient-rich foods. In the pursuit of minimizing the risk of infection, regular hand hygiene practices became ingrained in daily routines.

4.3 People Affected and Their Recovery

The research illuminates a compelling narrative in the context of South Asian countries, particularly India, where the convergence of a sizable population and constrained healthcare infrastructure has not translated into the high incidence and mortality rates witnessed in several developed nations grappling with the Covid-19 pandemic. Focused on positive Covid-19 cases reported in India from March 1, 2020, to March 31, 2020, and employing a 25-day follow-up period, the study zeroes in on a critical aspect—the estimation of recovery time. Within this framework, the average recovery time for Covid-19 patients in India emerges as a significant parameter, projecting at 25 days, accompanied by a 95% confidence interval ranging from 16.14 to 33.86 days [11].

The investigation deepens its exploration by disaggregating recovery time data based on gender and age groups. Notably, male patients exhibit an estimated average recovery time of 23 days (95% C.I. 12.71 to 33.29), while their female counterparts experience a slightly lengthier period at 25 days (95% C.I. 14.65 to 37.34). A granular examination of different age cohorts reveals that patients aged 60 years and above align closely with the overall average, with an estimated recovery time of 25 days (95% C.I. 17.22 to 32.78). In contrast, patients under 60 years of age showcase a shorter estimated recovery time of 21 days (95% C.I. 12.82 to 29.32).

Zooming out from individual demographics, the study ventures into the distribution of recovery times among the broader patient population. An intriguing revelation emerges—the recovery duration is diverse, with half of the patients being discharged after 25 days, a substantial portion (40%) experiencing discharge after 20 days, and a minor fraction (4%) being released within the relatively shorter span of 10 days. This distribution underscores the inherent variability in recovery durations within the Covid-19 patient population in India.

Beyond these detailed recovery trends, the study provokes contemplation on the potential strain that the persistently high daily diagnosis rates could impose on India's healthcare system. With approximately eight to nine thousand new cases diagnosed daily and considering the average 25-day recovery period, there arises a legitimate concern about the capacity of the country's limited hospitals, doctors, and medical staff to meet the escalating demand for care. This finding necessitates a thoughtful consideration of strategic planning and resource allocation to effectively navigate the challenges posed by the ongoing pandemic.

In this context, the study makes a robust contribution to the understanding of the nuanced dynamics of Covid-19 recovery in the Indian context [12]. Its findings urge further scientific exploration for comprehensive insights into the factors influencing recovery times, fostering a

more informed approach to public health policy and intervention strategies in the face of the persisting pandemic [13].

5. DATASET

Our research is anchored in a rich dataset, meticulously gathered through a comprehensive questionnaire designed to explore the multifaceted impacts of Covid-19 on individuals. This primary data is invaluable, as it encapsulates responses from those directly affected by Covid-19, along with insights from their relatives, close contacts, and healthcare workers. Our questionnaire, featuring 33 detailed questions and constructed using Google Forms, covers a diverse spectrum of parameters, including gender, age, country, qualification, occupation, employment type, severity of current health, count of family members, family members affected by Covid-19 (along with their ages), pre-existing medical conditions, and more [14]. The data collection process spanned 19 days, from September 14, 2023, to October 3, 2023, yielding a substantial dataset with 113 responses. To ensure a comprehensive representation of experiences and outcomes associated with the pandemic, we deliberately engaged a diverse participant pool, including students, residents from different localities, relatives, close contacts, friends, and colleagues.

Our dataset, constituting primary data, mirrors the diverse demographic backgrounds of the respondents. Rigorous efforts were made to enhance reliability and representativeness by including participants from different age groups, educational qualifications, and family structures. This deliberate selection of respondents from various walks of life enriches the depth and diversity of our dataset. The parameters captured in our questionnaire cover a wide array of aspects, from health outcomes and Covid-19 implications to post-Covid health outcomes and broader societal implications. These parameters include severity 3f health, family impacts, pre-existing conditions, vaccination status, lifestyle changes, financial impacts, and perceptions of technology and social media during and after the Covid-19 period. Subsequently, each parameter within these tables was further dissected and presented in separate tables under the methodology of Descriptive Statistics.

Descriptive statistics refers to a branch of statistics that involves summarizing, organizing, and presenting data meaningfully and concisely. It focuses on describing and analyzing a dataset's main features and characteristics without making any generalizations or inferences to a larger population. The primary goal of descriptive statistics is to provide a clear and concise summary of the data, enabling researchers or analysts to gain insights and understand patterns, trends, and distributions within the dataset. This summary typically includes measures such as central tendency (e.g., mean, median, mode), dispersion (e.g., range, variance, standard deviation), and shape of the distribution (e.g., skewness, kurtosis). Descriptive statistics also involves a graphical representation of data through charts, graphs, and tables, which can further aid in visualizing and interpreting the information. Common graphical techniques include histograms, bar charts, pie charts, scatter plots, and box plots. By employing descriptive statistics, researchers can effectively summarize and communicate the key characteristics of a dataset, facilitating a better understanding of the data and providing a foundation for further statistical analysis or decision-making processes.

For our analysis, we employ this methodology, to summarize and present the data meaningfully. This approach enabled us to assess the resilience of individuals during Covid-

19 comprehensively, shedding light on patterns across various demographic groups and uncovering nuanced insights into the myriad impacts of the pandemic.

6. RESULTS & DISCUSSIONS

Table 1 provides a comprehensive overview of the impact of Covid-19 in the Jammu and Kashmir region, underscoring a substantial gender-based disparity. The data reveals that a significant majority, constituting 63% of reported cases, are male, while females account for the remaining 37%. This gender imbalance can be attributed to prevailing societal roles, where men typically bear the primary responsibility as breadwinners, necessitating their sustained exposure to external environments regardless of prevailing conditions. This inherent need to provide for their families is a significant factor contributing to the higher percentage of male Covid-19 cases, a perspective supported by medical professionals and surveys, such as the one conducted by the Times of India [10]. Moreover, additional factors, including the perceived behaviour of men and the declining health status of males in India, as corroborated by studies like George M. Bwire (2020) [11] and J. Fabião et al. (2022) [12], also play a role in this gender disparity. Nevertheless, it's crucial to acknowledge that women in the region actively engage in various forms of employment and daily activities, and their increased exposure to the virus, given its highly communicable nature, may account for the rise in female infections. In essence, this analysis highlights the intricate interplay of cultural and socioeconomic factors that shape the distribution of Covid-19 cases in the Jammu and Kashmir region.

Table 1 Gender

Gender	**%**
Male	63
Female	37
Total	100

Source: Author's compilations from primary data

Table 2 presents a breakdown of the age groups of individuals affected by Covid-19, expressed in percentages. The data underscores that the highest proportion of individuals affected falls within the age range of 15-25 and 26- 35, with a substantial 51.8% and 39.3% of cases attributed to these groups respectively. In contrast, the remaining age categories exhibit markedly lower infection rates, with 36-45 year- olds at 4.5%, 46-55 year-olds at 2.7%, and those above 55 years of age at 1.8%. This significant variation can be attributed to the characteristics of the younger age groups, particularly those between 15-35, who tend to exhibit a more carefree and casual approach to potentially serious situations. They often disregard advice from elders and healthcare professionals, as indicated in a study conducted by The Indian Express [14]. Furthermore, this elevated rate of infection among young adults can be associated with their higher mobility and propensity to venture outdoors, supported by research findings in a study by India Today[13]. In summary, this analysis highlights the substantial impact of age-related factors on the distribution of Covid-19 cases in the studied population.

Table 2 : Age

Age	**%**
Below 15	0
15-25	51.8
26-35	39.3
36-45	4.5
46-55	2.7
Above 55	1.8
Total	100

Source: Author's compilations from primary data

A comprehensive breakdown of the educational qualifications of individuals affected by Covid-19 is provided in Table 3, with the distribution represented in percentages. A parallel can be drawn between the level of qualifications and the age groups, as indicated in Table 2. Notably, the highest number of cases is concentrated in the Below UG, UG, and PG categories, representing individuals primarily within the age group of 15–35. This observation aligns with the findings in Table 2, where it was noted that young adults often exhibit a somewhat carefree attitude, venturing out even during the pandemic. It's worth mentioning that incidents like Lathi Charges carried out by Indian law enforcement frequently involved these younger individuals who disregarded pandemic restrictions, sometimes even forgoing the use of masks. In contrast, individuals with PhD & above qualifications are predominantly situated in the age group of 35 and older, typically displaying a heightened awareness of the seriousness of the situation and a greater propensity to adhere to guidelines issued by healthcare organizations, medical professionals, and government authorities. This interplay between educational qualifications and age groups underscores the influential role of education in shaping compliance with pandemic measures.

Table 3 : Qualification

Qualification	**%**
Below UG	23.9
UG	45
PG	29.4
PhD & above	1.8
Total	100

Source: Author's compilations from primary data

Thoroughly illustrating the employment status of individuals impacted by Covid-19 in

percentages, Table 4 assumes a crucial role in our analysis. The data underscores a significant pattern wherein full-time employees experience the most substantial impact from the virus, closely trailed by part-time workers and contractually engaged individuals. The reasons underlying this trend are self-evident: full-time employment mandates daily interactions, part-time positions entail frequent onsite presence, and contractual work often leads to variable levels of contact. However, the notably high proportion of freelancers contracting the virus raises questions, possibly linked to the prevalence of freelancing among young adults, a group we have identified as significantly affected. It's essential to address gender disparities in full-time and part-time employment, as indicated by the research of David Richardson and Richard Denniss (2020) [15], showing a male majority in full-time roles and significant female representation in part-time positions. The rapid decline in part-time work, particularly impacting women, resulted in them staying home and being relatively safe. The data from the provided tables hints at a potentially less cautious approach among men, contributing to their higher infection rates. Furthermore, the study by Alison Aughinbaugh and Donna S. Rothstein (2022) [16] supports this observation by demonstrating that men are more likely to work full-time compared to women and have less access to remote work, a significant factor influencing the high infection rates among full-time workers. This intricate interplay between gender, education, and employment status emphasizes the complexity influencing Covid-19 infection rates.

Table 4 : Nature of employment

Nature of employment	**%**
Full time	62.9
Part time	19.1
Contractual	6.7
Freelancer	11.2
Total	100

Source: Author's compilations from primary data

Table 5 sheds light on the profound societal shift towards increased technology integration during the Covid-19 pandemic. The data vividly illustrates a notable surge in technology adoption, with 41.1% of respondents indicating that they embraced technology to a greater extent. A substantial contributor to this surge is the widespread adoption of the Work from Home (WFH) [52] and online education culture across the globe, revealing the adaptability of individuals to the digital realm. Moreover, studies suggest that individuals born during the pandemic, colloquially known as "Covid babies," exhibit a natural inclination towards technology. [50] Another driver for heightened technology use is the prevailing circumstances of lockdowns and limited outdoor activities. Consequently, individuals turned to platforms like Netflix, Instagram, and YouTube for entertainment and connection. Additionally, the economic repercussions of the pandemic led to job losses [51], but many found new opportunities as content creators, primarily on platforms like TikTok and YouTube. These shifts in behavior also extended to seeking Covid-related information, daily updates, home remedies, and personal experiences. It is noteworthy that 38.3% of respondents reported balancing technology with

traditional methods, highlighting a nuanced approach to staying connected and informed. This phenomenon partly stems from the desire to reduce screen time and strengthen familial bonds, as people discovered more leisure time. In the midst of our rapidly evolving digital age, individuals realized the potential to relax and connect with their loved ones while staying updated with global affairs.

Table 5 : Covid technological perception

Perception	**%**
Embraced technology more	41.1
Used technology and traditional methods equally	38.3
Reverted to traditional methods	3.7
Prefer not to say	16.8
Total	100

Source: Author's compilations from primary data

Table 6 delves into the post-COVID social media engagement status of individuals in Jammu and Kashmir. It provides valuable insights into how the local population's interaction with social media platforms has evolved in the aftermath of the pandemic. Notably, 39.8% reported a significant increase in their social media engagement, reflecting the continued prominence of these platforms in people's lives. An additional 16.7% experienced a moderate increase, further underscoring the enduring relevance of social media. Meanwhile, 29.6% indicated that their engagement remained unchanged, suggesting a stable relationship with these online networks. A smaller percentage, 4.6%, reported a slight decrease, possibly due to a shift in priorities or changing routines. Only 0.9% reported a significant decrease, indicating that social media remains integral to most individuals in the region. Additionally, 8.3% chose not to disclose their engagement status, reflecting personal preferences for privacy. These findings align with broader trends in social media engagement observed globally. During the COVID-19 pandemic, social media served as a vital communication tool, enabling individuals to stay connected with friends and family during times of physical distancing and lockdowns. It facilitated the sharing of information, emotional support, and entertainment, making it an essential component of people's lives during the crisis. With the pandemic continuing to influence daily routines and behaviors, the sustained high engagement with social media platforms is unsurprising. The findings from Table 6 also align with data from industry reports. Sprout Social's [39] report noted a slight decrease in average engagement rates across major platforms in Q2 2023 compared to the previous quarter, possibly indicating a maturation of the initial surge in social media use seen during the pandemic. Nevertheless, these rates remain notably higher than pre-pandemic levels, emphasizing the enduring role of social media .Another contributing factor to sustained high social media engagement is the increased time spent on these platforms. Global statistics [40] show that users spent an average of 2 hours and 27 minutes per day on social media in 2023, up from 2 hours and 22 minutes in 2022. The data suggests that even as the world began to reopen, people continued to allocate a significant portion of their daily routines to social media activities. This trend demonstrates the lasting impact of the pandemic on online behavior. In conclusion, Table 21 serves as an essential tool

for understanding the dynamics of social media engagement among individuals in Jammu and Kashmir.

Table 6 : Post covid social media engagement status

Status	**%**
Increased significantly	39.8
Increased somewhat	16.7
Stayed the same	29.6
Decreased somewhat	4.6
Decreased significantly	0.9
Prefer not to say	8.3
Total	100

Source: Author's compilations from primary data

Conclusions

Through this study, we have provided deep insights into the indirect but significant effects of COVID 19 pandemic on various local aspects of Jammu and Kashmir. Driving on data collected from a variety of respondents, this study highlights the influence of the pandemic on economic and technological aspects of the society. The results reveal intriguing factors on affecting several issues including technology adoption and social media exposure. The study can further be enhanced by analysing particular effects of COVID 19 on educational technology and online adoption of businesses.

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Conflict of interest

None

References

1. Suhaib JS. Ahmad, Konstantinos Degiannis, Joseph Borucki, Sjaak Pouwels, David Laith Rawaf, Marion Head, Chun Hei Li, Rami Archid, Ahmed R. Ahmed, Anil Lala, Wasif Raza, Katie Mellor, Doerte Wichmann, Aristomenis Exadaktylos. The most influential COVID-19 articles: A systematic review, New Microbes and New Infections, Volume 52, 2023, 101094 https://doi.org/10.1016/j.nmni.2023.101094.

2. Ahmad SJ, Ahmed AR, Kowalewski KF, Nickel F, Rostami K, Stocker CJ, Hakky SM, Archid R, McWhinnie D, Mohajer-Bastami A, Seimenis DS, Ahmad S, Mansour S, Ahmed MH, Mital D, Exadaktylos AK. Citation classics in general medical journals: assessing the quality of evidence; a systematic review. Gastroenterol Hepatol Bed Bench 2020;13(2):101–14. Spring.

3. Chen Q, Allot A, Lu Z. LitCovid: an open database of COVID-19 literature. Nucleic Acids Res 2021;49(D1):D1534–40.

4. Organisation WH. Coronavirus disease (COVID-19) situation report – 162 (30th june 2020). 2020.

5. Wang J, Hong N. The COVID-19 research landscape: measuring topics and collaborations using scientific literature. Medicine 2020;99(43):e22849-e.

6. Zdravkovic M, Berger-Estilita J, Zdravkovic B, Berger D. Scientific quality of COVID- 19 and SARS CoV-2 publications in the highest impact medical journals during the early phase of the pandemic: a case control study. PLoS One 2020;15(11): e0241826.

7. Jung RG, Di Santo P, Clifford C, Prosperi-Porta G, Skanes S, Hung A, et al. Methodological quality of COVID-19 clinical research. Nat Commun 2021;12(1): 943.
8. Horbach SPJM. Pandemic publishing: medical journals strongly speed up their publication process for COVID-19. Quantitative Sci Stud 2020;1(3):1056–67.
9. Krishna Mohan Agarwal, Swati Mohapatra, Prairit Sharma, Shreya Sharma, Dinesh Bhatia, Animesh Mishra, Study and overview of the novel corona virus disease (COVID-19), Sensors International, Volume 1, 2020, 100037, https://doi.org/10.1016/j.sintl.2020.100037.
10. Z.J. Cheng, J. Shan, 2019 Novel Coronavirus: where We Are and what We Know, Springer, 2020.
11. R. Jha, Sweden's 'Soft' COVID-19 Strategy: an Appraisal, ORF Occasional Paper, 2020.
12. T. Ete, V. Fanai, A. Bamon, S.A. Khan, U. Kumar, A. Kumar, et al., Disease, drugs, and dilemma: a review of cardiovascular implications of novel COVID-19, Clin. Infect. Immun. (2020) 25–30.
13. Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19), Centre For Disease Control, 2020.
14. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8067725/
15. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public
16. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7343664/
17. https://www.sciencedirect.com/science/article/pii/S0896841120300469