



EXPLORING THE CONSEQUENCES OF PANDEMIC-COMPOUNDED OCCUPATIONAL STRESSORS ON THE MENTAL HEALTH BURDEN OF FRONTLINE SOCIETAL LAW ENFORCEMENT OFFICERS IN INDIA

Community Medicine

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ABSTRACT

Law enforcement officers have engaged in rigorous pandemic-induced occupational roles in India. Relying on a survey of 240 officers, we explore the consequences of pandemic-related occupational stressors on mental health burden (anxiety, stress, and depression) and examine the effect of stressors on their perceptions and behaviors by employing the Health Information Assessment questionnaire, the Brief Symptom Inventory - BSI-18 (BSI Depression & BSI Anxiety Scales) to measure self-reported psychological distress, and the Perceived Stress Scale (PSS) to assess general stress appraisal. We report rather high scores for depression (74.4 ± 11.6), anxiety (68.2 ± 18.4) and perceived stress (30.6 ± 8.3). Two-thirds of the respondents (66.7%) were highly disturbed about the COVID-19 pandemic. Freshers and juniors exhibited increased levels of anxiety as compared to the seniors while females reported significantly higher levels of stress than males. Looking for valid COVID-19 information was also associated with increased level of anxiety. Pandemic-compounded occupational stressors seemed to exacerbate pre-existing disenchantment with work, lack of motivation and stressful long hours of working. An urgent need exists for rapid, responsive programming and research to institute workplace interventions at systemic and structural levels to support law enforcement officials to avoid and mitigate the mental health consequences of pandemic-compounded occupational stress.

KEYWORDS

COVID-19, India, law enforcement officers, frontline workers, pandemic-compounded stress, mental health burden

BACKGROUND

The novel coronavirus (COVID-19) pandemic caused massive disruption and led to unprecedented impositions of movement restrictions and physical distancing norms for society as a whole. Just as seen worldwide, many districts of Karnataka State in India especially the urban conglomeration of Bengaluru reported high positivity rates with associated morbidity and mortality (COVID-19 Information Portal, Government of Karnataka, 2021). During the heightened wave of infections, societal law enforcement functionaries were unusually active and primarily responsible for implementing movement restrictions, lockdowns and precautionary measures in the community. During such pandemic-related work, frontline workers such as healthcare workers and law enforcement officers are known to experience occupational stress and encountered multiple systemic shortcomings (Remuzzi and Remuzzi, 2020; Sener et al, 2021; Frenkel et al, 2020; Parthasarathy et al, 2021). Fear of infection and infecting one's family was a constant worry for frontline workers due to the highly contagious nature of the disease (Lai et al., 2020; Shechter et al., 2020; Spoorthy et al., 2020). The mental health impact of the pandemic on COVID-19 frontline workers especially societal law enforcement officers is becoming an area of immense interest (Demirbilek et al, 2020; Rooney & McNicholas, 2020; Parthasarathy et al, 2021) and is currently an under researched theme in India.

As eventuated worldwide, the State of Karnataka in India also had to resort to unprecedented restrictive measures and lockdowns to break the chain of infection. In such a scenario, law enforcement officers play precarious yet crucial unheralded roles in the efforts to control the spread of the disease, maintaining public law and order, and promoting safer communities. On account of the dynamic nature of an evolving pandemic, these actions transpired while the officers were continuously adapting to a series of changes in their professional duties with frequent waxing and waning of enforcement levels within a very short period of time (Rooney & McNicholas, Sener et al, 2021). These officers had quickly adapted to patrolling entrances and exits to cities, sealing off State and National highways and supervising whether social distancing and mask precautions were being adhered to by the community, more so in market places and crowded streets. Many studies given credence that these workers could have encountered severe emotional fatigue, psychological distress, and clinically significant depression (Carey et al, 2020) with stressors leading to fear and despair more so as they could have been at the receiving end of the desperation, anger and resentment from the community (Sim, 2020; Redondo-Mendoza, 2020).

Although global attention and research are focused on the effect of the pandemic on frontline health workers (Holmes et al, 2020), there is in general dearth of understanding on the impact of the pandemic on law

enforcement officers during this period (Sim, 2020; Parthasarathy et al, 2021; Sener et al, 2021). Evidence does exist that the pandemic did have a role in affecting law enforcement officers physically, mentally and psychologically (Demirbilek et al, 2020; Rooney & McNicholas, 2020; Frenkel et al, 2021; Sener et al, 2021).

It has been reported that some of these officers had tested positive for COVID-19 (Boovaragasamy et al, 2021) and had to quarantine themselves either at home or in healthcare facilities. The realization of being exposed to the virus brought in an element of mental anxiety as none would be sure if they have already transmitted the infection to their family during the asymptomatic phase or not. For most law enforcement officers, especially from low and middle-income countries, relatively lower wages and weaker social security provisions meant that the component of psychological distress compounded an existing collective welfare gap (Holmes et al, 2020; Garg et al, 2020; Kokane et al, 2020). In terms of availability of appropriate information on COVID-19, it is seen that reliable information on COVID-19 can possibly reduce much of the psychological trauma by providing a sense of security to those who adopt prophylactic measures, while on the other hand, the availability of unverified, negative and potential misinformation can aggravate and contribute to stress, anxiety and depression among the consumers of such information (Cuan-Baltazar et al, 2020; Wang et al, 2020; Garg et al, 2020; Mazza et al, 2020). In light of these complexities and uncertainties that public-facing law enforcement officers find themselves in during pandemic-related duties, we research, explore and report on the stress and mental health burden experienced by law enforcement officers in India during the COVID-19 pandemic. We focused on two objectives – examine the mental health burden (depression, anxiety and stress) among law enforcement officials on active COVID-19 duty, and secondly, we attempt to determine the impact of stressors on law enforcement officers' perceptions and behaviors in order to recognize the need of mental health support for these invisible frontline warriors.

MATERIAL AND METHODS

Study Design, Sample and Setting Data

To answer our research questions, we draw on quantitative data collected from a Google-based survey of societal law enforcement officers on active COVID-19 related duty. We define law enforcement officers as officers on active COVID-19 related duty - both traffic and civil/law enforcement officers. The survey consists of 240 respondents ages and above who were employed in Bangalore city. An online cross-sectional Google-based survey was conducted between June to August 2020 in Bangalore, Karnataka using pre-tested and globally validated inventories (Derogatis, 2001; Cochran and Hale, 1985; Cohen et al,

1983). Societal law enforcement officers on active COVID-19 related duty, both traffic and civil/law enforcement officers were invited to participate in this study. A link to the Google Survey was delivered to each respondent via their mobile WhatsApp application with two reminders in the subsequent week. The message provided information about the survey and elicited voluntary informed consent before respondents decided to answer the self-assessment questionnaire. A total of 240 policemen completed the survey. The study was approved by the Institutional Ethics Committee (IEC) at RRMCH.

Tools & Measurements

The pre-tested survey questionnaire consisted four sections: first, the socio-demographic questionnaire; the health information assessment questionnaire to assess knowledge regarding COVID-19 (CDC, 2020); the Brief Symptom Inventory - BSI-18 (BSI Depression & BSI Anxiety Scales) (Derogatis, 2001) to measure self-reported psychological distress in the immediate preceding week; and fourthly, we employed the Perceived Stress Scale (PSS), a 10-item self-report questionnaire, to assess general stress appraisal. The socio-demographic section of the survey questionnaire collected demographic information such as age (recorded as a continuous variable), sex, class level (Fresher, Junior and Senior – with the following criteria). Their knowledge related to COVID-19 was collected through health information assessment questionnaire. A total of 10 knowledge questions were posed, 7 of which were True/False type, while 3 questions assessed the level of agreement with the statements on a 5-point scale (0 = 'strongly disagree' to 4 = 'strongly agree'). Questions that assessed the knowledge regarding COVID-19 were based on the Center for Disease Control and Prevention (CDC) fact sheets. Respondents chose their trusted sources of information from among news feeds, websites, health professionals, and friends. These sources of information are classified into official and unofficial sources. We further explored how they had managed to find the information they were looking for on a 5-point scale and also the average amount of time (in hours) spent looking for health information related to COVID-19. This section also explored the prophylactic change in behaviors. Probes were used to elicit hardships experienced during the pandemic. In order to assess mental health status an open-ended question was posed to the respondent on how he/she felt about COVID-19. In order to assess levels of depression and anxiety, we employed the Brief Symptom Inventory, BSI-18 (Derogatis, 2001). The assessment measured self-reported psychological distress within the immediately preceding week. COVID-19 is nevertheless a watershed event, given its scale, severity, and uniqueness, so change in working conditions, including hours, should still be fresh in most workers' minds at the time of data collection. As per the BSI-18 scoring instructions, raw scores were converted to T scores using gender specific community norms. Higher scores signified greater levels of depression, anxiety, or distress arising from perceptions of bodily dysfunctions (Cochran & Hale, 1985). The Perceived Stress Scale (PSS), a 10-item self-report questionnaire (Cohen et al, 1983), was used to assess general stress appraisal. Respondents were asked to specify how often they have felt or thought in a certain way in the past month. Responses were summed to indicate the overall level of perceived stress and higher scores signify greater perceived stress. Our goal, however, was to capture subjective perceptions of changes in work related stress, considering such assessments critical to the human meanings of this work transformation, in terms of shifts in working practices, stress levels, and well-being.

Key Predictors

For analysis using the quantitative survey data, we compare results across various occupational classes, gender and age groups. We distinguish three groups of workers based on their experience, fresher, Junior and Senior.

Covariates

To capture variability among occupational classes, the responses regarding knowledge about the were grouped into following categories

Data Analysis

Data were analyzed using the IBM SPSS Statistics 20.0 software package program. Data conforming to the normal distribution in descriptive statistics is presented with mean $\pm$ standard deviation (SD) and the non-matching variables with median $\pm$ interquartile range (IQR). Bivariate associations between knowledge and concerns, precautionary behaviors, and hardships experienced during the

pandemic and mental health burden variables were attempted. Multiple linear regression was attempted for each of the mental health burden outcomes to identify significant predictors. The level of significance was accepted as $p \leq 0.05$. Confidence intervals (CIs) of 95% and p-values are reported.

RESULTS

Descriptive Statistics

Out of the 240 law enforcement officers, 171 (71.2%) male officers and 69 (28.7%) female officers participated. In terms of work hierarchy, 157 (65.4%) were freshers, 41 (17.8%) were juniors and 42 (17.5%) of them were senior grade officers. The mean age of the respondents was 30.4 ± 3.6 (min: 25-max: 52) with median age being 29 years. Some of the socio-demographic characteristics of the study group are presented in Table 1.

The Levels of Depression, Anxiety and Stress Among Respondents

The assessment of the participants' mental health burden revealed scores of 74.4 ± 11.6 for depression on the BSI Depression scale, anxiety score of 68.2 ± 18.4 on the BSI Anxiety Scale. BSI-18 manual recommends the following clinical case-rule: respondents who have either 1) t-score ≥ 63 on the Global Severity Index (GSI) or 2) a t-score ≥ 63 on any two of the three symptom scales (Somatization, Depression, and Anxiety) should be classified as having clinically significant distress. Rather high scores for perceived stress (30.6 ± 8.3) on the PSS Scale were indicative of the severity of the burden (PSS scores ranging from 0-13 are considered 'low stress', scores ranging from 14-26 are considered as 'moderate stress' and scores ranging from 27-40 are considered 'high perceived stress'). Two-thirds of the respondents (66.7%) were greatly concerned about the COVID-19 pandemic and feared the outcomes. Participants possessed sufficient knowledge regarding the modes of COVID-19 transmission and common symptoms (Table 2).

Knowledge and Practice About COVID Appropriate Behaviors

Most of the participants had provided appropriate answers to knowledge questions in the survey and reported to be adhering to the social distancing measures instituted. The most trusted sources of information were - government (77.5%) followed by information received from medical professionals (58.0%) and least for social media (12%). Almost all officers reported having modified their behaviors in response to the pandemic and adhered to norms of frequent hand washing and limiting social contacts (100%) and wearing masks (97.9%).

Table 1

Demographic information of respondents (N = 240)		
Variable	Category	Total number
Age	Mean $\pm$ SD,	30.4 ± 3.6
	Median, Range	29, 25-52
Gender	Male	171(71.2%)
	Female	69 (28.7%)
Class level	Fresher	157 (65.4%)
	Junior	41 (17.8%)
	Senior	42 (17.5%)

Concerns faced included difficulty in obtaining grocery supplies and medications (59.3%) and fear of losing job/work hours/reduced wages (56.8%). Two-thirds of the respondents (66.7%) were highly concerned about the COVID-19 pandemic and reported higher anxiety on outcomes.

The Relationship Between The Knowledge, Concerns And Precautionary Behavior With Stress, Anxiety And Depression

We explored bivariate associations between knowledge and concerns, precautionary behaviors, and hardships experienced during the pandemic and mental health burden variables (Table 3). Freshers and juniors exhibited higher levels of anxiety as compared to the seniors, and females reported significantly higher levels of stress than male counterparts. Spending a greater amount of time searching for COVID-19 information on news websites (2.5 ± 3.1 , 3,1-3; Mean $\pm$ SD, median, IQR) and social media (2.9 ± 3.4 , 1,1-3; Mean $\pm$ SD, median, IQR) was associated with increased level of anxiety. Interestingly, the number of hours spent looking for information regarding COVID-19 on news sites significantly correlated with the amount of time spent on social media looking for COVID-19 information ($p = 0.77$, $p < 0.001$). Those who reported trust in the news media did not report heightened levels of anxiety. Those with reported losing a job, losing wages, or work hours, and faced difficulties faced in obtaining medications and hygiene supplies were found to report of

higher levels of depression and anxiety.

Table 2

Descriptive statistics for observed indicators of COVID-19 knowledge, sources of information, behaviors, life difficulties and mental health burden (N = 240)		
Variable	Category	N (%)
Knowledge statements, correctly answered (True/False)	The right answers provided to all statements	154 (64.2)
	1. The COVID-19 virus spreads via respiratory droplets of infected individuals (T)	224 (93.2)
	2. The main clinical symptoms of COVID-19 are fever, fatigue, and dry cough (T)	236 (98.1)
	3. There is effective cure for COVID-19 (F)	225 (92.6)
	4. Early symptomatic and supportive treatment can help most patients recover from the infection (T)	215 (89.5)
	5. All people with COVID-19 will develop severe illness (F)	206(85.8)
	6. Those who are elderly and have chronic illnesses are more likely to be severe cases (T)	237 (98.8)
	7. Those with COVID-19 cannot transmit the virus to others when a fever is not present (F)	228 (95.1)
Level of agreement with social distancing measures (agree/strongly agree)	1. To prevent infection with COVID-19, people should avoid going to crowded places	236(98.2)
	2. Isolation of people who are infected with COVID- 19 are effective ways to reduce the spread of the virus	224 (93.2)
	3. Young adults should take measures to prevent infection with COVID-19	197 (82.1)
Sources of Information		
Trusted sources of information	Official sources	209 (87.0)
	Government	186 (77.5)
	Health professionals	140 (58.0)
	Unofficial sources	57 (22.7)
	Social media	29 (12.0)
	Friends and family	47 (19.5)
Use of sources of information (often/always)	News sources	68 (28.3)
	Official sources	182 (75.0)
	Government sites	138 (57.5)
	Health professionals	163 (67.9)
	Unofficial Sources	110 (45.8)
	Social media	76 (31.6)
Number of hours/day spent in looking for information on COVID-19	Friends and family	80 (33.0)
	News websites	108 (45)
	On news websites (Mean $\pm$ SD, median, IQR)	(2.5 $\pm$ 3.1, 3,1–3)
	On social media (Mean $\pm$ SD, median, IQR)	(2.9 $\pm$ 3.4,1,1–3)
Behaviors		
Changed behaviors, even a little bit	Increased hand washing	240 (100.0)
	Increased spending on cleaning supplies	232 (96.6)
	Limited going out	237 (98.7)
	Stocked up on food and supplies	235 (97.9)
	Started wearing a mask	235 (97.9)
	Limited social outings	240 (100)
	Avoided going to a doctor or dentist for non-emergency needs	234 (97.5)
Level of Concern and Mental Health Burden		
Level of concern with the COVID-19 pandemic	Not at all to moderately	80 (33.3)
	Very to extremely concerned	160 (66.6)

	(Mean $\pm$ SD)	
Mental health burden	BSI Depression	74.4 $\pm$ 11.6
	BSI Anxiety	68.2 $\pm$ 18.4
	Stress	30.6 $\pm$ 8.3

Results from multiple linear regressions done for each of the mental health burden outcomes indicate that economic hardship was the most significant predictor of depression among respondents. Bivariate associations among selected socio-demographic variables, knowledge and sources of information and mental health burden during COVID-19 indicate the following. Depression scores were significantly higher for those faced life difficulties in ability to focus on work and those who had lost a job or faced reduced wages or work hours. Anxiety levels were significantly higher among freshers, those who spent more than one hour per day looking for COVID-19 information on news sites, and ability to focus on work. Males reported significantly lower levels of stress compared to females. Difficulties in obtaining medicine and hygiene supplies was a significant predictor of depression, anxiety and higher levels of stress.

Table 3

3: Bivariate associations of selected socio-demographic variables, knowledge and sources of information, behaviors and mental health burden during COVID-19.

		Mental Health Burden (Mean $\pm$ SD)		
Variables	Cate-gories	BSI Depression	BSI Anxiety	Stress
Knowledge				
Correct answers provided to all knowledge statements	No	62.1 $\pm$ 10.6	57.8 $\pm$ 14.0	19.2 $\pm$ 7.9
	Yes	64.9 $\pm$ 10.9 ns	56.5 $\pm$ 13.0 ns	20.4 $\pm$ 6.8 ns
Sources of Information				
Trust official (government, medical professionals) sources	No	68.0 $\pm$ 11.9	61.1 $\pm$ 12.6	18.9 $\pm$ 9.1
	Yes	64.4 $\pm$ 11.1 ns	58.0 $\pm$ 13.6 ns	21.7 $\pm$ 6.3 ns
Trust news media	No	65.8 $\pm$ 11.0	58.6 $\pm$ 14.1	20.9 $\pm$ 7.9
	Yes	62.6 $\pm$ 9.6 ns	57.2 $\pm$ 12.3 ns	20.2 $\pm$ 6.0 ns
Trust unofficial (social media, friends/family) sources	No	63.7 $\pm$ 11.0	57.8 $\pm$ 13.7	20.6 $\pm$ 7.2
	Yes	62.6 $\pm$ 9.2 ns	59.4 $\pm$ 13.0 ns	20.6 $\pm$ 7.2 ns
Use official (government, medical professionals) sources	No	62.5 $\pm$ 11.5	55.9 $\pm$ 13.0	18.0 $\pm$ 8.4
	Yes	65.6 $\pm$ 10.0 ns	59.8 $\pm$ 13.6 ns	21.3 $\pm$ 7.9 ns
Use news media	No	66.3 $\pm$ 9.8	57.4 $\pm$ 13.0	19.8 $\pm$ 8.2
	Yes	63.4 $\pm$ 10.5 ns	58.0 $\pm$ 13.2 ns	20.5 $\pm$ 7.6 ns
Use unofficial (social media, friends/family) sources	No	63.8 $\pm$ 12.2	58.3 $\pm$ 14.3	22.0 $\pm$ 6.0
	Yes	64.0 $\pm$ 10.0 ns	59.1 $\pm$ 11.9 ns	20.3 $\pm$ 7.7 ns
Time spent on looking for information on news sites	<1 hour	62.7 $\pm$ 12.3	55.9 $\pm$ 13.9	20.7 $\pm$ 7.2
	>1 hour	66.2 $\pm$ 9.0 ns	63.5 $\pm$ 11.3}}	20.5 $\pm$ 7.7 ns
			p = 0.001	
Time spent on looking for information on social media	<1 hour	63.4 $\pm$ 11.0	56.6 $\pm$ 13.8	20.5 $\pm$ 7.1
	>1 hour	66.7 $\pm$ 9.6 ns	62.7 $\pm$ 12.6}}	21.1 $\pm$ 8.0 ns
			p = 0.032	
Life Difficulties				
Ability to focus on work	No	54.3 $\pm$ 10.8	51.4 $\pm$ 11.7	18.2 $\pm$ 6.2
	Yes	65.4 $\pm$ 9.7}}}} p < 0.001	61.0 $\pm$ 13.4}}}} p < 0.001	22.7 $\pm$ 7.2}}}} p < 0.001

Lost job, reduced wages or work hours	No	61.2 ± 10.6	56.1 ± 12.8	20.5 ± 6.6
	Yes	68.4 ± 9.7} } } p < 0.001	61.3 ± 13.8} p = 0.019	22.4 ± 7.7 ns
Obtaining medications and hygiene supplies	No	63.3 ± 11.6	56.1 ± 14.1	19.3 ± 8.0
	Yes	66.8 ± 9.8} p = 0.049	61.1 ± 12.9} p = 0.027	22.2 ± 6.5} p = 0.002
Everyday difficulties in obtaining food	No	64.5 ± 11.1	59.3 ± 13.9	22.3 ± 7.6
	Yes	68.3 ± 8.5 ns	62.1 ± 12.3 ns	22.9 ± 6.2 ns
Level of Concern				
Concerned about COVID-19	Not at all to moderately	63.5 ± 11.8	57.1 ± 13.4	18.4 ± 8.0
	Very to extremely	65.4 ± 10.0 ns	58.7 ± 13.5} p = 0.05	21.8 ± 7.0 ns
Note : †Pearson correlation coefficient; ns = non-significant } p < 0.05 } } p < 0.01 } } } p < 0.001				

Discussion

The COVID-19 pandemic has transformed every aspect of life for individuals, organizations, and societies. As the world experiences one of the most widespread and long drawn pandemics in public health history, it is being recognized that many frontline workers including healthcare workers and societal law enforcement officers have come under intense stress. A hallmark of the COVID-19 pandemic has been largescale uncertainty and continually evolving guidelines on protective measures and vaccination with misinformation making its mark thus leading to confusion among the frontline functionaries and the community at large (Atehortua & Patino, 2021; Pfefferbaum & North, 2020).

Law enforcement officials have managed risk prone tasks including enforcing of COVID-19 appropriate behavior (CAB), patrolling, guiding, advising, warning and penalizing individuals who flouted protective guidelines and ensuring hospital and vaccine queues did not become unruly (Biswas & Sultana, 2020). We provide evidence that in addition to what the vast majority of the public faced (Tsamakis et al., 2020), law enforcement officials who secured public wellbeing experienced considerably raised levels of stress. Significantly higher fears of getting infected, infecting family/loved ones, getting quarantined, worries about proper protective kit, awareness, training needs and hectic work schedules were reported by our sample of law enforcement officials, and these are very similar to those expressed by healthcare workers (Hu et al., 2020; Spoorthy et al., 2020; Mohindra et al., 2020). The fact that many of their co-workers had tested COVID-19 positive added to the stress perception of workers coupled with doubts and uncertainties regarding the mode of transmission, fears about the rapidity of spread and confusing media/social media content (Cai et al., 2020; Luk et al., 2020; Zarocostas, 2020).

In analysing the mental health burden of these officers through multivariable models, we noticed that freshers reported higher levels of anxiety as compared to juniors and seniors in the workforce. A possible explanation using the demand-control model could be that juniors have lesser control on their roles and hence subjected to higher demand compared to flexibility. Also, younger workers could be more anxious about the likely impact of the pandemic on their future career and household economy. Female officers have reported higher levels of stress as compared to male counterparts and this is consistent with findings among other female frontline workers and other similar high work load settings (Lai et al., 2020; Padkapayeva et al., 2018) and could be possibly explained by the increased work-family conflict as well as childcare responsibilities. We surmise that traditional self-concepts of masculinity and femininity can also be leading to differential expression of attitudes and emotions towards life experiences, and it is therefore likely that females were more likely to express internalized disorders such as stress.

Change of behavior in response to the pandemic was almost all-pervasive. Respondents largely adhered to Covid-appropriate behavior and reported that they had increased the frequency of hand

washing, limited their participation in social gatherings, and had begun to use face masks as recommended. This is also consistent with similar behavior changes observed in population-based studies in Hong Kong and China (Basch et al., 2020; Cowling et al., 2020). While some of the modifications in behavior may be the result of mandatory requirements (i.e., lockdowns, mandatory wearing of mask, etc.), it is also possible that professionals who advice and monitor others are in a way more conscious of the way the virus spreads and are more likely to adapt to behaviors that would specifically prevent the spread of the virus.

Participants in our study were relatively young with the mean age around 30 years. The study did not explore nor find substantive correlation between physical health and mental health burden of the respondents. There was no significant association between knowledge levels and mental health burden, though the descriptive findings indicate that the respondents possessed an adequate level of knowledge related to COVID-19 at the time of participation in the survey. Nearly all the respondents had accurately identified how the virus spreads, clinical symptoms of the infection, and the most vulnerable populations to this infection. Yet, participants in this study were by nature of their profession more likely to report reliance on more formal sources of information as opposed to informal sources or news sites, thereby had lesser probability of accessing misinformation regarding COVID-19.

Social media was the least trusted source for COVID-19 information, and this is in agreement with the global findings (Zarocostas, 2020). It is also reasonably possible that users searching for information on social media are being directed to more reliable sources (Zarocostas, 2020; Cuan-Baltazar et al., 2020). Those who had spent a great deal of time searching for information on COVID-19 for example have reported higher levels of anxiety and this is again consistent with findings that increased time spent using social media per day was associated with increased odds of reporting high levels of anxiety (Cuan-Baltazar et al., 2020). It is presumable that those who perceived being exposed to the virus were more likely to search for COVID-19 related information and also an expected sequelae that individuals who are anxious will engage in seeking information as an adaptive coping strategy (Cuan-Baltazar et al., 2020). Substantiated and accurate COVID-related information may actually have the potential to create a positive environment that is conducive to easing somatic distress in response to psychosocial stress. The nature of policing duties and the need to wear personal protective equipment for longer periods of time is known to cause immense discomfort in breathing, drinking water, using the washroom, etc., and is expected to raise physical and mental exhaustion as well (Chen et al., 2020; McCanlies et al., 2014; Tsamakis et al., 2020).

CONCLUSION

Our findings corroborate the evidence that the ongoing COVID-19 pandemic is leading to a significant negative impact on mental health of individuals, especially those on the frontlines in public duty. It is also likely that the stressors from the pandemic are further exacerbating pre-existing issues of disenchantment with work, lack of motivation and long hours of working (Seritan, 2020). While a host of negative consequences are associated with poor mental health, research focus needs to be directed to explore additional risk factors such as substance use, coping mechanisms, social support, dynamics of family and peer relationships. Implementing supportive mental health interventions through occupational health practices and counselors will be necessary as many frontline functionaries might require specialized support and might effectuate rapid and responsive programming.

Since higher levels of depression were significantly associated with loss of job, reduced wages or work hours, individuals who were dependent on their current job to support themselves and/or families may be particularly vulnerable to depression as any negative fallout could result in cases of possibly severe economic hardship and worsening mental health status. Since respondents were worried about their own health, the health of their families, and about financial hardships, these have serious implications for human resource retention rates and administrators will have to sift through, plan and create innovative retention strategies to thwart unexpected manpower challenges (Cary et al., 2020). The BSI-18 and PSS tools were reliable to assess this construct of stress affecting frontline warriors and are hence useful in research to understand the impact of COVID-19 related stress and its consequences. These tools can also be used in clinical practice to assess internalized psychological stress at intake and follow-up.

Implications for Occupational Health Practice

Law enforcement officials on active COVID-19 duty have exhibited greater work-related mental health distress. Stressors from the pandemic could be exacerbating pre-existing antecedent issues of disenchantment with work, lack of motivation and long hours of working. Hence, there is a dire need for occupational health practices to provision supportive interventions that are institutionalized and optimized at both at the systemic and structural levels to address the immediate and long-term mental health consequences of working in COVID-19 frontline duties.

In Summary

- Law enforcement officials on active COVID-19 duty have exhibited greater work-related mental health distress.
- Pandemic-compounded occupational stressors were probably exacerbating pre-existing antecedent issues such as disenchantment with work, lack of motivation and long hours of working.
- Evidence exists for occupational health practices to provision supportive interventions that are institutionalized and optimized at both at the systemic and structural levels to address the immediate and long-term mental health consequences of working in COVID-19 frontline duties.

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