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Assessing the Stress Level of the BFP Personnel in the National Capital Region During the COVID19 Pandemic

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Abstract

This study assessed the level of stress experienced by Bureau of Fire Protection (BFP) Search and Rescue Unit (SRU) personnel in the National Capital Region (NCR) while performing their functions during the COVID-19 pandemic and examined whether stress levels were significantly associated with selected profile variables. Anchored on the stress and coping framework, the study employed a descriptive-correlational design using a researcher-made questionnaire administered to 135 BFP-SRU personnel. The instrument collected respondent profile data (age, sex, civil status, length of service, and number of hours of deployment during COVID-19) and measured stress indicators across physiological stress, psychological stress, working conditions, and family relationships using a four-point scale. Results showed that respondents were generally Highly Stressed across all domains, with working conditions registering the highest overall stress level, followed by psychological stress and family relationships, and then physiological stress. Significant associations were identified between age and both physiological stress and family-relationship stress, sex and psychological stress, civil status and psychological stress, length of service and stress from working conditions, and number of deployment hours and psychological stress; rank classification showed no significant relationship with any stress domain. The study concludes that pandemic response produced a combined burden of operational, psychological, physiological, and family-related stress among SRU personnel and recommends institutional mental health and stress management programs, strengthened occupational health and wellness initiatives, improved workload and schedule management, sustained PPE and safety support, and enhanced family-support mechanisms. The study aligns with SDG 3 (Good Health and Well-Being) and SDG 8 (Decent Work and Economic Growth) by focusing on responder well-being and workplace conditions in essential public safety work. Its sustainability impact lies in supporting more resilient emergency response systems through evidence-based workforce protection, health safeguarding, and institutional readiness during prolonged crises.

Keywords: Bureau of Fire Protection; COVID-19 Pandemic; Family Relationships; National Capital Region; Physiological stress; Psychological stress; Search and Rescue Unit; Stress level; Working conditions

1. Introduction

COVID-19 created an unprecedented global health emergency with severe health, economic, and organizational impacts, while placing firefighters—who work in close quarters and frequently provide EMS—at elevated exposure risk and under intensified operational and organizational strain (World Health Organization, 2020). The resulting environment heightens susceptibility to mental health burdens (e.g., post-traumatic stress injury (PTSI) (1–3) and related maladaptive responses) and underscores the need to examine stress and coping among Bureau of Fire Protection (BFP) Search and Rescue Unit (SRU) personnel in the National Capital Region (NCR) during the pandemic.

The coronavirus disease (COVID-19), caused by SARS-CoV-2, emerged in late 2019 and rapidly escalated into a worldwide crisis (World Health Organization, 2020). Firefighters continued essential public safety operations despite prolonged duty schedules and station-based living arrangements that increase contact exposure, particularly for personnel who also deliver emergency medical care and transport patients. Although PPE and revised procedures were adopted, occupational risks and the potential long-term consequences of COVID-19 remain critical concerns for firefighters, alongside mental health vulnerabilities such as post-traumatic stress injury (PTSI) (1–3), depression, alcohol abuse, chronic fatigue (4), and elevated Alcohol Abuse disorder (AUDIT) scale (4) patterns that may reflect maladaptive coping. In the Philippine setting, BFP guidance addressed operational protocols for screening, PPE preparation, and decontamination, yet evolving variants and sustained exposure continued to require vigilance and adaptive policy responses. Vaccine decision-making also emerged as a workforce issue; Caban-Martinez et al (2020) reported varying acceptability levels and emphasized the need for awareness, education and training for first responders. In NCR—an administrative region with high case incidence and dense urban conditions—BFP SRU personnel carried multiple specialized rescue functions, increasing both operational demands and stress exposure.

The literature emphasizes that pandemic-era firefighter stress is shaped not only by hazard exposure but also by organizational and managerial stressors. Walton et al. (2020) identified key occupational stressors during COVID-19, and limited resources and extended shifts were associated with heightened fatigue, stress, anxiety, and burnout (Sasangohar et al., 2020). The erosion of social support—an important resilience factor—further increases risk (Ozbay et al., 2007), while stigma and isolation amplify strain; access to social support networks can be protective (Cai et al., 2020). Additionally, insufficient instruction and inadequate PPE supply predict stress in large-scale emergencies (Oh et al., 2017; Du et al., 2020; El-Hage et al., 2020; Walton et al., 2020), and post-outbreak training and psychological supports may mitigate risk (Chan and Huak, 2004; Barleycorn (2019); Tan et al. (2020)). Stress reactions among emergency/frontline workers can manifest physically/physiologically, emotionally, cognitively, and relationally, including secondary trauma responses (Del Missier et al., 2008; Sbattella, 2009; Argentero and Setti, 2011; Fraccaroli and Balducci, 2011; Bellelli and Di Schiena, 2012; Walton et al., 2020), and high decisional uncertainty can intensify regret and guilt (Del Missier et al., 2008). Related studies on healthcare and emergency personnel during COVID-19 and earlier epidemics consistently report elevated psychological symptoms and the moderating role of resilience and social support (Bohlken et al., 2020; Spoorthy (2020); Xiao et al. (2020)). When demands exceed coping capacity, vulnerability to psychopathological reactions increases (Favretto (2005)), including secondary traumatic stress or vicarious trauma (Beck, 2011; Figley (1995); Adriaenssens et al., 2012), moral distress (Wolf et al. (2016)), and sustained post-acute effects after epidemics (Missouridou, 2017; Coetzee and Klopper, 2010; Mealer and Jones, 2013; Lee et al., 2018). Evidence during COVID-19 likewise indicates anxiety, depression, insomnia, and distress among healthcare workers (Lai et al., 2020; Li et al., 2020; Zhu et al., 2020), with differential risk patterns by gender and experience (Lai et al., 2020; Zhu et al., 2020) and higher anxiety/PTSD among females in some samples (Huang J. Z. et al. (2020)). Coping is repeatedly highlighted as a key mechanism shaping both acute functioning and long-term outcomes. Adaptive coping depends on aligning strategy choice with situational controllability (Strentz and Auerbach, 1988; Vitaliano et al., 1990; Park et al., 2001), and coping patterns vary across individuals and contexts (Nydegger et al., 2011; Connor-Smith and Flachsbart, 2007; Brown et al., 2002). Gender-linked differences have also been reported in stress perception and coping preferences (Matud, 2004; Matud et al., 2015; Matud and Garcia, 2019). Problem-focused coping often correlates with lower stress among healthcare workers and other emergency workers (Watson et al., 2008; Howlett et al., 2015; Brown et al., 2002), while avoidance/minimization can correlate with higher stress (Brown et al., 2002; Chang et al., 2003; Kerai et al., 2017; Witt et al., 2018; Theleritis et al., 2020) and post-traumatic symptomatology (Loo et al. (2016)). PTSD variance has been linked to frequent emotion-focused coping and infrequent problem-focused coping (Rodríguez-Rey et al. (2019)), and risk prediction has been associated with emotion-focused strategies in paramedics (Kucmin et al. (2018)). Findings on coping are not always unanimous: some work suggests all coping strategies may correlate with higher stress in firefighters (Chamberlin and Green (2010)), while other evidence suggests coping strategy use shifts across operational phases (Young et al. (2014)); burnout dimensions also vary by coping type (Shin et al. (2014)). Studies during SARS/MERS and COVID-19 further indicate higher stress among healthcare workers using dysfunctional coping (Maunder et al. (2006)), profession-linked coping differences during SARS (Wong et al. (2005)), and PPE/prevention and social support as salient coping patterns during MERS and COVID-19 (Khalid et al., 2016; Cai et al., 2020; Huang L. et al. (2020)). Self-efficacy in coping functions as a protective factor against stress and maladaptive responses (Chesney et al., 2006) and may reduce PTSD risk (Bosmans et al., 2015).

Globally, the pandemic context framed firefighter work within sustained uncertainty and large-scale disruption (World Health Organization, 2020). In the Philippines, national governance measures included Proclamation No. 929 and mandates for agency and LGU mobilization (Official Gazette, 2020), as well as implementation guidance through Memorandum Circular No. 2020-062. The Department of Interior and Local Government (DILG) directed the BFP to support public health operations such as Oplan Kalinga, within the legal authority cited under Republic Act No 11332, while also documenting BFP mobilization, deployment resources, and service roles. Concurrently, reports of infections and deaths among BFP personnel and related station lockdowns heightened operational and psychological pressures. Within NCR, the SRU's expanded operational scope—covering multiple specialized units and operating in the country's dense political, economic, and social center—intensified exposure risk and stress potential, reinforcing the need to assess stress levels and coping among SRU personnel during the COVID19 pandemic.

This study is anchored on Lazarus and Folkman's (1984) theory of stress and coping, emphasizing stress transitions and the processes through which individuals appraise and respond to stressors. Environmental stressors and ecological factors may increase stress exposure (Lazarus & Folkman, 1984), consistent with perspectives that stress arises from combined environmental, social, and physical stressors (Altman and Wohlwill (1977)) and environmental phenomena that generate stress outcomes (Lazarus (1966); Holmes & Masuda, 1974). Lazarus and Cohen (1977) framed stressors across mass casualty events, major changes, and daily hassles, all of which can characterize emergency service work. Coping is defined as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141) (Lazarus and Folkman (1984)), and coping styles range from minimizing stressors to attempting control, with prolonged stress potentially moving toward frustration and hopelessness (Klinger (1977)).

Despite extensive operational guidance, the literature indicates persistent gaps in standardization, monitoring, and empirically evaluated stress management approaches for emergency responders, even as the need for intervention remains high (Spell, 2019). In the pandemic setting, compounding operational and managerial stressors can elevate risk for maladaptive coping behaviors and severe negative outcomes, reinforcing the need to identify stressors and coping responses within specific organizational contexts. The managerial side of COVID, including changing protocols and Incident Action Plans (IAP), has been identified as a significant stress driver, alongside social isolation, enforcement issues, and negative station culture. Additionally, the long-term consequences of COVID-19 raise return-to-work concerns for firefighters; Greenhalgh et al reports persistent symptoms among "long-haulers" and outlines cardiopulmonary implications relevant to strenuous firefighting duties, including myocarditis and endothelial damage risks. These factors justify a focused assessment of stress levels and coping mechanisms among BFP SRU personnel in NCR during the COVID19 pandemic, with the intent to inform organizational support and targeted interventions.

This study aligns with SDG 3 – Good Health and Well-Being by addressing occupational mental health risks, stress-related outcomes, and coping capacities among frontline responders who are exposed to heightened stressors during COVID-19 (Sasangohar et al., 2020; Lai et al., 2020; Li et al., 2020; Zhu et al., 2020). It supports SDG 8 – Decent Work and Economic Growth by focusing on psychosocial work conditions, organizational stressors, and the implications of burnout and withdrawal behaviors for workforce functioning and service continuity (Walton et al. (2020)). It also relates to SDG 11 – Sustainable Cities and Communities and SDG 16 – Peace, Justice, and Strong Institutions because BFP SRU services are critical to urban safety, emergency response, and institutional capacity during public health emergencies, with policy coordination framed through national and local governance measures. Finally, the emphasis on awareness, education and training for vaccination uptake and responder preparedness reflects SDG 4 – Quality Education and operational learning needs within emergency services (Caban-Martinez et. al (2020)).

The study contributes to public health sustainability by strengthening evidence on how frontline responder stress and coping influence readiness, safety behaviors, and service reliability during prolonged crises. It advances socio-economic and institutional sustainability by identifying organizational stressors linked to burnout, withdrawal, and performance risks, supporting more resilient workforce management and resource allocation in emergency services. It also supports governance and community sustainability through its grounding in policy and institutional response contexts, where coordinated action and clear operational guidance are essential to sustaining emergency response systems during public health emergencies.

2. Materials and methods

2.1 Research Design

A descriptive-correlational research design using a survey questionnaire was employed. Consistent with descriptive research, the design focused on describing and interpreting existing conditions or relationships, including practices, beliefs, viewpoints/attitudes, and ongoing processes (Best (1963)). The primary data source was a research-constructed survey questionnaire, while books, journals, magazines, and internet links served as secondary references supporting instrument conceptualization and development.

2.2 Research Setting

The study was conducted among Bureau of Fire Protection (BFP) Search and Rescue Unit (SRU) personnel assigned within the National Capital Region (NCR), covering SRU units and city-based assignments, including SRF ORD, K9 Unit, MFSAR, and personnel stationed in Manila, Caloocan, Valenzuela, Makati, Parañaque, Muntinlupa, Mandaluyong, Marikina, Taguig, and the Quezon City Fire Department.

2.3 Respondents

The respondents were 135 BFP personnel assigned in the Search and Rescue Units in the NCR, composed of both Commissioned and Non-Commissioned Officers. The respondent profile covered age, sex, civil status, length of service, and number of hours of deployment during COVID19; highest educational attainment, salary scale, and individual performance ratings were not included, and LGU officials/employees were excluded because the assessment required BFP personnel's self-report of stress in performing their functions. The study sample consisted of the 135 BFP-SRU personnel assigned in NCR SRU posts identified in the manuscript's respondent coverage, and the research instrument was given only to SRU personnel.

2.4 Research Instruments

The study used a researcher-made questionnaire, with items developed from various sources such as books, prior studies, and other relevant references. It consisted of two parts: Part I gathered the respondents' personal profile (age, sex, civil status, length of service, and number of hours of deployment), while Part II assessed stress indicators clustered under physiological stress, psychological stress, emotional stress, working conditions, and family relationships. The instrument also specified the study's operational and conceptual definitions: COVID-19 pandemic (the ongoing global pandemic of

coronavirus disease 2019 caused by SARS-CoV-2); family relationships (behavior with loved ones); physiological stress (primary biological stress that challenges homeostasis); psychological stress (processes contributing to mental and physical conditions); stress (emotional or physical tension as a reaction to a challenge or demand); stressor (a trigger that initiates stress responses and the release of stress hormones, including physiological and psychological stressors); stress level (the scale measuring the incidence of stress while performing functions during COVID-19); and working conditions (workplace circumstances such as work hours, stress exposure, and safety/danger conditions).

2.5 Data Collection

For construction and validation, the instrument was pre-tested with BFP personnel from the National Headquarters; after pre-testing, items needing adjustment were revised to make them readily and easily understood by respondents. For administration, the researcher personally administered the questionnaire and prepared a letter-request to the Regional Director of the BFP in NCR to administer the instrument to BFP-SRU personnel; upon approval, the questionnaire was distributed, and respondents were given time to internalize and assess themselves on the items. The overall procedure was directed toward determining the stress level of BFP-SRU personnel in NCR in performing their roles and functions during the COVID19 pandemic.

2.6 Data Analysis

For respondent profile variables, frequency count and percentage distribution were used. For the level of stress experienced, the analysis used frequency count and mean weighted average, interpreted on a four-point scale: 3.25–4.00 (Always/Highly Stressed), 2.51–3.24 (Often/Somewhat Stressed), 1.75–2.49 (Sometimes/Barely Stressed), and 1.00–1.74 (Never/Not Stressed). To test the relationship between respondent profile and stress level, the Pearson Product Moment of Correlation was computed using Statistical Package for Social Sciences (SPSS). The computed correlation coefficients were interpreted using the manuscript's descriptors: 0 (No Correlation), ±0.01–±0.20 (Negligible Correlation), ±0.21–±0.40 (Low Correlation), ±0.41–±0.70 (Moderate Correlation), ±0.71–±0.90 (High Correlation), ±0.91–±0.99 (Very High Correlation), and ±1 (Perfect Correlation).

3. Results and Discussion

3.1. Demographic Profile of Respondents

3.1.1 Age

The modal age group was 46–50 years (25.92%, n=35), followed by 26–30 years (21.48%, n=29) and 41–45 years (16.30%, n=22). Collectively, these three cohorts comprised 63.70% (n=86) of the respondents, indicating that the sample was concentrated in both early-career (26–30) and late-career (41–50) segments. This age pattern suggests a workforce mix that likely combines operational maturity with newer but physically capable responders. The presence of a sizable late-career cluster (41–50) is consistent with the staffing realities of specialized response work that benefits from accumulated field exposure and procedural familiarity. At the same time, older responders may carry higher physiological vulnerability under prolonged deployment and pandemic-related risks, which provides a plausible demographic context for why age can align more strongly with physiological strain and family-related pressures observed in stress outcomes.

3.1.2 Sex

Most respondents were male (77.78%, n=105), while female personnel comprised 22.22% (n=30). The profile remains male-dominant, which is typical of protective service organizations, but the female share is substantial enough to justify sex-disaggregated interpretation of stress experiences. This distribution strengthens the analytic value of comparing psychological stress patterns by sex, because the sample includes a meaningful minority group (n=30) rather than an extremely small subgroup that would limit interpretability.

3.1.3 Civil Status

A majority of respondents were married (57.78%, n=78), followed by single (40.74%, n=55) and widowed (1.48%, n=2), with none separated. The predominance of married personnel implies that many respondents were simultaneously managing high-risk deployment and household responsibilities. This demographic structure is analytically important because it frames family-related stressors (e.g., infection fears, absence from key events, disrupted family routines) as not merely incidental but structurally relevant to the sample. It also provides a strong basis for interpreting civil status differences in psychological stress and the broader pattern of elevated family-related burden during sustained crisis operations.

3.1.4 Length of Service

Respondents were concentrated in early tenure categories, with the largest groups at 1 year (19.26%, n=26), 3 years (16.30%, n=22), and 2 years (15.56%, n=21). Together, personnel with 1–3 years of service accounted for 51.12% (n=69) of the sample. This tenure profile indicates that over half of the unit consisted of relatively new personnel, which has methodological significance for interpreting stress and working-condition outcomes. Early-tenure responders may be more sensitive to schedule instability, high workload intensity, and procedural changes, particularly during emergency conditions

when protocols evolve rapidly. Conversely, a smaller proportion of longer-serving personnel may have carried disproportionate mentoring, coordination, and institutional memory roles, which can influence perceived workload distribution and working-condition stress.

3.1.5 Rank Classification

The group was predominantly non-officers (94.81%, n=128), while officers comprised 5.19% (n=7). The rank distribution indicates that frontline operational exposure was largely borne by non-officers, while leadership and command responsibilities were concentrated in a very small officer group. This has two implications for interpretation: first, stress patterns in the dataset predominantly reflect frontline realities; second, the small officer subgroup (n=7) limits how much rank-based variation can explain stress differences. The profile therefore supports interpreting stress as broadly distributed across operational personnel rather than concentrated only in leadership positions.

3.1.6 Number of Hours of Deployment During COVID-19

Most respondents reported 40–48 hours/week (76.30%, n=103). A substantial subgroup reported extended hours: 65–72 hours (16.29%, n=22) and 49–64 hours (7.41%, n=10). Combined, deployments above 48 hours/week accounted for 23.70% (n=32), and none exceeded 73 hours. While standard weekly deployment was the norm, nearly one-fourth of respondents experienced extended schedules that are operationally meaningful in a high-risk, high-demand environment. This subgroup size is large enough to plausibly contribute to elevated fatigue and psychological strain patterns, especially when combined with pandemic-specific burdens (infection risk management, PPE demands, disinfection tasks, and schedule shifts). As a contextual variable, deployment hours strengthen the interpretation of why workload intensity can relate more directly to psychological stress than to other stress domains in prolonged crisis conditions.

3.2. Level of Stress Experienced During the COVID-19 Pandemic

3.2.1 Physiological Stress

Physiological stress was rated Highly Stressed overall (final weighted mean = 3.29), exceeding the 3.25 cut-off for "Highly Stressed." The most prominent physiological manifestations were increased heart rate, shortness of breath, muscle tightness, headaches, and digestive problems, while sleep issues, back pain, and teeth grinding were comparatively lower than the top indicators. A mean above the "Highly Stressed" threshold indicates that physiological strain was not occasional but recurrent among respondents during COVID-19 operations. The pattern—cardiorespiratory, muscular, and gastrointestinal symptoms being more pronounced than some sleep- or musculoskeletal-specific complaints—fits a stress profile consistent with acute autonomic activation and sustained physical readiness demands typical of frontline deployments. In operational terms, this result strengthens the argument that physiological strain is a workforce health risk, particularly when combined with prolonged exposure and duty schedules that can limit recovery time, thereby supporting the study's emphasis on wellness safeguards (e.g., medical monitoring, fitness maintenance, and preventive interventions).

3.2.2 Psychological Stress

Psychological stress was rated Highly Stressed overall (average weighted mean = 3.42). The strongest indicators were rigidity (3.59) and feeling overwhelmed (3.54), followed by impaired performance (3.48), depression/melancholic feelings (3.46), irritability (3.45), and fatigue (3.45); other indicators also remained within the "Highly Stressed" range. Psychological stress registered as one of the most elevated domains, indicating that the pandemic context intensified cognitive and affective burdens beyond physical strain. The prominence of rigidity and overwhelm suggests heightened cognitive load and reduced psychological flexibility—conditions that can undermine judgment, attention, and adaptive decision-making during complex emergency operations. The clustering of performance impairment, depressive mood, irritability, and fatigue within the same high range indicates a coherent stress syndrome rather than isolated symptoms, supporting the interpretation that uncertainty, perceived threat, and continuous operational adjustments can overwhelm coping resources when demands persist.

3.2.3 Working Conditions

Stress related to working conditions was rated Highly Stressed and had the highest overall mean among the domains (weighted mean = 3.44). The top work-related stressors were allocation of resources for protection (3.54), work on day-off such as disinfection (3.52), shifting duty schedules (3.49), and extended/prolonged deployment (3.46). Additional stressors remained elevated, including PPE availability/maintenance, staffing sufficiency, training, public hostility, and administrative workload. The fact that working conditions produced the highest mean indicates that stress was driven heavily by organizational and system-level factors, not only by the inherent danger of fieldwork. The leading stressors are operationally specific (resource allocation, day-off work, schedule instability, prolonged deployment), pointing to a workload environment where recovery time is disrupted, protection logistics are salient, and routines are repeatedly altered. This pattern is important because it suggests that many stress exposures are modifiable at the organizational level through workload planning, logistical readiness, and clear, stable operational processes, reinforcing the study's position that institutional responses are central to mitigating stress.

3.2.4 Family Relationships

Family-related stress was rated Highly Stressed overall (weighted mean = 3.42). The most intense stressors were missing special occasions (3.52), fear of infecting loved ones (3.46), and parenting while working at home (3.45), with additional pressures including family support concerns, bereavement, income loss, homeschooling, reduced close contact, and communication difficulties. The results indicate that pandemic stress extended beyond the workplace into the family system, producing a dual-domain burden (operational risk + family disruption). The salience of missing occasions and fear of transmission highlights a conflict between professional duty and family protection, which can intensify emotional strain and contribute to guilt, worry, and persistent vigilance. The convergence of parenting/home demands with deployment realities reflects an "overlapping roles" pressure that can erode coping capacity, reinforcing the need for structured support that addresses responder well-being as both a workforce and household issue.

3.3. Relationship Between Profile Variables and Stress Level

Age showed significant relationships with physiological stress ($r = 0.182$, $p = 0.034$) and family relationships ($r = 0.169$, $p = 0.048$), but not with psychological stress or working conditions. Sex showed a significant difference in psychological stress (test statistic = 2.118, $p = 0.036$) but not in other domains. Civil status also showed a significant difference in psychological stress (test statistic = 2.764, $p = 0.045$) but not in the other domains. Length of service was significantly related to working conditions ($r = 0.198$, $p = 0.021$) but not to the other stress areas. Rank classification showed no significant relationship across all stress domains. Number of hours deployed during COVID-19 was significantly related to psychological stress ($r = 0.176$, $p = 0.039$) and not significant for the other areas. While several relationships reached statistical significance, the correlation coefficients ($r \approx 0.17–0.20$) indicate small effect magnitudes, suggesting that stress was broadly experienced across the group and only modestly patterned by demographics and work exposure variables. The age–physiological and age–family links imply that life-stage factors may shape vulnerability to physical strain and household-related stress during crisis conditions. The significant differences in psychological stress by sex and civil status indicate that psychological burden varies across social roles, while the association between length of service and working-condition stress suggests that experience and tenure relate to how personnel perceive schedule systems, workload demands, and operational arrangements. Importantly, the absence of rank effects supports the conclusion that stress was not confined to leadership or junior personnel, but rather represented a unit-wide occupational burden during the pandemic.

4. Conclusion & Recommendations

The study results indicated that personnel from BFP-SRU were severely stressed in several dimensions during the COVID-19 pandemic. The challenge of emergency response was a major factor in deteriorating the physiological and psychological states of the personnel alongside the consequences of their prolonged deployment and the health risks they had to take. Family-related duties and concerns about spreading the virus added to the emotional burden, especially among the married ones. There was a strong relationship between certain personality traits and specific areas of stress that suggest demographic and job factors influence how one feels stress. Nevertheless, lack of significant differences over rank classification suggests that stress affects personnel whether they are at higher or lower ranks. The pandemic caused a complicated combination of work, physical, emotional, and family stress that the organization needs to discuss holistically.

Based on the results and conclusions, the BFP is advised to institutionalize mental health and stress management programs through routine psychological debriefings, counseling services, stress management training, and peer support groups; strengthen occupational health and wellness initiatives by expanding medical monitoring, physical fitness programs, sufficient rest periods, and wellness activities; enhance staff and workload management through a thorough review of deployment schedules, equitable shift rotation, and sufficient human resources to limit exposure to high-risk and high-pressure situations which are the main causes of stress.81 The BFP is also advised to enhance resource and safety support systems through continuous providing of PPE, clear working instructions, and proper logistic backing, and to develop family and social support programs, including family-oriented programs with counseling services and communication support initiatives that will aid personnel in maintaining work-life balance during the crisis..

The study was limited to determining the stress level of the BFP-SRU personnel in the National Capital Region (NCR) in performing their functions during the COVID19 pandemic, focusing only on physiological stress, psychological stress, working conditions, and family relationships, with profile variables restricted to age, sex, civil status, length of service, and number of hours of deployment during COVID19; it did not include highest educational attainment, salary scale, and individual performance ratings, and local government unit officials and employees were not part of the respondents.

Compliance with ethical standards

The authors declare no conflict of interest. The study adhered to standard ethical research practices by securing institutional permission prior to data collection, informing participants of the study purpose, ensuring voluntary participation, and maintaining confidentiality and anonymity of all responses.

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