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A Thematic Analysis of COVID-19 among the Police: Challenges and Way Forward

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Abstract: Present **s**tudy attempts to carry out a thematic analysis of COVID-19 among the police in Maharashtra along with challenges they face during the pandemic. In-depth telephonic interviews and an electronic survey were performed to obtain experiences of police. The daily trends of confirmed active, recovered, and deceased cases for Maharashtra and police personnel from the beginning of the lockdown (24th March 2020) were evaluated. Period Prevalence Rate (PPR) ranges from 0.01 to 1.12, Case Recovery rate (CRR) ranges from 0 to 39.22, and Case Fatality Rate (CFR) ranges from 0 to 1.0 which shows consistent rising trends and CRR found lower among the police than the general population. The qualitative data analysis that was based on several themes suggests that there is a higher individual efficacy over collective efficacy among the police. The long-time fight against COVID-19 had drained the police force mentally and physically. Immediate priority interventions like the adequate supply of protective gears need to be provided by the government to control the risk of infection among police. A holistic support and recovery system is required for the well-being and resilience among police personnel so that they can soldier on to avert such a crisis in the future.

Keywords: COVID-19, Individual and Collective efficacy, Police, Thematic Analysis.

Introduction

A newly discovered severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) caused an infectious Coronavirus disease (COVID-19) and the case fatality rate is much higher in it (Guarner, 2020). The SARS-CoV-2 disease can spread from person to person through small droplets from nose or mouth. These droplets fall on the surfaces and objects around the infected person, by touching these objects and surfaces, then touching their mouth and nose, people get affected by nCOVID-19 (Shereen, Khan, Kazmi, Bashir, & Siddique, 2020). After its outbreak in Wuhan, China, the disease quickly spread around the world in a short span of time and become one of the severe health crises at the global level (Guo et al., 2020). In the alarming level of spread and severity of the infectious disease, the WHO has declared COVID-19 as a global pandemic on 11th March 2020 (WHO, 2020b). The pandemic affected people almost all countries of the world; people belong to all socio-economic groups and races. Till date, it spreads 216 countries of the world (WHO, 2020a). In India, the very first case was diagnosed in Kerala on 30th January 2020. India has, so far, reported 54,849 plus deaths till 22 August,2020 (MoHFW, 2020).

Recent evidence suggests that frontline workers are at increased risk for transmitting the COVID-19 pandemic (Cai et al., 2020; Jecker, Wightman, & Diekema, 2020; Nyashanu,

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Pfende, & Ekpenyong, 2020; Singhal, 2020). This was asserted in a review of the past studies that revealed that inadequate medical facilities and shortages of health personnel created a miserable situation in many parts of India during the influenza pandemic in 1918 (Sekher, 2020). Also, in the SARS outbreak of 2002, 21% of those affected were healthcare workers (Chang, Xu, Rebaza, Sharma, & Cruz, 2020). During the COVID-19 pandemic, the population worldwide including doctors have gone through different levels of psychological disorders such as depression, anxiety, and fear (Chatterjee et al.,2020 and Gaur et al., 2020). But a significant proportion of cases are related to occupational exposure, these at-risk groups also include police personnel and they should be given adequate social and mental health support (Xiang et al., 2020). Along with healthcare personnel, the police are doing a laudable job and are, safeguarding citizens across the country in the fight against COVID-19. Police are working in extremely challenging conditions for long hours and carry a significant burden of increased exposure to transmitting the pandemic. While enforcing lockdown at a larger scale and ensuring that an 11.2 crore population in the state of Maharashtra stayed safe indoors, police had to respond quickly and monitor stringent measures.

The central question and rationale of the study, therefore, emerges concerning how the police should approach enforcement in this new, unprecedented, and insecure COVID-19 reality and what the measures government can take to ensure continuity of security and to prevent transmission of infection to the community. No such study has been done among the police in India. Hence, this study tries to understand the COVID-19 among the police along with the challenges they faced during the pandemic in Maharashtra.

Methodology

Study design

The study was conducted among police personnel of Maharashtra. Rational behind selection of study area was exceedingly high incidence of COVID-19 cases among police professionals. This study is based on both primary and secondary data. Secondary data source of COVID cases for Maharashtra was retrieved from the data-sharing portal https://www.covid19india.org/. Further, data on COVID-19 among police professionals are taken from the official twitter handle of home minister of Maharashtra (https://twitter.com/AnilDeshmukhNCP). The number of COVID-19 cases categorized into 5 phases i.e., before lockdown (before 24th March 2020), 1st phase of lockdown (25th March to 14th April 2020), 2nd phase of lockdown (15th April to 3rd May 2020,) 3rd phase of lockdown (4th May to 17th May 2020), and 4th phase of lockdown (18th May to 31st May 2020).

For the present study, we selected an online method for primary data collection. The sample for the interview and close-ended questionnaire was based on the data saturation method. After the completion of data collection, qualitative analysis of 10 telephonic interviews of police including three key informants of higher rank in Maharashtra to obtain thematic descriptions of the experiences of police personnel. Semi-structured, in-depth interviews were done with police personnel, and all interviews were audio-recorded. Confidentiality has been kept by giving code numbers (R1. R2… to R10) instead of names. We adhered to standards and procedures of qualitative research reporting during the study. Oral consent had been taken from participants to record a telephonic interview.

For quantitative data, a detailed cross-sectional survey was conducted from 27th May to 1st June 2020. Also, responses from online participants that reached 100 were analyzed in the study. A close-ended questionnaire was prepared on the electronic form and constructed

into three sections: Socio-demographics, collective efficacy, and individual efficacy (Jex & Bliese, 1999). Individual or self-efficacy here refers to an individual's beliefs regarding the likelihood that a course of action or behavior can be carried out. Whereas, collective-efficacy represents that the group members hold collective beliefs regarding the capability of the group as a whole (Bandura, 1997). The purpose and objective of the study were explained to the participants.

Statistical Analysis

Frequencies and percentage distribution analyses were performed on primary data. We analyzed the trends of daily reported confirmed, active, recovered, and death cases in lockdown phases-wise in Maharashtra for the general population and the police professionals. We calculated the Period Prevalence Rate (PPR), the Case Recovery Rate (CRR), and the Case Fatality Rate (CFR) phase-wise using the following formula for general population and police professionals (Srivastava et al., 2020):

$$PPR_i = \frac{I_i^C}{P_i} * 100000$$

$$CRR_i = \frac{R_i}{I_i^C} * 100$$

$$CFR_i = \frac{D_i}{I_i^C} * 100$$

Where I_i^C is the total COVID-19 confirmed cases in the i^{th} lockdown phase; P_i is the total population of the state and total police population for police professionals; R_i is the number of recovered in the i^{th} lockdown phase, and D_i is the number of deaths i^{th} lockdown phase.

Results

COVID-19 conditions among total population during lockdown in Maharashtra

In Maharashtra, the second-most populous state of India, for every 100 confirmed cases, 53 cases are currently infected, 43 cases recovered from the infection and for every 100 confirmed cases, 3 have unfortunately lost their lives from the virus in the state. COVID-19 spread rapidly from a single city (Mumbai) to all over the state in a very short span of time. And this sudden increase of virus quickly overwhelmed public health and associated infrastructure in the state. Figure 1 reflects the epidemic curve of confirmed, active, recovered, and death cases of COVID-19 for total population in Maharashtra in five phases. Before the 1st phase of lockdown, cases were very low. Cases are continuously increasing in Maharashtra. The epidemic curve also reflects what may be a mixed outbreak pattern, with early cases suggestive of a common source of foreign arrivals, and later cases suggestive of a source of unpreparedness as the virus began to be transmitted from person to person.

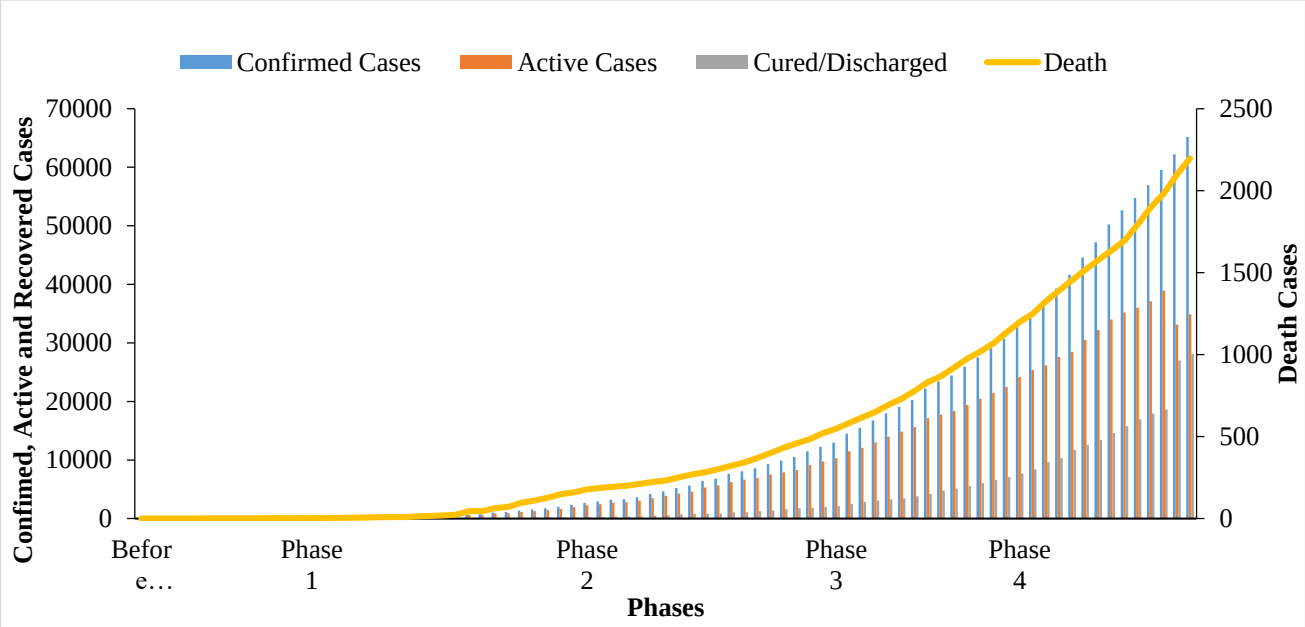
COVID-19 conditions among total police force during lockdown in Maharashtra

It is found that 10 out of 1000 police officials tested positive from COVID-19, around 60 percent are active cases and the recovery rate is 39 percent among police personnel in Maharashtra. The case fatality rate is lower (1.02 percent) than the whole population; this might be because of better health status and less vulnerable age group of the police force.

The police force, as one of the essential services like healthcare workers, is at the forefront of the Herculean task of enforcing the unprecedented nationwide lockdown. Figure 2 reflects the total number of confirmed, active, and recovered cases trend. The graphs reveal that the trend in the transmission of COVID-19 among the total population in the state as well

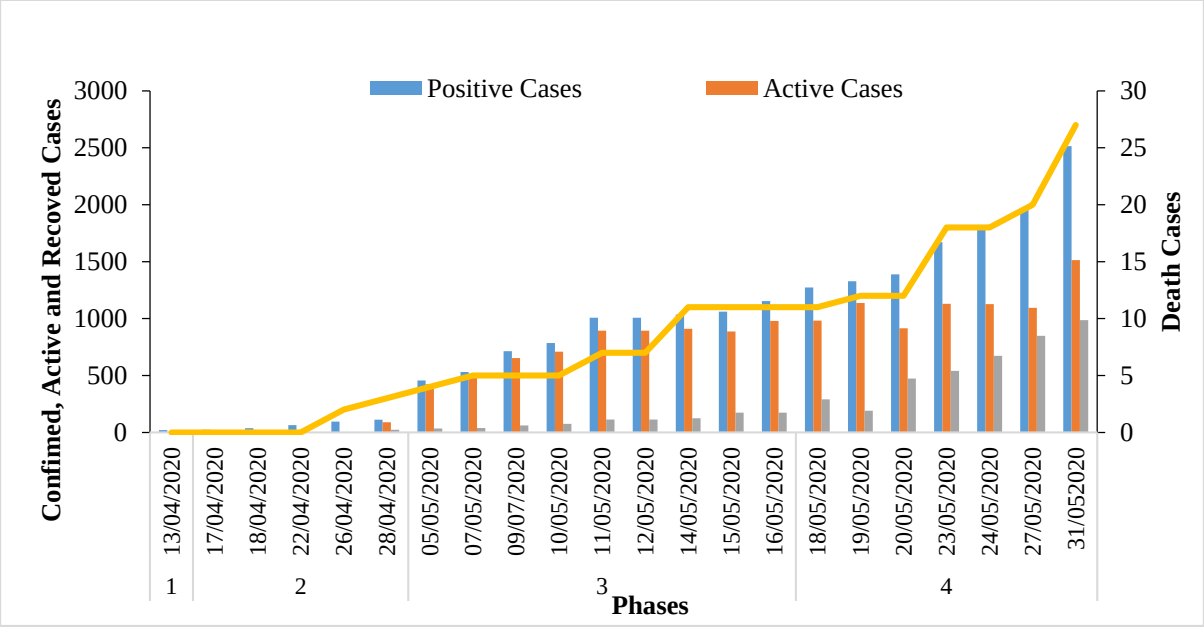
as police force are going upwards, and peak number of corona cases are reported in the last two weeks of May. After analyzing the data, there were 2514 confirmed cases of COVID-19 among police professionals on 31st May 2020 in Maharashtra. However, the total number of deaths reported among them was 27. Surprisingly, there was also a significant number of 986 recovered cases in police force till 31st May 2020.

Figure 1: Epidemic curve of the Confirmed, Active, Cured and Death Cases of COVID-19 in Maharashtra



Source: https://www.covid19india.org/

Figure 2: Epidemic curve of the Confirmed, Active, Cured and Death Cases of COVID-19 among Police Professionals in Maharashtra



Source: https://twitter.com/AnilDeshmukhNCP

Figure 3 shows the PPR, CRR and CFR of COVID-19 in different phases of lockdown for total population of Maharashtra. It is observed that before the first phase of lockdown to the fourth phase at state level PPR (0.08 to 57.99), CRR (0 to 43.09) and CFR (2.30 to 3.37) has consistently increased.

Figure 3: Period Prevalence Rate (PPR per 100000), Case Recovery Rate (CRR per 100) and Case Fatality Rate (CFR per 100) of COVID-19 in different phases of lockdown in Maharashtra

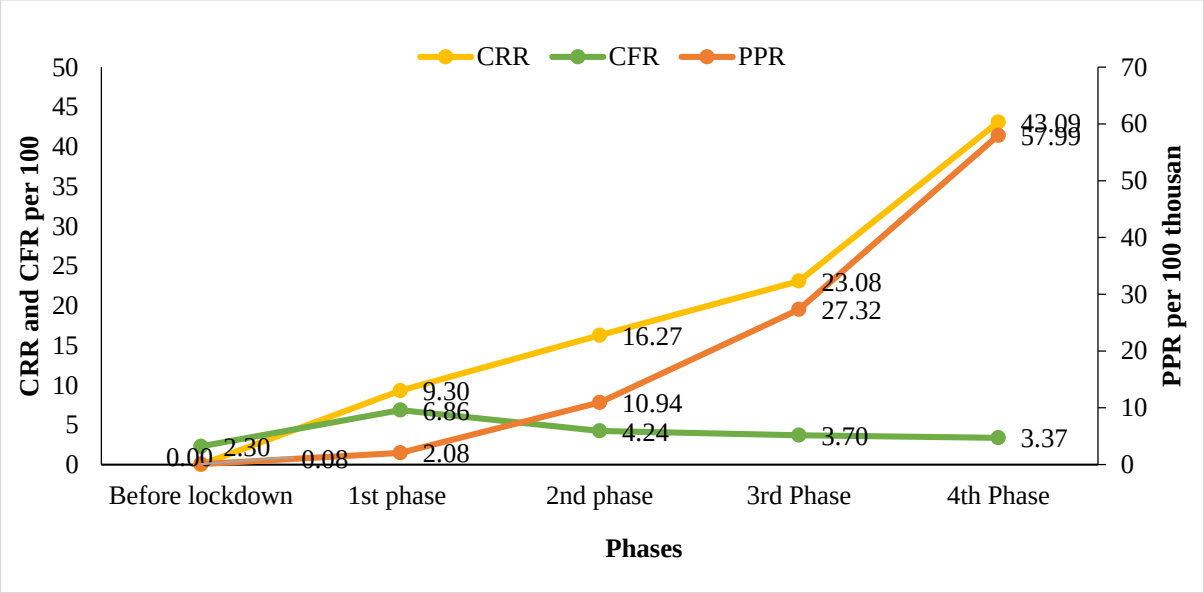
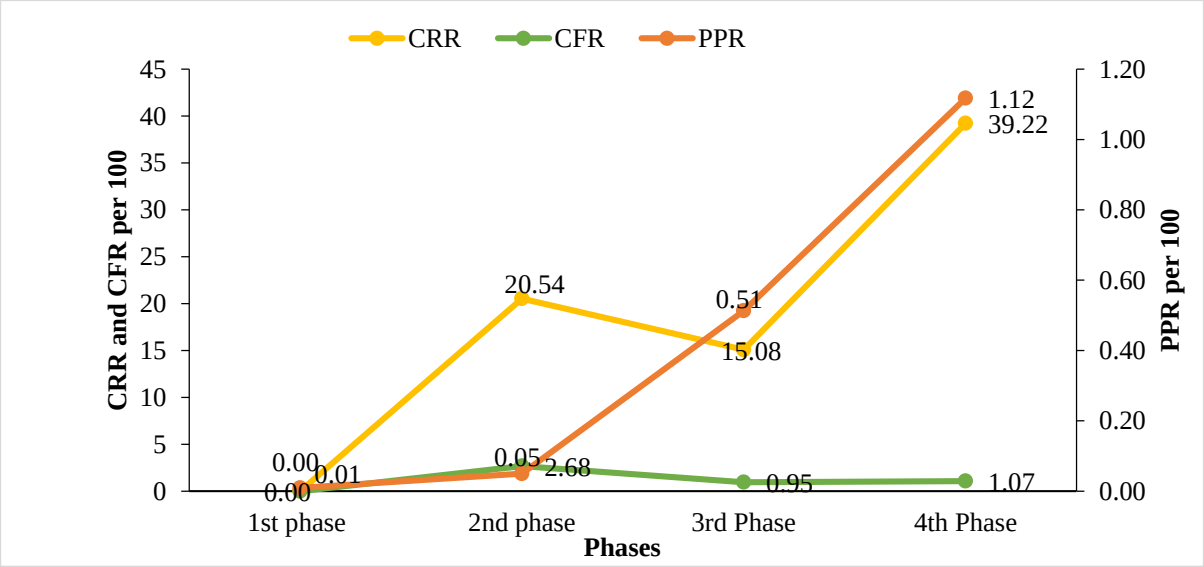


Figure 4 shows the PPR, CRR and CFR of COVID-19 in different phases of lockdown for Maharashtra Police. PPR (0.01 to 1.12), CRR (0 to 39.22) and CFR (0 to 1.07) has consistently increased. It is noticed that CRR is lower among police than the general population of state.

Figure 4: Period Prevalence Rate (PPR per 100000), Case Recovery Rate (CRR per 100) and Case Fatality Rate (CFR per 100) of COVID-19 in different phases of lockdown among Maharashtra Police



The increase in infection cases among police force might be triggered by the states allowing migrant people to travel to homelands through public transports and private ones with special permissions even the lockdown is officially in action. Through this migration of people and in consequence of many people continued their daily life routine irrespective of government orders, the movement of people increased and resulted in increased duty time and higher exposure to the infection among police force in Maharashtra.

Participant Characteristics of primary data

A total of 102 respondents were included in the final analysis of primary data. The respondents were predominantly male (83.33%) and from age-group of less than 35 years (61.76%). More than half of respondents were not taking food on time, and 61% of respondents reported they did not receive any kind of supports from the local people in fighting with the virus. About 12 percent of respondents exposed to COVID-19 patients during working hours (Table 1).

Table 1: Characteristics of Participants (N=102)

Variables	**Frequency**	**Percent**
Age		
Less **than 35**	63	61.76
35-50	23	22.55
More than 50	16	15.69
Gender		
Male	85	83.33
Female	17	16.67
Food on Time		
No	54	52.94
Yes	30	29.41
Sometimes	18	17.65
Drinking water		
Drink available at the workplace	67	65.69
Keep water bottle	29	28.43
Taking other energy drinks	6	5.88
Received support or help from local people		
No	62	60.78
Yes	14	13.73
Sometimes	26	25.49
Exposed to covid-19 patients while the duty		
No	58	56.86
Yes	12	11.76
Do not know	32	31.37
Source of information about Covid-19		
WhatsApp	49	48.04
Other social media	70	68.63
TV and newspaper	70	68.63
Government orders	50	49.02

Source: Primary Field Survey

Findings of individual and collective efficacies among police professionals

Throughout the telephonic interviews, and the analysis of data collection from the field, a posit structural model of individual and collective efficacies (Jex & Bliese, 1999)

were examined by investigating factors associated with them. For both efficacies, all respondents (N=10) were interviewed as they are on field duty during lockdown and responses related to preparedness to pandemic response, precautionary measures during lockdown, sanitation and hygiene facilities at workplace and support of people for enforcement of lockdown were recorded. Notable qualitative findings recorded from interview related to individual and collective efficacies are:

> *"After the announcement of lockdown nationwide, I had traced the travel history of immigrants under the police station of my area, he was reluctant to come to quarantine centers despite follow up from municipal corporation workers. In this situation, I had to arrest him forcefully as he was not ready to follow screening protocols. After two days, his swab test result came positive and then I realized the gravity of pandemic. This incidence put me under mental stress as I had remained under quarantine for seven days. For the first time, I worried about my family and kids"* (R1).

This indicates inadequate knowledge about precautionary measures needs to take for taking citizens to quarantine centers. In the first phase, security gears like gloves, masks, PPE kit were not available to police, and this is one of the factors in the spread of corona infection among them due to direct contact with people.

> *"Strict enforcement of lockdown led to several problems to senior citizens. As field personnel, I need to look after their problems. I have distributed food and milk packets made by local self-help group and NGO to them* "(R2).

> *"In my police area, some people turned to purchase grocery commodities in stores, and it was urgent need to demarcate lines to space out people in front of shops and malls in order to keep social distancing between them"*(R4*).*

> *"During containment strategies, people were often neglecting government guidelines. To make them aware, I had worn a red spiked helmet of virus shape of COVID-19. This innovative way attracts the attention of local people and I succeeded highly in making them aware"* (R7).

> *"I got a call from a local person about the unavailability of food to migrants in shelters. I took my vehicle and collected food packets from a local canteen and distributed it to migrants and elderly people"* (R9).

This put police to go beyond their regular duty and put extra workload during a lockdown.

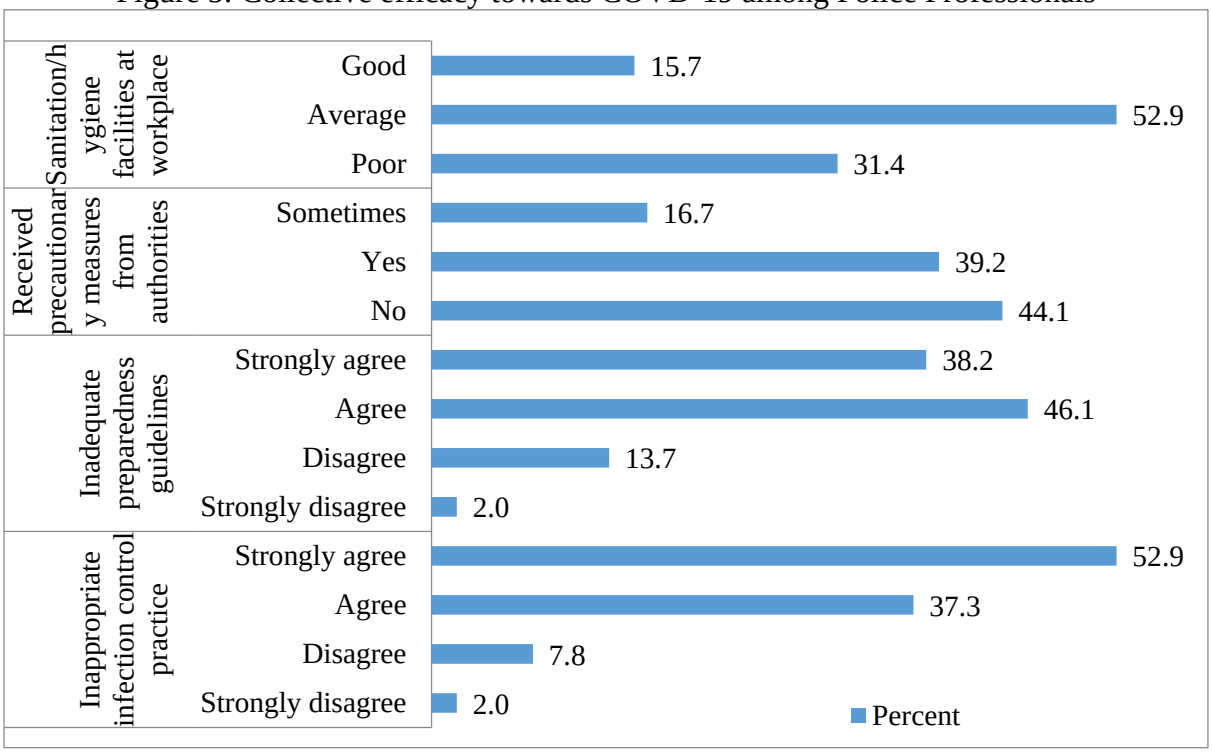
> *"I decided to sing a song to appeal to people to stand with the nation in the fight against COVID-19 and help police force to monitor strict implementation of lockdown"(*R10).

Collective efficacy theme deals with infection control practices, preparedness guidelines and precautionary protective gears, water, sanitation and hygiene (WASH) facilities at workplace.

Figure 5 represents the response related to the collective efficacy among police professionals. More than 90 percent of police professional agreed (37.3 percent- agree and 52.9 percent-strongly agree) that infection control practices are inappropriate to avoid the

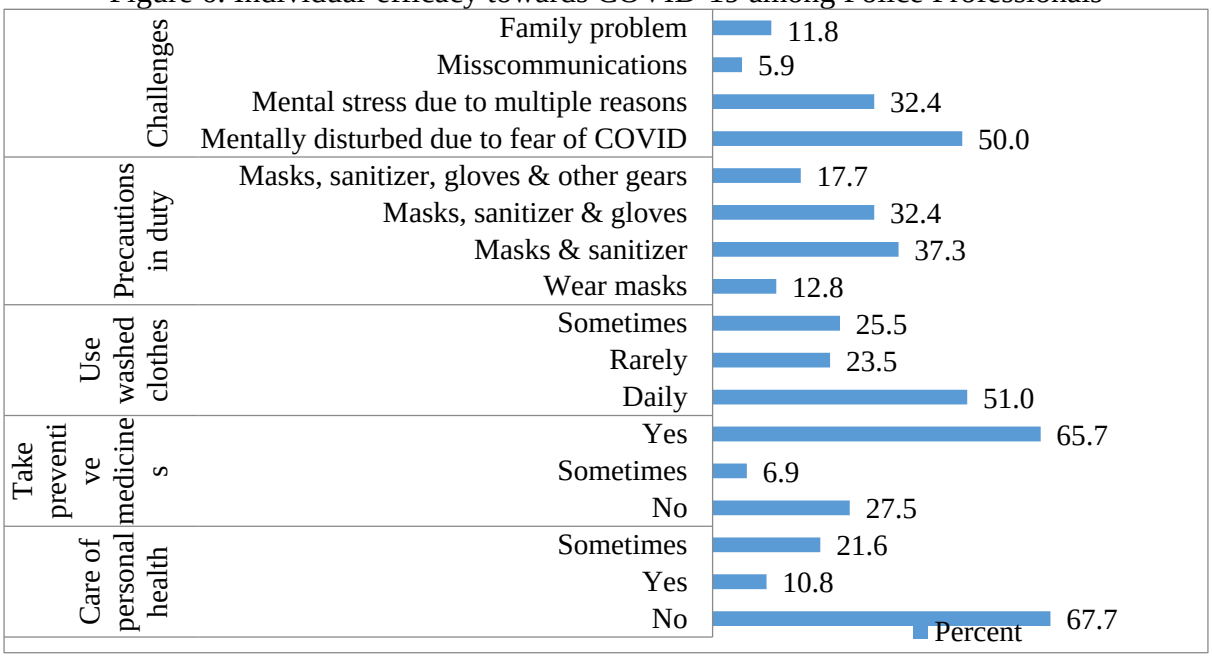
spread of the virus, and 84 percent participants agreed (46.1 percent-agree & 38.2 percent strongly agree) on inadequate preparedness guidelines to fight the virus and occurring situation. About 44 percent respondents were unable to receive precautionary protective gears from authorities to protect themselves. More than half of respondents reported that sanitation and hygiene facilities at the workplace were average.

Figure 5: Collective efficacy towards COVD-19 among Police Professionals



Source: calculated by authors from primary survey

Figure 6: Individual-efficacy towards COVID-19 among Police Professionals



Source: calculated by authors from primary survey

Individual efficacy theme deals with mental stress due to unavailability of protective gears on duty, risk of spreading an infection to family members and resultant fear out of it, personal health care and attention. Figure 6 represents the response related to individual-efficacy towards COVID-19 among police professionals. Findings demonstrated that 67.7 percent of police professionals did not find time for taking care of their personal health during this pandemic and two-third respondents were taking preventive medicine of COVID-19. Only half of the respondents washed their clothes daily. One-third of police professionals were using masks, sanitizer, and gloves in working hours to protect themselves. Half of the respondents had mental disturbance due to fear of COVID-19 virus and one-third police were facing challenges of mental stress due to other reasons at the workplace.

Discussion

This is the first kind of study that thoroughly assessed the COVID-19 pandemic among the police and their observations, suggestions regarding safety and security, and lessons learned during nationwide enforcement of lockdown in India. The study highlights the possible barriers and challenges faced by police officials. Police officials played a significant role in keeping people at home, to ensure social or physical distancing, a safe journey of inter-state migrants to their destination, and safeguard citizens from the COVID-19 transmission.

In this study, several high-risk factors for COVID-19 infection among the police were identified. Our results indicate the importance of work-related problems of the police in the COVID-19 outbreak. One novel finding is that the police who have completely dedicated to their duty are least concerned about their health. Analysis of the results indicates that PPR and CFR have increased over the five different phases in Maharashtra as CRR is also increasing among the general population and police in Maharashtra alike. However, the recovery rate is very low among police. In the fourth phase of the lockdown number of confirmed cases among police increased sharply which owes to their exposure to inter-state migrants. Similar findings from a follow-up study reported that police officers are among the leading high-risk occupations in the late transmission period (Lan, Wei, Hsu, Christiani, & Kales, 2020). The study demonstrates that in the ongoing pandemic with unpredictable risk factors, police are worried about their families and experienced relatively higher mental pressure. However, they are fighting against the pandemic, taking on their responsibilities, even without receiving proper safety kits. They showed a spirit of unity and professional dedication towards their work in this hard time.

Results also demonstrate that 50 percent of police got information about the pandemic from social media (ex. WhatsApp and Facebook). Findings are consistent with other studies, such as Bhagavathula et al. (2020) reported that 60% of Health Care Personnel use social media to seek information regarding COVID-19 (Bhagavathula et al.,2020). Further, inadequate knowledge is not the only risk factor attributed to infection; duty-related exposure can also be a risk factor of transmitting the disease (Jiang et al., 2018). This study reported that the majority of the respondents agreed that infection control practices and preparedness guidelines are inappropriate and inadequate, and they did not receive proper attention during precautious measures, despite they were frontline workers in fighting the pandemic. It is found that only half of the respondents were using daily washed clothes, and most of them taking preventive medicine to protect them because they do not have proper safety gear provided by authorities. Further, a systematic review done by (Rajkumar, 2020) reported that 28% of respondents have symptoms of anxiety and depression in the general population

during this period. While in our study, 50% of police personnel are mentally disturbed due to fear of COVID-19 and faces challenges at the workplace.

Table 2: Observed challenges and recommended changes in practice in response to COVID-19 among the police force

category	Challenges	Recommendations
Self-precautionary	Long hours of duty on the field and no time for personal health	forces should be deployed in places on a shift basis
	Washing their entire uniforms properly (in detergent) themselves after going home daily	Some uniforms can be distributed and washing allowances can also be provided
	Accept food or water offered to them by the local people or NGOs who are susceptible to infection	Day-to-day food and water must be provided by the department and the force would not have to depend on anyone else
Duty related	Short of maintenance of physical distancing and adhering to face-covering recommendations	Physical barriers can be installed and necessary resources such as masks, sanitizers and hand gloves etc. should be provided
	Live in the slums, chawls and small flats of government quarters with shared toilets and filthy living conditions	Government must allot residences with proper sanitary environment
	Lack of guidelines on detaining a suspect caught on crime and quarantining them	Training must be provided on smooth functioning of usual duties
	The same number of officers travel in one vehicle as during the usual security arrangements without social distancing	vehicles from that department should have been procured immediately (in the way vehicles are procured in the election process)
Structural	Authority lacks an appropriate monitoring mechanism and responsible guardianship	A dedicated department can be set up to review the functioning and estimate the resource need
	accustomed to dealing with every calamity with inadequate resources in the name of discipline	A separate department providing 'Logistic Support' should be set up at the state and district level to provide resources on demand

Source: Telephonic Survey

Police personnel did not have a system in place to determine if the people they were dealing with were affected. Even in the absence of such an arrangement, they began to carry out their duties. However, in a short time, the fact that many officers and staff on duty in the department were infected with the coronavirus became known and this has been confirmed with an increase in corona positive cases (more than 2500 cases) in subsequent lockdown phases. On the other hand, a study on healthcare personnel reported that workforce safety should be on high priority to reduce uncertainty and fear (Liu et al., 2020). Further, evidence suggests that collective efficacy manipulations in group-based coping mechanisms only work when they simultaneously raise self-efficacy (Jugert et al., 2016). Consistently, our study results show that there is an immediate need for strengthening police preparedness with collective interventions from the government.

Conclusion

The study highlights the importance of developing strategies for protecting the police personnel with appropriate measures in COVID-19 like pandemics. Long hours of duty, multiple shifts, and inadequate security gears had drained the police force mentally and physically. Further studies are required to notify the effectiveness of immediate priority interventions. There is a need of bringing up a holistic support and recovery system for the well-being of police personnel so that the efficiency and preparedness of police can be utilized effectively during unforeseen pandemics.

Limitations of Study

One of the drawbacks of the study is that all the participants for the qualitative study were interviewed telephonically as it was difficult to create personal rapport with participants on the telephone. Questionnaire created through electronic forms consist of closed-ended questions only, lack of open-ended questions underreported rapidly changing evidence of risk factors among police. A sample size of 102 seems reasonable to analyze experiences and lessons learnt during this pandemic as data saturation takes places after entry of 100 samples.

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