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Overcoming Challenges: An Anthropologist's Fieldwork on Covid-19 in Karnataka, India

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ABSTRACT

The COVID-19 pandemic has presented unprecedented challenges to the field of anthropology, particularly in conducting fieldwork within affected populations. The article provides an in-depth account of the obstacles faced by an anthropologist during fieldwork in Karnataka, India. This article not only documents the practical difficulties encountered in fieldwork on a global health crisis but also reflects on the role of anthropologists in contributing to a nuanced understanding of pandemic impacts. It details the materials and methods used in the research, exploring the persistence of stigma, through insights gleaned from the fieldwork. The findings emphasize the need for culturally adapted research strategies and interventions in handling public health emergencies.

Keywords: Medical Anthropology; Covid-19 Pandemic; Public Health Crisis; Ethnographic Fieldwork; Social Stigma

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INTRODUCTION

The global health landscape has been significantly disrupted by the outbreak of COVID-19, a pandemic triggered by the novel corona virus, SARS-CoV-2 (Downey et al., 2022). India's journey through this crisis has been marked by a series of challenges, including escalating infection rates, stringent lockdowns, and a continuously adapting healthcare strategy (Ministry of Health and Family Welfare, 2021; Kandpal, 2024). In the state of Karnataka, located in India's south-western region, the proliferation of the virus led to an increase in infections, necessitating numerous public health interventions to mitigate its spread. The ramifications of the pandemic have been extensive in Karnataka, permeating all facets of existence (Siddaraju, 2022). The state's vibrant urban centres and serene countryside alike have witnessed a transformation in their societal dynamics, economic conditions, and medical infrastructure due to the pandemic's far-reaching effects (WHO, 2020).

The COVID-19 pandemic is not merely a biomedical crisis; it is a complex social and cultural event that demands a multidisciplinary lens. Medical anthropology offers critical tools to understand how people interpret illness, experience stigma, and respond to public health measures (Lock and Nguyen , 2018; Singer, 2007). Unlike epidemiology, which centres on patterns and distributions of disease, anthropology emphasizes lived experiences, cultural beliefs, and structural inequalities that shape health behaviours(Manderson, 1998). Qualitative methods such as ethnographic fieldwork, participant observation, and semi-structured interviews are particularly valuable in capturing these dimensions (Bernard, 1994; Atkinson, 2007).In Karnataka, where social disparities based on caste, class, gender, and geography significantly affect healthcare access and trust, these methods help uncover the hidden narratives and local contexts that influence people's responses to COVID-19. Such insights are vital for developing health interventions that are not only effective but also culturally appropriate and socially just. Conducting anthropological fieldwork within public health and epidemiological contexts, however, presents unique challenges from negotiating access and consent to dealing with stigma and emotional burdens (Stellmach et al., 2018; Hahn and Inborn, 2009). Despite these hurdles, immersive ethnographic engagement remains essential to generate grounded, human-centred knowledge that bridges the gap between medical data and social reality.

This discussion, which yields from the experiences of my doctoral thesis, explores the anthropological dimensions of COVID-19's transmission, symptomatology, and post-viral sequelae within two socio-culturally divergent districts of Karnataka, India. The study highlights that the transmission of COVID-19 was not solely a biological process, but was significantly influenced by local social practices, cultural interpretations of contagion and hygiene, and the degree of trust communities placed in public health systems and authorities (Bayeh et al., 2021). The clinical symptoms of COVID-19, such as fever, cough, and fatigue were variably interpreted through cultural frameworks, influencing health-seeking behavior and adherence to public health advisories (Vederhus et al., 2024). Furthermore, the long-term post-COVID complications, especially respiratory impairments, were more than clinical conditions; they were experienced through the lenses of stigma, chronic uncertainty, and socio-economic disruption (Munblit et al., 2022).

Post-COVID-19 lung damage in Indian patients resulted in reduced lung function, with 35% showing restrictive defects and over 44% exhibiting impaired gas exchange capacity. Those with pneumonia-related COVID-19 had significantly lower oxygen saturation and effort tolerance compared to mild cases, indicating lasting respiratory and functional limitations (Christopheret al., 2024). A comprehensive meta-analysis published in Pulmonology evaluated findings from seven studies involving 380 participants and found that nearly 39% had reduced diffusing capacity of the lungs for carbon monoxide (DLCO), 15% showed restrictive lung patterns, and around 7% exhibited obstructive features following COVID-19 recovery (Torres-Castro et al., 2021). In a longitudinal study conducted in Italy, follow-up assessments 3 to 6 months after hospital discharge revealed that 37% of patients continued to have impaired DLCO. Additionally, approximately one-third reported ongoing symptoms such as fatigue and difficulty breathing during physical activity (Fortini et al., 2022).

Phenylthiocarbamide (PTC) testing is used to assess individual sensitivity to bitter compounds and is linked to the function of the TAS2R38 gene. While this bitter taste receptor is commonly associated with gustatory function on the tongue, it is also expressed in the respiratory epithelium. When activated, it promotes the production of nitric oxide (NO), which plays a key role in enhancing mucociliary clearance and defending against respiratory pathogens. Research indicates that individuals who are non-tasters, those unable to detect the bitterness of PTC, often exhibit diminished TAS2R38 receptor activity. This reduced function may be associated with weakened innate immune responses and an increased risk of developing more severe respiratory infections, including complications related to COVID-19 (Barham et al., 2021).

Hence, this study integrates spirometry, pulse oximetry, and the PTC taste test to objectively evaluate post-COVID respiratory function, oxygen saturation, and innate immune response, providing quantifiable physiological data essential for analysing long-term health impacts.

MATERIALS AND METHODS

This study employed a mixed-methods approach to investigate the transmission patterns, symptomatic experiences, and post-COVID complications across two diverse districts in Karnataka. The research design combined physiological assessments with anthropological fieldwork to explore both the biomedical and socio-cultural dimensions of the pandemic.

To understand the physiological impact of COVID-19 from symptom onset to recovery, several standardized instruments were used.

- A spirometer was employed to evaluate lung function in recovered patients, as respiratory impairment has been a key complication in both acute and post-acute COVID-19 phases. It helped detect restrictive or obstructive pulmonary defects.
- A pulse oximeter measured blood oxygen saturation, crucial for identifying silent hypoxia during infection and tracking residual oxygen issues post-recovery.
- Height and weight were recorded using a stadiometer and weighing scale, enabling the calculation of BMI, which has been associated with varying vulnerability to COVID-19 infection and complications.
- A Phenyl Thiocarbamide (PTC) taste test assessed genetic variation in bitter taste perception, which is linked to the TAS2R38 receptor found in both taste buds and respiratory epithelium. Variations in this receptor are believed to influence mucosal immunity and susceptibility to respiratory infections, including COVID-19. Its inclusion offered insights into potential correlations between innate immunity and severity of illness across individuals.

These tools collectively provided critical quantitative data not only for understanding complications post-infection but also for interpreting the severity of symptoms during the transmission phase.

Anthropological Methods

To explore how people experienced, responded to, and made sense of COVID-19, an in-depth ethnographic approach was undertaken.

- Participant observation allowed the researcher to immerse in the everyday lives of the study communities, capturing behavioural practices that shaped the virus's spread, such as mask usage, isolation practices, hygiene norms, and interactions during rituals or community events.
- Semi-structured interviews were conducted with COVID-19 patients, survivors, healthcare workers, and family members. These conversations explored personal symptom experiences, stigma, treatment-seeking behaviour, quarantine challenges, and narratives of recovery or complication.
- Focus group discussions (FGDs) were another critical component of the fieldwork (Shabina et al., 2024). FGDs facilitated collective reflection among community members, enabling the identification of shared beliefs about transmission routes (e.g., food, air, caste interaction), local treatments, and coping strategies. These discussions also helped trace shifts in collective understanding and behaviours over time.
- A detailed fieldwork schedule was designed and structured into seven key sections:

    - Household and demographic profile
    - COVID-19 exposure history and symptom details (including pregnancy/lactation)
    - Symptomatology during active infection
    - Food and lifestyle habits
    - Complications post-infection
    - Anthropometric and physiological measurements (spirometry, oximetry, PTC test, etc.)
    - Local perceptions, knowledge, and attitudes about COVID-19.

This flexible schedule allowed for real-time adaptations during fieldwork based on emerging insights or logistical constraints.

Secondary Data Sources

In addition to primary fieldwork, government health bulletins, hospital records, media reports, and district-level statistics were analysed. This secondary data helped contextualize infection waves, resource availability, and changes in public health measures during the pandemic.

Key Informants

Accredited Social Health Activist (ASHA) workers played a crucial role as key informants in my research, significantly facilitating the process of building rapport with COVID-19 recovered patients. Their established trust and familiarity within the community allowed me to gain access and connect with participants more effectively. The ASHA workers' insights and introductions were invaluable, as they not only provided essential background information but also helped in easing any apprehensions the patients might have had about participating in the study. This collaboration ensured a smoother and more comprehensive data collection process, enhancing the overall quality and depth of the research.

LOGISTICAL CHALLENGES AND ADAPTION IN RESEARCH METHODS DURING MY FIELDWORK

In the pursuit of understanding COVID-19's impact in Karnataka, I encountered significant hurdles during the data collection process, which unfolded in three distinct stages (tracing, contacting, and collecting data) and necessary research methods were being adapted to overcome the difficulties.

1. **Tracing:** In the initial phase of my ethnographic study, I obtained ethical clearance from local health authorities, granting me access to a substantial, non-anonymized list of individuals who had encountered COVID-19. Given the large number of cases, I focused on a representative subsample approximately 3-5% of those affected during the initial wave(Charan et al., 2021). I hypothesized that the virus's sequelae would become more pronounced after one or two years. My preliminary method involved random sampling, attempting telephonic contact for face-to-face interviews. Unfortunately, this approach had limited success. Some participants were unreachable or expressed disinterest, citing reasons like migration or lack of inclination. Faced with methodological challenges, I shifted to snowball sampling. This technique proved effective (Ting et al., 2025), as I was able to leverage the social networks and community trust of Accredited Social Health Activists (ASHAs). Their deep-rooted local connections played a crucial role in identifying and reaching participants, thereby enhancing both access and rapport in the field.

2. **Contacting:** In my anthropological research, I encountered a significant barrier, the stigma associated with COVID-19. During home visits to those who had recovered from the virus, I often faced sealed doors and vehement denials of infection. This denial was not merely personal; it reflected the deep-rooted societal stigma. Some whispered about government conspiracies, suggesting inflated case statistics. Even health workers hesitated to admit their own encounters with the virus. The denial and stigma surrounding COVID-19 created barriers to engaging with participants, with their silence revealing the pandemic's pervasive fear and shame, challenging my anthropological work. To overcome these barriers, I used my anthropological knowledge to create a space of empathy and trust, engaging with individuals respectfully and honouring their cultural perspectives. By employing a reflexive approach, I remained mindful of my own preconceptions, ensuring that my interactions were sensitive and non-judgmental. Through collaborative efforts with the community, I worked to co-create strategies that addressed the roots of stigma. My goal was to create an environment where recovery from COVID-19 was not shrouded in secrecy but embraced as a shared human experience, fostering deeper understanding and acceptance within the society I served.

3. **Collecting Data:** As we emerge from lockdowns, I return to my anthropological roots, engaging directly with COVID-19 survivors through participant observation and in-depth interviews. My ethnographic fieldwork embraces face-to-face dialogue and non-verbal cues, capturing the pandemic's enduring impact on our collective ways of life and health practices. I convene focus groups to share recovery experiences, while also using digital tools and virtual ethnography to reach those hesitant about physical interactions. This harmonious blend of methodologies paints a comprehensive canvas of the pandemic's legacy, etched into the fabric of both individual lives and the broader social framework. I found that while individuals were open about discussing their health symptoms and the long-term effects they endured, there was a noticeable reluctance when it came to revealing personal measurements or delving into sensitive subjects such as familial conflicts or instances of domestic violence that occurred during the pandemic. This reticence is telling of the

broader cultural and social dynamics at play, which often influence the disclosure of information in research settings.

ETHICAL CONSIDERATIONS

1. **Informed Oral Consent:** In the pursuit of ethical rigor, I initially sought written consent from participants to safeguard their anonymity and well-being. Yet, I encountered a pragmatic impasse as participants were reticent to provide written authorization. This necessitated an adaptive shift to oral consent, a method that offered increased flexibility and allayed participant apprehensions, while still upholding the ethical tenets of our discipline (Noe et al., 2025).
2. **Photography and Confidentiality:** Acknowledging the ethnographic value of visual records, I proceeded with circumspection. Photographs of participants were eschewed unless explicit consent was granted. I ensured that participants' COVID-19 infection details remained confidential and anonymized for research purposes.

Why does the stigma persist on Covid-19 affected individuals? Insights from my fieldwork

Throughout human history, certain diseases have carried social stigma, fuelled by fear, misinformation, and cultural beliefs (Stangl, 2019). When individuals or groups are negatively labelled based on their health status, this phenomenon is known as stigmatization. The COVID-19 pandemic serves as a poignant example of this pattern (Yu et al., 2023).During the initial outbreak, panic, uncertainty, and rapid spread contributed to widespread fear and misinformation. Individuals who tested positive for COVID-19 were often stigmatized, viewed as potential carriers, and sometimes unfairly blamed for their own infection. Recovered patients faced lingering concerns about discrimination in various aspects of life, including employment, housing, and social interactions. The fear of revealing their past infection could lead to exclusion or prejudice weighed heavily on their minds. Stigma often arises from misconceptions about how the disease spreads. Some people wrongly assume that those who had COVID-19 are still contagious or that they engaged in risky behaviour. This blame can drive individuals to keep their COVID-19 experience a secret, perpetuating a cycle of silence and isolation. Surviving COVID-19 can be both physically and emotionally exhausting. The journey through illness, hospitalization, and recovery leaves lasting impressions. Some patients prefer to move forward without revisiting those memories, seeking solace in the present while leaving the past behind.

Long COVID, a term that has become increasingly familiar, refers to the persistent symptoms that endure even after the acute phase of the illness has subsided. These lingering symptoms encompass a range of experiences, including fatigue, cognitive fog, and respiratory issues(Global Burden of Disease Long COVID Collaborators, 2022). However, beyond the physiological manifestations, Long COVID also intersects with social and cultural dynamics, shaping how individuals navigate their post-recovery lives. Recovered patients, having emerged from the throes of COVID-19, grapple with a complex dilemma: whether to disclose their COVID-19 history or maintain silence. This decision is fraught with implications. Recovered patients worry about being labelled as complainers or hypochondriacs if they openly discuss their ongoing symptoms. Anthropologically, we recognize that privacy norms vary significantly across cultures. Some societies prioritize individual autonomy and privacy, especially when it comes to matters of health. For these individuals, sharing personal health information is a delicate balance between community awareness and potential negative consequences. The fear of being stigmatized looms large. The weight of this potential judgment influences their choices. In some cases, recovered patients feel a sense of responsibility toward their community. By withholding their COVID-19 status, they may believe they are protecting others from unnecessary worry or fear.

CONCLUSION

As an anthropologist, it became clear to me that the pandemic not only affected physical health but also exacerbated underlying social tensions. The hesitation I observed is indicative of the complex interplay between personal experiences and cultural norms. It underscored the importance of approaching such topics with utmost sensitivity and confidentiality, ensuring that my role as a researcher did not infringe upon the personal boundaries of the participants. This experience has been a poignant reminder of the delicate balance between gathering data and respecting the lived realities of those we study. Traversing the multifaceted challenges of the COVID-19 pandemic in Karnataka provided profound insights into the anthropological dimensions of this global health crisis. Adaptability, cultural sensitivity, and perseverance emerged as essential pillars for conducting fieldwork in unprecedented times. This journey enriched my methodological approaches and interpretative lens, enhancing my understanding of socio-cultural dynamics.

As an anthropologist, I am the custodian of oral histories, listening with reverence to stories now weighted by isolation, loss, and adaptation. The pandemic transformed these narratives, weaving trials, and survival into a global ordeal. These chronicles resonate deeply with the shared rhythm of a world in lockdown, underscoring the profound human connection at the heart of anthropological inquiry. Anthropology serves as a vital lens to perceive the multifaceted web of human existence, providing culturally relevant data that guides interventions promoting well-being. By considering biological, cultural, economic, and historical factors, anthropology illuminates societal responses to pandemics. Understanding the interaction of stigma, cultural norms, and individual action reveals why some COVID-19 survivors choose discretion about their infection history. This introspective journey enhances the broader anthropological discourse, offering perspectives on pandemics' impacts on society. Education, empathy, and destigmatization pave the way for a more compassionate environment for all, highlighting anthropology's role in deciphering the human condition during global crises.

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