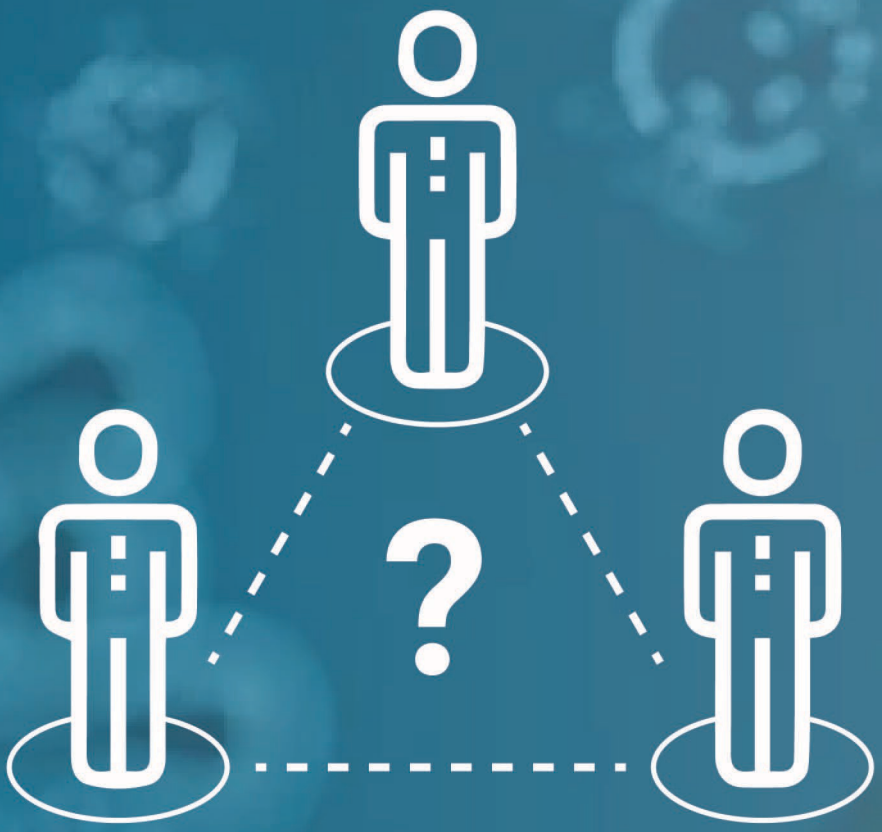
Individual Accountability during COVID-19

An Empirical Analysis



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Individual Accountability during COVID-19 – An Empirical Analysis

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Executive Summary

The current COVID-19 pandemic is spooling out to be a calamity of unprecedented proportions, causing loss of lives and devastating economies globally. A disaster of this nature calls for well thought out Government interventions along with responsible individual behaviour to contain the damage. Across the globe, reckless and irresponsible behaviour of individuals has been responsible to a large extent for the exponential growth rate of the COVID-19 graph.

We conducted a study to understand the behavioural patterns of COVID-19 patients in India. We analysed 72 initial COVID-19 cases from two Indian states—Karnataka and Kerala. Our study exposed risky and irresponsible behaviour on the part of 53% of the sample. Some of the carriers of coronavirus—who had travelled to India from infected countries post the outbreak, while some had attended a religious congregation with foreign participants—were even found to indulge in as many as 32 interactions before being tested positive, with a number of visits to public places. This finding poses severe questions on the viability of any measure left solely to the judgement of individuals. In the unlock phase, it is essential to strike a balance between individual accountability and state interventions. Emphasis on human behaviour is crucial while framing policies, so that they can nudge citizens to behave responsibly.

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1. Introduction

A pandemic resulting from a newly-emerged virus constitutes one of the more probable events likely to threaten a nation both economically and socially. The outbreak of COVID-19 and its quick spread has made the world come to a shocking halt, resulting in loss and disarray of lives, and leaving millions unemployed. The first COVID-19 outbreak reportedly happened at Wuhan, China in end 2019, but because of its alarmingly contagious nature it was soon considered an invisible enemy for humankind.

Once the Coronavirus was declared a Public Health Emergency on 30 January 2020 by the World Health Organisation (WHO), authorities across the world implemented various control measures. These included creating awareness about personal hygiene, screening of travellers at airports, home quarantine for travellers, and social distancing norms. Lockdowns of varying severity were imposed in many countries to slow down the spread of the disease.

The effectiveness of such measures, however, depends on individual behaviour. Human behaviour can either speed-up the spread of the virus or control it. It is essential that people take responsibility for their actions and behaviours, as we are responsible not only for our own health but also of those around us during an infectious epidemic. Self-discipline and responsibility towards the self and others is what determines the success of control measures.

Figure 1: A crowded vegetable market in Patna three weeks into the lockdown
Source: Getty images

Globally, there have been reports of populations displaying reckless and selfish behaviour. In Italy, more than 40,000 people were charged with violating lockdown measures imposed to contain the coronavirus. Some were moving around freely, even after being tested positive [1]. Such irresponsible behaviour was also observed in South Korea, where COVID-19-infected individuals visited nightclubs, infecting more than hundreds in the process [2]. Similarly, Chicago's coronavirus outbreak was traced to the irresponsible acts of carriers of the virus attending family gatherings.

In order to understand the behaviour of citizens in India in an objective manner, CSTEP undertook a study to analyse the pattern of social interaction, behaviour, and attitude of the initial COVID-19 patients in Karnataka and Kerala using secondary data.

2. Methodology

This study focuses on Karnataka and Kerala because they were the first states to release a detailed travel-behaviour map of COVID-19 patients.

Figure 2: Behavioural route map of primary carriers of COVID-19

Source: Department of Health and Family Welfare

For the study, primary carriers of COVID-19 in the states/region were chosen as the sample, consisting of 72 patients. They travelled to Karnataka or Kerala from COVID-infected countries or a religious gathering that turned out to be a corona hotspot, between 27 February 2020 and 22 March 2020. This was before the lockdown announced by the Government of India; yet, the risks associated with social interactions were already disseminated through the media. For this study, visit to a particular place by the carriers was considered as an interaction. The interactions undertaken by our study sample were categorised into groups such as 'transport used' and places visited like public places, utilities, personal events, religious events and work, based on the purpose/nature of the visits. Details such as the number of times each interaction was undertaken and the number of carriers undertaking such interactions were captured. Further analysis was done on each of the categories to understand the pattern of risky behaviour due to the number and type of interactions carried out by the carriers.

3. Analysis of Social Interactions

We found that 90% of the study sample, comprising international and domestic travellers, undertook several interactions. The following figure shows the share of interactions that such individuals indulged in. The highest risk pertains to visits to public places. Nearly 39% of interactions studied fell in this category.

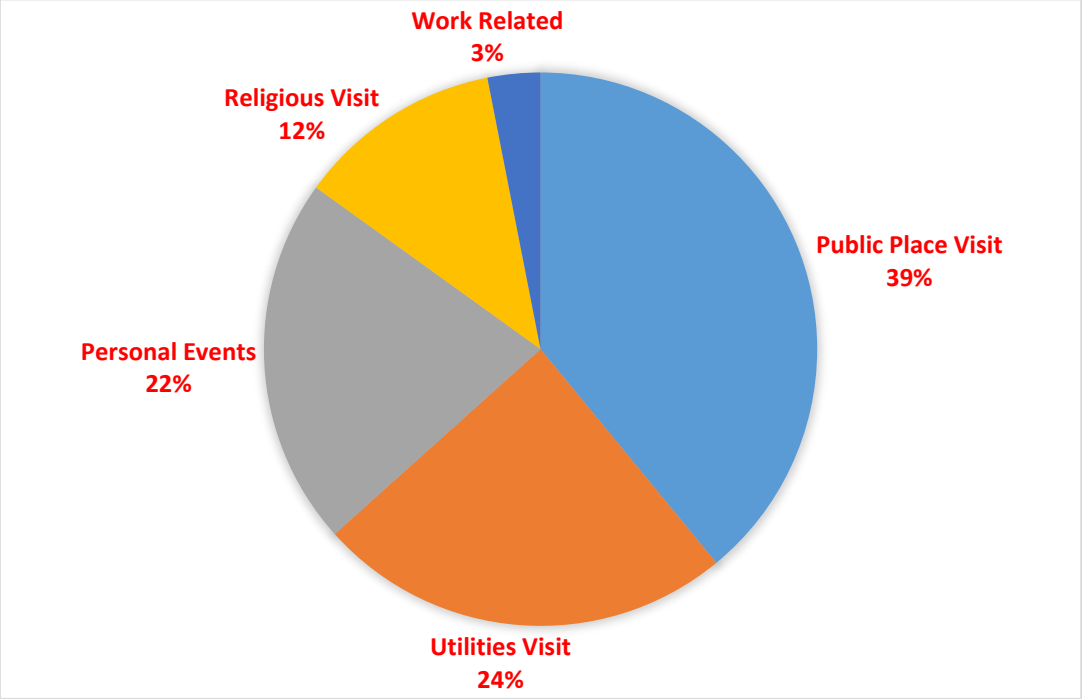

Figure 3: Distribution of interactions undertaken by COVID-19 patients

In this study, public place visits signify visits to restaurants, hotels, movie theatres/malls and parties, where interactions were mainly for leisure. People who visited such places, around the same time as the infected individuals, were at a risk of getting infected. According to a study by Lu et al., 2020, visits to restaurants are highly risky as the spread of the virus depends on the direction of airflow and can infect people at a distance greater than 1m [3]. Public parties or movie theatres/ malls see a large number of footfalls. Visits by infected individuals to such places results in the widespread transmission of the virus through numerous infection chains [2]. Moreover, none of these visits can be deemed as essential.

Utility visits were visits made for essentials, such as visits for groceries, medicines or to banks. Though these visits involved risk of spreading the virus, they were driven by necessity. The share of utilities visits was lower than that of public place visit.

Personal events comprised visits to friends and relatives and attending family functions/get-togethers. Twenty-two per cent of interactions (figure 3) made in the sample analysed by us were for such events. There was a very high chance of transmitting the virus at such events because of close interactions between family members.

Twelve per cent of total interactions made by the carriers were to religious events to attend religious seminars, festivals, and prayer services (figure 3). A large crowd of the same community was gathered for such services and events. An infected individual attending one such event

started a chain reaction, leading to the spread of the disease across the country, proving it to be a high-risk interaction [4].

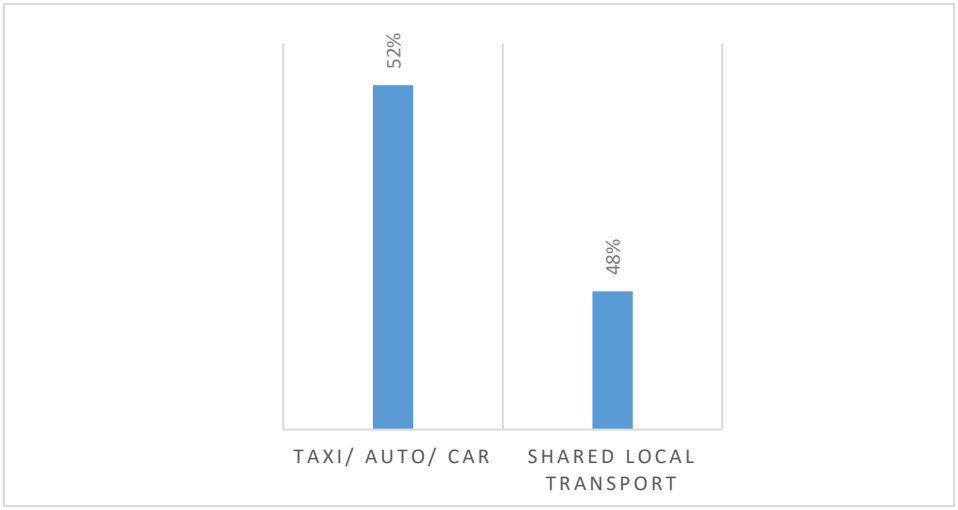

Figure 4: Mode of transport used by COVID-19 patients

While local transport was essential for travellers to reach home from the airports/stations, 48% used shared local transport (figure 4), where commuters share proximity because of seating arrangements. Also, a large number of commuters touch railings, armrests, handles, doors and other common points of contact in a public transport. When an infected individual makes contact with these surfaces, there is a high chance of spread of the virus among other commuters who come in contact with it [5].

4. Individuals and their Pattern of Behaviour

Next, we examined the variations between individuals. The graph below (figure 5), shows the percentage of patients who undertook a particular interaction. They would have done it once or multiple times.

Figure 5: Individual behaviour- Share of patients who undertook various interactions

From the data, we see that 33% of the infected individuals used shared local transports such as city buses or shared autos/taxies. From this, it can be concluded that despite warnings about COVID-19, the choice of mode of transportation for many was governed by routine travel behaviour.

According to Richard Thaler's explanation of human behaviour in the book 'Nudge', individual behaviour is a response to the degree of risk the individual believes is involved in performing an activity (risk perception) [6]. Forty-four per cent of high-risk individuals went out to public places as the risk in doing so was considered to be negligible. The patients were indifferent to risks they posed to others, which led them to behave irresponsibly and facilitated the spread of the infection.

Nearly 33% of the primary carriers attended family functions, and met relatives and friends. In India, there is a strong cultural and religious tradition of communal celebrations as well as close interactions with extended family members and neighbours. This constitutes a major cultural and social factor that poses serious challenges during a pandemic as such interactions are given importance over public health [7].

Even though it was advised and in some states even prohibited to organise and attend gatherings, many religious conclaves were held in the country during the initial days of COVID-19. This probably stems from the perception that faith can be a weapon to fight the epidemic [8]. Such behaviour of certain individuals led to failure in their duty as responsible citizens, i.e. to ensure the safety of other citizens.

5. Risky Behaviour

As part of this study, an analysis was done to understand the pattern and extent of risky interactions undertaken by individuals. To do so, the place of interaction and the number of interactions were taken as contributors of risk. A weighted mean of the number of interactions was taken. Weights were given based on the place of interaction. Visits to public places, religious events, and use of shared local transport were given the highest weight score of 5, as these interaction affect a large number of the public. Visits to personal events, work, and utilities were given a weight score of 3, as such interactions were risks to groups of people who were closely involved with the infected individuals. And lastly, a weight score 1 was given to use of taxis/car, as the risk of spread here was minimum.

The study sample was classified into risk levels based on the weighted mean of the number of interactions. Infected individuals whose weighted mean was up to 1 were considered a moderate risk (Risk level 1), as even a single interaction such as using a cab leads to further spread of the virus [9]. Those with weight mean of 1-3 were considered high risk (Risk level 2), those whose weight mean was greater than 3 and up to 6 were considered very high risk (Risk level 3). Those with a score greater than 6 were considered to show explosive risk behaviour (Risk level 4).

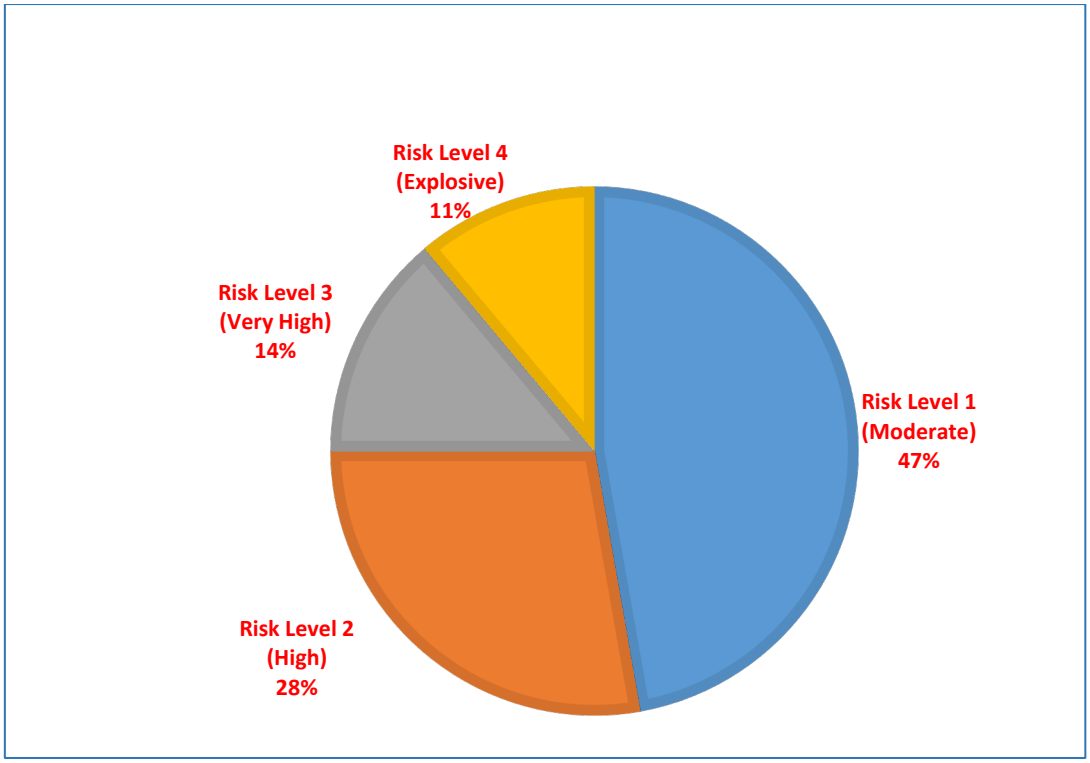

Figure 6: Levels of risky behaviour displayed by individuals

It is clearly observed that more than 50% of the patients undertook more than three risky interactions. 25% of primary carriers' behaviour risk was very high and explosive, and for 28% high. The number of visits made to public places were higher than those made for utilities. Many individuals attended parties, gatherings, and visited crowded places. This cannot be justified, as attending even one social gathering can lead to the quick spread of COVID-19 [10].

Only a few among the infected under this study acknowledged that they were at a high risk and behaved responsibly. This study shows that 29% of the carriers followed home quarantine, which lowered the risk of transmission of the virus. Another 9% of the COVID-19 patients underwent pre-emptive check-ups for coronavirus.

6. Conclusion

Responsible behaviour by citizens is essential to control the spread of coronavirus. From the study, it is observed that a high proportion of individuals do not make responsible decisions when its consequences affect the lives and health of others. Studies have shown that when accountability is on individuals, it doesn't always serve in the public interest [11].

Therefore, in the unlock phase, we mustn't rely solely on individuals' responsible behaviour. Institutions should put interventions in place to prevent individuals from behaving irresponsibly. It is essential to strike a balance between individual accountability and state interventions. Technology can be used extensively as a nudging tool by providing the user information about the risks involved in public interactions. Aarogya Setu app is a step in the right direction, but can be enhanced so that the user can be nudged accordingly. Policies should be a combination of collective interventions along with nudges to motivate citizens to accept responsibility towards not just oneself, but fellow citizens too.

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