**Project Title: De-stigmatizing Mental Health: Evidence from Police Personnel in India**

**Project Director:** Nirajana Mishra, Boston University

**Research Team:** Nishith Prakash, Associate Professor, University of Connecticut & Fellow, Harvard Kennedy School; Deepak Saraswat; 3rd Year PhD, University of Connecticut; Jagannath R, Research Manager

**Aim of the Project**

**Background and Motivation**

While the world tackles the COVID-19 pandemic, frontline, and essential services workers are being exposed to increased health risks. Frontline workers are susceptible to mental health issues (posttraumatic stress disorder-PTSD, anxiety, depression) during such times (Fullerton et al., 1995). Police officers, who are often out long hours with minimal contact with family, enforcing stay-at-home orders, are at a high risk of facing mental health issues, especially PTSD and depression (West et al., 2008).

In general, as a high-risk profession, police personnel are more likely to exhibit mental health conditions but the stigma attached to it often stops them from seeking professional help (Edwards et al., 2020). Studies suggest that the willingness to seek help (Ramin Matabai et al., 2016), level of modernity (Keh-Ming Lin et al., 1982), and beliefs around the seriousness of mental health problems (Kathleen Vanheusden, et al., 2009) are all strong predictors of help-seeking behaviour. In a highly masculine profession like the police, mental health is often overlooked in the workplace and working environment.

In the context of India, Police services have always been one of the most challenging and stressful services and with COVID-19, it has become even more so.[[1]](#footnote-1) Although there have been few descriptive studies related to stress in the police, none focuses on mental health. Only recently, Delhi Police has begun a mega exercise to identify cops with signs of depression or other mental and psychological illnesses.[[2]](#footnote-2) In this exercise, when the force's welfare department ordered all police stations to list personnel with psychological disorders who need medical care and special attention, no police officer came forward. One of the key reasons cited was due to “stigma”. This is consistent with Bharadwaj et al. (2017) who find that when mental illnesses are stigmatized, agents have incentives to hide such traits. Recent evidence from India suggests that effects of key personalities encouraging people to report symptoms (Banerjee et.al, 2020).

**Literature Review**

The proposed study will be the first of its kind in India, to provide evidence on mental health and other stressor factors among the police force. The high-pressure working environment that police officers often find themselves in, the study will provide direct evidence on how to elicit the mental health status of police personnel, and what are the possible institutional responses to tackle this problem.

In India, the police are at the centre of imposing the stay at home orders, and are spending long hours under risky working conditions with little interaction with their family; all of these are likely to lead to mental health issues (PTSD, depression, and anxiety). Through this proposed study, we expect to explore how institutions adapt to work allocation and allocation of responsibilities conditional on knowledge of the mental health status of the police force. This is especially important during COVID-19 where there is immense pressure to enforce lockdown guidelines.

In this project, we also aim to understand how the help-seeking behavior in the context of mental health varies by gender. This is especially important since the majority of the states in India have reserved approximately 33% seats for women in the police at lower ranks. Women are likely to face greater mental health in a hyper-masculine work setting because they have to adapt their working and leadership styles (Gardiner and Tiggemann, 2010). Exposure to risk on one side, there exist gender differences in mental health response as well. Gender stereotyping often leads to more women being diagnosed with depression and men for alcohol-related problems even when they exhibit comparable mental health traits (Astbury, 2001). Evidence around help-seeking also suggests that women are more likely to seek help compared to men (Afifi, 2007). These patterns are likely to be further magnified with the police, which is often seen as a hyper-masculine profession and where women police officers may be more vulnerable to mental health issues, but may not awareness or access to the appropriate diagnosis.

This study will help police better understand the prevalence of mental health within the force, and how institutional response mechanisms can better adapt to it, especially during these times. We expect to contribute to ongoing efforts of police reforms and address aggressive police behaviour, for which mental health is a strong predictor (Kopper et al., 1996).

**Research Methodology**

Awareness about both mental health and personal (oneself) mental health status is very low in India [SEE SRIVASTATA ET AL]. In addition to lack of awareness, the stigma around mental health acts as a significant barrier in help-seeking behaviour by individuals (Bracke et al., 2019; Corrigan et al., 2014). If the barrier is driven by a lack of awareness, an intervention on providing information about own mental health is likely to relax this constraint. However, if the barrier is driven by stigma, an intervention on providing information about the prevalence of mental health (e.g. for a group of police officers) is likely to relax this stigma constraint, by signalling that this is a common problem.

In this project, we test the impact of “type of information about mental health status” on the willingness to take up help-seeking behaviour of police officers. First, we test the impact of information about oneself (personal) mental health status. Second, in addition to information about own mental health status, we also test the impact of providing information about the prevalence of mental health in other police officers of similar ranks (group), to serve as a reference point for a police officer in the study. Third, we test the willingness to seek help by the personalized or non-personalized nature of avenues of mental health counselling professionals.

We test the impact of this intervention on empathy, the likelihood of use of force, and risk aversion; all of which are key for better performance at the workplace for a police officer. We extend the study to test taste based versus statistical discrimination (in terms of knowledge about mental health status) by senior officers. We use vignettes to test the allocation of tasks by senior police officers to their subordinates with varying degree of mental health problem and demographics.

We design a clustered randomized experiment at the police station level in the state of Bihar, Telangana, and Uttar Pradesh. Using a clustered randomized design, we aim to minimize the information spillover among the colleagues of participating policemen. Police officers in study stations will be randomized into receiving information about mental health status and about avenues to seek help. Experimentally induced variation around personal only (oneself) versus personal + other’s information (group) and personalized versus non-personalized nature of avenue to seek help constitute the treatment groups. Section 4 below explains the detailed design including data collection. We estimate the intent to treat of these interventions using OLS as follows:

Where i represents a policeman in police station p in district d of the state of Bihar, Telangana, and Uttar Pradesh. β1 is the coefficient of interest, which is identified using random assignment. X represents policemen level covariates. Standard errors will be clustered at the level of police station.

*Y* represents outcome measures as follows:

1. Indicators of empathy
2. Indicators of risk aversion
3. The likelihood of use of force (through vignettes)
4. Willingness of a police officer to team up with a fellow police officer with a mental health problem (through vignettes)
5. Willingness of senior officers to assign specific tasks (in order of difficulty or in order of preferences) to hypothetical subordinates
6. Willingness of police officer to seek help (measured as signups for counselling from the app)

**Details on Research Design and Data Collection**

We design a clustered randomized experiment at a police station level with following study groups:

1. ***Treatment 1:*** *Receives information about personal (oneself) mental health status*
   1. Information on “Own Mental Health” only
   2. Information on “Own Mental Health” + “aggregate information on others mental health”[[3]](#footnote-3)
2. ***Treatment 2:*** *Receives information about seeking help*
   1. Information about *group counselling* related to mental health issues by professionals
   2. Information about *personalized counselling* related to mental health issues by professionals

Treatment 1 and 2 cross cut each other, thereby generating four study groups (group 1-4 in Table 1 below). We also propose an information control arm where the subjects do not receive any information about own or other’s mental health status, but just receive information about seeking help (group 5-6).

Power calculations show that we can recover a minimum detectable effect size ranging from 0.12-0.14 of a standard deviation with 125-150 police stations in each of the six study groups.

After recruiting the subjects in the study, we conduct a mobile-application based survey capturing basic demographic information followed by a series of standard questions to capture the mental health status (depression, post-trauma stress disorder, and anxiety). At the end of these questions, the mobile application generates a score of mental health status on each of the three dimensions which are revealed to the subject randomly (as above). We plan to conduct an initial pilot where we conduct this survey with a representative sample of randomly picked policemen giving us a distribution of scores in each of these categories. These scores serve as the “Others mental health information” component of treatment arms. In two of the study groups (see table above), subjects are provided information on not only their scores but a simplified distribution of scores of police officers from the pilot. At the end of the survey and mental health score, subjects are given the contact information of either a group counselling session or a personalized session provided by local professionals. They are then given an option to sign up for their assigned session. In the control group where no information is provided, subjects are still given the help-seeking option.

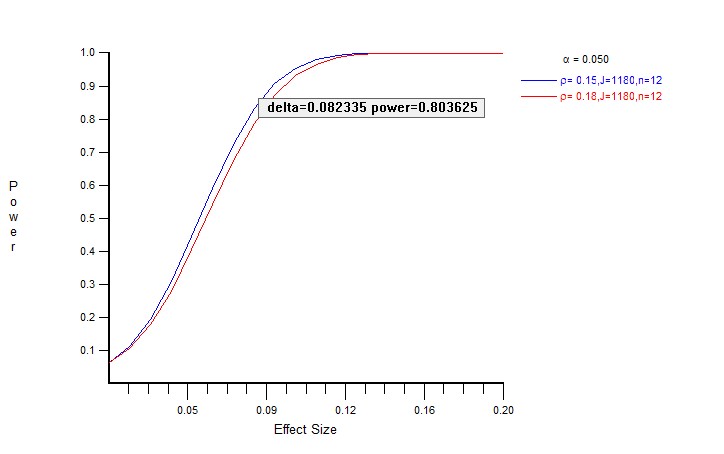
**Table 1: Study Groups**

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| --- | --- | --- | --- | --- | --- |
| **Baseline survey (Demographics + Mental Health (MH) questions)** | | | | | |
| Information on Own MH | | Information (Own + Other’s MH) | | Control (No Information) | |
| Individual Counselling | Group Counselling | Individual Counselling | Group Counselling | Individual Counselling | Group Counselling |
| **Group 1** | **Group 2** | **Group 3** | **Group 4** | **Group 5** | **Group 6** |
| **Endline Survey** | | | | | |

In the endline survey, we collect self-reported data on indicators of empathy, risk aversion, the likelihood of use of force (through vignettes), and willingness of a police officer to team up with a fellow police officer with a mental health problem (through vignettes). Using vignettes and the distribution of scores in a district, we also test the impact on task allocation by senior officers to subordinates with varying degrees of mental health issues. We do this by recording the willingness of senior officers to assign specific tasks (in order of difficulty or in order of preferences) to hypothetical subordinates matched with varying degrees of mental health scores and demographics from the data. Signups from the app after the baseline survey give us information on the willingness to seek help.

**Sample Size**

We propose to conduct a randomized experiment to measure the “willingness to reach out” among officers who face mental health problems. To this extend, we will randomly select 3550 police stations across 12 states and measure key outcome variables. We will design a short self-administered survey for police officers following which, the invitation to download the customized mental health mobile application will be a sub-group of officers. At endline, we will again administer a survey that officers will complete on their own to measure likelihood to reach out to mental health practitioners if they know that they are not the only one in the group facing such challenges.



Power calculations estimate a minimum detectable effect size between 0.7-0.8 of a standard deviation with about 590 police stations in each of the six study groups. The intra-cluster correlation (ICC) is based on principal investigator’s ongoing field experiments with Bihar Police and Telangana Police where the values were found to be low in Bihar and on the higher end in Telangana. Based on these ongoing experiments, the power calculations have been computed assuming a conservative ICC estimate.

Organization Structure

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| **Sl.no** | **Name** | **Role** | **Key Responsibilities** |
| 1 | Nirajana Mishra | Project Director; Principal Investigator | Oversee overall project implementation and execution of the study; design survey instruments and coordinate with MHA and various state officials on key aspects of the study |
| 2 | Prof. Nishith Prakash | Co-Principal Investigator | Technical advisory on research design, sampling and designing survey instruments |
| 3 | Deepak Saraswat | Co-Principal Investigator | Technical advisory on research design, sampling and designing survey instruments |
| 4 | Jagannath R | Co-Principal Investigator | Technical advisory on research design, sampling and designing survey instruments |
| 5 | TBD | Research Associate | Day-to-day execution of projects and oversee data collection operations |
| 6 | TBD | Research Manager | Day-to-day execution of projects and oversee data collection operations |
| 7 | Sharon Buteau | Project Coordinator (based in India) | Liaison with MHA and other government officials |

**Cost Estimation**

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| **Sl.no** | **Expense Line Item** | **Cost Estimation** |
|  | Duration | 12 months |
| **1** | **Personnel** |  |
| 1A | Research Associate | Rs.10,32,000 |
| 1B | Research Manager | Rs.5,56,800 |
| 1C | Project Coordinator | Rs.3,80,000 |
| 2 | Travel | Rs.4,86,000 |
| 3 | Data Collection and Processing | Rs.14,73,594 |
| 4 | Other Direct Costs (stationary, office costs, internet etc.) | Rs.4,51,600 |
|  | **Total Direct Costs (sum 1-4)** | Rs.43,79,994 |
| 5 | Indirect Costs (5% of total Direct costs) | Rs.2,19,000 |
| **6** | **Total** | **Rs.45,98,994** |

**Timelines**

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| **Proposed Project Timelines** | | | | | | | | | | | | | | |
| **Sl.no** | **Description** | **M0** | **M1** | **M2** | **M3** | **M4** | **M5** | **M6** | **M7** | **M8** | **M9** | **M10** | **M11** | **M12** |
| 1 | Award of Contract |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | Ethics and IRB Clearance |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | Survey Instrument Designing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Pilot Survey Instrument |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | Full Survey Rollout- Baseline |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 | Data Analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 | Mobile Application Rollout and Participation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 | Full Survey Rollout- Endline |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 | Final Impact Estimation and Data Analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Final Report Submission |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Brief Bio of Nirajana Mishra, Project Director**

Nirajana Mishra is a 4th year Ph.D. Candidate at Questrom School of Business, Boston University, Massachusetts, USA. She has over 10 years of corporate experience in Fortune 500 companies like American Express, Citi, and GE in various roles, including Sales, and Marketing. Her core specialization includes using insights from psychology to understand human behavior. Her research includes several fields and lab experiments in India, Nepal, and the USA on topics including mental health, domestic violence, and the role of social networks. Some of her projects have been funded by the World Bank.

1. Deb *et al*. (2008) in a study on traffic constables under Kolkata Police, disclosed that 79.4% of them were moderately or highly stressed. [↑](#footnote-ref-1)
2. At least 53 cops have killed themselves in Delhi since 2015. [↑](#footnote-ref-2)
3. This will be information in form of a distribution of scores of other similarly ranked police officers in the same district as the subject. Subjects will be able to compare their scores to the distribution of scores of policemen in their district. [↑](#footnote-ref-3)